

**BEFORE HON'BLE CENTRAL ELECTRICITY REGULATORY
COMMISSION NEW DELHI
PETITION NO. OF 2024**

Petition For:

Approval under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) 2009 for Truing up Transmission Tariff for 2009-14 Tariff Block, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 for Truing up Transmission Tariff for 2014-19 Tariff Block, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 for determination of Transmission Tariff for 2019-24

Tariff Block for

Asset I: 132 kV D/C Umtru- Sarusajai 17.72 Kms. Double Circuit-Single Conductor (DOCO: 01.04.1990)

Asset II: 132 kV D/C Kahelipara-Umtru 11.68 Kms, Double Circuit- Single Conductor (DOCO:01.04.1960)

Asset III: 132 kV Panchgram-Lumshnong 23.80 Kms, Single Circuit-Single Conductor (DOCO: 01.04.1960)

Asset IV: 220 kV D/C Misa-Killing, 113.42 Km. Double Circuit- Single Conductor (DOCO: 25.01.2011)

Asset V: LILO of 400 kV D/C Pallatana-Bongaigaon at 400/220 kV Killing Substation, 2.324 Km (DOCO:25.02.2015)

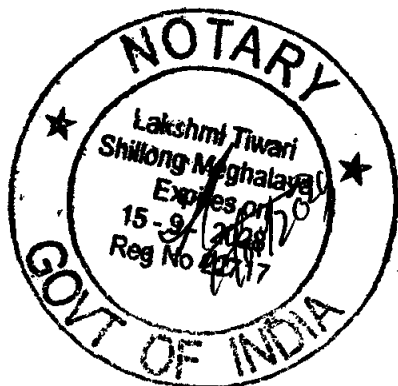
PETITION NO. _____

TRUING UP TARIFF FOR CONTROL PERIOD 2009-14, FY 2014-2019, AND
MULTI-YEAR TARIFF FOR PERIOD FY 2019-24

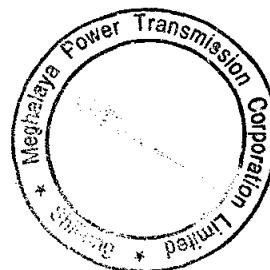
Meghalaya Power Transmission Corporation Limited

Registered Office:

Lum Jingshaj, Short Round Road, Shillong-793001.



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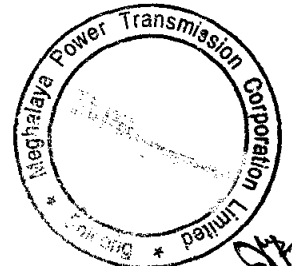
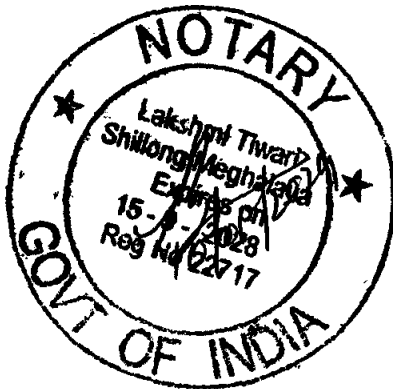
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Meghalaya Power Transmission Corporation Limited

Registered Office:

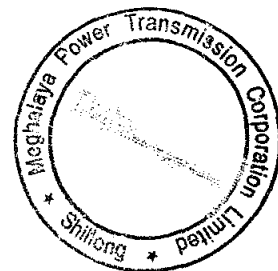
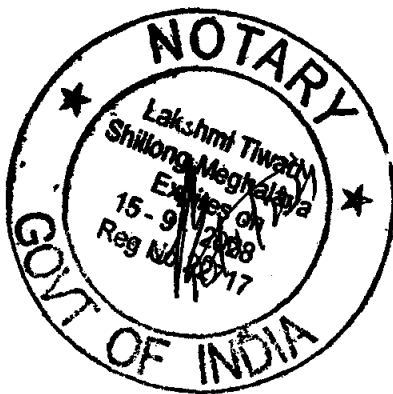
Lum Jingshai, Short Round Road, Shillong-793001

.....PETITIONER

Versus

1. Central Transmission Utility of India Limited (CTUIL), SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).
2. Tripura State Electricity Corporation Ltd., Bidyut Bhawan, North Banamaliupr, Agartala-799001
3. Assam Electricity Grid Corporation Ltd, Bijulee Bhawan, Paltan Bazar, Guwahati- 781001
4. Meghalaya Energy Corporation Limited, Lumjingshai, Short Round Road, Shillong -1
5. Department of Power, Government of Nagaland, Office at Kohima- 797001
6. Power & Electricity Department, Government of Mizoram, Aizwal- 796001
7. Electricity Department, Government of Manipur, Keishampat, Imphal- 795001
8. Department of Power, Government of Arunachal Pradesh, Itanagar-791111
9. ONGC Tripura Power Company Ltd., Udaipur, Karkraban road, Palatana P.O Distt-Gomati, Tripura – 799105
10. NERLDC, Executive Director, Power House, Kahilipara, Guwahati-781019 (Assam)
11. North Eastern Regional Power Committee, Nongrim Hills, Shillong- 793003

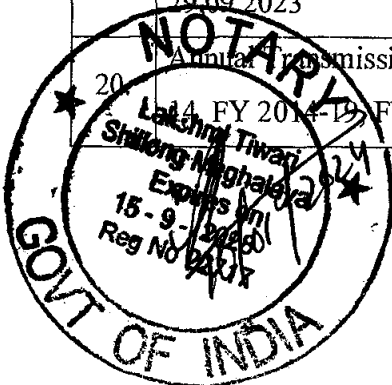
...RESPONDENTS



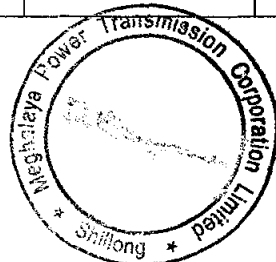
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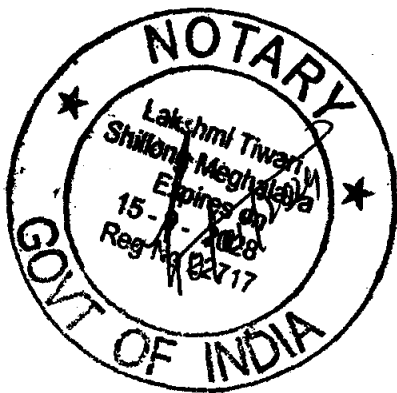
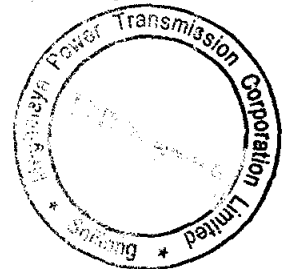
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Petitioner


P Sun
 Superintending Engineer
 Office of the Director (Transmission)
 Meghalaya Power Transmission Corporation Ltd.
 Lum Jingshaing Sherong Road, Shillong-793001

Place: Shillong
 Dated: 10/01/2024



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IN THE MATTER OF

Meghalaya Power Transmission Corporation Limited

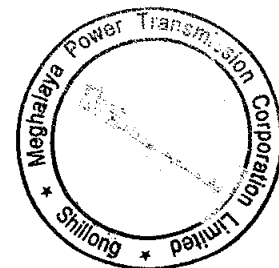
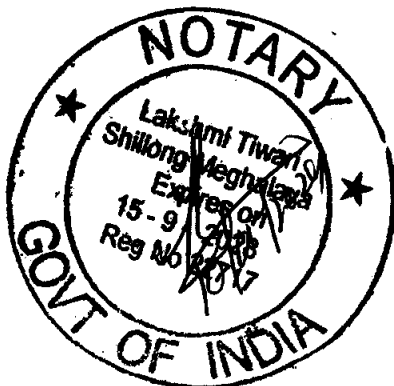
Registered Office:

Lum Jingshai, Short Round Road, Shillong-793001

...PETITIONER

Central Transmission Utility of India Limited (CTUIL). & Ors.

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The Secretary

Central Electricity Regulatory Commission
3rd & 4th Floor, Chanderlok Building
36, Janpath, New Delhi- 110001

Dear Sir,

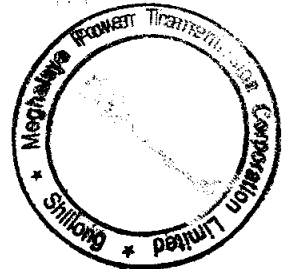
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Petitioner

gk
Superintending Engineer (Elect - II) P Sun
Office of the Director (Transmission)
Superintending Engineer
Meghalaya Power Transmission Corporation Ltd,
Lum Jingshai, Short Road, Shillong-793001

Place: Shillong

Dated: 10/01/2024



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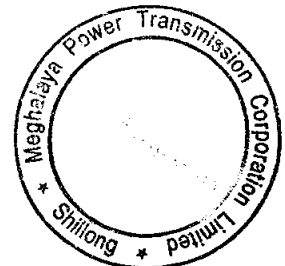
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Memo of Parties

Meghalaya Power Transmission Corporation Limited

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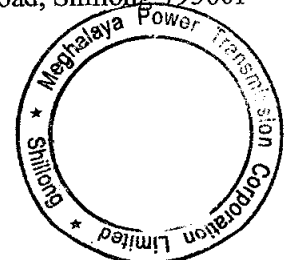
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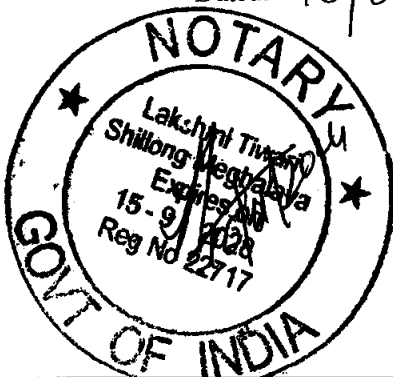
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Superintending Engineer (Elect - II)
Office of the Director (Transmission)
Meghalaya Power Transmission Corporation Ltd,
Lum Jingshai Shillong
Superintending Engineer
Lum Jingshai, Short Round Road, Shillong-793001



Place: Shillong

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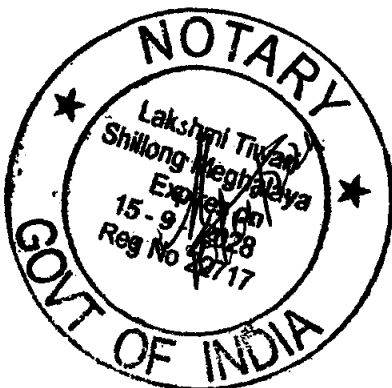
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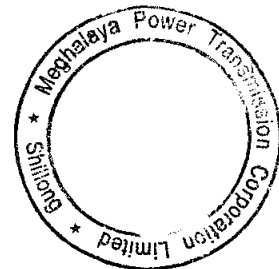
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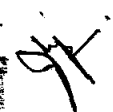


CONDONATION OF DELAY

The Petitioner herein, Meghalaya Power Transmission Corporation Limited (hereinafter referred to as MePTCL) hereby submits that there has been a delay in submitting of this True-Up Petition which is due to the delay in preparation and audited Financial statements and books of accounts for FY 2014-19.

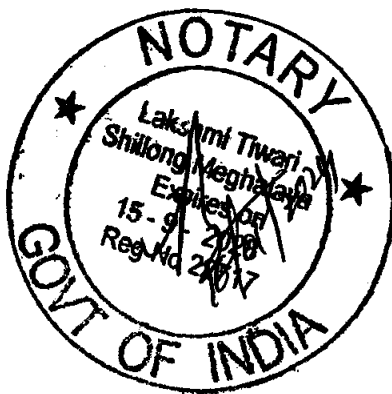
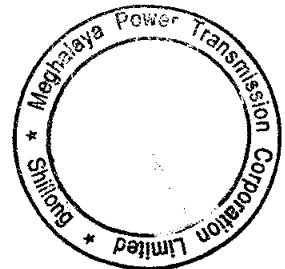
The delay is accountable to the amalgamation of several transmission lines of MePTCL and further delay in the resumption of operations of the Petitioner and appointment of Auditor due to several lockdowns/ restrictions imposed by the Central and State Governments owing to the pandemic of COVID-19.

Considering the same, the Petitioner has got its audited accounts up to FY 2022-23 and now submits this True-Up and Tariff Petition for the control period of FY 2009-14, FY 2014-19 & FY 2019-23. In view of the above, we sincerely request the Hon'ble Commission to condone the delay in submission and admit this True-Up Petition up to FY 2014-19.


Superintending Engineer (Elect - II)
Office of the Director (Transmission)
Meghalaya Power Transmission Corporation Ltd,
Lum Jingshai Shillong
P Sun
Superintending Engineer
Lum Jingshai, Short Round Road, Shillong-793001

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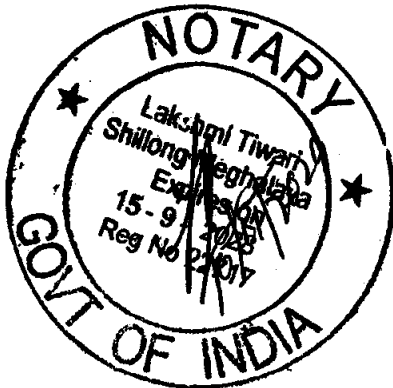
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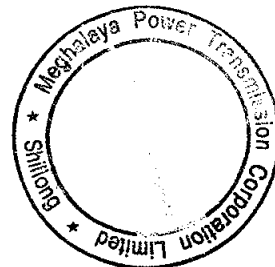
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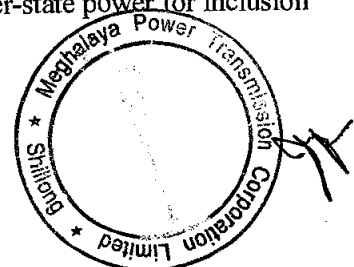
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MOST RESPECTFULLY SHOWETH:

1. The Petitioner herein, Meghalaya Power Transmission Corporation Limited (hereinafter referred to as MePTCL) is a deemed licensee in terms of section 14 of the Electricity Act 2003 (hereinafter referred to as Act), engaged in the business of transmission of electricity in the State of Meghalaya.
2. The erstwhile Meghalaya State Electricity Board unbundled into four (4) corporations under the Meghalaya Power Sector Reforms Transfer Scheme 2010. The newly formed corporations are the Meghalaya Energy Corporation Limited (MeECL), 'the holding company', Meghalaya Power Distribution Corporation Limited (MePDCL), 'the distribution utility arm', Meghalaya Power Generation Corporation Limited (MePGCL), 'the generation utility arm', and Meghalaya Power Transmission Corporation Limited (MePTCL), 'the transmission utility arm'. The bifurcation of erstwhile Assam and Meghalaya has resulted in several inter-state lines between the divided Assam and Meghalaya states. This has resulted in 5 lines that are partly/wholly owned by Meghalaya (As per section 2(36) (i) of the Act).
3. The "Inter-State transmission system" has been defined under Section 2(36) of the Electricity Act as under:-
 - (i) any system for the conveyance of electricity by means of a main transmission line from the territory of one State to another state;
 - (ii) the conveyance of electricity across the territory of any intervening State as well as conveyance within the State which is incidental to such inter-state transmission of electricity;
 - (iii) the transmission of electricity within the territory of a State on a system built, owned, operated, maintained, or controlled by a Central Transmission Utility;"
4. On 30.12.2010, this Hon'ble Commission notified the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 [hereinafter **Sharing Regulations**]. The Sharing Regulations became effective from 01.04.2011.

On 14.03.2012, this Hon'ble Commission passed an order in Petition No.15/SM/2012 identifying certain inter-state lines/incidental lines carrying inter-state power for inclusion



in POC transmission charges. Further, this Hon'ble Commission had directed the owners of the Inter-State Lines to file appropriate applications before this Hon'ble Commission. The relevant part of the order dated 14.03.2012 reads as under:-

"5. It has come to the notice of the Central Commission that the some of the owners/developers of the inter-state transmission lines of 132 kV and above in North Eastern Region and 220 kV and above in Northern, Eastern, Western and Southern regions as mentioned in the Annexure to this order have approached the Implementing Agency for including their transmission assets in computation of Point of Connection transmission charges and losses under the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 (hereinafter "Sharing Regulations").

"6. As a first step towards inclusion of non-ISTS lines in the POC transmission charges, the Commission proposes to include the transmission lines connecting two States, for computation of POC transmission charges and losses. However, for the disbursement of transmission charges, the tariff for such assets needs to be approved by the Commission in accordance with the provisions of Sharing Regulations. Accordingly, we direct the owners of these inter-State lines to file appropriate applications before the Commission for determination of tariff for facilitating disbursement."

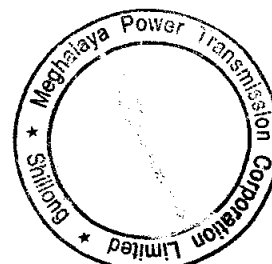
7. We direct the respondents to ensure that the tariff petition for determination of tariff is filed by the developers/owners of the transmission line or by State Transmission Utilities where the transmission lines are owned by them in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, by 20.4.2012."

6. In pursuance to the above, the petitioner has identified the five transmission lines as inter-state transmission lines, namely as under:

S. No.	From	To	Voltage Level (kV)	Connecting States
1	Kahelipara	Umtru-I	132	Assam-Meghalaya (S. No. 3 of Annexure under NER of order dated 14.3.2012)
2	Kahelipara	Umtru-II	132	Assam-Meghalaya (S. No. 4 of Annexure under NER of order dated 14.3.2012)
3	Panchgram	Lumshnong	132	Assam-Meghalaya (S. No. 9 of Annexure under NER of order dated 14.3.2012)
4	Umtru	Sarusajai-I	132	Assam-Meghalaya (S. No. 1 of Annexure under NER of order dated 14.3.2012)
5	Umtru	Sarusajai-II	132	Assam-Meghalaya (S. No. 2 of Annexure under NER of order dated 14.3.2012)



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7. Regarding the above, the Petitioner had filed Petition No. 204/TT/2013 dated 30.04.2012. In the Petition, out of the five ISTS lines stated above, four ISTS lines at S.No. 1 & 2 and 4 & 5, though, identified as single circuit lines, were treated as two double circuit lines for tariff purposes. The details of the line length and commercial operation of the transmission lines are as under:

S. No.	Name of the line	Connecting States	Length of line in km	COD
1	132 kV D/C Umtru-Sarusajai	Assam-Meghalaya (S. No. 1 and 2 of Annexure under NER of order dated 14.3.2012)	17.72	1990
2	132 kV D/C Kahelipara-Umtru	Assam-Meghalaya (S. No. 3 and 4 of Annexure under NER of order dated 14.3.2012)	11.68	1960
3	132 kV Panchgram-Lumshnong	Assam-Meghalaya (S. No. 9 of Annexure under NER of order dated 14.3.2012)	23.80	1960

8. On 14.01.2016, this Hon'ble Commission passed an order dated 14.01.2016 in petition no 204/TT/2013 approving the tariff for the year 2013-14 as under: (A copy of the CERC order is Annexed as Annexure-1)

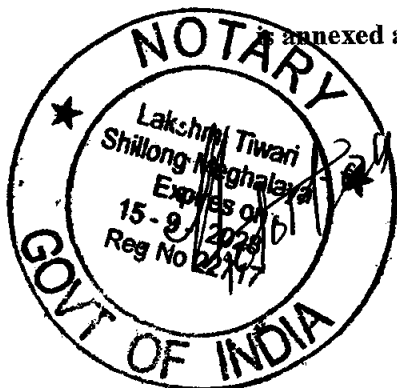
S.No	Transmission Line	Length of Line (in Km)	COD	Asset Name	2013-14 (Approved)
1	132 kV D/C Umtru- Sarusajai	17.72	1990	Asset-I	14497148.43
2	132 kV D/C Kahelipara-Umtru	11.68	1960	Asset-II	9555682
3	132 kV Panchgram-Lumshnong	23.80	1960	Asset-III	120069012
Total					36121842

9. In para 21, the Hon'ble Commission had further held as under:

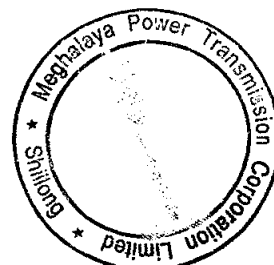
21. "Annual transmission charges allowed for the assets covered in instant petition shall be considered in the YTC as per the Sharing of Inter-state Transmission Charges and Losses Regulation, 2010 and shall be adjusted against the ARR of the petitioner approved by the State Commission":

10. In addition to the above three transmission lines, on 04.10.2016, in the 17th TCC/NERPC meeting, NERPC approved the recommendation of TCC to declare the following two non-ISTS lines of the Petitioner as deemed ISTS lines: (A copy of the minutes of the meeting

is annexed at Annexure 2)

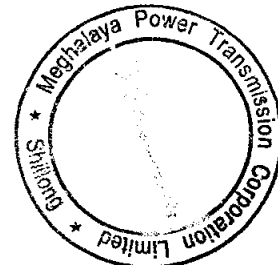
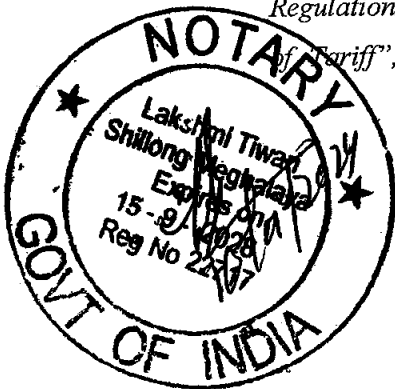


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S.No	Transmission Line	Length of Line (in Km)	COD	Asset Name
1	220 kV D/C Misa-Killing	113.42	25.01.2011	Asset-IV
2	400 KV D/C Pallatana-Bongaigaon LILO	2.324	22.02.2015	Asset-V

11. In regard to the above two transmission lines, a copy of the approved DPR with technical specifications and date of commercial operation of Asset-IV & Asset-V are detailed in subsequent sections.
12. On 21.02.2014, this Hon'ble Commission notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 (hereinafter referred to as '**the Tariff Regulations, 2014**') and the tariff for the transmission assets has been computed by the Petitioner in terms of the said regulations.
13. On 12.05.2017, this Hon'ble Commission passed an Suo-Motu order in Petition No.17/SM/2017 directing the state utilities to file a tariff petition for the determination of tariff for inclusion in the computation of point of connection transmission charges (POC) for the period 2014-19 under the regulation 2014. **(A copy of the Suo-motu order is annexed as Annexure-3)**
14. On 09.06.2017, the Petitioner submitted the petition (hard copy) for the determination of a Tariff for inter-state Transmission lines connecting the state of Meghalaya and Assam in terms of Tariff Regulations, 2014 and in compliance with the CERC order dated 12.05.2017. **(A copy of the petition along with the cover letter is annexed as Annexure 4)**
15. The petitioner has paid a petition fee amounting to Rs 3,00,000 (Three lacs only) for the period of 2014-15 to 2016-17 to the CERC bank account through RTGS vide UTR No. SBINR52017060900029404 on 09.06.2017. Hon'ble Commission vide letter dated 31st July 2018 acknowledged the receipt of payments (Rs. 3 lacs) and sought payment details of the calculation of the same. **(A copy of the CERC letter is annexed in Annexure 5).**
16. The Petitioner vide letter no. MePTCL/DT/T-01(Pt-1)/2018-19/18 dated 14th August, 2018 responded to CERC that "*The payment has been made as per the CERC "Payment of Fees Regulations, 2012", sub section (2) of Section 3 " Fees for application for Determination of Tariff", which quotes "An application for determination of tariff for interstate*

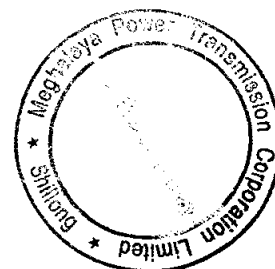
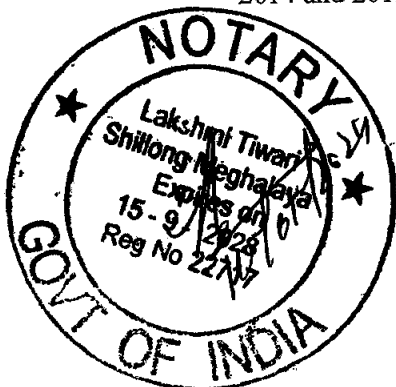


transmission system or an element thereof shall be accompanied by a fee payable at the rate of 0.10% and 0.11 % of the total annual transmission charges per annum claimed by the transmission licensee for the years 2012-13 and 2013-14 respectively, rounded off to the nearest one hundred rupees subject to a minimum of Rs. 100000/- (rupees one lakh) only”
(A copy of MePTCL reply letter is annexed at Annexure-6)

17. On 7th March 2019 the Hon'ble Commission notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as 'the Tariff Regulations, 2019'). The said Tariff Regulations, 2019 need to be considered for approval of tariff for the ensuing control period 2019-24.
18. The Hon'ble Commission vide its letter on 16th December 2020 replied in response to MePTCL letter dated 24th November 2020. The Hon'ble Commission directed the petitioner to register on the Sudhamani e-filing portal of the Commission and submit the petition through the Sudhamani e-filing portal before filing a hard copy of the petition in Triplicate. Since the petitioner was not registered on the CERC portal. **(A copy of the defect letter dated 16.12.2020 is annexed as Annexure-7)**
19. In the above circumstances, the Petitioner has filed the instant petition for the determination of True up tariff in terms of Tariff Regulations 2009, 2014, and 2019. The asset-wise control period for tariff determination is tabulated below.

S. No	Asset	CoD	Control period for filing petition
1	Asset-I	1990	True-up tariff for FY 2014-19 and True-up & multi-year tariff for FY 2019-24
2	Asset-II	1960	True-up tariff for FY 2014-19 and True-up & multi-year tariff for FY 2019-24
3	Asset-III	1960	True-up tariff for FY 2014-19 and True-up & multi-year tariff for FY 2019-24
4	Asset-IV	25.01.2011	FY 2011-14, FY 2014-19, FY 2019-24
5	Asset-V	22.02.2015	FY 2013-14, FY 2014-19, FY 2019-24

20. The methodology used to compute the tariff is in line with the Tariff Regulations 2009, 2014 and 2019 respectively.



Capital cost of Transmission Line Asset I,II, and III

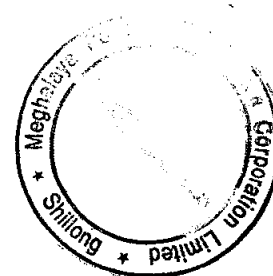
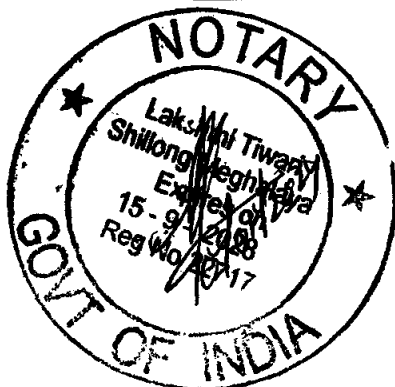
21. The petitioner submits that Transmission line II and III were constructed in the 1960 under the centrally sponsored scheme of Non-lapsable Common Pool of Resources (NLCPR) and North Eastern Council (NEC) and the audited cost of this line is not available to the petitioner. Considering that the useful life of a transmission line is 35 years, the Petitioner has considered the capital cost of Asset II and III as fully depreciated, and as such, only O&M expenditure and Interest on Working Capital has been considered for determination of Annual Fixed Cost for Assets II and III as per the norms in the applicable Tariff Regulations.

22. Annual Transmission Charges for the Asset- I, II and III for the Block Period 2014-19

23. A summary of Annual Transmission charges for Asset-I, II, and III is hereinunder for the control period FY 2014-19 considering normative values of O&M of No. of Bays, line length, and transformers is submitted as per the CERC Regulation 2014

Tariff Summary for 2014- 19					
Particular	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working Capital	8.62	8.91	9.21	9.51	9.83
O & M Expenses	156.12	161.30	166.64	172.17	177.93
AFC	164.74	170.21	175.85	181.68	187.76

Tariff Summary for 2014- 19					
Particular	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working Capital	3.53	3.64	3.76	3.89	4.02
O & M Expenses	63.84	65.96	68.14	70.40	72.76
AFC	67.37	69.60	71.91	74.29	76.78



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Tariff Summary for 2014- 19					
	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working Capital	1.93	2.00	2.06	2.13	2.20
O & M Expenses	34.96	36.12	37.32	38.56	39.83
AFC	36.89	38.12	39.38	40.69	42.03

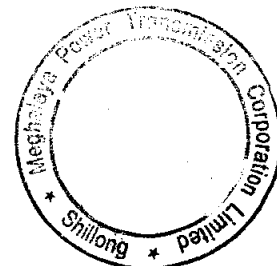
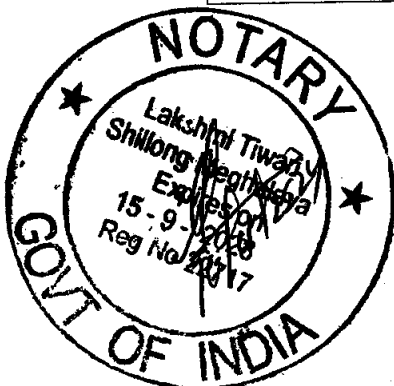
The Tariff calculations of Asset-I, II and III as per regulation 2014 is mentioned in CERC formats of FY 2014-19 is attached at Annexure-8.

Annual Transmission Charges for the Asset-I, II and III for the Block Period 2019-24

24. A summary of Annual Transmission charges for Asset- II, and III is hereinunder for the control period FY 2019-24 considering normative values of O&M of No. of Bays, line length, and transformers is submitted as per the CERC Regulation 2019

Tariff Summary for 2019-24					
	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.86	5.04	5.22	5.40	5.59
O & M Expenses	111.58	115.53	119.61	123.77	128.17
AFC	116.44	120.57	124.83	129.17	133.76

Tariff Summary for 2019- 24					
	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity ¹	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.81	1.87	1.94	2.01	2.08
O & M Expenses*	41.46	42.93	44.44	45.99	47.62
AFC	43.27	44.80	46.38	48.00	49.69



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Tariff Summary for 2019- 24					
	Asset-III				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity ¹	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.18	1.22	1.26	1.30	1.35
O & M Expenses*	26.98	27.91	28.92	29.91	30.98
AFC	28.15	29.13	30.18	31.21	32.33

The Tariff calculations of Asset-I, II and III as per regulation 2019 is mentioned in CERC formats for FY 2019-24 is attached at **Annexure-9**.

Transmission Line Asset-IV

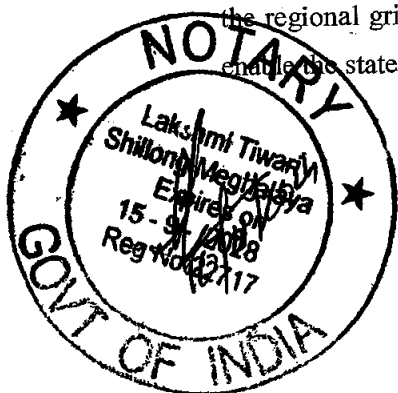
25. Background of Asset-IV "220KV KILLING-MISA D/C LINE"

The details of Asset IV are as under:

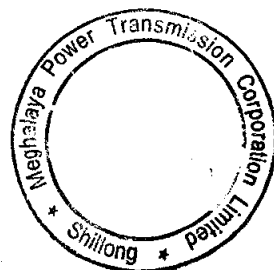
Asset Name	Transmission Line	Length of Line (in Km)	COD	No. of Bays	No. of Transformers	Transformer Rating (in MVA)
Asset-IV	220 kV D/C Misa-Killing	113.42	25.01.2011	11 Bays of 220 KV	2	160

26. The above Asset was established to provide secure and reliable supply of power in the Byrnihat area, 220/132 kV substation at Byrnihat in Meghalaya will be interconnected through a 220 kV D/c line with 400/220 kV Misa sub-station of Powergrid. The Byrnihat area in the state of Meghalaya witnessed a substantial growth after industrialization initiatives. As a result, the demand for power in the area is grew up at a rapid pace. The Meghalaya state is not able to meet that demand through its own generation stations. The State is also not in position to draw peak demand due to transmission constraints. By implementing the above Asset, a reliable power supply can be assured to the Byrnihat area from major hydro and thermal power plants like Kopili, Khandong, Kathalguri, Rangaganadi HEP, etc. located in North- eastern Region through Misa-Byrnihat 220 kV D/c line.

27. In view of the above, to ensure strong connectivity between state grid of Meghalaya and the regional grid at 220 kV level, this 220Kv Killing-Misa D/C Line was established to enable the state to draw its share of power.



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28. The approved Detailed Project Report (DPR) of the transmission system of 220Kv Killing-Misa D/C Line is under scope of Government of Meghalaya erst while MeECL (Meghalaya Electricity Company Limited) i.e., MePTCL :-

1. 220 kV D/C Line from Misa to Byrnihat,
2. 2X160 MVA, 220/132 KV New Sub-station at Byrnihat with Double Main & Transfer Bus scheme on 220 kV side and Single Main & Transfer Bus scheme on 132 KV side.
3. 4 No.s 132 kV line Bays at 220/132kV Byrnihat sub-station.
4. Associated 2 No.s Bay extension works at existing 220kV Misa Power grid substation.

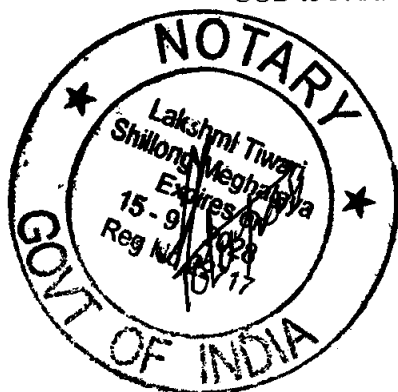
29. As per the agreement dated 20.09.2007 between MeECL and Power Grid Corporation of India Limited (Power Grid), the project cost is INR 150.64 Crores including Project Management Consultancy Fees of Power Grid. A copy of the Implementation agreement of MeECL and Power Grid dated 20.09.2007 for Asset-IV, is attached at **Annexure -10**. This project was constructed under the centrally sponsored scheme of Non-Lapsable Common Pools of Resources (NLCPR) sanctioned by the Ministry of Development of North Eastern Region (DONER). The Central Electricity Authority vide letter dated 31.05.2007 vetted the Project Cost of 150.64 Crores (A copy of the CEA letter is annexed at **Annexure -11**). The breakup of the Project funding is herein under:-

S.NO	Source of Fund	Amount (In Lakhs)
1	DONER- Grant	10952.40
2	State-Loan	1902.76
	Total	12855.16

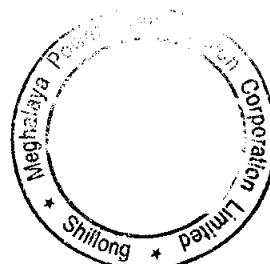
The date of Commercial operation was 25.01.2011. (A copy of the completion Certificate and Disbursal letter of state loan fund of Asset-IV is annexed at **Annexure-12**)

30. Capital Cost of Asset IV 220Kv Killing-Misa D/C Line

The Asset IV 220 kV Killing-Misa D/C Line was commissioned on 25.01.2011. The capital cost after adjusting the DONER Grant and additional capital expenditure from the date of COD to F.Y.2021-22 of the transmission lines are tabulated as under:-



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(Amount In Lakhs)

Transmission system	Asset Name	Capital cost excluding IDC/IEDC, as on COD	IDC till COD	Capital cost as on COD
220 KV Killing-Misa D/C Line	Asset IV	722.19	0	722.19

Capital cost on COD	Additional capital expenditure				Capital cost on 31.3.2014
	2010-11	2011-12	2012-13	2013-14	
722.19	327.46	267.704	77.513	44.755	1439.622

Capital cost on 01.04.2014	Additional capital expenditure					Capital cost on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	
1439.622	18.92	40.74	4.06	71.42	5.81	1580.57

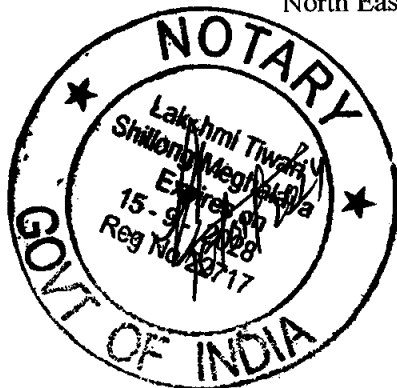
Capital cost on 01.04.19	Additional capital expenditure					Capital cost on 31.03.2024
	2019-20	2020-21	2021-22	2022-23	2023-24	
1580.57	49.79	54.13	218.27	0	0	1902.76

The petitioner has claimed the above Additional Capital expenditure as per Regulation 14 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. (A copy of the Auditor certificate certifying the capital cost of Asset-IV is enclosed in Annexure-13)

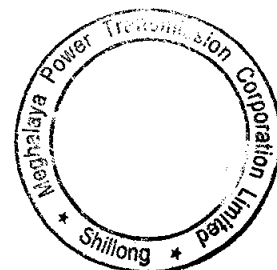
Annual Transmission Charges for the Asset-IV for the Block Period 2011-14, 2014-19 and 2019-24

31. Debt- Equity Ratio

The debt-equity ratio is considered to be the normative debt-equity ratio of 70:30 as per CERC Regulations. However, this 220 kV Killing-Misa D/C Line is funded by a Loan from the State Government and a grant received from the Ministry of Development of North Eastern Region (DONER).



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(a) **Return on Equity**

Since this 220kV Killing-Misa D/C Line Transmission system project is funded by Loan from REC and State Government, and a grant received from the Ministry of Development of North Eastern Region (DONER), no equity is infused by MePTCL accordingly no Return on Equity is claimed by the Petitioner.

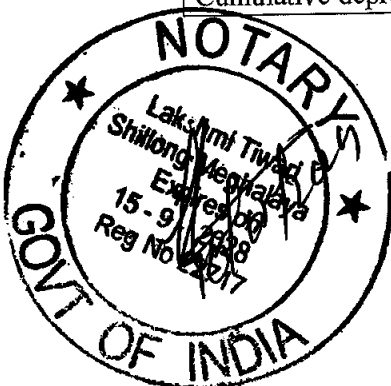
(b) **Depreciation**

In line with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, the asset is depreciated up to 90% of the capital cost, the remaining 10% being the salvage value of the asset. The rate of depreciation is taken as per the regulation 27. Out of the total project cost i.e., INR 12855.16 lacs, besides the DONER grant of INR 10952.4 lacs, MePTCL received a loan of INR 1902.27 lacs from the State Government. Petitioner received a Loan of INR 722.19 lacs before COD for Capital Expenditure from State Government. Further, Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year. For Asset IV depreciation calculations are as below: -

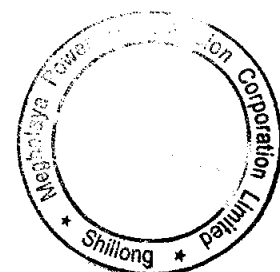
(In Rs. Lakhs)

Particulars	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	722.19	1049.65	1317.35	1394.87
Additional Capitalization	327.46	267.70	77.51	44.76
Closing Gross Block	1049.65	1317.35	1394.87	1439.63
Average Gross Block	885.92	1183.50	1356	1417.25
Rate of Depreciation (%)	4.26%	5.52%	5.08%	4.96%
Depreciable Value	797.33	1065.15	1220.50	1275.52
Depreciation during the year	37.76	65.35	68.83	70.34
Cumulative depreciation	37.76	103.11	171.95	242.29

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	979.57	979.57	1613.57	1613.57	2211.96
Additional Capitalization	0	634.000	0.000	598.390	50.840
Closing Gross Block	979.57	1613.57	1613.57	2211.96	2262.80
Average Gross Block	979.57	1296.57	1613.57	1912.77	2237.38
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	881.61	1166.91	1452.21	1721.49	2013.64
Depreciation during the year	5.38	68.46	85.20	100.99	118.13
Cumulative depreciation	5.38	73.84	159.04	260.03	378.17



23.



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	2262.80	2264.77	2264.77	2264.77	2264.77
Additional Capitalization	1.97	0.00	0.00	0.00	0.00
Closing Gross Block	2264.77	2264.77	2264.77	2264.77	2264.77
Average Gross Block	2263.79	2264.77	2264.77	2264.77	2264.77
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	2037.41	2038.29	2038.29	2038.29	2038.29
Depreciation during the year	119.53	119.58	119.58	119.58	119.58
Cumulative depreciation	497.70	617.28	736.86	856.44	976.02

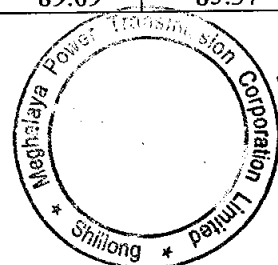
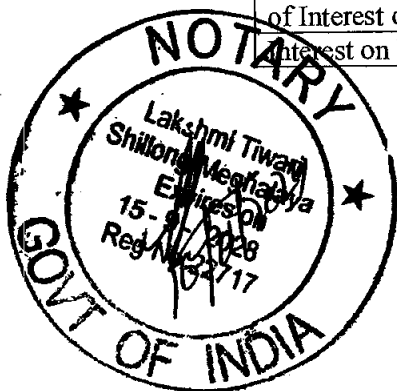
(c) **Interest on Capital Loan**

The loan scheme has been funded by the State Government. Further, Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year in line with CERC Regulations for 2009, 2014, and 2019 respectively. For Asset- IV the calculation of Interest on the Loan is hereinunder: -

(In Rs. Lakhs)

Interest on Loan	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Gross Normative Loan	722.19	1049.65	1317.35	1394.87
Cumulative Repayment up to Previous Year	0.00	37.76	103.11	171.95
Net Loan-Opening	722.19	1011.89	1214.24	1222.92
Additions	327.46	267.70	77.51	44.76
Repayment during the year	37.76	65.35	68.84	70.34
Net Loan-Closing	1011.89	1214.24	1222.92	1197.34
Average Loan	867.04	1113.06	1218.58	1210.13
Weighted Average Rate of Interest on Loan (%)	8.84%	8.71%	8.69%	8.69%
Interest on Loan	13.86	96.99	105.90	105.16

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1439.62	1458.54	1499.28	1503.34	1574.76
Cumulative Repayment up to Previous Year	242.29	318.80	396.88	476.15	557.41
Net Loan-Opening	1197.34	1139.74	1102.40	1027.19	1017.34
Additions	18.92	40.74	4.06	71.42	5.81
Repayment during the year	76.51	78.09	79.27	81.26	83.30
Net Loan-Closing	1139.74	1102.40	1027.19	1017.34	939.85
Average Loan	1168.54	1121.07	1064.79	1022.265	978.60
Weighted Average Rate of Interest on Loan (%)	8.69%	9.28%	8.71%	8.71%	8.72%
Interest on Loan	101.55	104.04	92.79	89.09	85.37



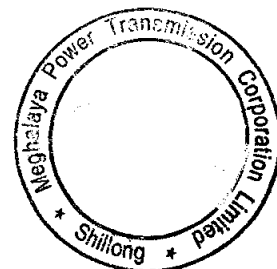
(In Rs. Lakhs)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Particulars					
Gross Normative Loan	1580.57	1630.36	1684.49	1902.76	1902.76
Cumulative Repayment up to Previous Year	640.72	724.12	810.53	901.70	996.56
Net Loan-Opening	939.85	906.24	873.96	1001.06	906.20
Additions	49.79	54.13	218.27	0.00	0.00
Repayment during the year	83.40	86.41	91.18	94.86	94.86
Net Loan-Closing	906.24	873.96	1001.06	906.20	811.34
Average Loan	923.05	890.10	937.51	953.63	858.77
Weighted Average Rate of Interest on Loan (%)	7.75%	6.25%	9.11%	7.35%	6.25%
Interest on Loan	71.54	55.63	85.42	70.06	53.71

(d) **O & M Expenses**

The O & M expenses are considered in line with the Clause 3(a) of Regulation 29 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 read along with Clause 3(a) of Regulation 35, which specify the norms for O&M Expenses for the transmission system. In line with the principles of the Central Electricity Regulatory Commission (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 with amendments and the previous methodology adopted by the commission in line with the order on Petition no 204/TT/2013, the overall substation cost (The cost at both ends of the line) needs to be apportioned to the transmission line. The bay that is connected to the line can be directly identified with the line. Though there are multiple bays in the substation and the overall O&M per line would be more than O&M for the specific bay, at the minimal, the O&M of the bay that is connecting directly to the line is being apportioned to the line. This at the minimum, ensures that a nominal O&M expenses of the Substation is getting included in the PoC Mechanism.

Petitioner respectfully submits that, due to non-availability of segregated O&M Expenses (asset wise), Hon'ble commission may consider the normative O&M Expenses for the control period FY 2009-14, FY 20014-19, FY 2019-24 in line with the CERC regulations 2009, 2014 and 2019 respectively. The detailed calculations of O&M expenses are submitted herewith in CERC Tariff formats of respective control periods. A summary of the O&M expense for Asset-IV is mentioned below: -



(In Rs lakhs)

Particulars	2010-11 (Pro rata)	2011-12	2012-13	2013-14
O&M Expenses	82.96	485.14	512.81	542.13

(In Rs lakhs)

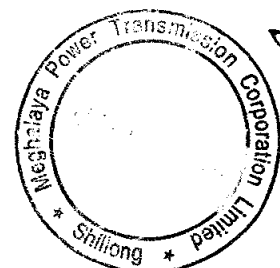
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	498.68	515.21	532.41	549.93	568.34
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	368.77	381.93	395.30	409.12	423.59

(e) Interest on Working Capital

In accordance with the Clause 5 of Regulation 3 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, the SBI base rate as on 1.4.2014 is 10%, so the rate of interest on working capital is considered to be 13.5%. In accordance with the Clause 1(c) of Regulation 28 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 the working capital is taken as the sum of Maintenance Spares (@15% of the yearly O&M Expenses), O&M Expenses for 1 month and Receivables (equivalent to 2 months of fixed cost) read along with CERC Regulation, 2019 wherein sum of Maintenance Spares (@15% of the yearly O&M Expenses), O&M Expenses for 1 month and Receivables (equivalent to 45 days of fixed cost) Calculation of Interest on Working Capital is hereinbelow:

(In Rs Lakhs)

Particulars	2010-11 (Pro rata)	2011-12	2012-13	2013-14
O & M expenses	6.91	40.43	42.73	45.18
Maintenance Spares	12.44	72.77	76.92	81.32
Receivables	22.61	113.29	120.29	125.81
Total	41.97	226.49	239.94	252.30
Rate of Interest (%)	14.25%	14.25%	14.25%	14.75%
Interest on Working Capital	1.08	32.28	34.19	37.21



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	41.56	42.93	44.37	45.83	47.36
Maintenance Spares	74.80	77.28	79.86	82.49	85.25
Receivables	118.06	121.67	122.97	125.76	128.72
Total	234.42	241.88	247.20	254.08	261.33
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	31.65	32.65	33.37	34.30	35.28

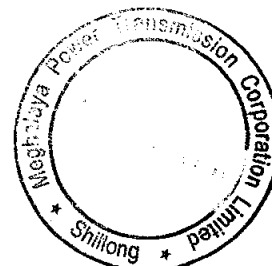
Interest on Working Capital	2019-20	2020-21	2021-22	2022-23	2023-24
O & M expenses	30.73	31.83	32.94	34.09	35.30
Maintenance Spares	55.32	57.29	59.30	61.37	63.54
Receivables	67.79	69.66	72.50	74.91	75.55
Total	153.84	158.78	164.73	170.37	174.39
Rate of Interest (%)	12.05%	12.05%	12.05%	12.05%	12.05%
Interest on Working Capital	18.54	19.13	19.85	20.53	21.01

(f) Summary of Transmission Tariff for Asset-IV

Summary of Annual Transmission charges for the control period for FY 2010-2014, FY 2014-19, and FY 2019-24 considering normative values of O&M of No. of Bays, line length and transformers are submitted as per the CERC Regulation 2009, 2014, and CERC Regulations 2019 for the respective period as follows: -

(In Rs Lakhs)

Tariff Summary for 2010-14				
	Asset-IV			
	2010-11	2011-12	2012-13	2013-14
Depreciation	37.76	65.35	68.83	70.34
Interest on Loan	13.86	96.99	105.90	105.16
Return on Equity ¹	0.00	0.00	0.00	0.00
Interest on Working Capital	1.08	32.28	34.19	37.21
O & M Expenses*	82.96	485.14	512.81	542.13
AFC	135.67	679.76	721.73	754.85



Tariff Summary for 2014- 19					
Particulars	Asset-IV				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	76.51	78.09	79.27	81.26	83.30
Interest on Loan	101.55	104.04	92.79	89.09	85.37
Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	31.65	32.65	33.37	34.30	35.28
O & M Expenses	498.68	515.21	532.41	549.93	568.34
AFC	708.38	730.00	737.84	754.58	772.29

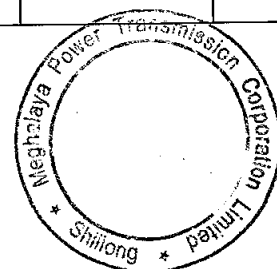
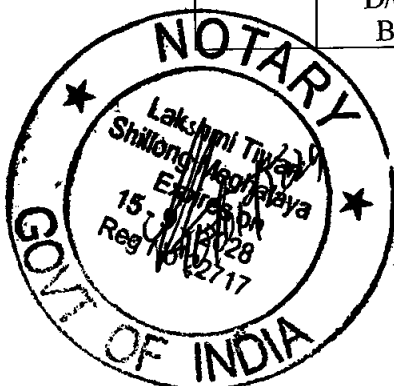
Tariff Summary for 2019- 24					
Particulars	Asset-IV				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	83.40	86.41	91.18	94.86	94.86
Interest on Loan	80.65	77.56	81.69	83.09	75.03
Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	18.54	19.13	19.85	20.53	21.01
O & M Expenses	368.77	381.93	395.30	409.12	423.59
AFC	551.35	565.03	588.02	607.60	614.49

The detailed calculations of Annual transmission charges of Asset-IV as per the CERC regulation formats for FY 2010-14, FY 2014-19, and FY 2019-24 are attached in Annexure 14.

Transmission Line V

32. Background of Asset-V LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s

Asset	Transmission Line	Length of Line (in Km)	COD	No. of Bays	No. of Transformers	Transformer Rating (in MVA)
Asset-V	LILO of 400 KV D/C Palatana-Bongaigoan	4.648	22.02.2015	7 Bays of 400 kV	2	315



The power demand of Meghalaya was of the order of 400 MW in 2009 vis a vis generation of 170 MW from Hydro-based. Further considering the growing power demand of Meghalaya at the pace of 8-9%, additional power was allocated from projects like Lower Subansiri HEP, Kemeng HEP, Palatana GBPP, and Bongaigoan TPS of North Eastern Region.

To ensure strong connectivity between the state grid of Meghalaya and the regional grid at 400 kV level, this **LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s** was established to enable the state to draw its share of power.

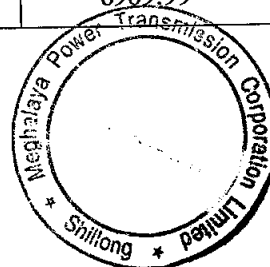
The transmission system of Palatana GBPS and Bongaigon TPS was finalized and in the 6th TCC/NERPC meeting held on 8th August 2008 and subsequent discussion with CEA and other Concerned states. The proposed system is being executed by different utilities like Powergrid, AEGCL (of Assam), MeECL of Meghalaya, TeECL (of Tripura), OTPC, NTPC and NETC (North Eastern Transmission Company Limited). The following Portion of the transmission system is under the scope of Meghalaya MeECL (Meghalaya Electricity Company Limited) :-

1. LILO of one Circuit of Silchar-Bongaigoan 400 kV D/C line at Byrnihat
2. 2 X315 MVA, 400/220 kV New Substation at Byrnihat
3. 50 MVAR Line reactor in Silchar-Byrnihat 400 kV line at Byrnihat end
4. 63 MVAR bus reactor at Byrnihat

As per the agreement between MeECL and Powergrid dated 6th August 2010 the project cost is INR 110.93 Crores. Subsequently, with the progress of the project activities, the revised Detailed Project Report (DPR) in May 2011 was approved by the MePTCL Board on 28th April 2014 stating the project cost as INR 114.82 Crores including Project Management Consultancy Fees of Powergrid. A copy of the implementation agreement of MeECL and Power Grid dated 6th August 2010 and DPR is attached in **Annexure -15**.

This project was constructed under the centrally sponsored scheme of Non-Lapsable Common Pools of Resources (NLCPR) sanctioned by the Ministry of Development of North Eastern Region (DONER), with a grant amounting to 8969.99 Lacs. The breakup of the Project funding is herein under: -

S.NO	Source of Fund	Amount in Lakhs
1	DONER- Grant	8969.99



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2	State-Loan	996.97
3	RTL Assistance received from REC Ltd.	1268.10
	Total	11235

The Date of Commercial operations is 22.02.2015. The Completion Certificate along with the Sanction letter for the State loan & RTL from REC Ltd is attached in **Annexure-16**.

a. Capital Cost for the LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s” i.e., Asset V Assets V

The “LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s” i.e. Asset V commissioned on 22.02.2015. The capital cost after adjusting the grant from DONER, and considering additional capitalization from DOCO till FY 2022-23 of the transmission asset is tabulated as under:-

Transmission system	Asset Name	Capital cost excluding IDC/ IEDC, as on COD (in Lakhs)	IEDC till COD (in lakhs)	Capital cost as on COD (in lakhs)
LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s	Asset V	979.57	0	979.57

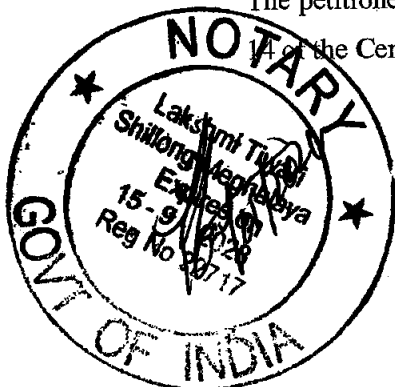
(In Rs. Lakhs)

Capital cost on COD	Additional capital expenditure					Capital cost on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	
979.57	0	634	0	598.39	50.84	2262.80

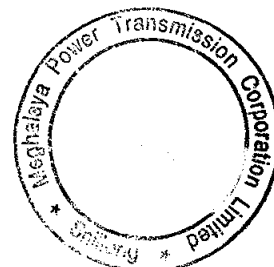
(In Rs. Lakhs)

Capital cost on 31.03.2019	Additional capital expenditure					Capital cost on 31.05.2024
	2019-20	2020-21	2021-22	2022-23	2023-24	
	1.97	0	0	0	0	2264.77

The petitioner has claimed the above Additional Capital expenditure as per Regulation 14 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff)



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Regulations, 2014. (A copy of the Auditor certificate certifying the capital cost of Asset-V is enclosed at Annexure-17)

b. Debt- Equity Ratio

The debt-equity ratio is considered to be the normative debt-equity ratio of 70:30 as per CERC Regulations. However, this LILO of 400 KV D/C Palatana- Bongaigoan at 400/220 kV Killing Transmission system is funded by a Loan from the State Government and a grant received from the Ministry of Development of North Eastern Region (DONER).

c. Return on Equity

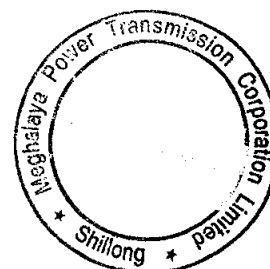
LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing Transmission system project is funded by Loan from REC & State Government, and grant received from Ministry of Development of North Eastern Region (DONER), no equity is infused by MePTCL accordingly no Return on Equity is claimed by the Petitioner.

d. Depreciation

In line with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, asset is depreciated up to 90% of the capital cost, remaining 10% being the salvage value of the asset. The rate of depreciation is taken as per the CERC regulation 27. As mentioned in funding table of Para 19, out of the total project cost i.e., INR 11235.33 lacs, besides DONER grant MePTCL received 996.67 lacs loan from State Government prior to COD for Capital Expenditure and subsequently RTL Assistance received from REC Ltd. is utilized for Capex. Further, Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year. For Asset V depreciation calculation are as below: -

(In Rs. Lakhs)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	979.57	979.57	1613.57	1613.57	2211.96
Additional Capitalization	0	634.000	0.000	598.390	50.840
Closing Gross Block	979.57	1613.57	1613.57	2211.96	2262.80
Average Gross Block	979.57	1296.57	1613.57	1912.77	2237.38
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	881.61	1166.91	1452.21	1721.49	2013.64
Depreciation during the year	5.38	68.46	85.20	100.99	118.13
Cumulative depreciation	5.38	73.84	159.04	260.03	378.17



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	2262.80	2264.77	2264.77	2264.77	2264.77
Additional Capitalization	1.97	0.00	0.00	0.00	0.00
Closing Gross Block	2264.77	2264.77	2264.77	2264.77	2264.77
Average Gross Block	2263.79	2264.77	2264.77	2264.77	2264.77
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	2037.41	2038.29	2038.29	2038.29	2038.29
Depreciation during the year	119.53	119.58	119.58	119.58	119.58
Cumulative depreciation	497.70	617.28	736.86	856.44	976.02

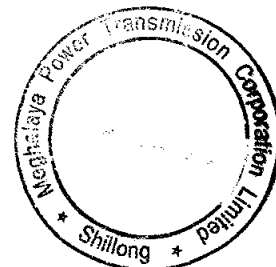
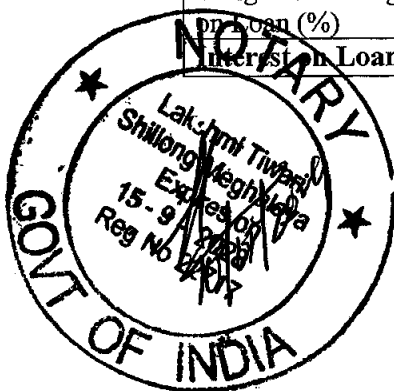
e. Interest on Loan

The loan for scheme has been funded by State Government and Rural Electrification Corporation limited under RTL assistance. Further, Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year. For Asset- V the calculation of Interest on Loan is hereinunder: -

(In Rs. Lakhs)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	979.57	979.57	1613.57	1613.57	2211.96
Cumulative Repayment up to Previous Year	0.00	5.38	73.84	159.04	260.03
Net Loan-Opening	979.57	974.19	1539.73	1454.53	1951.93
Additions	0.00	634.00	0.00	598.39	50.84
Repayment during the year	5.38	68.46	85.20	100.99	118.13
Net Loan-Closing	974.19	1539.73	1454.53	1951.93	1884.63
Average Loan	976.88	1256.96	1497.13	1703.23	1918.28
Weighted Average Rate of Interest on Loan (%)	8.65%	8.67%	10.88%	8.79%	9.13%
Interest on Loan	8.80	109.02	162.93	149.67	175.12

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	1884.63	2264.77	2264.77	2264.77	2264.77
Cumulative Repayment up to Previous Year	378.17	497.70	617.28	736.86	856.44
Net Loan-Opening	1506.46	1767.07	1647.49	1527.91	1408.33
Additions	1.97	0.00	0.00	0.00	0.00
Repayment during the year	119.53	119.58	119.58	119.58	119.58
Net Loan-Closing	1388.91	1647.49	1527.91	1408.33	1288.75
Average Loan	1447.69	1707.28	1587.70	1468.12	1348.54
Weighted Average Rate of Interest on Loan (%)	7.75%	6.25%	9.11%	7.35%	6.25%
Interest on Loan	112.21	106.70	144.66	107.86	84.34



f. O & M Expenses

The O & M expenses are considered in line with Clause 3(a) of Regulation 29 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 read along with Clause 3(a) of Regulation 35, which specify the norms for O&M Expenses for the transmission system. In line with the principles of the Central Electricity Regulatory Commission (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 with amendments and the previous methodology adopted by the commission in line with the order on Petition no 204/TT/2013, the overall substation cost (The cost at both ends of the line) needs to be apportioned to the transmission line. The bay that is connected to the line can be directly identified with the line. Though there are multiple bays in the substation and the overall O&M per line would be more than O&M for the specific bay, at the minimal, the O&M of the bay that is connecting directly to the line is being apportioned to the line. This at the minimum, ensures that a nominal O&M expenses of the Substation is getting included in the PoC Mechanism.

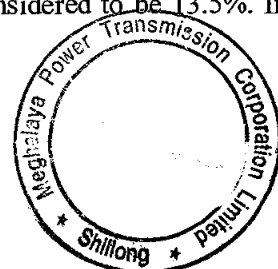
Petitioner hereby submits that, due to non-availability of segregated O&M Expenses (Asset wise), Hon'ble commission may consider the normative O&M Expenses for the control period FY2009-14, FY 20014-19, FY 2019-24 in line with the CERC regulations 2009, 2014 and 2019 respectively. The detailed calculations of O&M expenses are submitted herewith in CERC Tariff formats of respective control periods. A summary of the O&M expense for Asset-V is mentioned below: -

INR In lakhs

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	44.04	437.07	451.59	466.61	482.04
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	451.76	467.90	484.32	501.66	518.64

g. Interest on Working Capital

In accordance with the Clause 5 of Regulation 3 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, the SBI base rate as on 14.2.2014 is 10%, so the rate of interest on working capital is considered to be 13.5%. In



accordance with the Clause 1(c) of Regulation 28 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 the working capital is taken as the sum of Maintenance Spares (@15% of the yearly O&M Expenses), O&M Expenses for 1 month and Receivables (equivalent to 2 months of fixed cost) read along with CERC Regulation, 2019 wherein sum of Maintenance Spares (@15% of the yearly O&M Expenses), O&M Expenses for 1 month and Receivables (equivalent to 45 days of fixed cost).

Calculation of Interest on Working Capital for Assets V

(In Rs Lakhs)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	3.67	36.42	37.63	38.88	40.17
Maintenance Spares	6.61	65.56	67.74	69.99	72.31
Receivables	9.75	107.13	121.73	124.80	134.78
Total Working Capital	20.03	209.11	227.10	233.68	247.26
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	0.28	28.23	30.66	31.55	33.38

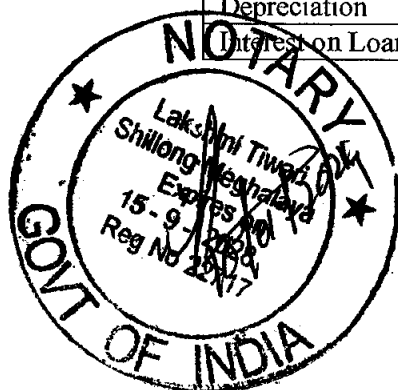
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
O & M expenses	37.65	38.99	40.36	41.80	43.22
Maintenance Spares	67.76	70.19	72.65	75.25	77.80
Receivables	90.54	88.52	95.38	93.01	92.00
Total Working Capital	195.95	197.70	208.39	210.06	213.01
Rate of Interest (%)	12.05%	12.05%	12.05%	12.05%	12.05%
Interest on Working Capital	23.61	23.82	25.11	25.31	25.67

h. Summary of Transmission tariff for Asset-V

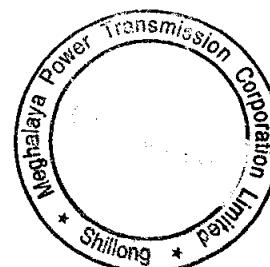
Summary of Annual Transmission charges for the control period for FY 2014-19 and FY 2019-24 considering normative values of O&M of No. of Bays, line length, and transformers are submitted as per the CERC Regulation 2009, 2014 and CERC Regulations 2019 for the respective period as follows:-

(in INR Lacs)

Tariff Summary for 2014- 19					
	Asset-V				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	5.38	68.46	85.20	100.99	118.13
Interest on Loan	8.80	109.02	162.93	149.67	175.12



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Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.28	28.23	30.66	31.55	33.38
O & M Expenses	44.04	437.07	451.59	466.61	482.04
AFC	58.51	642.79	730.38	748.82	808.67

Tariff Summary for 2019-24					
	Asset-V				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	119.53	119.58	119.58	119.58	119.58
Interest on Loan	141.52	106.70	144.66	107.86	84.34
Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	23.61	23.82	25.11	25.31	25.67
O & M Expenses	451.76	467.90	484.32	501.66	518.64
AFC	736.42	718.00	773.67	754.41	748.24

The detailed calculations of Annual transmission charges of Asset-V as per the CERC formats for FY 2014-19 and FY 2019-24 are attached in Annexure-18.

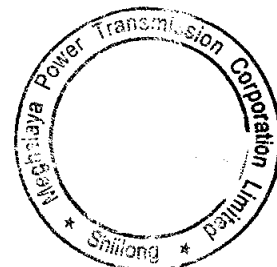
33. The annual transmission charges for the 5 transmission assets for respective Tariff control periods are summarized below: -

(In Rs Lakhs)

Particular	2010-11	2011-12	2012-13	2013-14
Asset I				
Asset II				
Asset III				
Asset IV	135.67	679.76	721.73	754.85
Asset V	0.00	0.00	0.00	0.00
Total	135.67	679.76	721.73	754.85

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Asset I	164.74	170.21	175.85	181.68	187.76
Asset II	67.37	69.60	71.91	74.29	76.78
Asset III	36.89	38.12	39.38	40.69	42.03
Asset IV	708.38	730.00	737.84	754.58	772.29
Asset V	58.51	642.79	730.38	748.82	808.67
Total	1035.89	1650.71	1755.36	1800.06	1887.55

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Asset I	116.44	120.57	124.83	129.17	133.76
Asset II	43.27	44.80	46.38	48.00	49.69
Asset III	28.15	29.13	30.18	31.21	32.33
Asset IV	551.35	565.03	588.02	607.60	614.49
Asset V	736.42	718.00	773.67	754.41	748.24
Total	1475.64	1477.52	1563.07	1570.41	1578.51



JK

34. The Petitioner has duly remitted the Tariff determination fees as applicable. The true copy of the fee remittance is attached hereto and marked as **Annexure-19**.

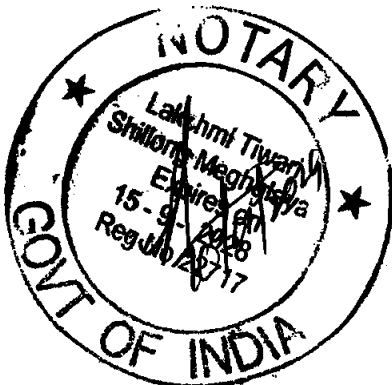
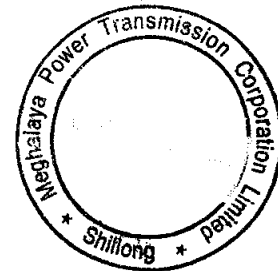
35. PRAYER

In the above circumstances, the petitioner respectfully prays to the Hon'ble Commission.

- a) To determine the tariff of Inter-State transmission lines connecting two states for FY 2011-12, FY 2012-13, FY 2013-14, (for Asset- IV), and FY 2014-15 to FY 2023-24 (for Asset I, II, III, IV, and V).
- b) To approve the annual fixed charges for the assets covered under this petition.
- c) To include the assets in the PoC charges with FY 2022-23 tariff in the interim, till order on the determination of tariff for FY 2023-24.
- d) To Reimburse the filing fee and other expenses in accordance with the Regulation 52 of the Central Electricity Regulatory Commission (Terms and conditions of tariff) Regulations, 2014 and;
- e) To pass any other order or relief as this Hon'ble commission may deem fit and proper in the facts and circumstances of the case.

Petitioner

Through
Superintending Engineer (Elect - II)
Office of the Director (Transmission)
Meghalaya Power Transmission Corporation Limited
Lum Jingshai Shillong
(P. Sun)
Superintendent Engineer
for MePTCL



**BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition no...../TT/2024

In the matter of:

Meghalaya Power Transmission Corporation Limited ... Petitioner

Versus

Central Transmission Utility of India Limited (CTUIL). & Ors. ... Respondents

AFFIDAVIT

I, **P.Sun**, W/o M B Kurbah, 52 Years, R/O Mawlai Umshing, Shillong - 793022 working as Superintending Engineer(Elect)-II for gain at the Meghalaya Power Transmission Corporation Limited do solemnly affirm and say as follows:

1. I am the Superintending Engineer of MePTCL, the licensee company operating and controlling the Transmission Business & SLDC Activity of electricity in Meghalaya pursuant to the license granted by the Hon'ble Commission. I am competent and duly authorized by MePTCL to affirm, swear, execute, and file this affidavit in the present proceedings.
2. I have read and understood the contents of the accompanying Petition for Determination of Tariff for Inter-State Lines of MePTCL. The statements made in the paragraphs of the accompanying petition shown to me are true to my knowledge derived from the official records made available to me and are based on information and advice received which I believe the same to be true and correct.

S. L. Instrument No 30
Date 10/01/2024

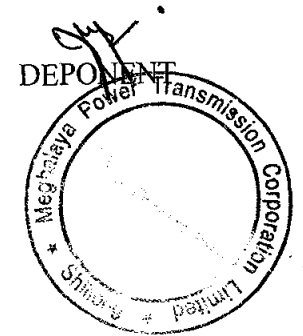

DEPONENT

VERIFICATION:

I, the above-named deponent solemnly affirms at Shillong on this 10th day of January 2024 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.




Lakshmi Tiwari
Notary Public
Govt. of India





**MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED
OFFICE OF THE COMPANY SECRETARY**

Corporate Identification Number: U40101ML2009SGC008393

Registered Office: Lumjingshai, Short Round Road, Shillong-793001

Telephone No: 0364-2591074; Fax no: 0364-2590355; Website address: www.meecl.nic.in

RELEVANT EXTRACTS OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED IN ITS 117TH MEETING HELD ON WEDNESDAY THE 20TH DECEMBER, 2023 AT 04:30 P.M. AND CONTINUED TILL 05:00 P.M. IN THE CONFERENCE ROOM, LUMJINGSHAI, SHILLONG -793001.

Resolution No.5(II)

III. APPROVAL FOR FILING MePTCL ISTS TARIFF PETITION IN CERC FOR FIVE TRANSMISSION

Resolved that the Board approves the Petition for determination of tariff of the Inter-State transmission lines in respect of the following five lines for submission to the CERC.

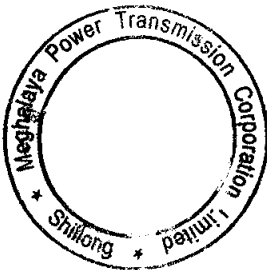
- 1 132 kV D/C Umtru- Sarusajai
- 2 132 kV D/C Kahelipara-Umtru
- 3 132 kV Panchgram-Lumshnong
- 4 220 kV D/C Misa-Killing
- 5 400 KV D/C Pallatana-Bongaigaon LILO

Resolved further that the Board approves the amount of Rs.21,37,419.00 (Rupees Twenty One Lakhs Thirty Seven Thousand Four Hundred Nineteen) only as application fee for filing of above petitions before the CERC.

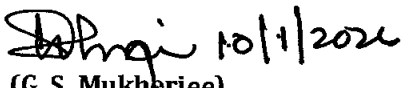
Resolved further that the Board authorised Smt. P. Sun, Superintending Engineer (Elect-II), Office of the Director (Transmission), MePTCL Shillong as authorized signatory for this assignment.

Resolved further that the NETC be and is hereby authorised by the Board to file the Petition before the CERC for and on behalf of MePTCL and Director (Transmission) shall sign a Power of Attorney and any such plaint for the same.

Resolved further that the Director (Transmission), MePTCL is authorised to do all acts, deeds, things as may be required to assist the NETC for taking up with the CERC till approval of the above Petition.



**CERTIFIED TO BE TRUE COPY
FOR, MEGHALAYA POWER TRANSMISSION CORPORATION LTD**


(G. S. Mukherjee)
Company Secretary

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 204/TT/2013

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member**

**Date of Hearing : 04.06.2015
Date of Order : 14.01.2016**

In the matter of:

Determination of tariff in respect of Meghalaya Power Transmission Corporation Limited owned transmission lines/system connecting with other states and intervening transmission lines incidental to inter-State transmission of electricity as per the Central Electricity Regulatory Commission's order dated 14.3.2012 in Petition No.15/Suo-Moto/2012, for inclusion in POC charges in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

And in the matter of:

Meghalaya Power Transmission Corporation Limited (MePTCL)
Lumjingshai,
Shillong-793 001, Meghalaya

.....Petitioner

For petitioner : None

For respondents : None

ORDER

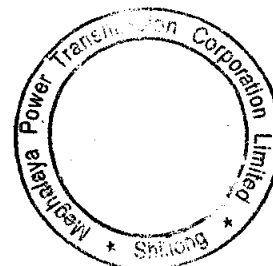
The petitioner, Meghalaya Power Transmission Corporation Limited (MePTCL) was incorporated in accordance with the Meghalaya Power Sector Reforms Transfer Scheme 2010, after reorganization of the erstwhile Meghalaya State Electricity Board (MeSEB) under the provisions of the Electricity Act, 2003 and is a successor of the holding Company, namely Meghalaya Energy

Page 1 of 12



Order in Petition No. 204/TT/2013

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Corporation Limited (MeECL). It has been entrusted with the construction, operation and maintenance of the transmission system in the State of Meghalaya and all assets and liabilities of the transmission system are vested with MePTCL. The instant petition has been filed by MePTCL for approval of the annual transmission charges of the transmission assets covered in the petition under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter "2009 Tariff Regulations") in compliance of the Commission's order dated 14.3.2012 in Petition No.15/SM/2012.

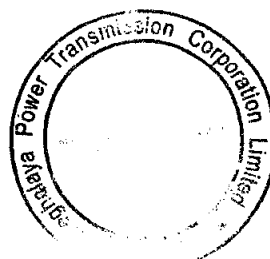
2. The Commission vide order dated 14.3.2012 in Petition No. 15/SM/2012 gave the following directions:-

"5. It has come to the notice of the Central Commission that the some of the owners/developers of the inter-State transmission lines of 132 kV and above in North Eastern Region and 220 kV and above in Northern, Eastern, Western and Southern regions as mentioned in the Annexure to this order have approached the Implementing Agency for including their transmission assets in computation of Point of Connection transmission charges and losses under the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 (hereinafter "Sharing Regulations").

6. As a first step towards inclusion of non-ISTS lines in the POC transmission charges, the Commission proposes to include the transmission lines connecting two States, for computation of POC transmission charges and losses. However, for the disbursement of transmission charges, tariff for such assets needs to be approved by the Commission in accordance with the provisions of Sharing Regulations. Accordingly, we direct the owners of these inter-State lines to file appropriate application before the Commission for determination of tariff for facilitating disbursement.

7. We direct the respondents to ensure that the tariff petition for determination of tariff is filed by the developers/owners of the transmission line or by State Transmission Utilities where the transmission lines are owned by them in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, by 20.4.2012."

3. Five transmission lines of MePTCL were identified as inter-State transmission lines, in order dated 14.3.2012 in Petition No. 15/SM/2012 and



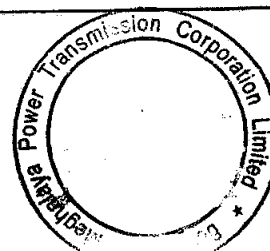
97

MePTCL was directed vide the above mentioned order to file tariff petition for the purpose of inclusion in the POC charges, for the following five transmission lines:-

S. No.	From	To	Voltage Level (kV)	Connecting States
1	Kahelipara	Umtru-I	132	Assam-Meghalaya (S. No. 3 of Annexure under NER of order dated 14.3.2012)
2	Kahelipara	Umtru-II	132	Assam-Meghalaya (S. No. 4 of Annexure under NER of order dated 14.3.2012)
3	Panchgram	Lumshnong	132	Assam-Meghalaya (S. No. 9 of Annexure under NER of order dated 14.3.2012)
4	Umtru	Sarusajai-I	132	Assam-Meghalaya (S. No. 1 of Annexure under NER of order dated 14.3.2012)
5	Umtru	Sarusajai-II	132	Assam-Meghalaya (S. No. 2 of Annexure under NER of order dated 14.3.2012)

4. The petitioner has submitted that out of the five ISTS lines stated in para-3 above, four ISTS lines at S.No. 1 & 2 and 4 & 5, though, identified as single circuit lines, shall be treated as two double circuit lines for tariff purpose. The petitioner has given the line length and date of commercial operation of these lines, as under:-

S. No.	Name of the line	Connecting States	Length of line in km	COD
1	132 kV D/C Umtru-Sarusajai	Assam-Meghalaya (S. No. 1 and 2 of Annexure under NER of order dated 14.3.2012)	17.72	1990
2	132 kV D/C Kahelipara-Umtru	Assam-Meghalaya (S. No. 3 and 4 of Annexure under NER of order dated 14.3.2012)	11.68	1960
3	132 kV Panchgram-Lumshnong	Assam-Meghalaya (S. No. 9 of Annexure under NER of order dated 14.3.2012)	23.80	1960

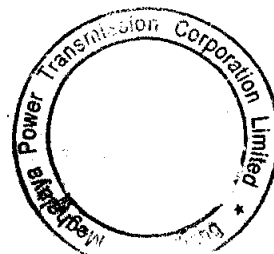


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5. In line with the submission of the petitioner, three transmission lines i.e. two double circuit lines and one single circuit line have been considered for determination of tariff and for inclusion in the PoC Transmission charges. Further, we would like to clarify that the instant petition includes the portions of ISTS lines upto the border of the State of Meghalaya. The corresponding portions of these ISTS lines beyond the border of the State of Meghalaya, i.e. in Assam have been dealt with, in Petition No. 216/TT/2013.

6. As regards, the transmission lines at S.No. 2 and 3 above, the petitioner has submitted that these were constructed in the 1960s under the erstwhile ASEB and taken over by MeSEB and all such assets of the erstwhile MeSEB were maintained in consolidated form. Therefore, separate details of these assets were not available with the petitioner. Further, the capital cost of these lines is considered as fully depreciated as these transmission lines are very old and have surpassed the accounting useful life. As such, only O&M expenditure and Interest on working capital has been considered for determination of annual fixed cost. As regards the line at S.No. 1 above, the petitioner has submitted that this line was constructed in the late 1990s under the centrally sponsored scheme of Non-Lapsable Common Pool of Resources (NLCPR) and North Eastern Council (NEC) and the audited cost of this line is not available to the petitioner. Therefore, in the case of the line at S.No. 1 also only O&M expenditure and Interest on working capital has been considered for determination of annual fixed cost.

7. We have perused the material on record. We proceed to determine the annual fixed charges in respect of the assets covered in the petition.



No. of assets to be covered

8. The petition has been filed in response to the Commission's directions for determination of tariff of transmission lines owned or controlled by the STU which carry inter-State power. Section 2(36) of the Act defines the ISTS as hereinafter:-

"2(36) inter-State transmission system includes-

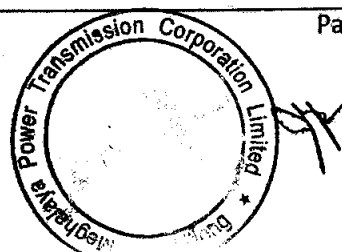
- (i) Any system for the conveyance of electricity by means of main transmission line from the territory of one State to another state;
- (ii) The conveyance of electricity across the territory of any intervening State as well as conveyance within the State which is incidental to such inter-State transmission of electricity;
- (iii) The transmission of electricity within the territory of a State on a system built, owned, operated, maintained or controlled by a Central Transmission Utility"

9. The petitioner has submitted that the three transmission lines identified by the Commission satisfy the conditions of ISTS. The STU lines used for carrying inter-State power can be considered for inclusion in the PoC charges only if it is certified by RPC in terms of para 2.1.3 of Annexure-I to Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010, which is extracted as under:-

"The line-wise YTC of the entire network shall be provided by the Transmission Licensees. In case a line is likely to be commissioned during the Application Period, the data in respect of the same, along with the anticipated COD will be provided by the CTU/ Transmission Licensee to the Implementing Agency.

For the determination of the transmission charges based on Hybrid Methodology applicable in the next Application Period, all the above data shall be provided to the Implementing Agency as per the timelines specified by the Implementing Agency.

Overall charges to be allocated among nodes shall be computed by adopting the YTC of transmission assets of the ISTS licensees, deemed ISTS licensees and owners of the non-ISTS lines which have been certified by the respective Regional Power

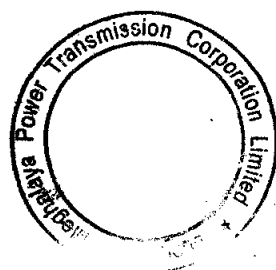


Committee (RPC) for carrying inter-State power. The Yearly Transmission Charge, computed for assets at each voltage level and conductor configuration in accordance with the provisions of these regulations shall be calculated for each ISTS transmission licensee based on indicative cost provided by the Central Transmission Utility for different voltage levels and conductor Page 17 of 21 configuration. The YTC for the RPC certified non-ISTS lines which carry inter-State power shall be approved by the Appropriate Commission.

In case line-wise tariff for the RPC certified non-ISTS lines has not been specified by the Appropriate Commission, the tariff as computed for the relevant voltage level and conductor configuration shall be used. The methodology for computation of tariff of individual asset shall be similar to the methodology adopted for the ISTS transmission licensees and shall be based on ARR of the STU as approved by the respective State Commission.

Certification of non-ISTS lines carrying inter-State power, which were not approved by the RPCs on the date of notification of the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2009, shall be done on the basis of load flow studies. For this purpose, STU shall put up proposal to the respective RPC Secretariat for approval. RPC Secretariat, in consultation with RLDC, using Web Net Software would examine the proposal. The results of the load flow studies and participation factor indicating flow of inter State power on these lines shall be used to compute the percentage of usage of these lines as inter State transmission. The software in the considered scenario will give percentage of usage of these lines by home State and other than home State. For testing the usage, tariff of similar ISTS line may be used. The tariff of the line will also be allocated by software to the home State and other than home State. Based on percentage usage of ISTS in base case, RPC will approve whether the particular State line is being used as ISTS or not. Concerned STU will submit asset-wise tariff. If asset wise tariff is not available, STU will file petition before the Commission for approval of tariff of such lines. The tariff in respect of these lines shall be computed based on Approved ARR and it shall be allocated to lines of different voltage levels and configurations on the basis of methodology which is being done for ISTS lines."

10. The certificate of NERPC is available in terms of the above provision in respect of five (now three) transmission lines which were included in the Commission's order dated 14.3.2012 in Petition No. 15/SM/2012. Accordingly, three transmission lines are being considered in this petition for grant of annual transmission charges. Further, since the Central Electricity Regulatory



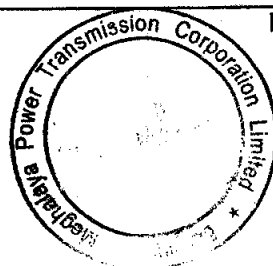
Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 came into force with effect from 1st July, 2011, Yearly Transmission Charges (YTC) for these three transmission lines is allowable for the year 2011-12 (1.7.2011 to 31.3.2012), 2012-13 and 2013-14. However, the petitioner submitted the ARR for 2011-12 and 2012-13 which includes the combined activity of Generation, Transmission and Distribution and vide affidavit dated 13.10.2015 has further submitted that separate information in respect of Transmission is not available in the ARR of 2010- to 2012-13 as segregation of accounts has so far not been completed in MePTCL. In view of above we have considered tariff based on transmission ARR for 2013-14 only in this order.

Capital Cost

11. The Commission vide letter dated 17.6.2014 directed the petitioner to submit the capital cost duly certified by the auditors, funding pattern of the assets, repayment schedule and the interest rates of loans, if any, cumulative depreciation as on 31.3.2012, details of the ARR approved by the State Commission for the 2009-14 period and details of the O&M expenses of the instant assets.

12. As discussed at para-6, the petitioner in the original petition has submitted that details of cost of the three lines are not available and therefore has claimed only O&M expenditure and Interest on working capital.

13. During the hearing on 4.6.2015, the petitioner was directed to submit the ARR and network configurations in the prescribed pro-forma and the details of ARR approved by the SERC for period 2009-14 separately for the respective



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years containing total amount approved for each respective year. The petitioner, vide letter dated 17.9.2015 submitted the ARR for the period 2009-14 as approved by SERC. The details are as given below:-

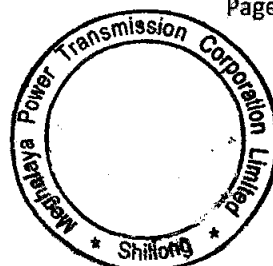
Line * Type	2009-10	2010-11	2011-12	2012-13	2013-14
+500 kV HVDC	-	-	-	-	-
+800 kV HVDC	-	-	-	-	-
765 kV D/C	-	-	-	-	-
765 kV S/C	-	-	-	-	-
400 kV D/C	-	-	-	4.216	4.216
400 kV D/C Quad Moose	-	-	-	-	-
400 kV S/C	-	-	-	-	-
220 kV D/C	226.84	226.84	226.84	226.84	226.84
220 kV S/C	-	-	-	-	-
132 kV D/C	332.26	425.938	425.938	431.298	434.14
132 kV S/C	455.198	459.542	461.037	463.537	558.564
ARR approved**					5832

*Line length in Ckt. Km. **ARR (in ₹ lakh)

Procedure for calculating YTC for the transmission lines

14. The petitioner submitted that the capital costs of the instant transmission lines are not available. Hence, the indicative cost of lines of various configurations owned and operated by Power Grid Corporation of India Limited (PGCIL) has been considered for the computation of capital cost as per assumptions as below:-

- a) Indicative cost of 400 kV D/C Quad Moose transmission line has been taken as base and indicative cost of lines with configurations other than 400 kV D/C Quad Moose have been made equivalent to the indicative cost of 400 kV D/C Quad Moose (i.e. by dividing indicative cost of the 400 kV D/C Quad Moose line by the indicative cost of line of other configurations).



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15. The yearly break-up of indicative cost of various configurations owned and operated by PGCIL is as under:-

For F/Y 2011-12

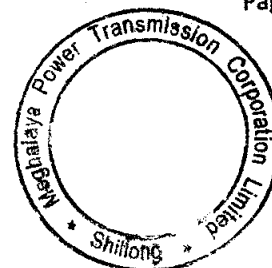
Line Type	Cost (in lakh)	Cost (in lakh/Ckt.	Co-efficient	
765 kV D/C	315.25	157.625 (A)	a=D/A	0.64
765 kV S/C	159.25	159.25 (B)	b=D/B	0.63
400 kV D/C	109.50	54.75 (C)	c=D/C	1.84
400 kV D/C Quad Moose	202.00	101.00 (D)	d=D/D	1.00
400 kV S/C	74.25	74.25 (E)	e=D/E	1.36
220 kV D/C	59.50	29.75 (F)	f=D/F	3.39
220 kV S/C	37.00	37.00 (G)	G=D/G	2.73
132 kV D/C	46.75	23.375 (H)	h=D/H	4.32
132 kV S/C	28.50	28.50 (I)	i=D/I	3.54

For F/Y 2012-13

Line Type	Cost (in lakh)	Cost (in lakh/Ckt.	Co-efficient	
765 kV D/C	357.00	178.50 (A)	a=D/A	0.63
765 kV S/C	179.20	179.20 (B)	b=D/B	0.63
400 kV D/C	122.60	61.30 (C)	c=D/C	1.83
400 kV D/C Quad Moose	224.80	112.40 (D)	d=D/D	1.00
400 kV S/C	84.20	84.20 (E)	e=D/E	1.33
220 kV D/C	67.80	33.90 (F)	f=D/F	3.32
220 kV S/C	41.40	41.40 (G)	G=D/G	2.71
132 kV D/C	53.00	26.50 (H)	h=D/H	4.24
132 kV S/C	32.40	32.40 (I)	i=D/I	3.47

For F/Y 2013-14

Line Type	Cost (in lakh)	Cost (in lakh/Ckt.	Co-efficient	
765 kV D/C	412.00	206.00 (A)	a=D/A	0.56
765 kV S/C	179.80	179.80 (B)	b=D/B	0.65
400 kV D/C Twin Moose	130.40	65.20 (C)	c=D/C	1.78
400 kV D/C Quad Moose	232.60	116.30 (D)	d=D/D	1.00
400 kV S/C Twin Moose	87.00	87.00 (E)	e=D/E	1.34
220 kV D/C	61.40	30.70 (F)	f=D/F	3.79
220 kV S/C	37.80	37.80 (G)	g=D/G	3.08
132 kV D/C	48.40	24.20 (H)	h=D/H	4.81
132 kV S/C	30.00	30.00 (I)	i=D/I	3.88



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16. After getting ratio with respect to 400 kV D/C Quad Moose, YTC per ckt. km of 400 kV D/C Quad Moose transmission line has been calculated as hereinafter:-

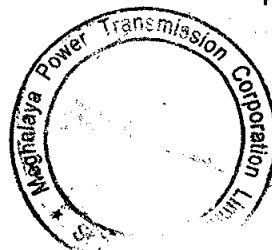
ARR for FY.....in ₹

$$\left. \begin{array}{l} \text{YTC per ckt km} \\ \text{400 kV D/C} \\ \text{Quad Moose} \end{array} \right\} \left[\begin{array}{l} \text{(Length of 765 kV DC/a)+(Length of 765 kV SC/b)+(Length} \\ \text{of 400 kV DC TM/c)+(Length of 400 kV DC} \\ \text{QM/d)+(Length of 400 kV SC TM/e)+(Length of 220} \\ \text{kV DC/f)+(Length of 220 kV SC/g)+(Length of 132 kV} \\ \text{DC/h)+(Length of 132 kV SC/i)} \end{array} \right]$$

*value of a, b, c, d, e, f, g, h & i are as given in para 14 and length in ckt km as given in para 4 of this order.

DC-Double Circuit, SC-Single Circuit, QM-Quad Moose, TM-Twin Moose

17. We have not carried out any due diligence of the tariff of these lines (for consideration of PoC calculations) as the tariff of the lines owned by STU has already been determined by the State Electricity Regulatory Commission. We have considered the ARR of the STU as approved by the State Electricity Regulatory Commission and have adopted the methodology as discussed in para 14 and 15 of this order for the purpose of calculation of PoC charges and apportionment of transmission lines and charges to the transmission system of different configurations of the STU. This methodology has been adopted uniformly for the lines owned by other STUs used for inter-State transmission of power duly certified by respective RPCs for the purpose of inclusion in the PoC mechanism.



18. We have considered the submission of the petitioner. The petitioner has submitted the actual total line length and configuration in Meghalaya system. However, as discussed at para-9, in the absence of separate approved ARR for transmission activity for 2011-12 and 2012-13, YTC for the assets for 2013-14 only has been calculated as per the information submitted by the petitioner i.e. line length in Ckt. km and ARR approved by SERC for 2013-14 and PoC cost data for the year, as follows:-

For 2013-14:

Total ARR approved by the SERC= ₹58,32,00,000.00

(in ₹)

S. No.	Asset	For entire system (Kerala)		
		Line Length (Ckt. km)	YTC (Per ckt. km)	YTC
1	400 kV D/C Twin Moose	4.216	1102027.43	4646454.67
2	220 kV D/C	226.840	518899.42	117714922.33
3	132 kV D/C	434.140	409034.72	177590068.27
4	132 kV S/C	558.564	507067.83	283248554.74
Total				583200000.00

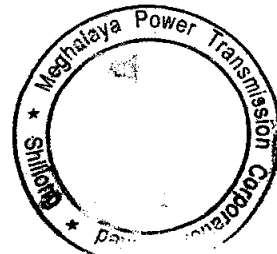
YTC of the three transmission lines

19. YTC per Ckt. km for 132 kV D/C and S/C line considered for MePTCL lines is as below:-

(in ₹)

Voltage Level	2013-14
132 kV D/C	409061.75
132 kV S/C	507101.34

20. YTC of the three transmission lines calculated on the methodology discussed above is as follows:-



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(in ₹)			
S. No.	Line Name	Length (Ckt. km)	2013-14
1	132 kV D/C Umtru-Sarusajai	35.44	14497148.43
2	132 kV D/C Kahelipara-Umtru	23.36	9555682.49
3	132 kV Panchgram-Lumshnong	23.80	12069011.97
Total			36121842.89

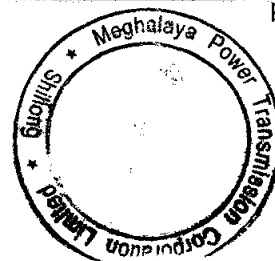
21. The annual transmission charges allowed for the assets covered in the instant petition shall be considered in the YTC as per the Sharing of Inter-State Transmission Charges and Losses Regulations, 2010 and shall be adjusted against the ARR of the petitioner approved by the State Commission.

22. This order disposes of Petition No. 204/TT/2013.

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson



Minutes of 17th TCC Meeting held on 04th October, 2016 at Imphal

problem to the stability of tower No. 1026. Inland Waterways Authority of India has also suggested shifting the tower to a safer location.

Under the above circumstances, it is proposed to shift tower at Loc.1026 on a suitable pile foundation for problem free performance and safety of the line. This location has suddenly become very critical and NETC want to complete the shifting work by April 2017. Booking of the expenditure (estimated at 17.3 Crore including cost of pile foundation, de-erection and erection.) is proposed under PoC Mechanism.

The issue was discussed during 125th OCCM and the members agreed to the proposal of NETC.

Placed for approval of TCC/NERPC

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

ITEM NO. B.7 : CERTIFICATION OF MEGHALAYA STATE TRANSMISSION LINES AS ISTS - NERPC

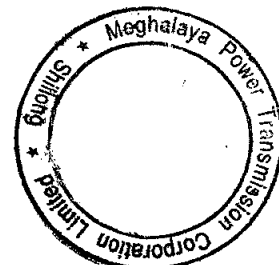
Based on initial studies by MeECL the following lines have been found to cater loads of other states in addition to Meghalaya, so they may be declared as ISTS line:

1. 220kV D/C Misa - Killing
2. 132 kV S/C Agia - Nagalbibra
3. LILO of 400kV D/C Pallatana - Bongaigoan at 400/220kV Killing S/S

The matter was discussed in one of the sub-group meetings and it was suggested that NLDC/NERLDC may conduct studies by WebNet software and inform the members of load flow patterns.

During 125th OCCM, NERLDC presented the details of the study results as follows:

- 400kV Silchar - Byrnihat : 12.9971 %
- 400kV Bongaigaon - Byrnihat : 10.1268%
- 220 kV Misa - Byrnihat I : 26.1397%
- 220 kV Misa - Byrnihat II : 26.1397%



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The OCC members thanked NERLDC/NLDC for conducting the study and Meghalaya may approach SERC/CERC after TCC/RPC approval.

Placed for approval of TCC/NERPC

Deliberation of the TCC

Based on the study of NERLDC, TCC approved the declaration of:

1. 220kV Misa – Killing D/C Line and
2. LILO of 400kV, D/C Pallatana - Bongaigoan at 400/220kV Killing S/S as ISTS Line and recommended for approval of NERPC.

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

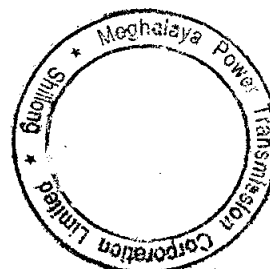
ITEM NO. B.8 : LILO OF ONE CIRCUIT OF 132KV BISWANATHI CHARIALI (PG) – ITANAGAR AT GOHPUR – AGENDA BY ASSAM / NERLDC

AEGCL vide letter no. AEGCL/MD/13th Plan/Tech-593/2014-15/6 dated 5th Aug., 2016 has informed that Biswanath Chariali (PG) – Pavo (AEGCL) 132kV D/C line is meeting the loads in Pavo, Gohpur and Depota areas of Assam. It has been observed that this line is carrying more than 135MW during peak hours.

Studies have been carried out for 2018-19 time-frame for both high hydro (Exhibits-1) and low hydro (Exhibits-2) conditions, considering Sonabil 220/132kV substation and Sonabil – Dhemaji – Behiating 220kV D/c line (one circuit of Sonabil-Dhemaji line via Narayanpur) (under construction by AEGCL) and Behiating - Tinsukia 220kV D/c line (under NERPSIP).

The study results are at Exhibit-1(A) & 2(A). Studies have been carried out considering the split bus at Gohpur as closed. It has been observed that with the LILO of one circuit of 132 kV Biswanath Chariali (PG) – Itanagar D/c line at Gohpur, the power flow on the Biswanath Chariali (PG) – Pavo (AEGCL) 132kV D/c line gets reduced by about 30MW [Exhibit-1(B) & 2(B)].

It is thus proposed to LILO one circuit of Biswanath Chariali (PG) – Itanagar 132kV D/c line at Gohpur to satisfy N-1 criterion and to improve security and reliability of the grid.



JK

ANNEXURE I

(1) (87)

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 07/SM/2017

Coram:

Shri Gireesh B. Pradhan, Chairperson
Shri A. K. Singhal, Member
Shri A. S. Bakshi, Member
Dr. M. K. Iyer, Member

*SE (E)
Kindly take
action.*

Date of Order : 12.5.2017

In the matter of:

Determination of tariff of the inter-State transmission lines connecting two states.

30.5.17

And in the matter of:

1. Chairman & Managing Director, Delhi Transco Ltd., Shakli Sadan Building, New Delhi.
2. Chairman & Managing Director, Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur.
3. Chairman & Managing Director, Punjab State Transmission Corporation Ltd, Patiala.
4. Managing Director, Power Transmission Corporation of Uttarakhand, Dehradun.
5. Chairman & Managing Director, Himachal Pradesh State Electricity Board, Shimla.
6. Managing Director, Haryana Vidyut Prasaran Nigam Ltd. Haryana.
7. Chairman & Managing Director, Uttar Pradesh Power Transmission Corporation Ltd, Lucknow
8. Development Commissioner, Power Development Department (J&K), Srinagar
9. Chief Engineer, UT of Chandigarh (Electricity Department 1st Floor), Sector 9-D, Chandigarh.

Order in 07/SM/2017

*Shri G. B. Pradhan
By No. 5462
D. 09.5.17*

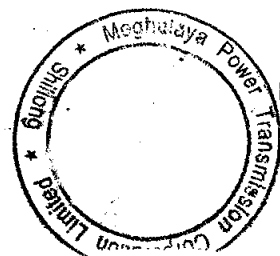
Meghalaya Power Transmission Corporation Limited

JK

10. Chairman, Bhakra Beas Management Board, Sector-19B, Madhya Marg, Chandigarh.
11. Chairman & Managing Director, West Bengal State Electricity Transmission Co. Ltd., Vidyut Bhavan, Kolkata.
12. Chairman, Bihar State Electricity Board, Vidyut Bhavan, Patna.
13. Chairman, Jharkhand State Electricity Board, Engineering Bhawan, Ranchi.
14. Chairman, Damodar Valley Corporation, DVC Tower, Kolkata.
15. Chairman & Managing Director (O&M), Orissa Power Transmission Corporation Ltd., Bhubaneswar.
16. Secretary, Energy & Power Department, Government of Sikkim, Gangtok.
17. Chairman, ASEB, Bijili Bhawan, Paltan Bazar, Guwahati.
18. Chairman, MeECL, Short Round Road, Meter Factory, Shillong.
19. Chief Engineer (Power), Electricity Department, Government of Nagaland, Kohima.
20. Chief Engineer (Elect.), Electricity Department, Government of Manipur, Imphal.
21. Chief Engineer, Power & Electricity Department, Government of Mizoram, Khatla Aizawl.
22. Chairman & Managing Director, TSECL, Bidyut Bhawan, Government of Tripura, Agartala.
23. Chief Engineer (Power), Department of Power, Government of Arunachal Pradesh, Vidyut Bhawan, Itanagar.
24. Chairman & Managing Director, MSETCL, 'Prakashganga', C-19, E-Block, Bandra Kurla Complex, Bandra (E), Mumbai.
25. Managing Director, Gujarat Energy Transmission Corporation Ltd (GETCO), Sardar Patel Vidyut Bhavan, Race Course, Vadodara, Gujarat.
26. Chairman, Chhattisgarh State Power Transmission Co. Ltd, Banganiya, Raipur.
27. Chairman & Managing Director, Madhya Pradesh Power Transmission Company Ltd, MPPTCL, Nayagaon, Jabalpur.

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28. Chief Electrical Engineer, Electricity Department, Government of Goa, Vidyut Bhavan, Goa.
29. Chairman & Managing Director, APTRANSCO, Vidyut Soudha, Hyderabad.
30. Managing Director, KPTCL, Cauvery Bhavan, Bangalore
31. Chairman, KSEB, Vidyuthi Bhavanam, Pallom, Thiruvananthapuram.
32. Managing Director, TANTRANSCO, Anna Salai, Chennai.
33. Superintending Engineer-I (Elec), Electricity Department, Government of Puducherry, Puducherry.
34. Secretary (P), UT of Dadra Nagar Haveli Silvassa.
35. Secretary (P), UT of Daman & Diu, Moti Daman, D&D.

.....Respondents

Order

The Commission has been entrusted with the following functions in respect of inter-State transmission system under Section 79(1) (c) and (d) of the Electricity Act, 2003 (hereinafter referred to as "the Act").

"79. Functions of Central Commission:-(1) The Central Commission shall discharge the following functions, namely:-

XXX

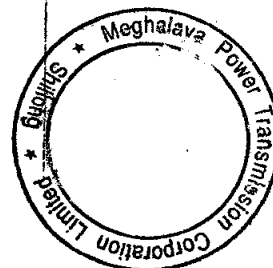
(c) to regulate the inter-State transmission of electricity;

(d) to determine tariff for inter-State transmission of electricity;

XXX"

Order in 07/SM/2017

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2. In pursuance of the above provisions, the Commission has been determining tariff of the inter-State transmission lines developed, owned and operated by the Central Transmission Utility (CTU) and the transmission licensees i.e., who have been granted licence by the Commission

3 "Inter-State transmission system" has been defined under Section 2(36) of the Act as under:-

"2(36) inter-State transmission system includes-

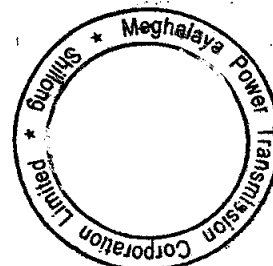
(i) Any system for the conveyance of electricity by means of main transmission line from the territory of one State to another state;

(ii) The conveyance of electricity across the territory of any intervening State as well as conveyance within the State which is incidental to such inter-State transmission of electricity;

(iii) the transmission of electricity within the territory of a State on a system built, owned, operated, maintained or controlled by a Central Transmission Utility;"

4. Under the above provision, the conveyance of electricity from territory of one state to another state is also considered to be a part of inter-state transmission system. In terms of Section 79(1)(d) of the Act, the tariff of these lines are also required to be determined by this Commission.

5. Accordingly, Commission vide order dated 14.3.2012 in Petition No. 15/SM/2012 directed the owners/developers of the inter-State transmission lines of 132 kV and above in North Eastern Region and 220 kV and above in Northern, Eastern, Western and Southern regions to file petitions under the Central Electricity Regulatory



Commission (Terms and Conditions of Tariff) Regulations, 2009 for including their transmission assets in computation of Point of Connection transmission charges and losses under the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as some of the owners/developers of these lines have filed tariff petitions and tariff was allowed for the period from 2011-12 to 2013-14 period and in some cases for 2014-15 also.

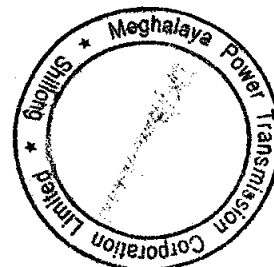
6. Further, the owners/developers of these lines are required to file petitions for determination of tariff for the 2014-19 tariff period, if not done already. The list of the natural inter-state lines for which tariff was granted by the Commission for 2009-14 period is given in the Annexure. The owners/developers of these natural inter-State lines (mentioned in the Annexure) are directed to file petitions for determination of tariff for the 2014-19 tariff in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014

7. Further, Statement of Reason (SOR) dated 26.10.2015 of Sharing Regulations (Third Amendment) provides as follows:-

"15.21 A question arises for consideration is whether to fix a minimum percentage figure to consider a STU line as an ISTS line or not. As per Electricity Act and Tariff Policy, all lines which are incidental to Inter-state flow of power are to be considered as ISTS. In a meshed transmission system, many intra-State transmission lines carry inter-State power and therefore become incidental to inter-State transmission system. However, as Electricity Grid is being operated in a cooperative manner, for a minor fraction of ISTS power, it is expected that STU would not insist on considering its line(s) to be inter-State as on the one hand it will receive payment for its own lines, on the other it has to pay for usage of other States' lines. If a STU puts up a proposal for considering its line as ISTS and it is found that it is being utilized to a large extent by its own drawee nodes, then it would be merely an academic exercise as major part of tariff would be

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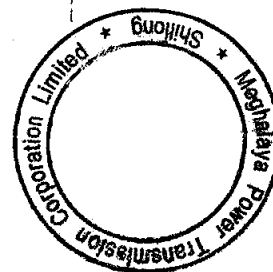
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allocated to home State only. So keeping in view the regulatory process involved in getting a line certified as carrying ISTS power, getting its tariff approved and then adjustment from STU's ARR, it is expected that this claim will be raised judiciously. An interesting situation happened during 2011 when in Eastern and Northern Regions, many lines were submitted to RPCs for approval as ISTS, Southern States realizing that they all are using each other State's line, decided that they will not put up any line for certification by RPC as ISTS. While Commission wants to consider legitimate claims but this must not result in making process too complex. The RPC may therefore uniformly decide a percentage below which (say 10%) such a line would not be considered as an ISTS. Further, it is intended that for assessment of a particular line being used for carrying inter-State power, technical knowhow and tools will be provided by Secretariat of RPCs and NLDC/RLDCs shall provide all necessary support to States in this regard.

8. In view of the above, State utilities whose lines have been certified by respective RPCs to be considered under PoC should also file the tariff petition under the 2014 Tariff Regulations.

9. The respondents are directed to file the following information, on affidavit with a copy to the beneficiaries of the respective lines by 9.6.2017. The owners/developers of these lines are also directed to deposit the fee prescribed in the Central Electricity Regulatory Commission (Payment of fees) Regulations, 2012:

- a) Line-wise capital cost, duly certified by an auditor, if available. In such cases, in line with Central Electricity Regulatory Commission (Terms and Conditions) of Tariff Regulations, 2014, utilities may be directed to submit historical cost, if available, duly certified by auditors and the information at (b) to (e) below.
- b) Funding pattern of the assets, i.e. the actual debt and equity considered towards the transmission assets as on date of commercial operation;



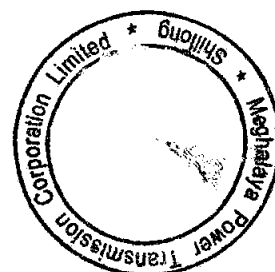
- c) Repayment schedule and interest rates of the loan(s) availed as per Form-9C of Central Electricity Regulatory Commission (Terms and Conditions) of Tariff Regulations, 2014, alongwith supporting documents.
- d) Cumulative depreciation against the assets as on 31.3.2014.
- e) Date of commercial operation of respective assets.
- f) Details of ARR approved by the SERC or projected ARR for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 alongwith the details as per table given below, separately containing total ARR approved/projected for the respective years 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19. In case approved ARR are not available, ARR as filed to SERC:

(FY _____)		ARR _____	(₹ in lakh)
S. No.	Line Type	Length* (CKT-Km)	
1.	+500 kV HVDC		
2.	+800 kV HVDC		
3.	765 kV D/C		
4.	765 kV S/C		
5.	400 kV D/C		
6.	400 KV D/C Quad. Moose		
7.	400 kV S/C		
8.	220 kV D/C		
9.	220 kV S/C		
10.	132 kV D/C		
11.	132 kV S/C		
12.	66 kV		

* Total length in the State for which ARR has been approved

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g) In case norms for O&M have not been finalized by the SERC, actual audited O&M expenses for that fiscal year

Sd/-
(Dr. M.K. Iyer)
Member

Sd/-
(A.S. Bakshi)
Member

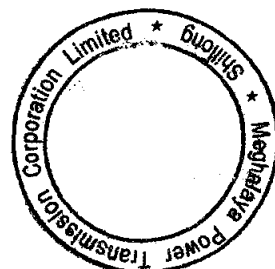
Sd/-
(A.K. Singhal)
Member

Sd/-
(Gireesh B. Pradhan)
Chairperson

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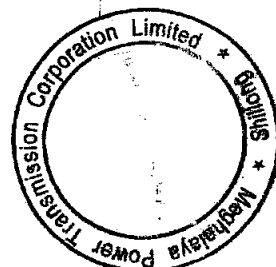


List of Inter-State lines where tariff was granted for the 2009-14 period

Sl.No	Name of the line	Connecting states
SR		
(i) Inter-state lines of TANTRANSO		
1	230 kV S/C Chitoor-Thiruvalem	Tamil Nadu-AP
2	230 kV S/C Sulturpel-Gummidipoondi	Tamil Nadu-AP
3	230 kV S/C Yeerandahalli-Hosur	Tamil Nadu-Karnataka
4	230 kV S/C Mooziyar-Theni	Tamil Nadu-Kerala
5	230 kV S/C Idukki-Udumalpet	Tamil Nadu-Kerala
(ii) Inter-state lines of KSEBL		
1	Kaniyampetta-Kadakola 230 kV S/C line	Kerala-Karnataka
2	Moozhiyar-Theni 230 kV S/C line	Kerala-Tamil Nadu
3	Idukki-Udumalpet 230 kV S/C line	Kerala-Tamil Nadu
(iii) Inter-state lines of KPTCL		
1	220kV S/C Line from Ambewadi-Ponda	Karnataka- Goa
2	220kV S/C Line from Ambewadi- Xyldorn	Karnataka- Goa
3	220kV D/C Line from Chikkodi- Kolhapur	Karnataka -Maharashtra
4	220kV S/C Line from Sedam- Tandur	Karnataka -Andhra
5	220 kV S/C line from Yerandahalli- Hosur	Karnataka-TN
6	220kV S/C Line from Kadakola- Kaniyampet	Karnataka -Kerala
7	220kV S/C Line from Alipura-Raghulapadu	Karnataka-AP
NER		
(i) Inter-state lines of AEGCL		
1	132 kV D/C Kahelipara- Umtru I & II	Assam-Meghalaya
2	132 kV S/C Mariani-Dimapur	Assam-Nagaland
3	132 kV S/C Panchgram-Lumshnong	Nagaland-Assam
4	132 kV S/C Mokokchang-Mariani	Assam-Nagaland
5	132 kV S/C Ziribum-Pailapool	Assam-Mizoram
6	132 kV S/C Dullavcherra-Dharmanagar	Assam-Tripura
7	132 kV D/C Sarusajai-Umtru	Assam-Meghalaya
(ii) Inter-state lines of TSECL		
1	132 kV Dharmanagar-Dullavcherra	Assam-Tripura
(iii) Inter-state lines of MePTCL		
1	132 kV D/C Umtru-Sarusajai	Assam-Meghalaya
2	132 kV D/C Kahelipara-Umtru	Assam-Meghalaya
3	132 kV Panchgram-Lumshnong	Assam-Meghalaya

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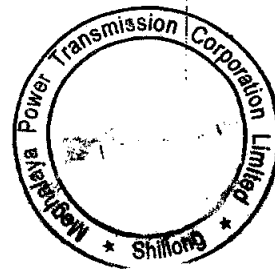
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(iv) Inter-state lines of ED, Manipur		
1	Karong-Kohima 132 kV line	Manipur - Nagaland
NR		
(i) Inter-state lines of DTL		
1	400 kV D/C Mandaula-Bawana	Uttar Pradesh-Delhi
2	400 kV D/C Bannauli-Ballabgarh	Delhi-Haryana
(ii) Inter-state lines of UPPTCL		
1	220 kV Khodri-Saharanpur-1 Line	Uttarakhand-Uttar Pradesh
2	220 kV Khodri-Saharanpur-2 Line	Uttarakhand-Uttar Pradesh
3	220 kV Bareilly-Pantnagar Line	Uttarakhand-Uttar Pradesh
4	220 kV Sahibabad-Patarganj Line	Delhi- Uttar Pradesh
5	220 kV Noida Sec 62- Gazipur line	Uttar Pradesh -Delhi
6	220 kV Noida Sec 20- Gazipur Line	Delhi- Uttar Pradesh
7	220 kV Noida Sec 20- BTPS Line	Uttar Pradesh -Delhi
8	220 kV Sahupuri-Pasauli Line	Power Grid(ER) - Uttar Pradesh
(iii) Inter-state lines of RVPNL		
1	220kV S/C MIA (Alwar) – Badarpur Line	Rajasthan-Delhi
2	220kV S/C Agra-Bharatpur Line	Rajasthan-Uttar Pradesh
3	220kV S/C Kota (Sakalpora)-Badod	Rajasthan- Madhya Pradesh
4	220kV S/C Modak-Badod	Rajasthan- Madhya Pradesh
5	220kV S/C Khetri-Dadri Line I	Rajasthan-Haryana
6	220kV S/C Khetri-Dadri Line II	Rajasthan-Haryana
(iv) Inter-state lines of HPPTCL		
1	220 kV S/C Jessore-Ranjitsagar	Himachal Pradesh-Punjab
2	220 kV D/C Majri-Khodri	Himachal Pradesh-Uttarakhand
3	220 kV D/C Kunihar-Panchkula	Himachal Pradesh-Haryana
(v) Inter-state lines of PTUCL		
1	400 kV S/C Roorkee-Muzafarnagar	Uttarakhand -Uttar Pradesh
2	400 kV S/C Kashipur – Muradabad	Uttarakhand -Uttar Pradesh
3	220 kV S/C Panthnagar - Baikantpur	Uttarakhand -Uttar Pradesh
WR		
(i) Inter-state lines of MSETCL		
1	220 kV Kamleshwar-Pandurna S/C line	(Maharashtra -M.P.)
2	220 kV Mudshingi-Amona S/C line	(Maharashtra -Goa)
3	220 kV Tillari-Amona-2 S/C line	(Maharashtra -Goa)
4	220 kV Nasik-Navsari D/C line	(Maharashtra -Gujarat)
5	220 kV Nasik-Navsari-2 D/C line	(Maharashtra -Gujarat)
6	220 kV Kolhapur-Chikkodi ckt-1 S/C line	(Maharashtra-Karnataka)

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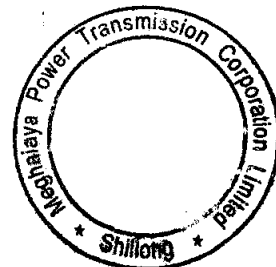
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7	220 kV Kolhapur (Mudshingi)-Chikkodi ckt-2 S/C line	(Maharashtra - Karnataka)
ER		
(i) Inter-state lines of OPTCL		
1	220 kV S/C Joda-Ramachandrapur	OPTCL-JSEB
2	220 kV S/C Jindal-Jamshedpur	OPTCL-DVC
(ii) Inter-state lines of WBSTCL		
1	400 kV S/C Kolaghal - Baripada	WBSETCL-POWERGRID
2	220 kV S/C Santaldih - Chandil	WBSETCL-JSEB
(iii) Inter-state lines of DVC		
1	220 kV D/C Waria-Bidhannagar Line 1&2	DVC-WBSETCL
2	220 kV S/C Jindal-Jamshedpur Line	DVC-OPTCL

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MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED

OFFICE OF THE DIRECTOR, (TRANSMISSION)

Corporate Identification No: U40101ML2009SGC008393

Registered Office: Lumjingshal, Short Round Road, Shillong-793001

Phone No (0364)2590610 (Extn) – 319, (0364)2592022, Fax: 0364-2590422

Email: directormeptcl@gmail.com Website address: www.meectl.nic.in

No. MePTCL/DT/T-I(Pt-I)/2017-18/5

Dated 9th June, 2017

To,

The Bench Officer
Central Electricity Regulatory Commission
4th Floor, Chanderlok Building, 36 Janpath
New Delhi-110001

Sub: Determination of tariff of the Inter-State Line Transmission lines of Meghalaya connecting two States in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulation, 2014 and as per the direction in the CERC Order dated 12.05.2017.

Sir,

I am directed to enclose four copies of the Petition for Determination of Tariff for inter-State Transmission Lines connecting the State of Meghalaya and Assam as per CERC (Regulation) 2014 and in accordance with the CERC Order dated 12.05.2017. A petition fee amounting to Rs 3,00,000.00 (rupees three lakhs) only for the period 2014-15 to 2016-17 has been remitted to CERC Bank Account through RTGS on 09.06.2017.

Any delay on the part of MePTCL in filing this Petition may kindly be condoned.

Enclosed: As stated.

Yours faithfully,

J/C

(J. Hynniewta)

Superintending Engineer (Elect)-II

Memo No. MePTCL/DT/T-I(Pt-I)/2017-18/5(a)

Dated 9th June, 2017

Copy to:

1. The PS to the Chairman-cum-Managing Director, MeECL, Shillong for kind information to the CMD.
2. The Directors (Generation)/(Distribution)/(Finance), MePGCL/MePDCL/MeECL, Shillong.
3. The Chief Engineer (Transmission), MePTCL, Shillong.
4. The Additional Chief Engineer (Commercial), MeECL, Shillong.
5. The Company Secretary, MeECL, Shillong.

Superintending Engineer (Elect)-II

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BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

IN THE MATTER OF

DETERMINATION OF TARIFF OF THE INTER-STATE TRANSMISSION LINES OF
MEGHALAYA CONNECTING TWO STATES IN ACCORDANCE WITH THE
CENTRAL ELECTRICITY REGULATORY COMMISSION (TERMS AND
CONDITION OF TARIFF) REGULATIONS, 2014 AND AS PER THE DIRECTIONS
IN THE CERC ORDER DATED 12.05.2017

AND IN THE MATTER OF

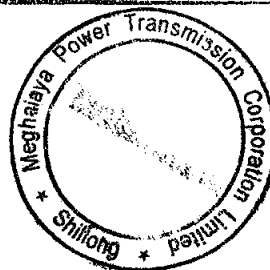
MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED;
LUMJINGSHAI, SHILLONG - 793001, MEGHALAYA

...PETITIONER

The Petitioner humbly submits the following for kind consideration of the Hon'ble
Commission.

1. The Meghalaya Power Transmission Corporation Limited (MePTCL) was incorporated in accordance with the Meghalaya Power Sector Reforms Transfer Scheme 2010, vide Notification No. POWER-79/2009/290 dated 31st March 2010, Notification No. PE.79/09/372 dated 19th May 2011 and Notification No. POWER-79/2009/440 dated 31st March 2012, after reorganization of the erstwhile Meghalaya State Electricity Board (MeSEB) as per provisions of the Electricity Act 2003, and is a successor of the Holding Company, namely, the Meghalaya Energy Corporation Limited (MeECL).

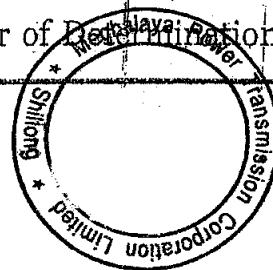
65



2. MePTCL is entrusted with the construction, operation & maintenance of the transmission system in the State of Meghalaya and all assets and liabilities of the transmission system is vested with the MePTCL.
3. Based on the order of the Honorable CERC dated 12.5.2017 on the petition no. 07/SM/2017, in the matter of Determination of tariff of the inter-State transmission lines connecting two states, the petitioner is filing the present petition for its following three transmission lines transmitting power beyond the boundaries of the state:

Sl. No.	Name of the Line	Connecting States	COD
1	132 KV D/C Umtru Sarusajai	Assam - Meghalaya	1999
2	132 KV D/C Kahelipara Umtru	Assam - Meghalaya	1960
3	132 KV S/C Panchgram Lumshnong	Assam - Meghalaya	1960

4. The three lines mentioned above satisfy the conditions of ISTS lines as per Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 and can be considered for inclusion in PoC charges.
5. The line listed at Sl. No. 1 above, was constructed under the centrally sponsored scheme of Non-Lapsable Common Pool of Resources (NLCPR) and North Eastern Council (NEC) and the lines at Sl. Nos. 2 and 3 were constructed under the erstwhile ASEB and taken over by MeSEB and all such assets of the erstwhile MeSEB were maintained in consolidated form. These two lines are very old and have already surpassed their useful accounting life. As such, the capital cost of these lines is not available with the petitioner.
6. Further, the Commission in its order dated 12.05.2017, has also suggested that the details like historical cost, funding pattern, accumulated depreciation, interest charges etc. are not mandatory for determination of tariff of inter-state transmission lines. As such, due to the unavailability of the capital cost, funding pattern etc., the petitioner proposes that the Yearly Transmission Charges (YTC) may be determined by the Honorable Commission following the methodology adopted in its order dated 14.01.2016 in the matter of Determination of tariff in



respect of Meghalaya Power Transmission Corporation Limited owned transmission lines/system connecting with other states and intervening transmission lines incidental to inter-State transmission of electricity. As such, MePTCL is prays leave of the Commission for submission of information listed in para 9 (a) to 9(e) in the CERC order dated 12.05.2017. The information required in Para 9 (a) to 9(e) is not mandatory and not required in case the tariff is determined using the methodology prescribed by CERC in its past orders for determination of tariff of inter-state transmission lines, as specified above.

7. The Board of Directors of MePTCL have accorded approval and authorized the undersigned to file this petition accordingly. The copy of the Board's resolution is hereby enclosed as **Annexure - I**.

Prayer:

It is respectfully prayed that the Hon'ble Commission may be pleased to kindly:

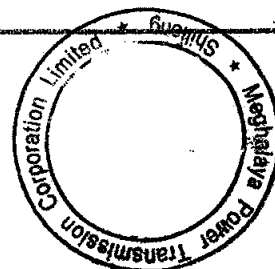
- i. Approve the Transmission Tariff for the assets as submitted under this petition.
- ii. Condone any inadvertent errors/omissions in filing this petition.
- iii. Pass such order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case.


J. HYNNIEWTA

SE (ELECT-II)

O/O DIRECTOR (TRANSMISSION)

MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED



1. Computation of Yearly Transmission Charges (YTC) for the ISTS Lines

1.1. Details of transmission lines in Meghalaya

As per the information desired under Para 9 (f) of the order of the Honorable CERC dated 12.5.2017 on the petition no. 07/SM/2017, in the matter of Determination of tariff of the inter-State transmission lines connecting two states, the total line length and configuration of the transmission system in Meghalaya for every year of the control period 2014-19 is as shown below:

Line Voltage	No. of Circuit	01-Apr-14	01-Apr-15	01-Apr-16	01-Apr-17	01-Apr-18 *
± 500kV HVDC		0.00	0.00	0.00	0.00	0.00
± 800kV HVDC		0.00	0.00	0.00	0.00	0.00
765kV Line		0.00	0.00	0.00	0.00	0.00
765kV Line		0.00	0.00	0.00	0.00	0.00
400kV Line	S/C	0.00	0.00	0.00	0.00	0.00
400kV Line	D/C	4.22	4.22	4.43	4.43	4.43
400kV Line	D/C Quad Moose	0.00	0.00	0.00	0.00	0.00
220kV Line	S/C	0.00	0.00	0.00	0.00	0.00
220kV Line	D/C	226.84	226.84	226.84	226.84	226.84
132kV Line	S/C	558.56	558.56	558.61	560.32	560.32
132kV Line	D/C	434.14	434.14	435.24	435.24	570.54
132kV Line	M/C					21.746
66kV Line		0.00	0.00	0.00	0.00	0.00
<i>Line lengths in ckm</i>						
<i>* Projected</i>						

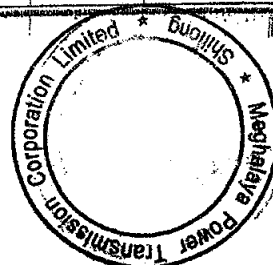
It is submitted that the Honorable Commission may kindly consider the above configuration for the computation of YTC.

1.2. ARR as Approved by MSERC

The Honorable MSERC, in its various tariff orders has approved the ARR of MePTCL (including true up gaps of previous years) for each year from FY 2014-15 to FY 2017-18 and using the CAGR method, MePTCL has projected the ARR for FY 2018-19. Thus, the approved ARR for each year of the control period is as follows:

Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19 *
Approved ARR (INR Lakh)	7279	7812	8330	10764	16564

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The transmission relevant tariff orders of MSERC for FY 2014-15, FY 2015-16, FY, 2016-17 and FY 2017-18 have been provided as Annexures II, III, IV and V respectively. It is submitted that the Honorable Commission may kindly consider the above ARR for the computation of YTC.

1.3. Actual O&M Cost of MePTCL

As per the information desired under Para 9 (g) of the order of the Honorable CERC dated 12.5.2017 on the petition no. 07/SM/2017, in the matter of Determination of tariff of the inter-State transmission lines connecting two states, the actual O&M cost for the last three years available (FY 2013-14 to FY 2015-16) is provided below. The Statement of Accounts of FY 2013-14 are audited by the statutory auditors and the CAG, the Statement of Accounts of FY 2014-15 are audited by the statutory auditors of MePTCL and the Statement of Accounts of FY 2015-16 have been approved by the Board of Directors, MePTCL.

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Employee Expenses	4,109.29	4,711.72	5,084.52
Repair and Maintenance Expenses	317.66	244.76	141.36
Administrative and General Expenses	141.23	319.64	156.59
Total O&M Expenses	4,568.18	5,276.12	5,382.47

Figures in INR Lakh

The audited Statement of Accounts of MePTCL for FY 2013-14 and FY 2014-15 and the pre-audited Statement of Accounts of FY 2015-16 are furnished as Annexure – VI, VII and VIII respectively.

1.4. YTC per Unit Line Length for Various Line Types

The Honorable CERC, in its order dated 14.1.2016 (Annexure - III), had apportioned the total ARR approved by the SERC for the entire system to per unit length of various types of lines. The petitioner proposes the same approach to be followed for the present control period. The ratio in which the total ARR per unit length was apportioned among various line configurations for FY 2013-14 is as shown below:

Line Voltage	No. of Circuit	Line Length (ckm)	ARR Apportioned (INR Lakh)	YTC per unit length (INR Lakh/ckm)
400kV Line	D/C	4.22	46	10.91
220kV Line	D/C	226.84	1177	5.19
132kV Line	S/C	434.14	1776	4.09
132kV Line	D/C	558.56	2832	5.07
Total		1223.76	5831	4.76

Based on the approved ARR and line length of each year of the control period, the average YTC per unit line length and its growth rate comes out to be:

Year	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Approved ARR (INR Lakh)	5831	7279	7812	8330	10764	16564
Total Line Length (ckm)	1,223.76	1,223.76	1,223.76	1,225.12	1,226.83	1,383.88
Average ARR/Length	4.76	5.95	6.38	6.80	8.77	11.97
YoY increase		24.83%	7.32%	6.51%	29.04%	36.42%

Therefore, considering the YTC per ckm computed by the Honorable Commission for FY 2013-14 (base year) and with the YoY increase rates as computed above, the YTC per ckm for various line types for each year works out as follows:

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
YoY Growth Rate (%)		24.83%	7.32%	6.51%	29.04%	36.42%
YTC/Ckm of D/C 400kV Line (INR Lakh/ckm)	10.91	13.62	14.62	15.57	20.09	27.41
YTC/Ckm of D/C 220kV Line (INR Lakh/ckm)	5.19	6.48	6.95	7.40	9.55	13.03
YTC/Ckm of S/C 132kV Line (INR Lakh/ckm)	4.09	5.11	5.48	5.84	7.53	10.28
YTC/Ckm of D/C 132kV Line (INR Lakh/ckm)	5.07	6.33	6.79	7.24	9.34	12.74

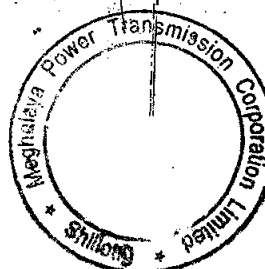
1.5. YTC of the ISTS Lines for Each Year of the Control Period

With the available technical data of the lines and the YTC per unit length computed above, the petitioner has computed the YTC of the ISTS lines for each year of the control period as follows:

FY 2014-15

Name of the Line	Length (ckm)	YTC per unit length (INR Lakh/ckm)	YTC for FY 2014-15 (INR Lakh)
132 KV D/C Umtru Sarusajai	35.44	6.33	224.31
132 KV D/C Kahelipara Umtru	23.36	6.33	147.85
132 KV S/C Panchgram Lumshnong	23.80	5.11	121.54

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FY 2015-16

Name of the Line	Length (ckm)	YTC per unit length (INR Lakh/ckm)	YTC for FY 2015-16 (INR Lakh)
132 KV D/C Umtru Sarusajai	35.44	6.79	240.73
132 KV D/C Kahelipara Umtru	23.36	6.79	158.68
132 KV S/C Panchgram Lumshnong	23.80	5.48	130.44

FY 2016-17

Name of the Line	Length (ckm)	YTC per unit length (INR Lakh/ckm)	YTC for FY 2016-17 (INR Lakh)
132 KV D/C Umtru Sarusajai	35.44	7.24	256.41
132 KV D/C Kahelipara Umtru	23.36	7.24	169.01
132 KV S/C Panchgram Lumshnong	23.80	5.84	138.93

FY 2017-18

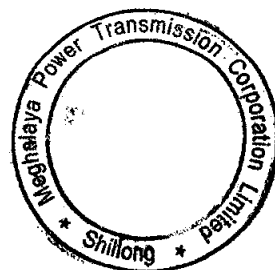
Name of the Line	Length (ckm)	YTC per unit length (INR Lakh/ckm)	YTC for FY 2017-18 (INR Lakh)
132 KV D/C Umtru Sarusajai	35.44	9.34	330.87
132 KV D/C Kahelipara Umtru	23.36	9.34	218.09
132 KV S/C Panchgram Lumshnong	23.80	7.53	179.28

FY 2018-19

Name of the Line	Length (ckm)	YTC per unit length (INR Lakh/ckm)	YTC for FY 2018-19 (INR Lakh)
132 KV D/C Umtru Sarusajai	35.44	12.74	451.38
132 KV D/C Kahelipara Umtru	23.36	12.74	297.52
132 KV S/C Panchgram Lumshnong	23.80	10.28	244.58

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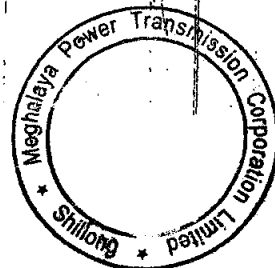
1.6. Summary of the Petition

Based on the above submissions, the Yearly Transmission Charges (YTC) in INR Lakh for the three interstate transmission lines is summarized below:

Name of the Line	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
132 KV D/C Umtru Sarusajai	224.31	240.73	256.41	330.87	451.38
132 KV D/C Kahelipara Umtru	147.85	158.68	169.01	218.09	297.52
132 KV S/C Panchgram Lumshnong	121.54	130.44	138.93	179.28	244.58

Figures in INR Lakh

MePTCL humbly prays before the Honorable Commission to kindly approve the above amounts in INR Lakh as YTC of the said ISTS lines for each year of the control period.





MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED

Office of the Company Secretary

Corporate Identification Number: U40101ML2009SGC008393

Registered Office: Lumfingshai, Short Round Road, Shillong-793001

Telephone No: 0364-2591074; Fax no: 0364-2590355; Website address: www.meecl.nic.in

RELEVANT EXTRACTS OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED THROUGH CIRCULATION UNDER SECTION 175 OF THE COMPANIES ACT, 2013 VIDE CIRCULATION NO. MePTCL/CS/CR/2013/10 DATED: 6TH JUNE, 2017.

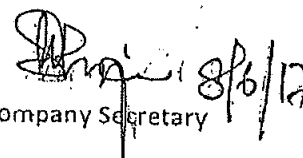
DETERMINATION OF TARIFF FOR THE INTER-STATE TRANSMISSION LINES OF MEGHALAYA IN ACCORDANCE WITH THE CENTRAL ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITION OF TARIFF) REGULATIONS 2014 AND AS PER THE DIRECTIONS IN THE CERC ORDER DATED 12.05.2017

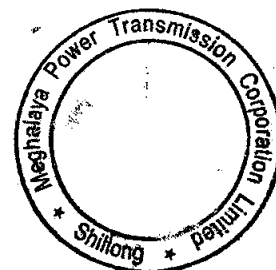
"Resolved that the Board hereby approved the Petition for 'Determination of tariff for the Inter State Transmission Lines' for the period from financial year 2014-15 to 2018-19.

Resolved further that Shri J. Hynniewta, Superintending Engineer (Electrical – II), Office of the Director (Transmission) be and is hereby authorised by the Board to sign and file the above petition and necessary affidavit before the CERC.

Resolved further that the Board approved Rs 1,00,000/- (Rupees one lakh) only as petition fee for each financial year for filing the above petition during the period from financial year 2014-15 to 2018-19".

CERTIFIED TO BE TRUE COPY
FOR, MEGHALAYA POWER TRANSMISSION CORPORATION LTD


Company Secretary



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CENTRAL ELECTRICITY REGULATORY COMMISSION
3rd AND 4th FLOOR, CHANDERLOK BUILDING, 36, JANPATH,
NEW DELHI

PUBLIC NOTICE

Regulation 12 of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012 (Payment of Fees Regulations) provides as under:

"12. Mode of payment of fees.- (1) All fees, including late payment surcharge, shall be payable through Real Time Gross Settlement (RTGS) for amount above Rupees two lakh and through National Electronic Fund Transfer (NEFT) for amount equivalent to or below Rupees two lakh

(2) Persons making payment of fees in accordance with these regulations shall submit the details of remittance through RTGS/NEFT as per the Form-I to these regulations, within three days of making such payment."

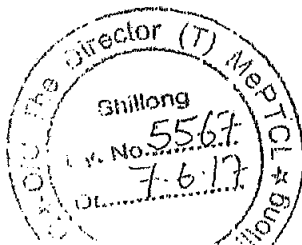
2. The details of the Bank Account of the Commission into which the fees are payable in accordance with the Payment of Fees Regulations shall be remitted through RTGS/NEFT are as under:-

Name of Bank and address	Corporation Bank, K.G.Marg, New Delhi -110 001
Account No	209914801140001
Type of Account	10
IFSC Code	CORP0002099
Branch Code	2099

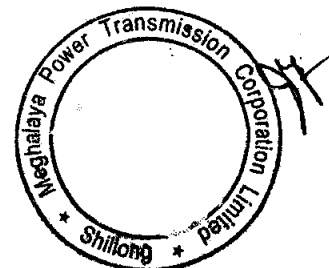
3. All concerned are advised to remit the fees to the Commission in the above mentioned account number with effect from 1st April, 2015. The details of the fee remitted shall be furnished to the Commission as per the format in Form I to the Payment of Fees Regulations (copy enclosed) within three days of the remittance of fees for reconciliation of the account and record.

4. With effect from 1.4.2015, the public notices dated 25.8.2010 and 15.3.2012 shall stand superseded.

Sd/-
(Shubha Sarma)
Secretary
28.1.2015



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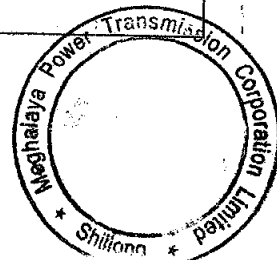


Form-I

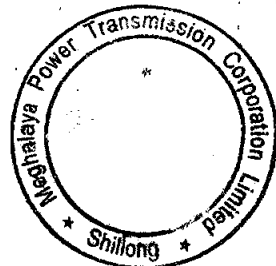
Particulars	
1. Name of the Petitioner/Applicant	J. Jyoti
2. Address of the Petitioner/Applicant	Lum Jyoti Shon
3. Subject Matter	Petition for
4. Petition No., if any	
5. Details of generation assets (a) generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	
6. Details of transmission assets (a) Transmission line and sub-stations (b) Date of commercial operation (c) Period for which fee paid (d) Amount of fee paid (g) Surcharge, if any	
7. Fee paid for Adoption of tariff for (a) Generation asset (b) Transmission asset	
8. Application fee for licence (a) Trading licence (b) Transmission licence (c) Period for which paid (d) Amount of fee paid	
9. Fees paid for Miscellaneous Application	
10. Fees paid for Interlocutory Application	
11. Fee paid for Regulatory Compliance petition	
12. Fee paid for Review Application	
13. Licence fee for inter-State Trading (a) Category (b) Period (c) Amount of fee paid (d) Surcharge, if any	
14. Licence fee for inter-State Transmission (a) Expected/Actual transmission charge (b) Period (c) Amount of fee calculated as a percentage of transmission charge. (d) Surcharge, if any	- FY 2014-2015 & 2016-2017 1,00,000/year
15. Annual Registration Charge for Power Exchange (a) Period (b) Amount of turnover (c) Fee paid (d) Surcharge, if any	

Round Road
Shillong - 1

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16. Details of fee remitted (a) UTR No. (b) Date of remittance (c) Amount remitted	
Note: While Sl. Nos. 1 to 3 and 16 are compulsory, the rest may be filled up as applicable	
Signature of the authorized signatory with date	



Reminder - III

CENTRAL ELECTRICITY REGULATORY COMMISSION
3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi-110 001
Tele: 23353503 Fax: 23753923
Website: www.cercind.gov.in

No.L-1/65/CERC /2010

Dated: 31/07/2018

To

The Dy. Chief Accounts Officer,
Meghalaya Energy Corporation Limited (MEECL),
Lumjingshai, Short Round Road,
Shillong - 793001

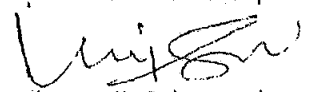
Sub: Remittance of fees - reg.

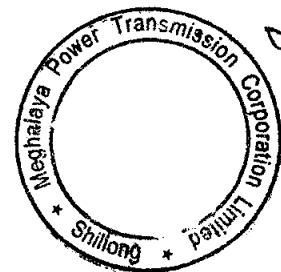
Sir,

Please refer to our letters dated 3.11.2017, 22.12.2017 and 23.3.2018 whereby Meghalaya Energy Corporation Limited (MEECL) was required to submit the details of 3,00,000/- which was credited to CERC account vide RTGS UTR No. SBINR52017060900029404 dated 9.6.2017.

However, the covering letter specifying the details of payment and basis of calculation has not been received from MEECL till date. It is, therefore, requested to provide us a copy of the said letter at the earliest.

Yours faithfully


(Monojit Sehrawat)
Assistant Chief (Law)





MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED

OFFICE OF THE DIRECTOR (TRANSMISSION)

Corporate Identification No: U40101ML2009SGC008393

Registered Office: Lam Jingshai, Short Round Road, Shillong-793001

Phone No (0364)2590610 (Extn) - 319, (0364)2592022, Mobile No: 9863061111

Email: directormeptcl@gmail.com Website address: www.meecl.nic.in

MePTCL/DT/T-01(PI-I)/2018-19/18

Dated 14th August 2018

The Assistant Chief (Law)
Central Electricity Regulatory Commission
3rd & 4th Floor, Chandernok Building
36th Janpath, New Delhi - 110001.

Sub: Payment to Central Electricity Regulatory Commission.

Ref: No. L-1/65/CERC/2010 dated 31st July 2018.

Sir,

With reference to the above, I am directed to inform that the Meghalaya Power Transmission Corporation Limited (MePTCL) had filed the tariff petition before CERC on Inter State Transmission System (ISTS) lines for the period with effect from FY 2014-15 to FY 2018-19, for three years, in accordance with the CERC (Regulation) 2014 and the CERC Order dated 12/05/2017. The Petition was filed on 9th June, 2017, vide letter No. MePTCL/DT/T-1/PI-1/2017-18/5 dated 09/06/2017, after payment of Rs 300000/- (rupees three lakh) only.

The payment had been made in pursuance of Central Electricity Regulatory Commission (CERC), "Payment of Fees Regulations, 2012", sub-section (2) of Section 3 "Fees for Application for Determination of Tariff", which quotes "An application for determination of tariff for inter-state transmission system or an element thereof shall be accompanied by a fee payable at the rate of 0.10% and 0.11% of the total annual transmission charges per annum claimed by the transmission licensee for the years 2012-13 and 2013-14, respectively, rounded off to the nearest one hundred rupees subject to minimum of Rs 100000/- (rupees one lakh) only". (Gazette of India, Extraordinary, Part - III-Section 4 No 79 dated 30th March, 2012)

This is issued with the approval of the appropriate authority.

Yours faithfully

(S. B. Nath)

Superintending Engineer (Elect.)

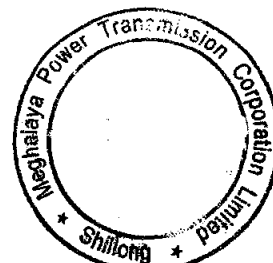
Dated 14th August, 2018

Memo No. MePTCL/DT/T-01(PI-I)/2018-19/18(a)

Copy to

The Deputy Chief Accounts Officer (C&B), MeECL for information

Superintending Engineer (Elect.)



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CENTRAL ELECTRICITY REGULATORY COMMISSION
4th Floor, Chanderlok Building, 36, Janpath, New Delhi-110001
Ph:23753942 Fax- 23753923

Dated: 16.12.2020

To,

Mrs. P. Sun,
Superintending Engineer (Elect)-II,
Meghalaya Power Transmission Corporation Ltd.,
Lumjingshai, Short Round Road,
Shillong-793001.

Subject: Determination of tariff of the inter-State Transmission Lines of Meghalaya connecting two States in accordance with CERC (Terms and Conditions of Tariff) Regulations, 2014 and as per the direction in the CERC order dated 12.5.2017-reg.

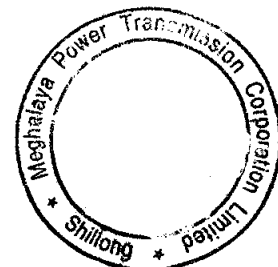
Madam,

With reference to your letter no. MePTCL/DT/T-I (Pt-II)/2020-21/8 dated 24.11.2020 on the subject mentioned above, I am directed to inform that you are required to register in the Saudamani e-filing portal of the Commission and submit the petition through the Saudamani e-filing portal before filing the hard copy of the petition in triplicate. It is noticed that Meghalaya Power Transmission Corporation Ltd. is not registered in the e-filing portal of the Commission and the petition has not been filed through the e-filing portal. You are requested to register in the e-filing portal of the Commission and file the petition through the portal. In this connection, you may contact, Mr. Suvijit, Mob. No.7042604928 in case of any difficulty. Further, the transmission tariff petition received alongwith the letter dated 24.11.2020 for determination of tariff for 2014-19 period has following defects:

- i. File the petition in accordance with CERC (Conduct of Business) Regulations, 1999 alongwith documents.
- ii. File proof of publication of Public Notice in newspaper as per Regulation 3(6) and (8) of CERC (Procedure for making of application for determination of Tariff, Publication of application and other related matters) Regulations, 2004.
- iii. Furnish the details of the beneficiaries/respondents in the petition.

Yours faithfully,
Sd/-
(Rajendra Kumar Tewari)
Bench Officer

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Part III Form-1

Summary Sheet

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element or
 Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

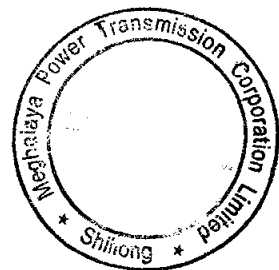
(Amount in Rs. Lakhs)

S.No.	Particulars	Form No.	2014-15	2015-16	2016-17	2017-18	2018-19
1	2		4	5	6	7	8
1.1	Depreciation	10A	0.00	0.00	0.00	0.00	0.00
1.2	Interest on Loan	9E	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
1.4	Interest on Working Capital	11	8.62	8.91	9.21	9.51	9.83
1.5	O & M Expenses*		156.12	161.30	166.64	172.17	177.93
	Total		164.74	170.21	175.85	181.68	187.76

Note

*:O&M charges as per CERC Tariff Regulations dated 21 Feb 2014

(Petitioner)



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Part III Form-2

Details of Transmission Lines and Substations and Communication Systems

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element or Communication system: 132 KV D/C Umtru-Sarusajai-Single Conductor (Asset I)

S. No.	Name of line	Type of line ACHV DC	S/C or D/C	No. of Sub- Conductors	Voltage level KV	Line length Ckt.- km.	Line length km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1	132 KV D/C Umtru-Sarusajai-Single Conductor (Asset I)	AC	D/C	2	132	35.44	17.72	01.04.1990	Yes	
2										
3										
-										

Substations:

S.NO.	Name of Sub-station	Type of Substation Conventional/Gr openfield/Brownfield	Voltage level KV	No. of transformers / Reactors/SVC etc. (with capacity)	No. of Bays			Covered in the present petition			
					765 KV	400 KV	220 KV	132 KV & Below	Date of Commercial operation	Yes/No	If No, petition No.
1							5				
2											
3											
-											

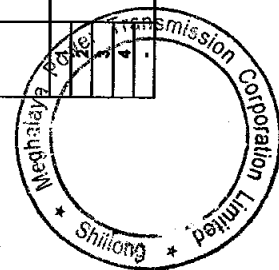
Communication System:

S. No.	Name of Communication System	Type of Communication System - SCADA/ WAMS/Fibre Optic Communication System/RTU/PABX etc	Technical Particulars	Number/ length	Covered in the present					
					Date of Commercial operation	Yes/No	If No, petition No.			

NA

(Petitioner)

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Part III Form-3

Normative parameters considered for tariff computations

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

Year Ending March

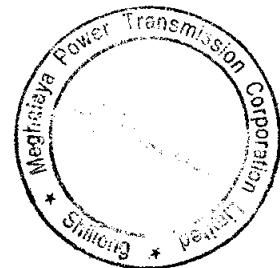
Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	20.96%	20.96%	21.34%	21.34%	21.34%	21.55%
Effective tax rate ¹	%	19.61%	19.61%	19.71%	19.71%	19.71%	19.76%
Target Availability	%	98.00%	98.50%	98.50%	98.50%	98.50%	98.50%
Normative O&M per km	Rs. Lakh	0.336	0.303	0.313	0.324	0.334	0.346
Normative O&M per bay	Rs. Lakh	32.73	30.15	31.15	32.18	33.25	34.36
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Months for WC	Months	2	2	2	2	2	2
Bank Rate as on 01.04.2014 ²	%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

1. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

2. Mention relevant date

(Petitioner)

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Part III Form-4

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

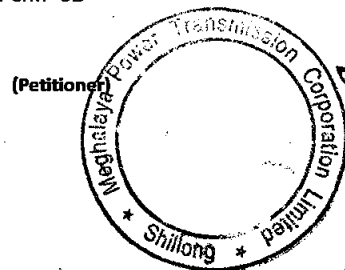
(Amount in Rs.lakhs)

	Asset 1	
Name of the Assets	MePTCL	Total Gross Block as on 31.03.2014
DOCO	01.04.1990	
Petition Number	204/TT/2013	
Tariff order date	14.01.2016	
Particulars	Capital Expenditure admitted as on 31.03.2014	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)	0.00	0.00
Freehold Land		
Leasehold Land		
Building & Other Civil Works		
Transmission Line	0.00	0.00
Sub-Station Equipments		
PLCC		
Total	0.00	0.00
Notional Loan		
Notional Equity		
Total	0.00	0.00
Debt-Equity Ratio		
Debt	0.00	0.00
Equity	0.00	0.00
Total		
Cumulative amount of Depreciation	0	0
Cumulative Repayment of Loan	0	0
Initial Spares*		

1 * Initial spares claimed for existing whose cut off date falls in current tariff period.

Details of remaining assets of the project yet to be commissioned needs to be included in Form -5B

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Part III Form-4A

Statement of Capital Cost (To be given for relevant dates and year wise)

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element or
 Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

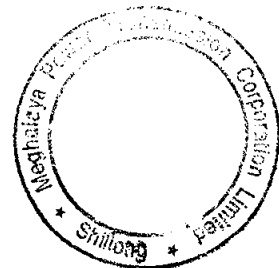
	Upto 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A a) Opening Gross Block Amount as per books	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
B a) Addition in Gross Block Amount during the period	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
C a) Closing Gross Block Amount as per books	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1.Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date

(Petitioner)

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Part-III Form-6

Financial Package upto COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

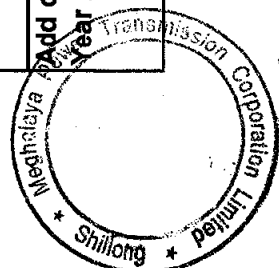
Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

	Financial Package as Approved		Financial Package as on COD		As Admitted on 31.03.2014	
	Currency and Amount		Currency and Amount		Currency and	
1	2	3	4	5	6	7
Loan-I						
Loan-II						
Loan-III						
and so on						
Total Loans					INR	0
Equity-						
Foreign						
Domestic						
Total Equity					INR	0
Debt : Equity Ratio						
Total Cost					INR	0.00
			Debt	Equity	Total	
Add cap for Year 2014-15				0.00		

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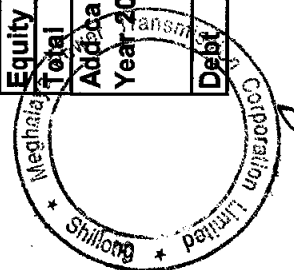


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Part-III Form-6
Financial Package upto COD

Add cap for Year 2015-16				0.00			
Add cap for Year 2016-17				0.00			
Add cap for Year 2017-18				0.00			
Add cap for Year 2018-19				0.00			
Decap for 2018-19				0.00			
Add cap for Year 2014-15	Actual	Normative					
Debt	0.00						
Equity	0.00						
Total	0.00						
Add cap for Year 2015-16	Actual	Normative					
Debt	0.00						

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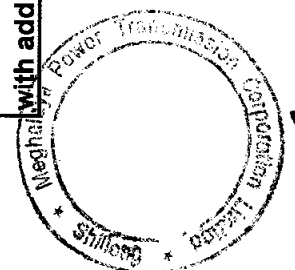
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Part-III Form-6
Financial Package upto COD

Equity	0.00						
Total	0.00						
Add cap for Year 2016-17							
Debt	0.00						
Equity	0.00						
Total	0.00						
Add cap for Year 2017-18							
Debt	0.00						
Equity	0.00						
Total	0.00						
Add cap for Year 2018-19							
Debt	0.00						
Equity	0.00						
Total	0.00						
Total Capital Cost with add cap.	0.00						

(Petitioner)

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PART-III FORM- 7

Statement of Additional Capitalisation after COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

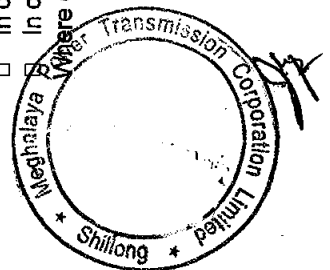
Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

Sr.No.	Year	Work/Equipment proposed to be added after COD upto Cut off Date/beyond Cut-off Date	Amount capitalized /Proposed to be capitalized (Rs Lakh)	Justification	Regulations under which covered	Admitted Cost ¹ (Rs Lakh) in CERC order 204/TT/2013 dated 14.01.2016
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2014-15	Summarized in Para 4 of the instant Petition 204/TT/2013	0.00	Summarized in Para 4 of the instant Petition 204/TT/2013		0.00
2	2015-16		0.00			0.00
3	2016-17		0.00			0.00
4	2017-18		0.00			0.00
5	2018-19		0.00			0.00

1. In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order).

Note:

- Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
- In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately.
- In case of de-capitalisation of assets separate details to be furnished. Further, the original book value and year of capitalisation of such asset to be furnished. Where de-caps are on estimated basis the same to be shown separately.



(Petitioner)

Part-III Form 8

Calculation of Return on Equity

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

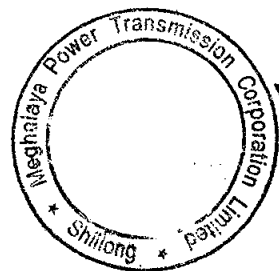
(Amount in Rs. Lakh)

S.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1.1	Equity as on COD/Admitted equity	0.00	0.00	0.00	0.00	0.00
1.2	Total Equity	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity*	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00

Note

1: *To be calculated on average equity during the year.

(Petitioner)



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Part-III Form 9C

Calculation of Weighted Average rate of Interest on Actual loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

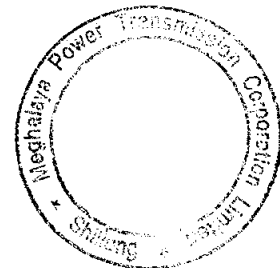
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1					
Gross loan - Opening	0.00	0.00	0.00	0.00	0.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan - Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00
Net loan - Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on annual basis	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on loan	0.00	0.00	0.00	0.00	0.00
Loan repayment effective from (date to be indicated)	0.00	0.00	0.00	0.00	0.00
Total Loan	0.00	0.00	0.00	0.00	0.00

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.
4. The aforementioned loan is for whole project.

(Petitioner)

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Part-III Form 9E

Calculation of Interest on Normative Loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

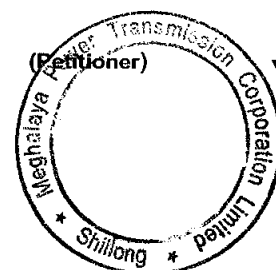
(Amount in Rs. Lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	3	4	5	6	7
Gross Normative loan - Opening	0.00	0.00	0.00	0.00	0.00
Cumulative repayment of Normative Loan upto previous year	0.00	0.00	0.00	0.00	0.00
Net Normative loan - Opening	0.00	0.00	0.00	0.00	0.00
Increase/Decrease due to ACE/de-capitalization during the Year	0.00	0.00	0.00	0.00	0.00
Repayments of Normative Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Normative loan - Closing	0.00	0.00	0.00	0.00	0.00
Average Normative Loan	0.00	0.00	0.00	0.00	0.00
Weighted average Rate of Interest of actual Loans	0.00%	0.00%	0.00%	0.00%	0.00%
Rates without refinancing	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on Normative loan (with refinancing)	0.00	0.00	0.00	0.00	0.00
Interest on Normative loan (without refinancing)	0.00	0.00	0.00	0.00	0.00
1/3rd of NETC's claim	0.00	0.00	0.00	0.00	0.00
Interest on Normative loan	0.00	0.00	0.00	0.00	0.00

Note:

1. At the time of true-up net savings as a result of refinancing of loans may be provided along with adjustments of sharing.

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Part-III Form 10
Calculation of Depreciation Rate

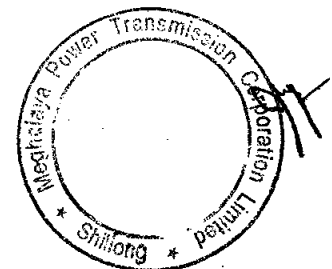
Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element or
 Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

							(Amount in Rs. Lakh)	
Sl.no.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19 (Annualized)	
2014-15								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life (Years)						25.0	
2015-16								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						26.0	
2016-17								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						27.0	
2017-18								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						28.0	
2018-19								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						29.0	

Note:
 1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

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Part-III Form 10A

Statement of Depreciation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

(Amount in Rs. Lakh)

Sl. No. (1)	Particulars (2)	2013-14 (3)	2014-15 (4)	2015-16 (5)	2016-17 (6)	2017-18 (7)	2018-19 (8)
1	Opening Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
2	Closing Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
3	Average Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
5	Rate of depreciation	5.28%	0.00%	0.00%	0.00%	0.00%	0.00%
6	Depreciable value	0.00	0.00	0.00	0.00	0.00	0.00
7	Balance useful life at the beginning of the period (Years)	10	9	8	7	6	5
8	Remaining depreciable value	0.00	0.00	0.00	0.00	0.00	0.00
9	Depreciation (for the period)	0.00	0.00	0.00	0.00	0.00	0.00
10	Depreciation (annualised)	0.00	0.00	0.00	0.00	0.00	0.00
11	Cumulative depreciation at the end of the period	0.00	0.00	0.00	0.00	0.00	0.00
12	Less: Cumulative depreciation adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00	0.00
13	Net Cumulative depreciation at the end of the period	0.00	0.00	0.00	0.00	0.00	0.00

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)

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Part-III Form 10B

Statement of De-capitalisation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

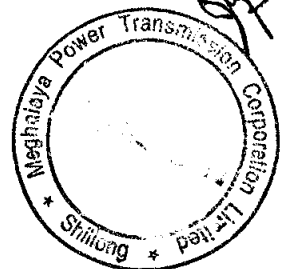
Name of the Transmission Element or

Communication system: 132 KV D/C Umtru- Sarusajal-Single Conductor (Asset I)

Sr. No.	Year of De-capitalisation	Work/Equipment proposed to be De-capitalised	Year of capitalisation of asset/equipment being decapitalised	Original Book Value of the asset being decapitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								

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(Petitioner)



Part-III Form 11

Calculation of Interest on Working Capital

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element or

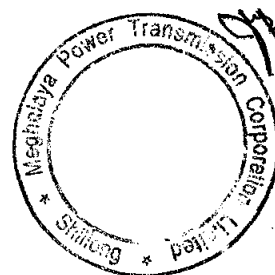
Communication system: 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset I)

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1	O & M Expenses	13.01	13.44	13.89	14.35	14.83
2	Maintenance Spares	23.42	24.19	25.00	25.83	26.69
3	Receivables	27.46	28.37	29.31	30.28	31.29
4	Total Working Capital	63.89	66.00	68.19	70.45	72.81
5	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
6	Interest on Working	8.62	8.91	9.21	9.51	9.83

(Petitioner)

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Part III Form-1

Summary Sheet

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 KV D/C Kahelipara-Umtru-Single Conductor (Asset II)

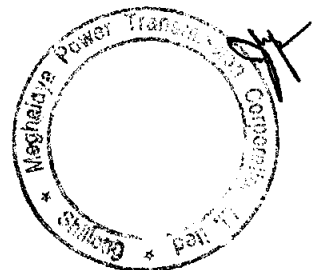
(Amount in Rs. Lakhs)

S.No.	Particulars	Form No.	2014-15	2015-16	2016-17	2017-18	2018-19
1	2		4	5	6	7	8
1.1	Depreciation	10A	0.00	0.00	0.00	0.00	0.00
1.2	Interest on Loan	9E	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
1.4	Interest on Working Capital	11	3.53	3.64	3.76	3.89	4.02
1.5	O & M Expenses*		63.84	65.96	68.14	70.40	72.76
	Total		67.37	69.60	71.91	74.29	76.78

Note

*:O&M charges as per CERC Tariff Regulations dated 21 Feb, 2014

(Petitioner)



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Part III Form-2
Details of Transmission Lines and Substations and Communication Systems

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: 132 KV D/C Kahelipara-Umtru-Single Conductor (Asset II)

S. No.	Name of line	Type of line AC/HV DC	S/C or D/C	No. of Sub- Conductors	Voltage level kV	Line length CRT. - km.	Line length km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1	132 KV D/C Kahelipara- Umtru- Single Conductor (Asset II)	AC	D/C	2	132	23.36	11.68	01.04.1960	Yes	
2										
3										
-										

Substations:

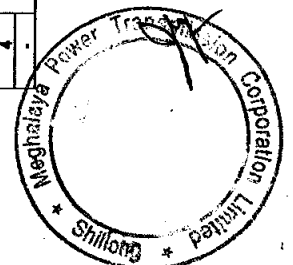
S. NO.	Name of Sub- station	Type of Substatio n Convent ional/Gr eenfield/ Brownfi eld/HV	Voltage level kV	No. of transform ers / Reactors/S V C etc. (with capacity)	No. of Bays			Covered in the present petition	
					765 KV	400 KV	220 KV	Date of Commer cial operatio n	Yes/No If No, petition No.
1							2		
2									
3									
-									

Communication System:

S. No.	Name of Communication System	Type of Communication System - Communication System under ULDC/ SCADA/ WAMS/Fibre Optic Communication System/RTU/PABX etc	Technical Particulars	Number/ length	Covered in the present	
					Date of Commer cial operatio n	Yes/No If No, petition No.
1						
2						
3						
4						
-						

NA

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(Petitioner)

Part III Form-3

Normative parameters considered for tariff computations

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

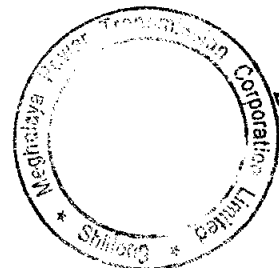
Particulars	Unit	Year Ending March					
		Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	20.96%	20.96%	21.34%	21.34%	21.34%	21.55%
Effective tax rate ¹	%	19.61%	19.61%	19.71%	19.71%	19.71%	19.76%
Target Availability	%	98.00%	98.50%	98.50%	98.50%	98.50%	98.50%
Normative O&M per km	Rs. Lakh	0.336	0.303	0.313	0.324	0.334	0.346
Normative O&M per bay	Rs. Lakh	32.73	30.15	31.15	32.18	33.25	34.36
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Months for WC	Months	2	2	2	2	2	2
Bank Rate as on 01.04.2014 ²	%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

1. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

2. Mention relevant date

(Petitioner)

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Part III Form-4

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

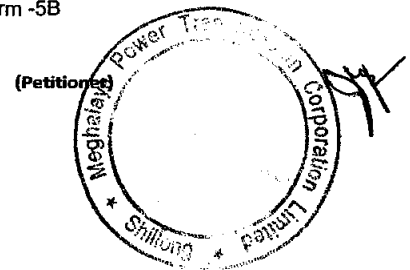
(Amount in Rs.lakhs)

	Asset 1	
Name of the Assets	MePTCL	Total Gross Block as on 31.03.2014
DOCO	01.04.1960	
Petition Number	204/TT/2013	
Tariff order date	14.01.2016	
Particulars	Capital Expenditure admitted as on 31.03.2014	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)	0.00	0.00
Freehold Land		
Leasehold Land		
Building & Other Civil Works		
Transmission Line	0.00	0.00
Sub-Station Equipments		
PLCC		
Total	0.00	0.00
Notional Loan		
Notional Equity		
Total	0.00	0.00
Debt-Equity Ratio		
Debt	0.00	0.00
Equity	0.00	0.00
Total		
Cumulative amount of Depreciation	0	0
Cumulative Repayment of Loan	0	0
Initial Spares*		

1 * Initial spares claimed for existing whose cut off date falls in current tariff period.

Details of remaining assets of the project yet to be commissioned needs to be included in Form -5B

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Part III Form-4A

Statement of Capital Cost (To be given for relevant dates and year wise)

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

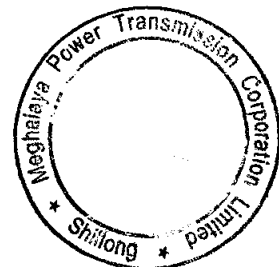
	Upto 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A a) Opening Gross Block Amount as per books	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
B a) Addition in Gross Block Amount during the period	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
C a) Closing Gross Block Amount as per books	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1.Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date

(Petitioner)

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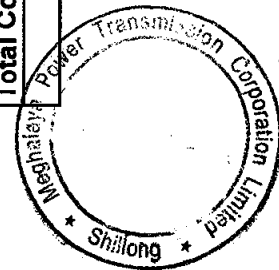
Part-III Form-6

**Financial Package upto COD
 Financial Package upto COD**

Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

	Financial Package as Approved		Financial Package as on COD			As Admitted on 31.03.2014	
	Currency and Amount		Currency and Amount	5	6	Currency and	7
1	2	3	4				
Loan-I							
Loan-II							
Loan-III							
and so on							
Total Loans						INR	0
Equity-							
Foreign							
Domestic							
Total Equity						INR	0
Debt : Equity Ratio							
Total Cost						INR	0.00
			Debt	Equity	Total		

0



[Handwritten Signature]

(Petitioner)

PART-III FORM-7

Statement of Additional Capitalisation after COD

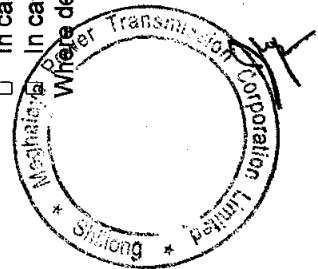
Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

Sr.No.	Year	Work/Equipment proposed to be added after COD upto Cut off Date/beyond Cut-off Date	Amount capitalized /Proposed to be capitalized (Rs Lakh)	Justification	Regulations under which covered	Admitted Cost ¹ (Rs Lakh) in CERC order 204/TT/2013 dated 14.01.2016
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2014-15	Summarized in Para 4 of the instant Petition 204/TT/2013	0.00	Summarized in Para 4 of the instant Petition 204/TT/2013		0.00
2	2015-16		0.00			0.00
3	2016-17		0.00			0.00
4	2017-18		0.00			0.00
5	2018-19		0.00			0.00

1. In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order).

Note:

- Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
- In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately.
- In case of de-capitalisation of assets separate details to be furnished. Further, the original book value and year of capitalisation of such asset to be furnished. Where de-caps are on estimated basis the same to be shown separately.



(Petitioner)

Part-III Form 9C

Calculation of Weighted Average rate of Interest on Actual loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

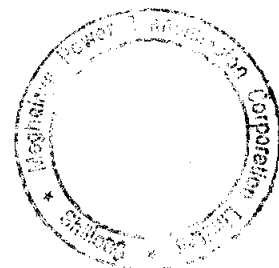
Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1						
Gross loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Closing	0.00	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on annual basis	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on loan	0.00	0.00	0.00	0.00	0.00	0.00
Loan repayment effective from (date to be indicated)	0.00	0.00	0.00	0.00	0.00	0.00
Total Loan	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.
4. The aforementioned loan is for whole project.

(Petitioner)

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Part-III Form 9E

Calculation of Interest on Normative Loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

(Amount in Rs. Lakh)

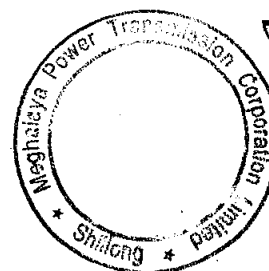
Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7
Gross Normative loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative repayment of Normative Loan upto previous year	0.00	0.00	0.00	0.00	0.00	0.00
Net Normative loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Increase/Decrease due to ACE/de-capitalization during the Year	0.00	0.00	0.00	0.00	0.00	0.00
Repayments of Normative Loan during the year	0.00	0.00	0.00	0.00	0.00	0.00
Net Normative loan - Closing	0.00	0.00	0.00	0.00	0.00	0.00
Average Normative Loan	0.00	0.00	0.00	0.00	0.00	0.00
Weighted average Rate of Interest of actual Loans	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rates without refinancing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on Normative loan (with refinancing)	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Normative loan (without refinancing)	0.00	0.00	0.00	0.00	0.00	0.00
1/3rd of NETC's claim	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Normative loan	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1. At the time of true-up net savings as a result of refinancing of loans may be provided along with adjustments of sharing.

(Petitioner)

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Part-III Form 10
Calculation of Depreciation Rate

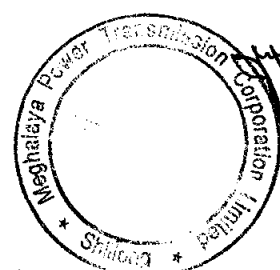
Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

(Amount in Rs. Lakh)							
Sl.no.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19 (Annualized)
2014-15							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00				3.34%	
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.0000%
	Lapsed Life (Years)						25.0
2015-16							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00				3.34%	
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.0000%
	Lapsed Life						26.0
2016-17							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00				3.34%	
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.0000%
	Lapsed Life						27.0
2017-18							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00				3.34%	
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.0000%
	Lapsed Life						28.0
2018-19							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00				3.34%	
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.0000%
	Lapsed Life						29.0

Note:
 1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

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Part-III Form 10A

Statement of Depreciation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset II)

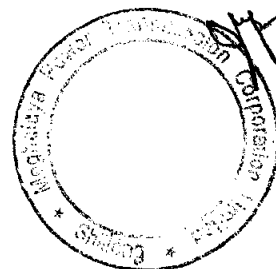
(Amount in Rs. Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Opening Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
2	Closing Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
3	Average Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
5	Rate of depreciation	5.28%	0.00%	0.00%	0.00%	0.00%	0.00%
6	Depreciable value	0.00	0.00	0.00	0.00	0.00	0.00
7	Balance useful life at the beginning of the period (Years)	10	9	8	7	6	5
8	Remaining depreciable value	0.00	0.00	0.00	0.00	0.00	0.00
9	Depreciation (for the period)	0.00	0.00	0.00	0.00	0.00	0.00
10	Depreciation (annualised)	0.00	0.00	0.00	0.00	0.00	0.00
11	Cumulative depreciation at the end of the period	0.00	0.00	0.00	0.00	0.00	0.00
12	Less: Cumulative depreciation adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00	0.00
13	Net Cumulative depreciation at the end of the period	0.00	0.00	0.00	0.00	0.00	0.00

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)

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Part-III Form 10B

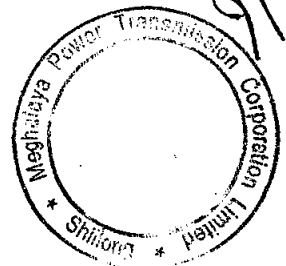
Statement of De-capitalisation

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element : 132 kV D/C Kachelipara-Umtru-Single Conductor (Asset II)

Sr. No.	Year of De-capitalisation	Work/Equipment proposed to be De-capitalised	Year of capitalisation of asset/equipment being decapitalised	Original Book Value of the asset being decapitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								

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(Petitioner)



Part-III Form 11

Calculation of Interest on Working Capital

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

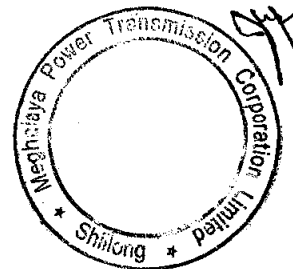
**Name of the Transmission Element : 132 kV D/C Kahelipara-Umtru-Single Conductor
(Asset II)**

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1	O & M Expenses	5.32	5.50	5.68	5.87	6.06
2	Maintenance Spares	9.58	9.89	10.22	10.56	10.91
3	Receivables	11.23	11.60	11.98	12.38	12.80
4	Total Working Capital	26.12	26.99	27.89	28.81	29.77
5	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
6	Interest on Working	3.53	3.64	3.76	3.89	4.02

(Petitioner)

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Part III Form-1

Summary Sheet

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

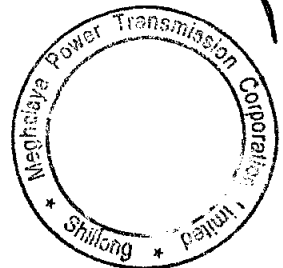
(Amount in Rs. Lakhs)

S.No.	Particulars	Form No.	2014-15	2015-16	2016-17	2017-18	2018-19
1	2		4	5	6	7	8
1.1	Depreciation	10A	0.00	0.00	0.00	0.00	0.00
1.2	Interest on Loan	9E	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
1.4	Interest on Working Capital	11	1.93	2.00	2.06	2.13	2.20
1.5	O & M Expenses*		34.96	36.12	37.32	38.56	39.83
	Total		36.89	38.12	39.38	40.69	42.03

Note

*: O&M charges as per CERC Tariff Regulations dated 21 Feb 2014

(Petitioner)



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Part III Form-2
Details of Transmission Lines and Substations and Communication Systems

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element : 132 KV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

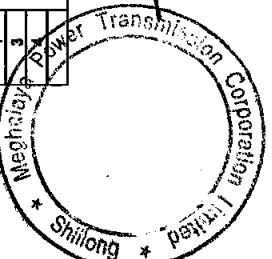
S. No.	Name of line	Type of line AC/ HV DC	S/C or D/C	No. of Sub- Conductors	Voltage level KV	Line length Ckt.- km.	Line length km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1	132 KV S/C Panchgram- Lumshnong- g-Single Conductor (Asset III)	AC	S/C	2	132	47.8	23.8	01.04.1980	Yes	
2										
3										
4										
-										
-										

Substations:

S.NO.	Name of Sub- station	Type of Substation Conventional/ Greenfield/ Brownfield/ Relay	Voltage level KV	No. of transformers / Reactors/S VC etc. (with capacity)	No. of Bays			Covered in the present petition	
					765 KV	400 KV	220 KV	132 KV & Below	Date of Commercial operation Yes/No
1							1		
2									
3									
4									
-									
-									

Communication System:

S. No.	Name of Communication System	Type of Communication System -- SCADA/ WAMS/Fibre Optic Communication System/RTU/PABX etc	Technical Particulars	Number/ length	Date of Commercial operation	Covered in the present petition	
						Yes/No	If No, petition No.
1							
3							



NA

(Petitioner) _____

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Part III Form-3

Normative parameters considered for tariff computations

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

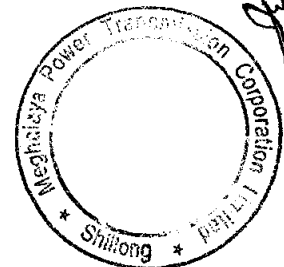
Year Ending March

Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	20.96%	20.96%	21.34%	21.34%	21.34%	21.55%
Effective tax rate ¹	%	19.61%	19.61%	19.71%	19.71%	19.71%	19.76%
Target Availability	%	98.00%	98.50%	98.50%	98.50%	98.50%	98.50%
Normative O&M per km	Rs. Lakh	0.224	0.202	0.209	0.216	0.223	0.230
Normative O&M per bay	Rs. Lakh	32.73	30.15	31.15	32.18	33.25	34.36
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Months for WC	Months	2	2	2	2	2	2
Bank Rate as on 01.04.2014 ²	%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

1. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.
2. Mention relevant date

(Petitioner)

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Part III Form-4

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

(Amount in Rs.lakhs)

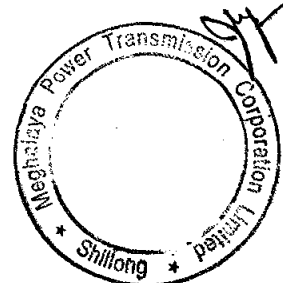
	Asset 1	
Name of the Assets	MePTCL	Total Gross Block as on 31.03.2014
DOCO	01.04.1960	
Petition Number	204/TT/2013	
Tariff order date	14.01.2016	
Particulars	Capital Expenditure admitted as on 31.03.2014	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)	0.00	0.00
Freehold Land		
Leasehold Land		
Building & Other Civil Works		
Transmission Line	0.00	0.00
Sub-Station Equipments		
PLCC		
Total	0.00	0.00
Notional Loan		
Notional Equity		
Total	0.00	0.00
Debt-Equity Ratio		
Debt	0.00	0.00
Equity	0.00	0.00
Total		
Cumulative amount of Depreciation	0	0
Cumulative Repayment of Loan	0	0
Initial Spares*		

1 * Initial spares claimed for existing whose cut off date falls in current tariff period.

Details of remaining assets of the project yet to be commissioned needs to be included in Form - 5B

(Petitioner)

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Part III Form-4A

Statement of Capital Cost (To be given for relevant dates and year wise)

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

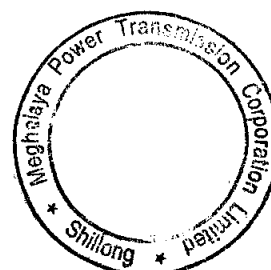
	Upto 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
A a) Opening Gross Block Amount as per books	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
B a) Addition in Gross Block Amount during the period	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00	0.00	0.00	0.00
C a) Closing Gross Block Amount as per books	0.00	0.00	0.00	0.00	0.00	0.00
b) Amount of capital liabilities in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1.Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date

(Petitioner)

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Part-III Form-6

Financial Package upto COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

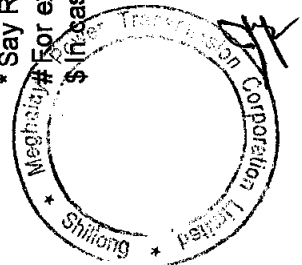
	Financial Package as Approved		Financial Package as on COD		As Admitted on 31.03.2014	
	Currency and Amount		Currency and Amount		Currency and	
1	2	3	4	5	6	7
Loan-I						
Loan-II						
Loan-III						
and so on						
Total Loans					INR	0
Equity-						
Foreign						
Domestic						
Total Equity					INR	0
Debt : Equity Ratio						
Total Cost					INR	0.00

Note:

* Say Rs. 800 Lakh. + US\$ 5m=Rs. 3900 Lakh including US\$ 5 m at an exchange rate of US\$=Rs62
 # For example: US \$ 5m, etc.

\$ (in case of foreign loans exchange rate considered on date of commercial operation.

(Petitioner)



PART-III FORM-7

Statement of Additional Capitalisation after COD

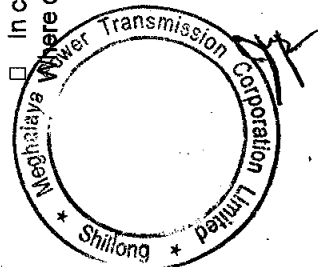
Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

Sr.No.	Year	Work/Equipment proposed to be added after COD upto Cut off Date/beyond Cut-off Date	Amount capitalized /Proposed to be capitalized (Rs Lakh)	Justification	Regulations under which covered	Admitted Cost ¹ (Rs Lakh) in CERC order 204/TT/2013 dated 14.01.2016
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2014-15	Summarized in Para 4 of the instant Petition 204/TT/2013	0.00	Summarized in Para 4 of the instant Petition 204/TT/2013		0.00
2	2015-16		0.00			0.00
3	2016-17		0.00			0.00
4	2017-18		0.00			0.00
5	2018-19		0.00			0.00

1. In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order).

Note:

- Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
- In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately.
- In case of de-capitalisation of assets separate details to be furnished. Further, the original book value and year of capitalisation of such asset to be furnished. Where de-caps are on estimated basis the same to be shown separately.



(Petitioner)

Part-III Form 8

Calculation of Return on Equity

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

(Amount in Rs. Lakh)

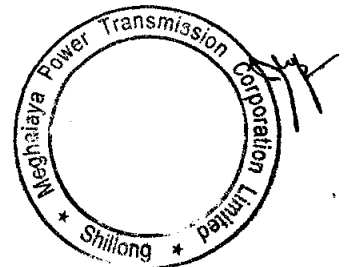
S.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1.1	Equity as on COD/Admitted equity	0.00	0.00	0.00	0.00	0.00
1.2	Total Equity	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity*	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00

Note

1: *To be calculated on average equity during the year.

(Petitioner)

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Part-III Form 9C

Calculation of Weighted Average rate of Interest on Actual loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

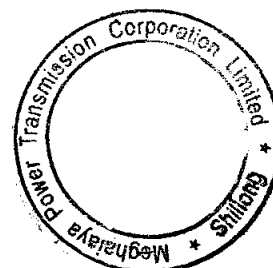
Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1						
Gross loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Closing	0.00	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on annual basis	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on loan	0.00	0.00	0.00	0.00	0.00	0.00
Loan repayment effective from (date to be indicated)	0.00	0.00	0.00	0.00	0.00	0.00
Total Loan	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.
4. The aforementioned loan is for whole project.

(Petitioner)

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Part-III Form 9E

Calculation of Interest on Normative Loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

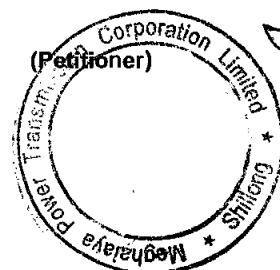
Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

(Amount in Rs. Lakh)						
Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7
Gross Normative loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative repayment of Normative Loan upto previous year	0.00	0.00	0.00	0.00	0.00	0.00
Net Normative loan - Opening	0.00	0.00	0.00	0.00	0.00	0.00
Increase/Decrease due to ACE/de-capitalization during the Year	0.00	0.00	0.00	0.00	0.00	0.00
Repayments of Normative Loan during the year	0.00	0.00	0.00	0.00	0.00	0.00
Net Normative loan - Closing	0.00	0.00	0.00	0.00	0.00	0.00
Average Normative Loan	0.00	0.00	0.00	0.00	0.00	0.00
Weighted average Rate of Interest of actual Loans	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rates without refinancing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on Normative loan (with refinancing)	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Normative loan (without refinancing)	0.00	0.00	0.00	0.00	0.00	0.00
1/3rd of NETC's claim	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Normative loan	0.00	0.00	0.00	0.00	0.00	0.00

Note:

1. At the time of true-up net savings as a result of refinancing of loans may be provided along with adjustments of sharing.

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Part-III Form 10
Calculation of Depreciation Rate

Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

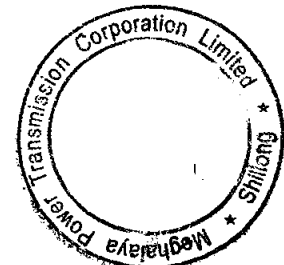
								(Amount in Rs. Lakh)
Sl.no.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19 (Annualized)	
2014-15								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life (Years)						25.0	
2015-16								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						26.0	
2016-17								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						27.0	
2017-18								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						28.0	
2018-19								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	0.00	0.00	0.00	0.00		0.00	
	Weighted Average Rate of Depreciation						0.0000%	
	Lapsed Life						29.0	

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

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Part-III Form 10A

Statement of Depreciation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

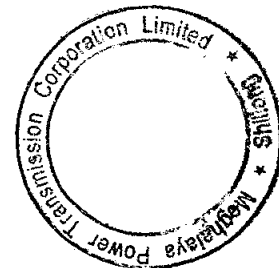
(Amount in Rs. Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Opening Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
2	Closing Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
3	Average Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00
5	Rate of depreciation	5.28%	0.00%	0.00%	0.00%	0.00%	0.00%
6	Depreciable value	0.00	0.00	0.00	0.00	0.00	0.00
7	Balance useful life at the beginning of the period (Years)	10	9	8	7	6	5
8	Remaining depreciable value	0.00	0.00	0.00	0.00	0.00	0.00
9	Depreciation (for the period)	0.00	0.00	0.00	0.00	0.00	0.00
10	Depreciation (annualised)	0.00	0.00	0.00	0.00	0.00	0.00
11	Cumulative depreciation at the end of the period	0.00	0.00	0.00	0.00	0.00	0.00
12	Less: Cumulative depreciation adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00	0.00
13	Net Cumulative depreciation at the end of the period	0.00	0.00	0.00	0.00	0.00	0.00

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)

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Part-III Form 10B

Statement of De-capitalisation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

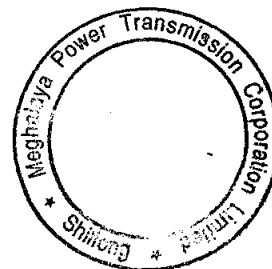
Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

Sr. No.	Year of De-capitalisation	Work/Equipment proposed to be De-capitalised	Year of capitalisation of asset/equipment being decapitalised	Original Book Value of the asset being decapitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								

(Petitioner)



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Part-III Form 11

Calculation of Interest on Working Capital

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

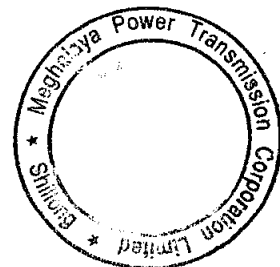
Name of the Project: MePTCL

Name of the Transmission Element : 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset III)

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1	O & M Expenses	2.913	3.01	3.11	3.21	3.32
2	Maintenance Spares	5.244	5.42	5.60	5.78	5.98
3	Receivables	6.148	6.35	6.56	6.78	7.01
4	Total Working Capital	14.305	14.78	15.27	15.78	16.30
5	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
6	Interest on Working	1.93	2.00	2.06	2.13	2.20

(Petitioner)



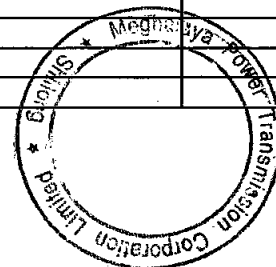
**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

Annexure-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM-1	Summary of Tariff	✓
FORM-1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM-4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	✓
FORM-4A	Statement of Capital cost	
FORM-4B	Statement of Capital Works in Progress	
FORM-4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of all the assets covered in the project	✓
FORM-6	Actual Cash Expenditure and Financial Package up to COD	
FORM-7	Statement of Additional Capitalisation after COD	
FORM-7A	Financing of Additional Capitalisation	
FORM-7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	✓
FORM-8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	
FORM-9	Details of Allocation of corporate loans to various transmission elements	
FORM-9A	Details of Project Specific Loans	✓
FORM-9B	Details of Foreign loans	✓
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM-10	Calculation of Depreciation Rate on original project cost	✓
FORM-10A	Statement of Depreciation	✓
FORM-10B	Statement of De-capitalisation	✓
FORM-11	Calculation of Interest on Working Capital	✓
FORM-12	Details of time over run	
FORM-12A	Incidental Expenditure during Construction	
FORM-12B	Calculation of IDC & Financing Charges	
FORM-13	Details of Initial spares	
FORM-14	Non-Tariff Income	



**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

Annexure-I

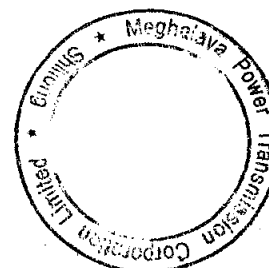
INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	
10.	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

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PART-III FORM-1

Summary of Tariff

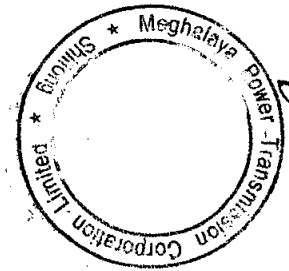
Name of Petitioner
Meghalaya Power Transmission Commission Limited (MePTCL)
Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Assef-I)

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	Depreciation	10A	0	0.00	0.00	0.00	0.00
2	Interest on Loan	9E	0	0.00	0.00	0.00	0.00
3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
4	Interest on Working Capital	11	4.86	5.04	5.22	5.40	5.59
5	O & M Expenses		111.58	115.53	119.61	123.77	128.17
	Total AFC		116.44	120.57	124.83	129.17	133.76

Note: This Form is a summary form and the Data to this from should flow from other base forms.

(Petitioner)

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PART-II FORM-1A

Summary of Asset Level Cost

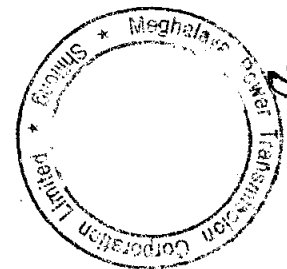
Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

Particular	I) Apportioned Approved Cost			II) Summary of Actual / Projected Capital Cost						
	As per IA	As per RCE-3	As on COD/01-04-2019	2019-20 (Actual/Projected)	2020-21 (Actual/Projected)	2021-22 (Actual/Projected)	2022-23 (Actual/Projected)	2023-24 (Actual/Projected)	as on 31.03.2024	
Land (Freehold Land)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Land (Leasehold)									0.00	
Building & Civil Works			0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sub-Station										
PLCC										
Total Capital Cost as per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Less: Liability										
Add: Discharge of liability										
Total Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Equity	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Debt	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Note: This Form is a summary form and the Data to this from should flow from other base forms.

(Petitioner)



PART-III FORM-2
Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instant asset

Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajai-Single Conductor (Asset-4)

1. Transmission Lines:

S.No.	Name of Line	Type of Line AC/HVDC	SIC or D/C	No. of Sub- Conductors	Voltage Level KV	Line Bays	Transformer(Including Switchable Reactor)	Line length km	Date of Commercial Operation	Covered in the present Petition	
										Year/No	If No. Petition No.
1	Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajai-Single Conductor (Asset-4)	AC	D/C	2	132	5	1	17.72	01-04-1980	100	Yes

Summary:

O&M Expenses for the Transmission lines covered in the instant petition						
Normative rate of O&M as per Regulation (Rupees in Lakh)						
Length in km	2019-20	2020-21	2021-22	2022-23	2023-24	
O&M Claimed (Rupees in Lakh)	8.377	0.381	0.404	9.419	8.433	
	17.72	17.72	17.72	17.72	17.72	
	8.680	8.928	7.469	7.425	7.673	

2.

S.No.	Name of Sub- station	Type of Substation (Conventional/ Greenfield/Br ownfield/ GIS/HVDC terminal/HVD)	Voltage level KV	No. of transformers/ Reactors/VC etc. (with capacity)	No. of Bays		MVA Capacity		Date of Commercial operation	Covered in the present Petition				
					765 KV	400KV	220 KV	132 KV & Below		765 KV	400 KV	220 KV	132 KV & Below	Yes/No
1	NA				5	5	5	5	5	5	1			

Summary:

O&M Expenses for the Substations covered in the instant petition											
Normative rate of O&M/Bay as per Regulation. (Rupees in Lakh)											
No. of units	2019-20	2020-21	2021-22	2022-23	2023-24						
O&M Claimed (Rupees in Lakh)	16.08	16.64	17.23	17.63	18.46						
	80.408	83.200	96.160	89.160	92.300						

Note:

1. Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bay, line bays, reactor bays shall be considered separately for purposes of O&M expenses.

2. The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Com

3. Communication System:

S. No.	Name of Communication on System	Type of Communication	Length of OP/GW in km	No. of RTU	No. of PMU	Date of Commercial operation	Capital Cost upto Cutoff date(Original)	Covered in the present Petition	
1	NA						Year/No	Yes/No	If No. Petition No.
1	NA								

Summary

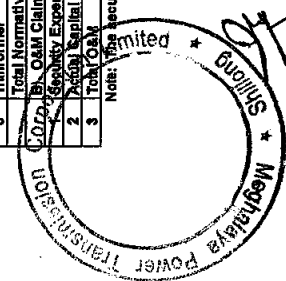
O&M Expenses for the Transformer covered in the instant petition									
O&M expenses as per regulations per MVA (In Lacs)									
Transformer Rating	2019-20	2020-21	2021-22	2022-23	2023-24				
Actual O&M Expense (Rupees in Lakh)	0.245	0.254	0.283	0.272	0.282				
Original Project cost./ Asset related to the communication system	100	100	100	100	100				
Note: The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be	1	1	1	1	1				
	24.500	25.400	26.308	27.200	28.200				

4) Summary of O&M Expenses claim

S. No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M						
1	Transmission line	8.88	6.83	7.16	7.42	7.67
2	Substation	80.400	83.200	86.150	88.150	82.300
3	Transformer	24.500	25.400	26.300	27.200	28.200
Total Normative O&M		113.780	115.590	119.610	122.770	128.170
B) O&M Claimed under Regulation 36 (3)(C)						
1	Security Expenses					
2	Capital Spares consumed					
3	Total O&M	113.780	115.590	119.610	123.770	128.170

Note: The security expenses and Capital Spares are to be submitted on estimated basis for the purpose of O&M

(Petitioner)



PART-III FORM-3
Normative Parameters considered for Tariff Computation

Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

Particulars	Unit	Year Ending March					
		Existing 2018-19	2019-28	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date ¹	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tax Rate	%	21.55%	17.47%	17.47%	17.47%	17.47%	17.47%
Effective Tax Rate ²	%	19.76%	18.78%	18.78%	18.78%	18.78%	18.78%
Target Availability	%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
Normative O&M per km	Rs. Lakh	0.346	0.377	0.391	0.404	0.419	0.433
Normative O&M per Bay	Rs. Lakh	34.36	16.08	16.64	17.23	17.83	18.46
Normative O&M per MVA	Rs. Lakh	0	0.245	0.254	0.263	0.272	0.282
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%	13.50%	12.05%	12.05%	12.05%	12.05%	12.05%
Lapsed life as on 01.04.2019 and beginning of every year(In completed years)	No. of years	29	30	31	32	33	34

1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.
2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.
3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

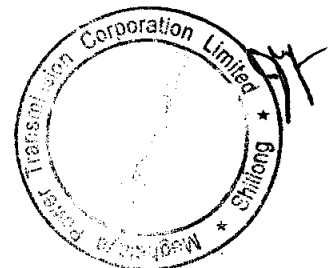
PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Project: 132 kV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

(Petitioner)

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PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole
 Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajal-Single Conductor (Asset-I)
 (Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project							
Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)			Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)
Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajal-Single Conductor (Asset-I)	01-04-1990	01-04-1990					29

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019

Particulars as on 31-03-2019 after true up of 2014- 19 period.	Asset I
a	b
Capital Cost as on 31.03.2019	0.00
Cumulative Depreciation as on 31-03-2019	0.0
Debt Equity Ratio as on 31.03.2019	90.00%
Equity	10.00%
Gross Equity for Normative ROE as on 31.03.2019	0.00
Gross Loan as on 31.03.2019	0.00
Cumulative Re-payment of Loan as on 31.03.2019	0.00

C) Computation of Effective COD for	
Asset No.	Asset I
a	b
1) Actual CDD of the Asset.	01-04-1990
2) COD considered for tariff purpose ⁱⁱ	01-04-1990
3) No. of days between the COD of the asset considered for tariff and the COD of the Project ⁱⁱⁱ	0.00
4) True up Capital Cost as on 31-03-2019 (in Lakh)	0.00
5) Weight of the Cost of an asset (in %)	0.00%
6) Weighted days = (3x5)	0.00
7) Effective COD = (i.e. COD of the Project - Total Weighted	01-04-1990

Note:

- i) COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed asses for tariff purpose has to be considered here (eg. Notional COD)
- ii) No. of days from the COO of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)
- iii) COD of the Project = The COD of the last asset of the Project.
- iv) Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (True up cost of concerned asset as on 31.03.2019 / Total of true up cost of all the assets) x100
- v) Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

D) Weighted Average useful Life of the Project as whole			
Particulars	Capital Cost as on Asset I	Useful life/ Extended	Weighted Cost
a	b	h	i = (b)x(h)
Freehold Land		0	
Leasehold Land		0	
Building & Other Civil Works		0	
Transmission Line	0.00	35	0.00
Sub-Station Equipment		0	
PLCC		0	
and so on			
Total	0.00		0.00
Weighted Average life = Total Weighted		35	Years

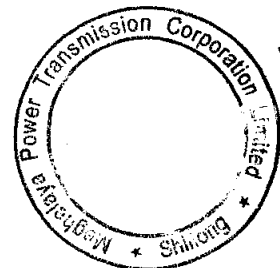
E) Lapsed weighted average useful life of the project & Balance weighted average Useful life

This refers to the No. of completed years	
i) Effective COD	01-04-1990
ii) Last day of the previous tariff control	31-03-2019
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)	29.02
iv) Remaining useful life (in year) (WAL-lapsed)	5.98

Note: 1) The petitioner has to maintain the identity of the individual assets. in consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual CDD, effective COD, cut-off date, admitted capital cost,O&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019. 3) The No. of completed year can be arrived by the excel function viz. YEARFRAC(31-03-2019,Effective COD) and ignore the fraction if any from the result.

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PART-III FORM- 5B

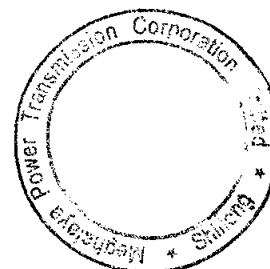
Details of all the assets covered in the project

Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)

S.No.	Name of Asset	COD	Delay (in No. of in days)	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition	
							Yes/No	If No, Petition No.
1	Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)	01-04-1990	0	0.00	0.00	0.00	Yes	
Total					0.00	0.00		

(Petitioner)

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PART-III FORM-7B

Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)

S. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					

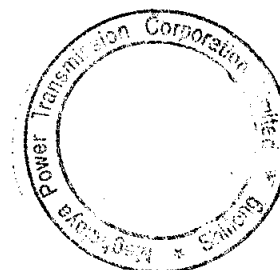
NA

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

(Petitioner)

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PART-III FORM- 9A
Details of Project Specific Loans

Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajai-Singie Conductor (Asset-I)

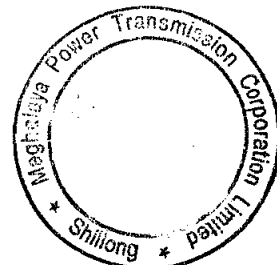
Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/COO 3,4,5,13,15						
Interest Type ⁶						
Fixed interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
If above is yes, specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

- Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
- Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
- Details to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
- Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
- If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
- Interest type means whether the interest is fixed or floating.
- Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
- Margin means the points over and above the floating rate.
- At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
- Moratorium period refers to the period during which loan servicing liability is not required.
- Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
- Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
- Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
- If the repayment instalment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
- In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
- Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
- In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
- At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
- At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

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PART-III FORM-9B
Details of Foreign loans

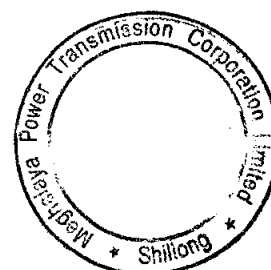
(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

S.No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4	5	6	7	8	9
	Particulars	Date	Amount(Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount(Foreign Currency)	Exchange Rate	Amount
	Currency ¹								
A.1	At the date of Draw ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency ²								
A.1	At the date of Draw ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency ³ & so on								
A.1									
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								

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PART-III FORM-8
Calculation of Return on Equity at Normal Rate

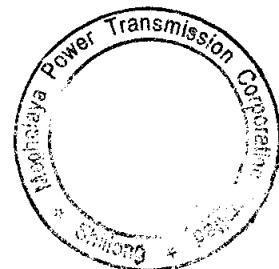
Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Opening Normative Equity		0.00	0.00	0.00	0.00	0.00
2	Less: Adjustment in Equity*						
3	Adjustment during the year						
4	Net Opening Equity (Normal)		0.00	0.00	0.00	0.00	0.00
5	Add: Increase in Equity due to addition during the year/period		0.00	0.00	0.00	0.00	0.00
6	Less: Decrease due to de-capitalisation during the year						
7	Add: Increase due to discharges during the year/period						
8	Closing Normative Equity		0.00	0.00	0.00	0.00	0.00
9	Average Normative Equity		0.00	0.00	0.00	0.00	0.00
11	Rate of Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.78%	18.78%	18.78%	18.78%	18.78%
15	Return on Equity of project cost till cut off date (Pre Tax)		0.00	0.00	0.00	0.00	0.00

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PART-III FORM- 9C

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6
Loan-1					
Gross loan - Opening	0	0	0.00	0.00	0.00
Cumulative repayments of Loans up to previous year			0	0	0
Net loan - Opening	0	0	0.00	0.00	0.00
Add: Drawl(s) during the Year	0	0	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0	0	0.00	0.00	0.00
Net loan - Closing	0	0	0.00	0.00	0.00
Average Net Loan	0	0	0	0	0
Rate of Interest on Loan on annual basis	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on loan			0.00	0.00	0.00
Loan repayment effective from (date to be indicated)					

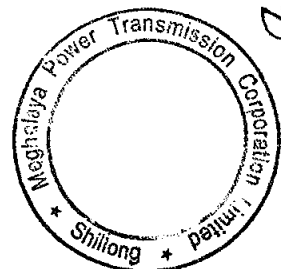
Note:1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.

2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.

3. Details of Financing Charges.

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PART-III FORM 9E
Calculation of Interest on Normative Loan

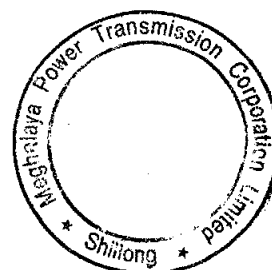
Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

S.No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Gross Normative loan – Opening		0.00	0.00	0.00	0.00	0.00
2	Cumulative repayment of Normative Loan upto previous year		0.00	0.00	0.00	0.00	0.00
3	Net normative loan – Opening		0.00	0.00	0.00	0.00	0.00
4	Addition in Normative loan towards the ACE		0.00	0.00	0.00	0.00	0.00
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.						
6	Normative Repayments of Normative Loan during the year		0.00	0.00	0.00	0.00	0.00
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.						
8	Net Normative loan – Closing		0.00	0.00	0.00	0.00	0.00
9	Average Normative Loan		0.00	0.00	0.00	0.00	0.00
10	Weighted average Rate of Interest of actual Loans		0.00%	0.00%	0.00%	0.00%	0.00%
11	Rates without refinancing		0.00%	0.00%	0.00%	0.00%	0.00%
12	Interest on Normative loan (with refinancing)		0.00	0.00	0.00	0.00	0.00
13	Interest on Normative loan (without refinancing)		0.00	0.00	0.00	0.00	0.00
15	1/2 of Prepayment premium+GST		0.00	0.00	0.00	0.00	0.00
15	Interest on Normative loan		0.00	0.00	0.00	0.00	0.00

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PART-III FORM 10

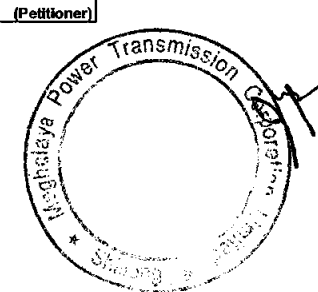
Calculation of Depreciation Rate on original project cost.

Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

S. No.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.24 (Annualized)
1	2	3					
2019-20							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation			0.00		5.28%	
5	PLCC			0.00		6.33%	
6	Leasehold Land			0.00		3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.00%
	Lapsed Life (Years)						30
2020-21							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.00%
	Lapsed Life (Years)						31
2021-22							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.00%
	Lapsed Life (Years)						32
2022-23							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depriciation						0.00%
	Lapsed Life (Years)						33
2023-24							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depriciation						0.00%
	Lapsed Life (Years)						34

Note:
1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.



PART-II FORM- 10 A

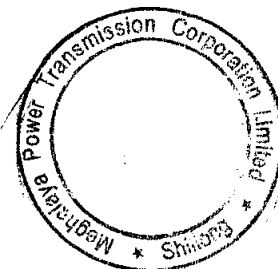
Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

Statement of Depreciation							
S. No.	Particulars	As on 01-04-2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
Life at the beginning of year							
1.1	Weighted Average useful Life of the Asset/Project.		35	35	35	35	35
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		30	31	32	33	34
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		5	4	3	2	1
Capital Base							
1.4	Opening Capital Cost		0.00	0.00	0.00	0.00	0.00
1.5	Additional Capital Expenditure dr. the year		0.00	0.00	0.00	0.00	0.00
1.6	De-Capitalisation during the year						
1.7	Closing Capital Cost		0.00	0.00	0.00	0.00	0.00
1.8	Average Capital Cost		0.00	0.00	0.00	0.00	0.00
1.9	Freehold land included in 1.8		0.00	0.00	0.00	0.00	0.00
1.10	Asset having NIL Salvage value included in 1.8						
1.11	Asset having 10% Salvage value included in 1.8		0.00	0.00	0.00	0.00	0.00
1.12	Depreciable value (1.10+ 90% of 1.11)		0.00	0.00	0.00	0.00	0.00
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		0.00%	0.00%	0.00%	0.00%	0.00%
1.14	Depreciation (for the period)		0.00	0.00	0.00	0.00	0.00
1.15	Depreciation (annualised)		0.00	0.00	0.00	0.00	0.00
1.16	Cumulative depreciation at the beginning of the period		0.00	0.00	0.00	0.00	0.00
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.						
1.18	Cumulative depreciation at the end of the period		0.00	0.00	0.00	0.00	0.00

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PART-III FORM-11

Calculation of Interest on Working Capital

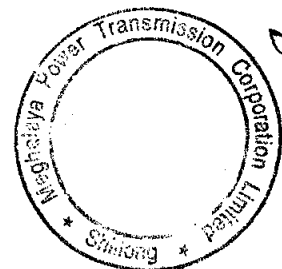
Name of the Transmission Assets:- 132 KV D/C Umtru- Sarusajal-Single Conductor (Asset-I)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
1	O & M Expenses - one month		9.30	9.63	9.97	10.31	10.68
2	Maintenance Spares 15% of O&M Expenses		16.74	17.33	17.94	18.57	19.23
3	Receivables equivalent to 45 days of AFC		14.32	14.86	15.39	15.93	16.45
4	Total Working Capital		40.35	41.82	43.30	44.81	46.35
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		12.05%	12.05%	12.05%	12.05%	12.05%
6	Interest on Working Capital		4.86	5.04	5.22	5.40	5.59

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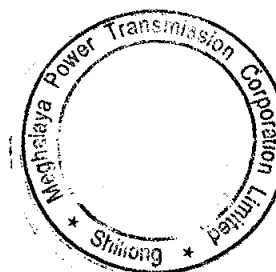
PART-II FORM- 15

Summary of issue involved in the petition

1. Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
2. Petition Category	Transmission Tariff
3. Tariff Period	2019-24
4. Name of the Project	Transmission Assets:- 132 KV D/C Umtru- Sarusajai-Single Condu
5. Investment Approval date	
6. SCOD of the Project	01-04-1990
7. Actual COD of the project	01-04-1990
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	1
10. No. of Assets having time over run	NA
11. Estimated Project Cost as per IA	0.00
12. Is there any RCE? if so, provide the date	NA
13. Revised Estimated Project Cost (if any)	0.00
14. Completion cost for all the assets covered in the instant petition.	0.00
15. No. of Assets covered in instant petition and having cost overrun.	
16	Prayer in brief
17	Key details and any Specific issue involved
18	Respondents
	Name of Respondents
1	Central Transmission Utility of India Limited (CTUIL), SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).
2.	Assam Electricity Grid Corporation Limited, (Formerly Assam State Electricity Board) Bijulee Bhawan, Paltan Bazar,
3	Government of Arunachal Pradesh, Itanagar, Arunachal Pradesh.
4.	Power and Electricity Department, Government of Mizoram, Aizawl, Mizoram
5	Manipur State Electricity Distribution Company Limited, (Formerly Electricity Department, Government of Manipur), Keishampat, Imphal.
6.	Department of Power, Government of Nagaland, Kohima, Nagaland.
7	Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W)-799001, Tripura.
8.	Meghalaya Energy Corporation Limited, Lumjingshai, Short Round Road, Shillong -1
9	ONGC Tripura Power Company Ltd., Udaipur, Karkaban road, Palatana P.O Distt-Gomati, Tripura - 799105
10.	NERLDC, Executive Director, Power House, Kahilipara, Guwahati-781019 (Assam)
11	North Eastern Regional Power Committee, Member Secretary, Lapalong Nongrim Hills, Shillong- 793003

(Petitioner)

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PART-III FORM A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.

Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
Tariff Period	2019-24
Name of the Transmission Project	Name of the Transmission Assets:- 132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)
COD of the Project(if entire scope of project is completed)	01-04-1990

Rupees in lakh

A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the Instant petition.

S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date	
				As per Investment approval	As per RCE	As on COD	2019-20	2020-2021	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024		
				3	4	5	6	7	8	9	10	11		12
1		01-04-1990		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Capital Cost Claimed				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

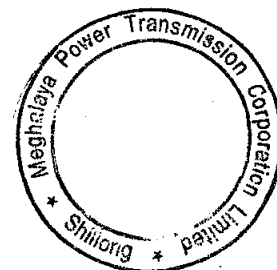
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.

S. No.	Asset No.	Asset Name and its location	2019-20	2020-21	2021-22	2022-23	2023-24
1		132 kV D/C Umtru- Sarusajai-Single Conductor (Asset-I)	116.44	120.57	124.83	129.17	133.76
Total AFC for all the Assets			116.44	120.57	124.83	129.17	133.76

Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.

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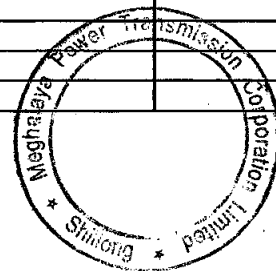
**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

Annexure-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/ elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	✓
FORM- 4A	Statement of Capital cost	
FORM- 4B	Statement of Capital Works in Progress	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	
FORM-5	Element wise Break-up of Project/ Asset/Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	
FORM- 7	Statement of Additional Capitalisation after COD	
FORM- 7A	Financing of Additional Capitalisation	
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	✓
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	
FORM-9	Details of Allocation of corporate loans to various transmission elements	
FORM-9A	Details of Project Specific Loans	✓
FORM-9B	Details of Foreign loans	✓
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	✓
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	
FORM- 12A	Incidental Expenditure during Construction	
FORM- 12B	Calculation of IDC & Financing Charges	
FORM- 13	Details of Initial spares	
FORM- 14	Non-Tariff Income	



**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III
Annexure-I**

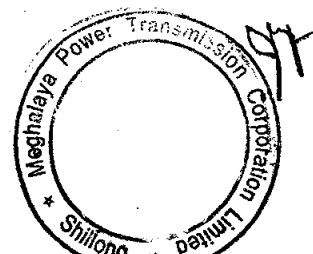
INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM-15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	
10.	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

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PART-III FORM-1

Summary of Tariff

Name of Petitioner

Meghalaya Power Transmission Commission Limited (MePTCL)

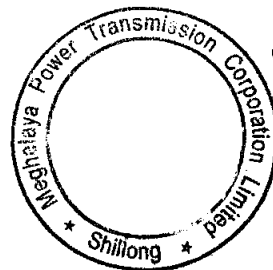
Name of the Transmission Assets:- 132 kV D/C Kahellpara-Umtru-Single Conductor (Asset-II)

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Depreciation	10A	0	0.00	0.00	0.00	0.00
2	Interest on Loan	9E	0	0.00	0.00	0.00	0.00
3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
4	Interest on Working Capital	11	1.81	1.87	1.94	2.01	2.08
5	O & M Expenses		41.46	42.93	44.44	45.99	47.62
	Total AFC		43.27	44.80	46.38	48.00	49.69

Note: This Form is a summary form and the Data to this from should flow from other base forms.

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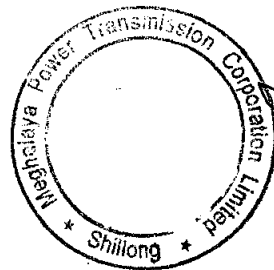
PART-III FORM-1A
Summary of Asset Level Cost

Name of the Transmission Assets:- 132 kV D/C Kahelpara-Umtru-Single Conductor (Asset-II)

A) Summary of Capital Cost, Means of Finance of the Asset											(Amount in Rs. Lakh)		
Particular	i) Apportioned Approved Cost			ii) Summary of Actual / Projected Capital Cost							as on 31.03.2024		
	As per IA	As per RCE-3	As on COD/01-04-2019	2019-20 (Actual/Projected)	2020-21 (Actual/Projected)	2021-22 (Actual/Projected)	2022-23 (Actual/Projected)	2023-24 (Actual/Projected)					
Land (Freehold Land)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Land (Leasehold)											0.00		
Building & Civil Works			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Sub-Station													
PLCC													
Total Capital Cost as per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Less: Liability													
Add: Discharge of liability				0.00							0.00		
Total Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Equity	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Debt	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Note: This Form is a summary form and the Data to this from should flow from other base forms.

(Petitioner)



PART-III FORM-2
Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instant asset

1. Transmission Lines:

S.No.	Name of Line	Type of Line AC/RVDC	S/C or D/C	No. of Sub- Conductors	Voltage Level KV	Line Bays	Transformer (Including Switchable Reactor)	Line length km	Date of Commercial Operation	Covered in the present Petition	
										Yes/No	If No, Petition No.
1	Name of the Transmission Assets:- 132 KV D/C Kahelipara-Umtru-Single Conductor (Asset-II)	AC	D/C	1	132	2	1	11.88	01-04-1980	20	Yes

Summary:

O&M Expenses for the Transmission lines covered in the instant petition											
Normative rate of O&M as per Regulation (Rupees in Lakh)											
Length in km	2019-20	2020-21	2021-22	2022-23	2023-24						
11.88	0.377	0.391	8.404	0.419	0.433						
O&M Claimed (Rupees in Lakh)	11.88	11.88	11.88	11.88	11.88						
	4.403	4.597	4.718	4.894	5.057						

2.

S.No.	Name of Sub-station	Type of Substation Conventional/ Greenfield/Br ownfield/ GIS/RVDC terminal/HVD	Voltage level KV	No. of transformers/VC Reactors/SVC etc. (with capacity)	No. of Bays			MVA Capacity	Date of Commercial operation	Covered in the present Petition Yes/No	If No, Petition No.				
					785 KV	400KV	220 KV								
1	NA				2	2	1	132 KV & Below	785 KV	400 KV	220 KV	132 KV & Below	1		

Summary:

O&M Expenses for the Substations covered in the instant petition											
Normative rate of O&M/ Bay as per Regulation (Rupees in Lakh)											
No. of units	2019-20	2020-21	2021-22	2022-23	2023-24						
2	16.08	16.64	17.23	17.83	18.46						
O&M Claimed (Rupees in Lakh)	32.160	33.280	34.460	35.660	36.920						

Note:

- Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.
- The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Com

3. Communication System:

S.No.	Name of Communication System	Type of Communication	Length of OPGW in km	No. of RTU	No. of PMU	Date of Commercial operation	Capital Cost upto Cut off date (Original)	Covered in the present Petition Yes/No	If No, Petition No.
1	NA								

Summary:

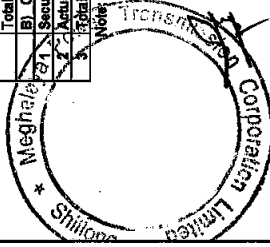
O&M Expenses for the Transformer covered in the instant petition										
O&M expenses as per regulations per MVA (in Lacs)										
Transformer Rating	2019-20	2020-21	2021-22	2022-23	2023-24					
400	0.245	0.254	0.263	0.272	0.282					
Actual O&M Expense (Rupees in Lakh)	20	20	20	20	20					
Original project cost/ Asset related to the communication system	1	1	1	1	1					
Note: The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be	4.900	5.080	5.260	5.440	5.640					

4) Summary of O&M Expenses claim

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M						
1	Transmission lines	4.40	4.57	4.72	4.89	5.06
2	Substation	32.160	33.280	34.460	35.660	36.920
3	Transformer	4.800	5.080	5.260	5.440	5.640
	Total Normative O&M	41.46	42.93	44.44	45.99	47.62
B) O&M Claimed under Regulation 36 (3)(C)						
1	Security Expenses					
2	Actual Capital Spare consumed	41.46	42.93	44.44	45.99	47.62
3	Total O&M	41.46	42.93	44.44	45.99	47.62

Note: The security expenses and Capital Spares are to be submitted on estimated basis for the purpose of O&M

(Petitioner)



PART-III FORM-3
Normative Parameters considered for Tariff Computation

Name of the Transmission Assets:- 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset-II)

Particulars	Unit	Year Ending March					
		Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date ¹	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tax Rate	%	21.55%	17.47%	17.47%	17.47%	17.47%	17.47%
Effective Tax Rate ²	%	19.76%	18.78%	18.78%	18.78%	18.78%	18.78%
Target Availability	%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
Normative O&M per km	Rs. Lakh	0.346	0.377	0.391	0.404	0.419	0.433
Normative O&M per Bay	Rs. Lakh	34.36	16.08	16.64	17.23	17.83	18.46
Normative O&M per MVA	Rs. Lakh	0	0.245	0.254	0.263	0.272	0.282
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%	13.50%	12.05%	12.05%	12.05%	12.05%	12.05%
Lapsed life as on 01.04.2019 and beginning of every year(in completed years)	No. of years	59	60	61	62	63	64

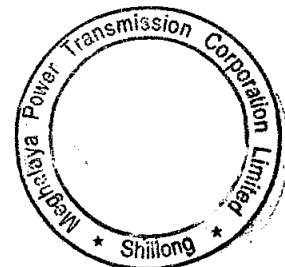
1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.

2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

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PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole
 Name of the Transmission Assets:- 132 kV D/C Kahellpara-Umtru-Single Conductor (Asset-II)
 (Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project

Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)
Name of the Transmission Assets:- 132 kV D/C Kahellpara-Umtru-Single Conductor (Asset-II)	01-04-1960	01-04-1960			59

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019

Particulars as on 31-03-2019 after true up of 2014- 19 period.	Asset I
a	b
Capital Cost as on 31.03.2019	0.00
Cumulative Depreciation as on 31-03-2019	0.0
Debt Equity Ratio as on 31.03.2019	90.00%
	Equity 10.00%
Gross Equity for Normative ROE as on 31.03.2019	0.00
Gross Loan as on 31.03.2019	0.00
Cumulative Re-payment of Loan as on 31.03.2019	0.00

C) Computation of Effective COD for

Asset No.	Asset I
a	b
1) Actual COD of the Asset.	01-04-1960
2) COD considered for tariff purpose (ii)	01-04-1960
3) No. of days between the COD of the asset considered for tariff and the COD of the Project. (iii)(iv)	0.00
4) True up Capital Cost as on 31-03-2019 (in Lakh)	0.00
5) Weight of the Cost of an asset (in %) (v)	0.00%
6) Weighted days = (3x5)	0.00
7) Effective COD = (i.e. COD of the Project - Total Weighted	01-04-1960

- Note:
- i) COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed asses for tariff purpose has to be considered here (eg. Notional COD)
 - ii) No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the Individual asset)
 - iii) COD of the Project = The COD of the last asset of the Project.
 - iv) Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (True up cost of concerned asset as on 31.03.2019 / Total of true up cost of all the assets) x100
 - v) Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

D) Weighted Average useful Life of the Project as whole

Particulars	Capital Cost as on Asset I	Useful life/ Extended	Weighted Cost
a	b	h	i = (b)x(h)
Freehold Land		0	
Leasehold Land		25	
Building & Other Civil Works		25	
Transmission Line	0.00	35	0.00
Sub-Station Equipment		25	
PLCC		15	
and so on			
Total	0.00		0.00
Weighted Average life = Total Weighted		35	Years

E) Lapsed weighted average useful life of the project & Balance weighted average Useful life

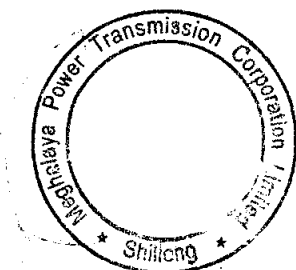
This refers to the No. of completed years

i) Effective COD	01-04-1960
ii) Last day of the previous tariff control	31-03-2019
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)	59.04
iv) Remaining useful life (in year) (WAL-lapsed)	-24.04

Note: 1) The petitioner has to maintain the Identity of the individual assets. In consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual COD, effective COD, cut-off date, admitted capital cost, O&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019. 3) The No. of completed year can be arrived by the excel function viz. YEARFRAC(31-03-2019, Effective COD) and ignore the fraction if any from the result.

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PART-II FORM- 5B

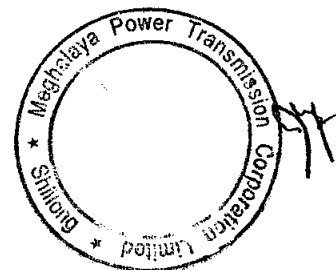
Details of all the assets covered in the project

Name of the Transmission Assets:- 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset-II)

S.No.	Name of Asset	COD	Delay (in No. of in days)	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition	
							Yes/No	If No, Petition No.
1	Name of the Transmission Assets:- 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset-II)	01-04-1960	0	0.00	0.00	0.00	Yes	
Total					0.00	0.00		

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PART-III FORM-7B

Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

Name of the Transmission Assets:- 132 kV D/C Kahellpara-Umtru-Single Conductor (Asset-II)

S. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					

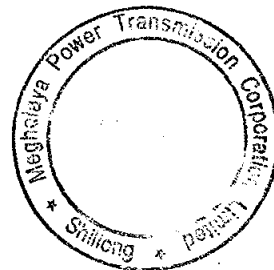
NA

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

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PART-III FORM-9A
Details of Project Specific Loans

Name of the Transmission Assets:- 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset-II)

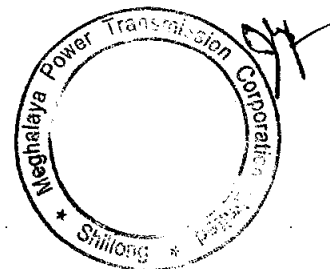
Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/COD 3,4,5,13,15						
Interest Type ⁶						
Fixed interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
If above is yes, specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment instalment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of trueing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of trueing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

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PART-III FORM-9B

Details of Foreign loans

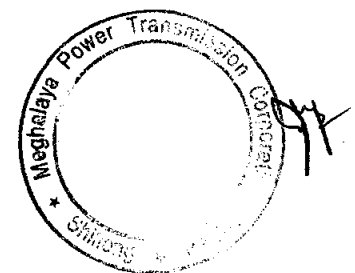
(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Assets:- 132 kV D/C Kahelipara-Umtru-Single Conductor (Asset-II)

S.No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4	5	6	7	8	9
	Particulars	Date	Amount(Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount(Foreign Currency)	Exchange Rate	Amount
	Currency1¹								
A.1	At the date of Draw ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of Interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency2¹								
A.1	At the date of Draw ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of Interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency 3¹ & so on								
A.1									
2	Scheduled repayment date of principal								
3	Scheduled payment date of Interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								

(Petitioner)

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PART-III FORM-8
Calculation of Return on Equity at Normal Rate

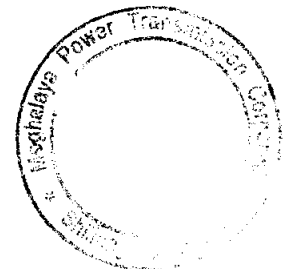
Name of the Transmission Assets:- 132 KV D/C Kahelipara-Umtru-Single Conductor (Asset-II)

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Opening Normative Equity		0.00	0.00	0.00	0.00	0.00
2	Less: Adjustment in Equity*						
3	Adjustment during the year						
4	Net Opening Equity (Normal)		0.00	0.00	0.00	0.00	0.00
5	Add: Increase in Equity due to addition during the year/period		0.00	0.00	0.00	0.00	0.00
6	Less: Decrease due to de-capitalisation during the year						
7	Add: Increase due to discharges during the year/period						
8	Closing Normative Equity		0.00	0.00	0.00	0.00	0.00
9	Average Normative Equity		0.00	0.00	0.00	0.00	0.00
11	Rate of Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.78%	18.78%	18.78%	18.78%	18.78%
15	Return on Equity of project cost till cut off date (Pre Tax)		0.00	0.00	0.00	0.00	0.00

(Petitioner)

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PART-III FORM- 9C					
Calculation of Weighted Average Rate of Interest on Actual Loans ¹					
Name of the Transmission Assets:- 132 KV D/C Kahelipara-Umtru-Single Conductor (Asset-II)					
(Amount in Rs. Lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6
Loan-1					
Gross loan - Opening	0	0	0.00	0.00	0.00
Cumulative repayments of Loans up to previous year			0	0	0
Net loan - Opening	0	0	0.00	0.00	0.00
Add: Drawl(s) during the Year	0	0	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0	0	0.00	0.00	0.00
Net loan - Closing	0	0	0.00	0.00	0.00
Average Net Loan	0	0	0	0	0
Rate of Interest on Loan on annual basis	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on loan			0.00	0.00	0.00
Loan repayment effective from (date to be indicated)					

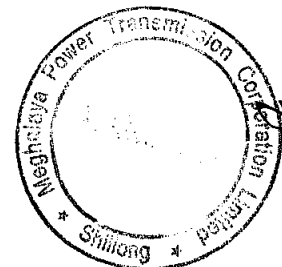
Note:1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.

2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.

3. Details of Financing Charges.

(Petitioner)

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PART-III FORM 9E
Calculation of Interest on Normative Loan

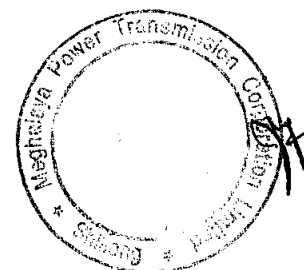
Name of the Transmission Assets:- 132 kV D/C Kahelpara-Umtru-Single Conductor (Asset-II)

(Amount in Rs. Lakh)

S.No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Gross Normative loan – Opening		0.00	0.00	0.00	0.00	0.00
2	Cumulative repayment of Normative Loan upto previous year		0.00	0.00	0.00	0.00	0.00
3	Net normative loan – Opening		0.00	0.00	0.00	0.00	0.00
4	Addition in Normative loan towards the ACE		0.00	0.00	0.00	0.00	0.00
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.						
6	Normative Repayments of Normative Loan during the year		0.00	0.00	0.00	0.00	0.00
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.						
8	Net Normative loan – Closing		0.00	0.00	0.00	0.00	0.00
9	Average Normative Loan		0.00	0.00	0.00	0.00	0.00
10	Weighted average Rate of Interest of actual Loans		0.00%	0.00%	0.00%	0.00%	0.00%
11	Rates without refinancing		0.00%	0.00%	0.00%	0.00%	0.00%
12	Interest on Normative loan (with refinancing)		0.00	0.00	0.00	0.00	0.00
13	Interest on Normative loan (without refinancing)		0.00	0.00	0.00	0.00	0.00
15	1/2 of Prepayment premium+GST		0.00	0.00	0.00	0.00	0.00
15	Interest on Normative loan		0.00	0.00	0.00	0.00	0.00

(Petitioner)

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PART-III FORM 10

Calculation of Depreciation Rate on original project cost

Name of the Transmission Assets:- 132 KV D/C Kahelipara-Umtru-Single Conductor (Asset-II)

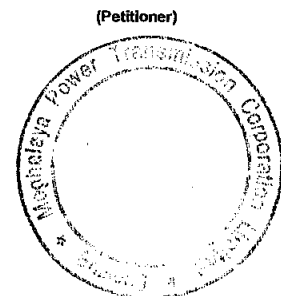
(Amount in Rs. Lakh)

S. No.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.24 (Annualized)
	1	2	3				
2019-20							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation			0.00		5.28%	
5	PLCC			0.00		6.33%	
6	Leasehold Land			0.00		3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.00%
	Lapsed Life (Years)						60
2020-21							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depriciation						0.00%
	Lapsed Life (Years)						81
2021-22							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depriciation						0.00%
	Lapsed Life (Years)						62
2022-23							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depriciation						0.00%
	Lapsed Life (Years)						63
2023-24							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depriciation						0.00%
	Lapsed Life (Years)						64

Note:

- Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

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PART-III FORM- 10 A

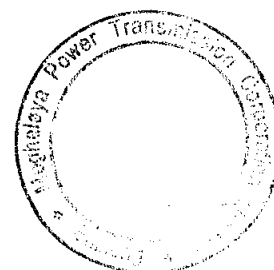
Name of the Transmission Assets:- 132 KV D/C Kahellpara-Umtru-Single Conductor (Asset-II)

(Amount in Rs. Lakh)

Statement of Depreciation							
S. No.	Particulars	As on 01-04 2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days In the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
Life at the beginning of year							
1.1	Weighted Average useful Life of the Asset/Project.		35	35	35	35	35
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		60	61	62	63	64
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		0	0	0	0	0
Capital Base							
1.4	Opening Capital Cost		0.00	0.00	0.00	0.00	0.00
1.5	Additional Capital Expenditure dr. the year		0.00	0.00	0.00	0.00	0.00
1.6	De-Capitalisation during the year						
1.7	Closing Capital Cost		0.00	0.00	0.00	0.00	0.00
1.8	Average Capital Cost		0.00	0.00	0.00	0.00	0.00
1.9	Freehold land included in 1.8		0.00	0.00	0.00	0.00	0.00
1.10	Asset having NIL Salvage value included in 1.8						
1.11	Asset having 10% Salvage value included in 1.8		0.00	0.00	0.00	0.00	0.00
1.12	Depreciable value (1.10+ 90% of 1.11)		0.00	0.00	0.00	0.00	0.00
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		0.00%	0.00%	0.00%	0.00%	0.00%
1.14	Depreciation (for the period)		0.00	0.00	0.00	0.00	0.00
1.15	Depreciation (annualised)		0.00	0.00	0.00	0.00	0.00
1.16	Cumulative depreciation at the beginning of the period		0.00	0.00	0.00	0.00	0.00
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.						
1.18	Cumulative depreciation at the end of the period		0.00	0.00	0.00	0.00	0.00

(Petitioner)

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PART-III FORM-11

Calculation of interest on Working Capital

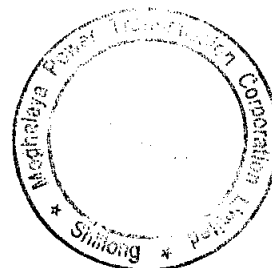
Name of the Transmission Assets:- 132 kV D/C Kaheipara-Umtru-Single Conductor (Asset-II)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
i	No. of Days in the year		366	365	365	365	366
ii	No. of days for which tariff claimed		366	365	365	365	366
1	O & M Expenses - one month		3.46	3.58	3.70	3.83	3.97
2	Maintenance Spares 15% of O&M Expenses		6.22	6.44	6.67	6.90	7.14
3	Receivables equivalent to 45 days of AFC		5.32	5.52	5.72	5.92	6.11
4	Total Working Capital		14.99	15.54	16.09	16.65	17.22
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		12.05%	12.05%	12.05%	12.05%	12.05%
6	Interest on Working Capital		1.81	1.87	1.94	2.01	2.08

(Petitioner)

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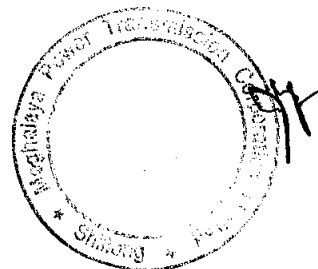
PART-III FORM- 15

Summary of issue involved in the petition

1. Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
2. Petition Category	Transmission Tariff
3. Tariff Period	2019-24
4. Name of the Project	Name of the Transmission Assets:- 132 kV D/C Kahelipara-Umrtru Single Conductor (Asset-II)
5. Investment Approval date	
6. SCOD of the Project	01-04-1960
7. Actual COD of the project	01-04-1960
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	1
10. No. of Assets having time over run	NA
11. Estimated Project Cost as per IA	0.00
12. Is there any RCE? if so, provide the date	NA
13. Revised Estimated Project Cost (if any)	0.00
14. Completion cost for all the assets covered in the instant petition.	0.00
15. No. of Assets covered in instant petition and having cost overrun.	
16	Prayer In brief
17	Key details and any Specific issue involved
18	Respondents
	Name of Respondents
1	CTUIL, SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).
2.	Assam Electricity Grid Corporation Limited, (Formerly Assam State Electricity Board) Bijulee Bhawan, Paltan Bazar,
3	Government of Arunachal Pradesh, Itanagar, Arunachal Pradesh.
4.	Power and Electricity Department, Government of Mizoram, Aizawl, Mizoram
5	Manipur State Electricity Distribution Company Limited, (Formerly Electricity Department, Government of Manipur),
6.	Department of Power, Government of Nagaland, Kohima, Nagaland.
7	Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W)-799001, Tripura.
8.	Meghalaya Energy Corporation Limited, Lumjingshai, Short Round Road, Shillong -1
9	ONGC Tripura Power Company Ltd., Udaipur, Karkaban road, Palatana P.O Distt-Gomati, Tripura -- 799105
10.	NERLDC, Executive Director, Power House, Kahilipara, Guwahati-781019 (Assam)
11	North Eastern Regional Power Committee, Member Secretary, Lapalong Nongrim Hills, Shillong- 793003

(Petitioner)

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PART-III FORM A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.

Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MaPTCL)
Tariff Period	2019-24
Name of the Transmission Project	Name of the Transmission Assets:- 132 kV D/C Kahellpara-Umtru-Single Conductor (Asset-II)
COD of the Project(if entire scope of project is completed)	01-04-1960

Rupees in lakh

A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.

S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date	
				As per investment approval	As per RCE	As on COD	2019-20	2020-2021	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024		
														3
1		01-04-1960		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost Claimed				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.

S. No.	Asset No.	Asset Name and its location	2019-20	2020-21	2021-22	2022-23	2023-24
1		Name of the Transmission Assets:- 132 kV D/C Kahellpara-Umtru-Single Conductor (Asset-II)	43.27	44.80	46.38	48.00	49.69
Total AFC for all the Assets			43.27	44.80	46.38	48.00	49.69

Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.

(Petitioner)

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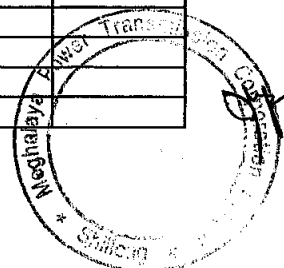
**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

Annexure-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4		✓
FORM- 4A	Statement of Capital cost	
FORM- 4B	Statement of Capital Works in Progress	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	
FORM-5	Element wise Break-up of Project/ Asset/Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	
FORM- 7	Statement of Additional Capitalisation after COD	
FORM- 7A	Financing of Additional Capitalisation	
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	✓
FORM- 8	Calculation of Return on Equity	
FORM-8A	Details of Foreign Equity	✓
FORM-9	Details of Allocation of corporate loans to various transmission elements	✓
FORM-9A	Details of Project Specific Loans	✓
FORM-9B	Details of Foreign loans	✓
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	
FORM- 12A	Incidental Expenditure during Construction	
FORM- 12B	Calculation of IDC & Financing Charges	
FORM- 13	Details of Initial spares	
FORM- 14	Non-Tariff Income	



**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III
Annexure-I**

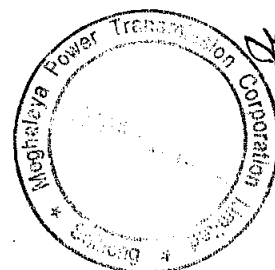
INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM-15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	
10.	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

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PART-III FORM-1

Summary of Tariff

Name of Petitioner

Meghalaya Power Transmission Commission Limited (MePTCL)

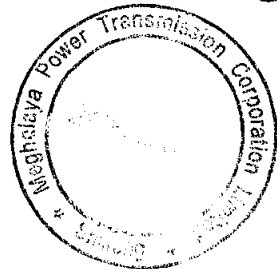
Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Depreciation	10A	0	0.00	0.00	0.00	0.00
2	Interest on Loan	9E	0	0.00	0.00	0.00	0.00
3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
4	Interest on Working Capital	11	1.18	1.22	1.26	1.30	1.35
5	O & M Expenses		26.98	27.91	28.92	29.91	30.98
	Total AFC		28.15	29.13	30.18	31.21	32.33

Note: This Form is a summary form and the Data to this from should flow from other base forms.

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(Petitioner)



PART-III FORM-1A
Summary of Asset Level Cost

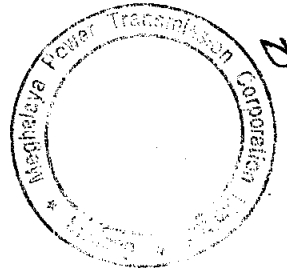
Name of the Transmission Assets:- 132 KV S/C Panchgram-Lumshong-Single Conductor (Asset-II)

Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost								as on 31.03.2024
	As per IA	As per RCE-3	As on COD/01-04-2019	2019-20 (Actual/Projected)	2020-21 (Actual/Projected)	2021-22 (Actual/Projected)	2022-23 (Actual/Projected)	2023-24 (Actual/Projected)	2023-24 (Actual/Projected)		
										(Amount in Rs. Lakh)	
Land (Freehold Land)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)											0.00
Building & Civil Works			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station											
PLCC											
Total Capital Cost as per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Liability											
Add: Discharge of liability											0.00
Total Capital Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Equity	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: This Form is a summary form and the Data to this from should flow from other base forms.

(Petitioner)

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PART-III FORM-2
Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instant asset

1. Transmission Lines:

S.No.	Name of Line (Asset-II)	Type of Line ACH/VD/C	S/C or D/C	No. of Sub- Conductors	Voltage Level KV	Line Bays	Transformer(Including Switchable Reactor)	Line length km	Date of Commercial Operation	Covered in the present Petition	
										Yes/No	If No, Petition No.
1	Name of the Transmission Assets:- 132 KV S/C Panchgram-Lumshingong-Single Conductor (Asset-II)	AC	D/C	1	132	1	2	23.8	01-04-1960	10	Yes

Summary:

O&M Expenses for the Transmission lines covered in the instant petition		2019-20	2020-21	2021-22	2022-23	2023-24
Length in km	Normative rate of O&M as per Regulation (Rupees in Lakh)	20	21	0.27	0.27	0.288
O&M Claimed (Rupees in Lakh)		23.8	23.8	23.8	23.8	23.8
		0.00	0.19	0.43	0.64	0.88

2.

S.No.	Name of Sub-station	Type of Substation (Conventional/Greenfield/Br or field/DC GIS/SIV/DC terminal/RVD)	Voltage level KV	No. of transformer etc. (with capacity)	No. of Bays	MVA Capacity		Date of Commercial operation	Covered in the present Petition
						765 KV	400KV		
1	INA					132 KV & Below	785 KV	400 KV	2

Summary:

O&M Expenses for the substations covered in the instant petition		2019-20	2020-21	2021-22	2022-23	2023-24
Normative rate of O&M/ Bay as per Regulation (Rupees in Lakh)		18.08	18.84	17.23	17.83	18.46
No. of units		1	1	1	1	1
O&M Claimed (Rupees in Lakh)		18.080	18.840	17.230	17.830	18.460

- Note:
- Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.
 - The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Com

3. Communication System:

S.No.	Name of Communication System	Type of Communication	Length of OP/Wireless	No. of RTU	No. of PMU	Date of Commercial	Capital Cost upto		Covered in the present Petition
							Original	Year/No	
1	INA								

Summary:

O&M Expenses for the Transformer covered in the instant petition		2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses as per regulations per MVA (in Lacs)		0.245	0.254	0.263	0.272	0.282
Transformer Rating		10	10	10	10	10
Actual O&M Expense (Rupees in Lakh)		2	2	2	2	2
Original project cost/ Asset related to the communication system		4.900	6.080	6.260	6.440	6.620

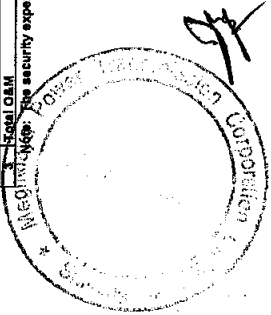
Note: The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be

4) Summary of O&M Expenses claim

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M						
1	Transmission line	8.00	6.19	8.43	8.64	8.88
2	Substation	18.080	18.840	17.230	17.830	18.460
3	Transformer	4.900	5.080	5.260	5.440	5.620
	Total Normative O&M	28.98	27.91	28.92	28.91	30.96
B) O&M Claimed under Regulation 36 (3)(C)						
1	Security Expenses					
2	Actual O&M	23.88	27.91	28.92	28.81	30.98

Note: The security expenses and Capital Expenses are to be submitted on estimated basis for the purpose of O&M

(Petitioner)



PART-III FORM-3

Normative Parameters considered for Tariff Computation

Name of the Transmission Assets:- 132 kv S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

Year Ending March

Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date ¹	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tax Rate	%	21.55%	17.47%	17.47%	17.47%	17.47%	17.47%
Effective Tax Rate ²	%	19.76%	18.78%	18.78%	18.78%	18.78%	18.78%
Target Availability	%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
Normative O&M per km	Rs. Lakh	0.23	0.252	0.260	0.270	0.279	0.289
Normative O&M per Bay	Rs. Lakh	34.36	16.08	16.64	17.23	17.83	18.46
Normative O&M per MVA	Rs. Lakh	0	0.245	0.254	0.263	0.272	0.282
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%	13.50%	12.05%	12.05%	12.05%	12.05%	12.05%
Lapsed life as on 01.04.2019 and beginning of every year(in completed years)	No. of years	59	60	61	62	63	64

1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan In accordance with first Proviso to Regulation 30.
2. To be supported by necessary documents and calculations. Effective tax rate is to be computed In accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross Income, where gross Income refers the profit before tax.
3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

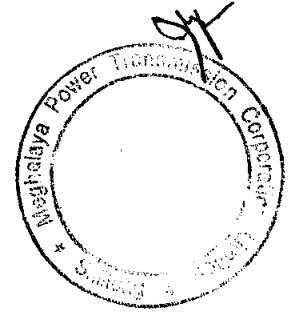
PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Project: 400 kv Pallatana-Bongaigaon Transmission System

(Petitioner)

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PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole
 Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)
 (Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project								
Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)			Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)	
Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)	01-04-1960	01-04-1960					59	

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019

Particulars as on 31-03-2019 after true up of 2014- 19 period.	Asset I
a	b
Capital Cost as on 31.03.2019	0.00
Cumulative Depreciation as on 31-03-2019	0.0
Debt Equity Ratio as on 31.03.2019	Debt Equity
Gross Equity for Normative ROE as on 31.03.2019	0.00
Gross Loan as on 31.03.2019	0.00
Cumulative Re-payment of Loan as on 31.03.2019	0.00

C) Computation of Effective COD for

Asset No.	Asset I
a	b
1) Actual COD of the Asset	01-04-1960
2) COD considered for tariff purpose ⁽ⁱ⁾	01-04-1960
3) No. of days between the COD of the asset considered for tariff and the COD of the Project ⁽ⁱⁱ⁾⁽ⁱⁱⁱ⁾	0.00
4) True up Capital Cost as on 31-03-2019 (in Lakh)	0.00
5) Weight of the Cost of an asset (in %) ^(iv)	0.00%
6) Weighted days = (3x5)	0.00
7) Effective COD = (i.e. COD of the Project - Total Weighted	01-04-1960

Note:

- i) COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed asses for tariff purpose has to be considered here (eg. Notional COD)
- ii) No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)
- iii) COD of the Project = The COD of the last asset of the Project.
- iv) Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (True up cost of concerned asset as on 31.03.2019 / Total of true up cost of all the assets) x100
- v) Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

D) Weighted Average useful Life of the Project as whole

Particulars	Capital Cost as on Asset I	Useful life/ Extended	Weighted Cost
a	b	h	i = (b)x(h)
Freehold Land		0	
Leasehold Land		25	
Building & Other Civil Works		25	
Transmission Line	0.00	35	0.00
Sub-Station Equipment		25	
PLCC		15	
and so on			
Total	0.00		0.00
Weighted Average life = Total Weighted		35	Years

E) Lapsed weighted average useful life of the project & Balance weighted average Useful life

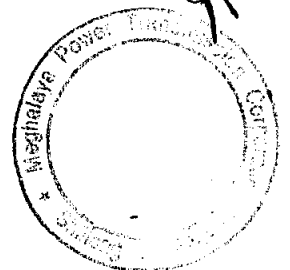
This refers to the No. of completed years

i) Effective COD	01-04-1960
ii) Last day of the previous tariff control	31-03-2019
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)	59.04
iv) Remaining useful life (in year) (WAL-lapsed)	-24.04

Note: 1) The petitioner has to maintain the identity of the individual assets. In consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual COD, effective COD, cut-off date, admitted capital cost, O&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019. 3) The No. of completed year can be arrived by the excel function viz. YEARFRAC(31-03-2019, Effective COD) and ignore the fraction if any from the result.

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PART-III FORM-5B

Details of all the assets covered in the project

Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

S.No.	Name of Asset	COD	Delay (in No. of in days)	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition		
							Yes/No	If No, Petition No.	
1	Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)	01-04-1960	0	0.00	0.00	0.00	Yes		
Total						0.00	0.00		

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PART-III FORM- 7B

Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

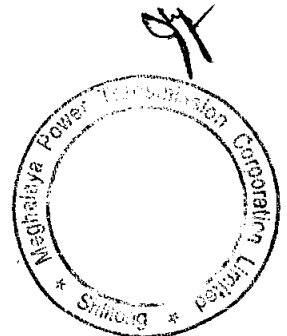
S. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					

NA

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

(Petitioner)



PART-III FORM-9A
Details of Project Specific Loans

Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

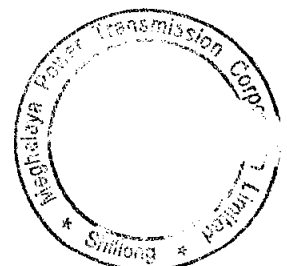
Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/COD 3,4,5,13,15						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
If above is yes, specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment instalment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

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PART-III FORM- 9B

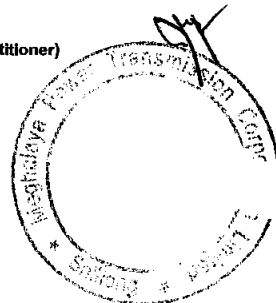
Details of Foreign loans

(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Assets:- 132 KV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

S.No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4	5	6	7	8	9
	Particulars	Date	Amount(Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount(Foreign Currency)	Exchange Rate	Amount
	Currency1 ¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency2 ¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency 3 ¹ & so on								
A.1									
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								

(Petitioner)



PART-III FORM- 8
Calculation of Return on Equity at Normal Rate

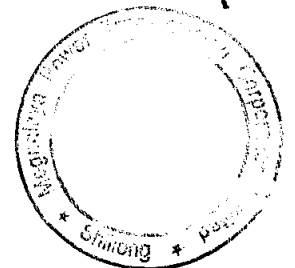
Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COO whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Opening Normative Equity		0.00	0.00	0.00	0.00	0.00
2	Less: Adjustment in Equity*						
3	Adjustment during the year						
4	Net Opening Equity (Normal)		0.00	0.00	0.00	0.00	0.00
5	Add: increase in Equity due to addition during the year/period		0.00	0.00	0.00	0.00	0.00
6	Less: Decrease due to de-capitalisation during the year						
7	Add: increase due to discharges during the year/period						
8	Closing Normative Equity		0.00	0.00	0.00	0.00	0.00
9	Average Normative Equity		0.00	0.00	0.00	0.00	0.00
11	Rate of Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.78%	18.78%	18.78%	18.78%	18.78%
15	Return on Equity of project cost till cut off date (Pre Tax)		0.00	0.00	0.00	0.00	0.00

(Petitioner)

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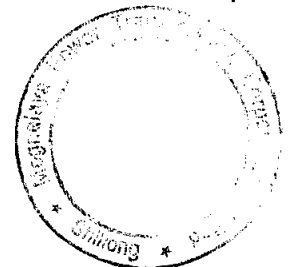
PART-III FORM- 9C					
Calculation of Weighted Average Rate of Interest on Actual Loans ¹					
Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)					
(Amount in Rs. Lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6
Loan-1					
Gross loan - Opening	0	0	0.00	0.00	0.00
Cumulative repayments of Loans up to previous year			0	0	0
Net loan - Opening	0	0	0.00	0.00	0.00
Add: Drawl(s) during the Year	0	0	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0	0	0.00	0.00	0.00
Net loan - Closing	0	0	0.00	0.00	0.00
Average Net Loan	0	0	0	0	0
Rate of Interest on Loan on annual basis	0.00%	0.00%	0.00%	0.00%	0.00%
Interest on loan			0.00	0.00	0.00
Loan repayment effective from (date to be indicated)					

Note:1. in case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.

2. in case of already commissioned combined assets the details may be provided asset wise as well as combined.

3. Details of Financing Charges.

(Petitioner)



PART-III FORM 9E
Calculation of Interest on Normative Loan

Name of the Transmission Assets:- 132 KV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

(Amount in Rs. Lakh)

S.No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Gross Normative loan – Opening		0.00	0.00	0.00	0.00	0.00
2	Cumulative repayment of Normative Loan upto previous year		0.00	0.00	0.00	0.00	0.00
3	Net normative loan – Opening		0.00	0.00	0.00	0.00	0.00
4	Addition in Normative loan towards the ACE		0.00	0.00	0.00	0.00	0.00
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.						
6	Normative Repayments of Normative Loan during the year		0.00	0.00	0.00	0.00	0.00
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.						
8	Net Normative loan – Closing		0.00	0.00	0.00	0.00	0.00
9	Average Normative Loan		0.00	0.00	0.00	0.00	0.00
10	Weighted average Rate of Interest of actual Loans		0.00%	0.00%	0.00%	0.00%	0.00%
11	Rates without refinancing		0.00%	0.00%	0.00%	0.00%	0.00%
12	Interest on Normative loan (with refinancing)		0.00	0.00	0.00	0.00	0.00
13	Interest on Normative loan (without refinancing)		0.00	0.00	0.00	0.00	0.00
15	1/2 of Prepayment premium+GST		0.00	0.00	0.00	0.00	0.00
15	Interest on Normative loan		0.00	0.00	0.00	0.00	0.00

(Petitioner)



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PART-III FORM 10

Calculation of Depreciation Rate on original project cost

Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

(Amount in Rs. Lakh)

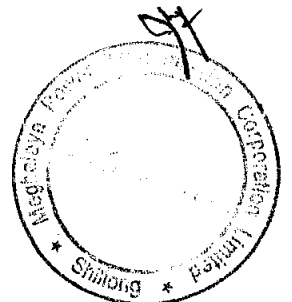
S. No.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.24 (Annualized)
	1	2	3				
2019-20							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation			0.00		5.28%	
5	PLCC			0.00		6.33%	
6	Leasehold Land			0.00		3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Weighted Average Rate of Depreciation						0.00%
	Lapsed Life (Years)						60
2020-21							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depreciation						0.00%
	Lapsed Life (Years)						61
2021-22							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depreciation						0.00%
	Lapsed Life (Years)						62
2022-23							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depreciation						0.00%
	Lapsed Life (Years)						63
2023-24							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	0.00	0.00	0.00	0.00		0.00
	Depreciation						0.00%
	Lapsed Life (Years)						64

Notes:

- Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

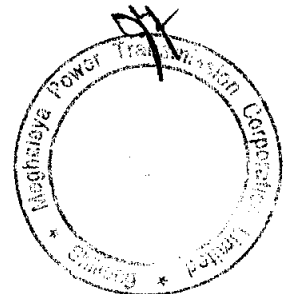
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PART-III FORM- 10 A

Name of the Transmission Assets:- 132 KV S/C Panchgram-Lumshnong-Single Conductor (Asset-II)							
(Amount in Rs. Lakh)							
Statement of Depreciation							
S. No.	Particulars	As on 01-04 2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
ii	No. of days for which tariff claimed		366	365	365	365	366
Life at the beginning of year							
1.1	Weighted Average useful Life of the Asset/Project.		35	35	35	35	35
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		60	61	62	63	64
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		0	0	0	0	0
Capital Base							
1.4	Opening Capital Cost		0.00	0.00	0.00	0.00	0.00
1.5	Additional Capital Expenditure dr. the year		0.00	0.00	0.00	0.00	0.00
1.6	De-Capitalisation during the year						
1.7	Closing Capital Cost		0.00	0.00	0.00	0.00	0.00
1.8	Average Capital Cost		0.00	0.00	0.00	0.00	0.00
1.9	Freehold land included in 1.8		0.00	0.00	0.00	0.00	0.00
1.10	Asset having NIL Salvage value included in 1.8						
1.11	Asset having 10% Salvage value included in 1.8		0.00	0.00	0.00	0.00	0.00
1.12	Depreciable value (1.10+ 90% of 1.11)		0.00	0.00	0.00	0.00	0.00
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		0.00%	0.00%	0.00%	0.00%	0.00%
1.14	Depreciation (for the period)		0.00	0.00	0.00	0.00	0.00
1.15	Depreciation (annualised)		0.00	0.00	0.00	0.00	0.00
1.16	Cumulative depreciation at the beginning of the period		0.00	0.00	0.00	0.00	0.00
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.						
1.18	Cumulative depreciation at the end of the period		0.00	0.00	0.00	0.00	0.00

(Petitioner)



PART-III FORM-11

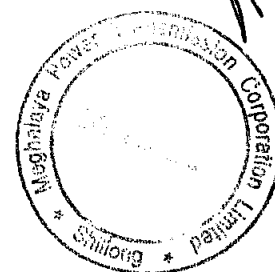
Calculation of interest on Working Capital

Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
i	No. of Days in the year		366	365	365	365	366
ii	No. of days for which tariff claimed		366	365	365	365	366
1	O & M Expenses - one month		2.25	2.33	2.41	2.49	2.58
2	Maintenance Spares 15% of O&M Expenses		4.05	4.19	4.34	4.49	4.65
3	Receivables equivalent to 45 days of AFC		3.46	3.59	3.72	3.85	3.97
4	Total Working Capital		9.76	10.10	10.47	10.83	11.20
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		12.05%	12.05%	12.05%	12.05%	12.05%
6	interest on Working Capital		1.18	1.22	1.26	1.30	1.35

(Petitioner)

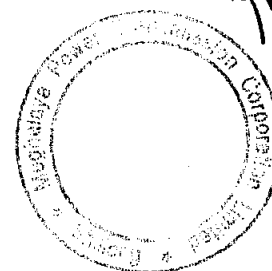


PART-III FORM-15

Summary of issue involved in the petition

1. Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
2. Petition Category	Transmission Tariff
3. Tariff Period	2019-24
4. Name of the Project	Name of the Transmission Assets:- 132 kV S/C Panchgram-Lumshrong-Single Conductor (Asset-III)
5. Investment Approval date	
6. SCOD of the Project	01-04-1960
7. Actual COD of the project	01-04-1960
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	1
10. No. of Assets having time over run	NA
11. Estimated Project Cost as per IA	0.00
12. Is there any RCE? if so, provide the date	NA
13. Revised Estimated Project Cost (if any)	0.00
14. Completion cost for all the assets covered in the instant petition.	0.00
15. No. of Assets covered in instant petition and having cost overrun.	
16	Prayer in brief
17	Key details and any Specific issue involved
18	Respondents
	Name of Respondents
1	CTUIL, SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).
2.	Assam Electricity Grid Corporation Limited, (Formerly Assam State Electricity Board) Bijulee Bhawan, Paltan Bazar,
3	Government of Arunachal Pradesh, Itanagar, Arunachal Pradesh.
4.	Power and Electricity Department, Government of Mizoram, Aizawl, Mizoram
5	Manipur State Electricity Distribution Company Limited, (Formerly Electricity Department, Government of Manipur),
6.	Department of Power, Government of Nagaland, Kohima, Nagaland.
7	Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W)-799001, Tripura.
8.	Meghalaya Energy Corporation Limited, Lumjingshai, Short Round Road, Shillong -1
9	ONGC Tripura Power Company Ltd., Udaipur, Karkraban road, Palatana P.O Distt-Gomati, Tripura – 799105
10.	NERLDC, Executive Director, Power House, Kahilipara, Guwahati-781019 (Assam)
11	North Eastern Regional Power Committee, Member Secretary, Lapalong Nongrim Hills, Shillong- 793003

(Petitioner)



PART-III FORM A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.

Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
Tariff Period	2019-24
Name of the Transmission Project	Name of the Transmission Assets- 132 kV S/C Panchgram-Lumshnong-Single Conductor (Asset-III)
COD of the Project(if entire scope of project is completed)	01-04-1960

Rupees in lakh

A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.

S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date	
				As per Investment approval	As per RCE	As on COD	2019-20	2020-2021	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024		
				3	4	5	6	7	8	9	10	11		12
1		01-04-1960		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Capital Cost Claimed				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

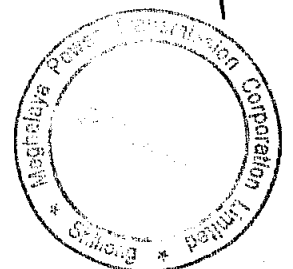
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.

S. No.	Asset No.	Asset Name and its location	2019-20	2020-21	2021-22	2022-23	2023-24
1		Name of the Transmission Assets- 132 kV S/C Panchgram-Lumshnong-Single Conductor	28.15	29.13	30.16	31.21	32.33
Total AFC for all the Assets			28.15	29.13	30.16	31.21	32.33

Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.

(Petitioner)

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AGREEMENT

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THIS AGREEMENT is made on this 20th day of September 2007 between Meghalaya State Electricity Board, having its Registered Office at Lum Jingshai, Short Round Road, Shillong - 793 001 (hereinafter referred to as "MeSEB" or "Owner" which expression shall unless repugnant to the context or meaning thereof include its Administrators, Successors, Executors and Permitted assignee) of the One part

and

Power Grid Corporation of India Limited., a Company incorporated under the Companies Act, 1956, having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110016 (hereinafter referred to as "POWERGRID" or "Consultant" which expression shall unless repugnant to the context or meaning thereof include its Administrators, Successors, Executors and Permitted assignee) of the Other part.

(POWERGRID and MeSEB are hereinafter individually referred to as the 'Party' and collectively as 'Parties'.)

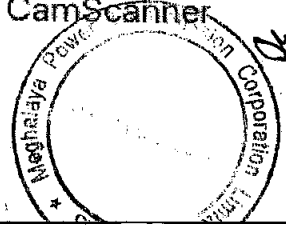
WHEREAS, MeSEB desires to obtain Consultancy Services from POWERGRID for Turnkey execution of 220 KV D/C line from Misa to Byrnihat alongwith 2x160 MVA, 220/132 KV New Sub-station at Byrnihat and associated 2 Nos. Bay extension works at 220 KV Misa POWERGRID Sub-station .

And whereas POWERGRID has consented to provide Consultancy Services to MeSEB for Turnkey execution of above mentioned works on behalf of MeSEB as deposit work on Cost Plus Basis on the terms and conditions stipulated herein.

[Signature]
Member
Meghalaya State Electricity Board
Shillong.

C:BDD:MeSEB/Misa-Byrnihat 220 KV Tr. system

[Signature]
A. FAHLEA
General Manager (P&D)
Power Grid Corporation of India Ltd.



NOW, THEREFORE, THIS AGREEMENT WITNESSETH AS UNDER:

For the purpose of this Agreement, the terms used herein shall, unless repugnant to the context thereof, have the meaning assigned to them as under:

1.0 DEFINITIONS :

- 1.1 "Agreement" means the agreement herein containing the Terms & Conditions set forth & agreed therein, including all other documents expressly annexed thereto or incorporated therein.
- 1.2 "Project"
- 1.2.1 Transmission Line means 220 KV D/C line from 220 KV Misa(Assam) POWERGRID Sub-station to 220/132 KV Byrnihat(Meghalaya) New Sub-station of MeSEB.
- 1.2.2 Sub-Station means 2x160 MVA, 220/132 KV New Sub-station of MeSEB at Byrnihat(Meghalaya) with Double Main & Transfer Bus scheme on 220 KV side and Single Main & Transfer Bus scheme on 132 KV side and associated 2 Nos. Bay extension works at existing 220 KV Misa(Assam) POWERGRID Sub-station.
- 1.2.3 4 Nos. 132 KV Line Bays at 220/132 KV Byrnihat sub-station.
- 1.3 "Bid Documents" shall mean the tender documents containing technical specifications and other terms & conditions of contract pursuant to which POWERGRID shall invite proposals for procurement of goods and services for the Project.
- 1.4 "Contractor" shall mean the Bidder whose bid is accepted by POWERGRID for award of contract for the total work or any part of the work of the Project resulting in a contract and shall include such contractor's legal representatives, successors and permitted assigns.
- 1.5 "Sub-Contractor" shall mean any person (other than the contractor) named in the contract for execution of any part of the works or any person to whom any part of the contract has been entrusted and include such sub-contractor and the Sub-contractor's legal successors in title but not any assignee of the contractor.
- 1.6 "Engineer" shall mean the officer of MeSEB nominated by the Owner to act as coordinator for works and to be associated in its execution to verify the progress.
- 1.7 "Equipment/Material" shall mean the equipment/material procured by POWERGRID for this Project.
- 1.8 "Project Manager" shall mean the official nominated by POWERGRID in writing who shall be responsible for co-ordination with the Owner and for all activities concerning the execution of the Project.
- 1.9 "Site" shall mean and include the land & other places at which the Project and related facilities are to be constructed and any adjacent land, path etc., which may be allocated or used, by the Owner/POWERGRID/Contractor in performance of work under this Agreement.

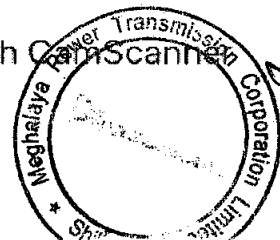
[Signature]
Member Secretary
Meghalaya State Electricity
Shillong.

C:BDD:MeSEB/Misa-Byrnihat 220 KV Tr. system

[Signature]
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1.10 "Cost Plus" shall mean actual executed cost of the Project plus Consultancy Fee payable to POWERGRID @ 15 % of the actual executed cost of the Project and applicable Taxes & Duties.

1.11 Words singular shall include the plural and vice versa, where the contexts so desire.

2.0 SCOPE OF SERVICES :

2.1 SCOPE OF SERVICES TO BE PERFORMED BY POWERGRID

The scope of services to be rendered by POWERGRID for execution of the Project on behalf of MeSEB under the Agreement will be as under subject to specific exclusions as brought out in clause 2.2 hereinafter:

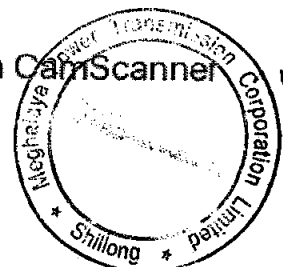
- i) The scope of work include Design, Engineering, NIT, Tender Evaluation, Finalisation of Contract, Procurement, Supervision of Erection, Project Management, Testing & Commissioning and other works incidental thereto for Turnkey execution of :
 - (a) 220 KV D/C line from Misa to Byrnihat, total approx. 115 Kms.(90 Kms. in plain and 25 Kms. in Hills).
 - (b) 2x160 MVA,220/132 KV New Sub-station at Byrnihat with Double Main & Transfer Bus scheme on 220 KV side and Single Main & Transfer Bus scheme on 132 KV side.
 - (c) 4 Nos. 132 KV Line Bays at 220/132 KV Byrnihat sub-station .
 - (d) Associated 2 Nos. Bay extension works at existing 220 KV Misa POWERGRID Sub-station
- ii) Preparation of all Bid documents including technical specifications and tender drawings.
- iii) Invitation of Bids, evaluation of bids, pre-award discussions with the selected vendors and finalization of awards on behalf of MeSEB.
- iv) Placement of orders/finalization of contract and issue of contract, all post contract co-ordination, inspection of materials at the manufacture's work/or at site and witnessing of testing of equipment/materials etc., and implementation of the agreed quality assurance programme of the various manufacturer/contractors on behalf of MeSEB.
- v) Project Management including expediting to ensure supply of all materials and equipment in line with the agreed contract programme and supervision of all activities such as storage, handling of materials/equipment at site, erection, testing and commissioning by the concerned contractors and making of progressive payment to the contractors on behalf of MeSEB subject to adequate funds being made available to POWERGRID by MeSEB from time to time.
- vi) The scope of work shall also include preparatory work, collection/compilation of details/data and preparation of the draft proposal for Forest Clearances / Right of Way / Compensation / Tree Compensation / Power & Telecom Co-ordination Committee (PTCC) / Railway Crossing(if any) Clearance etc. MeSEB shall obtain all these clearances from the concerned authorities. However, POWERGRID shall assist for

Member
Secretary
MeSEB
CDD:MeSEB/Misa-Byrnihat 220 KV Tr. system

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obtaining these clearances by way of documentation, representing to concerned agencies etc. The assessment and disbursement of compensation, if any, on behalf of MeSEB on account of above clearances shall be done by POWERGRID and the corresponding cost shall form part of the project cost.

- vii) POWERGRID reserves the right to appoint any contractor for any specific job to ensure timely commissioning of the project.
- viii) POWERGRID shall obtain Electrical Inspector's clearances of the Project from concerned Govt. authorities wherever required. However, for other clearances from state Govt. departments wherever required, MeSEB shall fulfill all of its obligations.
- ix) Operation & Maintenance for the subject line & Sub-station shall be discussed and finalized separately on completion of the work.
- (x) Engineers of MeSEB shall be closely associated in all the stages of project execution so as to gain technical & managerial inputs/expertise. For Engg. related activities, MeSEB shall send their engineer(s) to POWERGRID's Corporate Office(Engg. Deptt.) and manufacture's works from time to time at the cost of MeSEB which is to be accounted for in the project cost. For all activities including site related activities, regular interactions between POWERGRID and MeSEB shall be held.

2.2 EXCLUSION FROM POWERGRID'S SCOPE OF SERVICES (MeSEB responsibility) :

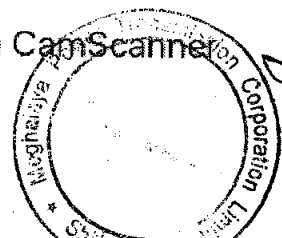
As Owner of the Transmission system, the following works shall be under the scope of MeSEB, however, POWERGRID shall assist in all the activities given below:

- i) Land acquisition for Bymihat Sub-station.
- ii) MeSEB being the Owner, the responsibility for obtaining Project clearances, Right of Way, Power & Telecom Co-ordination Committee (PTCC), Railway Crossing Clearance (if any) and Forest Clearance etc. shall be that of MeSEB. However, modalities shall be as per clause 2.1(vi).
- iii) For carrying out the survey and collection of necessary data for preparation of documentation for obtaining Forest Clearance, permission may be required from the Forest Department and other concerned authorities. MeSEB shall ensure that such permissions, as may be required, are made available to POWERGRID.
- iv) All statutory clearances from CEA and other agencies including issue of necessary Notifications shall be the responsibility of MeSEB. However, POWERGRID shall extend all possible assistance.
- v) Liaison and follow up with Government bodies.
- vi) Settlement of any disputes with public/Tax authority/statutory bodies/local authorities/State Authorities etc.
- vii) Security at site as required would be arranged by POWERGRID and cost towards the same shall be added to the Project cost. However, if required, MeSEB would provide necessary assistance in arranging security.

Mishra
17/11/17
18/11/17
19/11/17
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2/11/17
Power Grid Corporation of India Ltd
Plot No. 1, Sector-29, Gurgaon-122001 HARYANA

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3.0 WORKING PROCEDURE :

- 3.1 POWERGRID shall execute the work as defined in clause 2.1 above. To enable POWERGRID to discharge its obligations in a smooth and efficient manner, MeSEB shall issue necessary authorization in favour of POWERGRID to act on behalf of Owner for the scope of services under this Agreement and also provide all other necessary documents required for this purpose including concessional sales-tax declaration forms duly filled in and signed. MeSEB shall also ensure prompt release of funds to POWERGRID to enable unhindered progress of work. It is clearly understood by the parties that POWERGRID shall not finance any portion of the work from its own funds at any time during the execution of the Project.
- 3.2 To ensure proper co-ordination between POWERGRID and MeSEB for carrying out the works under the scope of this Agreement, both MeSEB and POWERGRID shall nominate their respective Project Managers who shall be the focal point for all matters relating to this Agreement.
- 3.3 The recovery of TDS/ Sales Tax/ Income Tax and other applicable Taxes & Duties related to this work shall be done by POWERGRID on behalf of the MeSEB from the Contractor's bills. TDS so deducted by POWERGRID on behalf of the MeSEB shall be deposited with the relevant tax authorities. TDS certificates shall be issued on behalf of MeSEB using Permanent A/C No. & TDS A/c No. of MeSEB. Relevant Challans and copies of TDS certificates shall be forwarded to MeSEB for information & filing of necessary returns.
- 3.4 The modalities for assessment and payment on account of Right of Way and Crop Compensation shall be done by POWERGRID as per norms of State Government.

4.0 RELEASE OF FUNDS :

- 4.1 The total estimated cost of the project is Rs. 150.00 Crores excluding Consultancy Fee @ 15% and applicable Service Tax payable to POWERGRID as per cost estimate vetted by CEA received from MeSEB. The payment shall be released by MeSEB directly to POWERGRID.
- 4.2 To facilitate smooth execution of work and to complete the work within the stipulated time schedule, MeSEB shall ensure that the required fund is released as per clause No. 9.0 of this Agreement.
- 4.3 POWERGRID shall commence the work under this Agreement after the receipt of 1st installment payment as indicated in Clause 9.0(a) below.
- 4.4 It is clearly understood by the parties that funding of the Project cost and Consultancy Fee along with applicable Taxes & Duties is the responsibility of MeSEB and POWERGRID shall not finance any portion of the work at any time during the execution of the Project.

5.0 AWARD OF CONTRACT (METHODOLOGY):

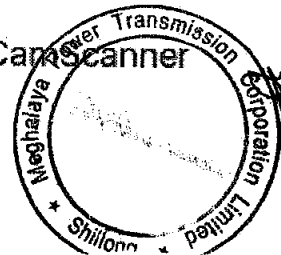
- 5.1 For the purpose of execution of work under this Agreement, the entire work of Transmission line and Sub-station including bays may be in one package or divided into more contract packages to be executed by various contractors.

C.BDD:MeSEB/Misa-Byrnihat 220 KV Tr. system

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5.2 The contracts shall be awarded by POWERGRID on behalf of MeSEB in line with the Works & Procurement Policy and Procedure of POWERGRID for timely execution of the project.

6.0 PROJECT COST:

6.1 The work shall be executed by POWERGRID on behalf of MeSEB as deposit work on Cost Plus Basis.

6.2 The Project cost shall include :

- a) The cost of all equipment and services as paid to the contractor(s) or any other agency as required under the various contracts to be placed by POWERGRID for executing the Project.
- b) Cost towards Right of Way/PTCC/Crop compensation/Tree compensation/Forest clearances/Railway Crossing clearance etc.(if any).

6.3 The total estimated cost of the project is Rs. 150.00 Crores excluding Consultancy Fee @ 15% and applicable Service Tax payable to POWERGRID as per cost estimate vetted by CEA received from MeSEB.

The above estimated cost includes the tentative cost of land for Sub-station, compensatory cost towards Right of Way, Crop, Tree & PTCC compensation, Forest clearances/Railway Crossing clearance etc.

This estimated cost is for estimation purpose only. However, depending upon site conditions or for any other reason, the cost of the Project may undergo change during the implementation of the Project. As such the final executed cost of the Project will be certified by POWERGRID based on the actual works executed. The Consultancy fee thereof to be paid by MeSEB shall be arrived at by POWERGRID only after the completion of the Project.

6.4 POWERGRID shall endeavor to execute the work within the estimated cost ensuring due reasonability. In case of increase or decrease of cost, POWERGRID shall submit the revised estimate to MeSEB for verification, approval and release of funds. MeSEB shall verify the expenditure and revised estimate within two weeks from the receipt of the documents failing which it would be deemed to have been verified.

7.0 CONSULTANCY FEE :

The Consultancy Fee payable to POWERGRID for the scope of services as brought out in Clause 2.1 above shall be @ 15% of the final actual executed cost of the project.

8.0 TAXES AND DUTIES :

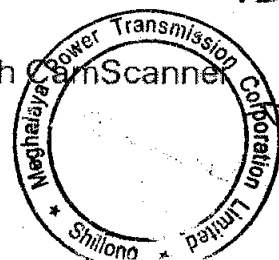
The Consultancy Fee indicated above does not include any taxes & duties. All present and future applicable statutory taxes, duties and levies (including any variation thereof) as applicable by any Act / Notification of Government (Central/State) or any other local bodies /authorities shall be to the Owner's account. At present Service Tax @ 12.36 % (including Education Cess @ 3 %) is applicable on Consultancy Fee which shall be paid by MeSEB to POWERGRID in addition to the Consultancy Fee indicated above.

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9.0 TERMS OF PAYMENT :

MeSEB shall release the funds for this project directly to Power Grid Corporation of India Limited.

The terms of payment shall be as follows :

- a) 20 % of the total estimated cost alongwith corresponding Consultancy Fee @ 15% and applicable Taxes & Duties on Consultancy Fee shall be paid within 15 days of signing of the Agreement.
- b) Balance payment alongwith corresponding Consultancy Fee and applicable Service Tax shall be linked to the progress of work and shall be payable in advance as per requirement of funds. The required funds shall be deposited with POWERGRID within 15 days of submission of expenditure details by POWERGRID for 75% of the advance amount received so far.
- c) Payment arising due to adjustment on account of variation between the presently estimated cost and the cost on award shall be made known to MeSEB by POWERGRID as soon as the latter is determined. The advance payments to POWERGRID shall be regulated accordingly .
- d) Payment arising due to adjustment on account of variation between the cost on award and final executed cost of the project alongwith corresponding Consultancy Fee and applicable Service Tax shall be made immediately as per invoice raised by POWERGRID .
- e) At no stage POWERGRID shall use its own funds for execution of these works.
- f) Any delay in implementation of project on account of non-availability of funds and services to be provided by MeSEB shall not be attributable to POWERGRID and the period of implementation shall be deemed to have been extended to such delays.

10.0 TIME SCHEDULE :

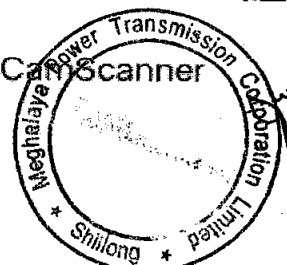
- 10.1 POWERGRID shall complete the work within 30 months from the date of signing of the Agreement and release of 1st instalment payment whichever is later.

This is however, subject to MeSEB fulfilling all its obligations in time as under:

- i) Timely release of payments as mentioned at para 9.0 above.
- ii) MeSEB shall arrange permissions in favour of POWERGRID from the Forest Department and other concerned authorities, as may be required, for carrying out survey and collection of necessary data for preparation of documentation for obtaining Forest Clearance. However, Forest Clearance shall be obtained by MeSEB.
- iii) Besides, Forest Clearance, MeSEB shall also obtain all other statutory clearances in time such as Right of Way, PTCC and Railway Crossing Clearance etc from the concerned Authorities.
- iv) Issue of Gazette Notifications as statutorily required under the Electricity Act 2003.

Member Secretary
Meghalaya Electricity
Corporation Ltd
Shillong

2/11/11



10.2 Any delay on account of above, will affect the completion schedule and therefore, the period of implementation of this Agreement shall be deemed to have been extended to cover such delay as may occur.

10.3 If by reason of extra or additional work or any industrial dispute or any cause or causes outside of and beyond the reasonable control of POWERGRID and its contractor(s), the work is delayed or impeded, the delayed period shall be construed as automatic time extension.

10.4 The completion period is indicated in good faith and is subject to fulfillment of obligation on part of the Owner and POWERGRID.

11.0 PROGRESS REVIEW MEETINGS :

To review progress of work , the meetings shall be arranged by MeSEB/POWERGRID once in three months to be attended by MeSEB & POWERGRID at Shillong/Gurgaon or site and the progress report shall be submitted to MeSEB for further communication to DoNER & Planning Commission.

12.0 FACILITIES/INFORMATION TO BE PROVIDED BY OWNER :

12.1 All necessary information/data and facilities as may be required by POWERGRID in connection with services shall be promptly rendered by MeSEB under this Agreement.

12.2 MeSEB shall give their views on all matters pertaining to this Project as may be referred to by POWERGRID from time to time within a reasonable time which would normally not exceed fifteen (15) days and shall discharge faithfully all its obligations.

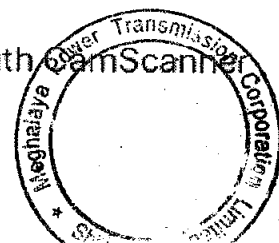
12.3 The responsibility of obtaining Right of Way, arranging Forest Clearance, PTCC, Railway Crossing Clearance shall rest with MeSEB . However, POWERGRID will assist MeSEB for obtaining these clearances by way of documentation, representing to concerned agencies etc.

12.4 Issue of Gazette Notifications under the Electricity Act 2003 shall be the responsibility of MeSEB..

13.0 FORCE MAJEURE :

13.1 Force Majeure is hereby defined as any cause, which is beyond the control of POWERGRID or its Contractor(s) or MeSEB as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the said work including, but not limited to the followings:

- a) Natural phenomena including but not limited to floods, droughts, earthquakes, epidemics etc.,
- b) Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, quarantines, embargoes etc.,
- c) Hostilities, revolutions, riots, civil commotions, strike, terrorism including in the premises of the Contractors.



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13.2 During the period of their inability to perform the services as a result of any event of Force Majeure, POWERGRID shall be entitled to continue to be paid under the terms of this contract as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the services and in reactivating the services after the end of such period, provided that the party affected shall within thirty (30) days from the occurrence of such cause, notify the other in writing of such causes.

13.3 POWERGRID or MeSEB shall not be liable for any delays in performing its obligation resulting from Force Majeure causes as referred to and/or defined herein above. The date of completion will be extended by corresponding period equal to the period of Force Majeure if the situation so warrants and by such period to be mutually agreed to by POWERGRID and MeSEB. Should one or both Parties be prevented from fulfilling their obligations by state of Force Majeure lasting for a period of three months, the two(2) parties shall consult each other and decide as to further course of action.

14.0 TAKING OVER :

14.1 POWERGRID shall intimate MeSEB upon successful commissioning and test charging of Transmission line & Sub-station including bays and MeSEB shall immediately take over the systems. MeSEB shall furnish the taking-over certificate within thirty (30) days from the date of such intimation by POWERGRID. The issue of taking-over certificate shall not be unreasonably withheld by MeSEB. The final transfer of the systems shall be made to MeSEB only after receipt of entire expenditure including its fee by POWERGRID.

14.2 The surplus material and scrap, if any, shall be handed over to MeSEB after the works are completed on "as is where is" basis. The wastages will be allowed as stipulated in the POWERGRID's specifications.

15.0 TERMINATION OF AGREEMENT :

15.1 In the event when the Parties mutually agree to terminate the Agreement, on account of Force Majeure or any other reasons, the termination shall take effect from the date and time to be agreed upon mutually.

15.2 In the event of termination of this Agreement, POWERGRID shall be paid proportionately for such of those items of work, which have been completed/partially completed and mutually agreed and also a reasonable amount of compensation for the holding out or premature termination as may be decided amicably.

16.0 SETTLEMENT OF DISPUTE & ARBITRATION :

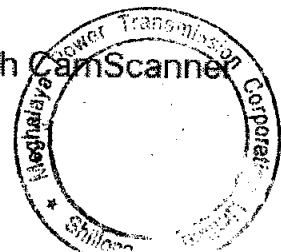
Any differences or dispute between the parties arising out of or in connection with this project shall be discussed and settled amicably amongst the parties. In the event of non-settlement of the difference or dispute within sixty (60) days, the same shall be referred to Secretary DoNER/ Secretary (Planning Commission), Govt of India, whose decision shall be final and binding on the parties to this Agreement.

C.BDD:MeSEB/Misa-Bymihat 220 KV Tr. system

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17.0 THIRD PARTY DISPUTE :

If any litigation/arbitration cases crop up due to the various contract orders placed by POWERGRID during the currency of this Agreement, POWERGRID shall resolve the same on behalf of MeSEB. MeSEB shall provide necessary assistance, if required. The cost of such litigation/arbitration and liability arising out of the award thereof, if any, shall be borne by MeSEB.

18.0 DELAY IN COMPLETION :

POWERGRID shall suitably incorporate the provisions towards levy of Liquidated Damages in their Agreements with Contractor(s) for delay in completion of the work. All amount towards Liquidated Damages, if any, as may be received by POWERGRID under this provision, shall be suitably adjusted in the Project Cost.

19.0 PERFORMANCE GUARANTEE :

POWERGRID shall suitably incorporate the provision of Guarantee Clause in their Contract Agreements with Contractor(s) valid for a period of 12 calendar months commencing immediately after commissioning of the Project, which will be enforceable by Owner.

W

20.0 AMENDMENT :

This Agreement may be amended or modified if necessary by a written instrument signed by the Parties and the same shall be considered as an integral part of this Agreement.

21.0 EFFECTIVE DATE :

This Agreement shall be deemed to have come into force with effect from the date of signing of Agreement and receipt of 1st installment payment whichever is later. All rights, obligations and responsibilities of Owner and POWERGRID shall be deemed to have commenced and accrued from the above date.

22.0 NOTICE OF DEFAULT :

Notice of default given by either Party to the other Party under this Agreement shall be in writing and shall be deemed to have been duly and properly served upon the Parties hereto if delivered against acknowledgement due, addressed to the signatories to this Agreement.

23.0 CORRESPONDENCE :

23.1 All communications from MeSEB to POWERGRID shall be addressed to the Project Manager to be nominated by POWERGRID in writing for the purpose of this work.

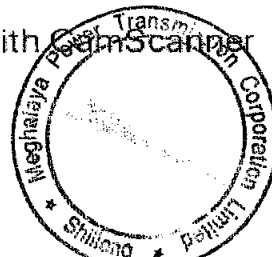
MeSi

C: BDD: MeSEB/Misa-Rvmihal 220 KV Tr system

Dr. A. T. ...
Page 10 of 11

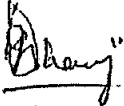
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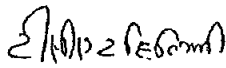
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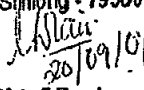


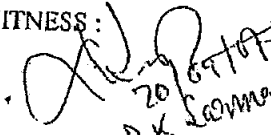
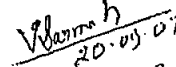
23.2 All communication from POWERGRID to MeSEB shall be addressed to Chief Engineer(T), Meghalaya State Electricity Board, Lum Jingshai, Short Round Road, Shillong- 1, Meghalaya - 793001 for the purpose of this work.

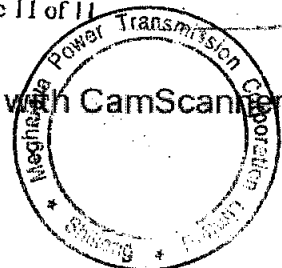
IN WITNESS WHEREOF the Parties hereto have fully executed these present through their duly authorized representatives on the Day, Month and Year mentioned above.


1. For and on behalf of
Meghalaya State Electricity Board
Member Secretary
Meghalaya State Electricity Board
Shillong.


For and on behalf of
Power Grid Corporation of India Limited
टी.सी.ए. टाहिल्याल / T.C.A. TAHILYAL
महाप्रबंधक (खापर विकास) / General Manager (BDF)
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि.
Power Grid Corporation of India Ltd.
प्लॉट नं०-२, सेक्टर-२९, गुर्गाँव-१२२ ००१ (ई.पी.एन.)
Plot No.-2, Sector-29, Gurgaon-122 001 (Haryana)

WITNESS :
1. 
Chief Engineer (T)
Meghalaya State Electricity Board
Shillong - 793001
2. 
Chief Engineer
Rural Electrification
Me.S.E.B., Shillong-1

WITNESS :
1. 
D.K. Sarma, AGM (P)
2. 
T.C. Sarma, DGM (PESM & COM)



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MEGHALAYA STATE ELECTRICITY BOARD

OFFICE OF THE MEMBER (TECHNICAL)
LUMLINGSHAI, SHORT ROUND ROAD, SHILLONG-1.

Phone : (0364) 2590259 Fax : (0364) 2591174



P.N. Key
Member (Technical)

PGCIL
[Handwritten signature]

No. MTN/2005/141 (Pr-V)

[Handwritten signature]
No. 102 clearance
[Handwritten signature]

Shillong the 19th May, 2006.

To

The Chief Engineer (GT),
MeSEB, Shillong.

Sub : Feasibility Report Cum Detailed Project Report for Misa-Byrnihat
Transmission System.

Sir,

I am directed to submit herewith the Feasibility Report Cum Detailed Project Report for Misa-Byrnihat Transmission System prepared by PGCIL for favour of your information.

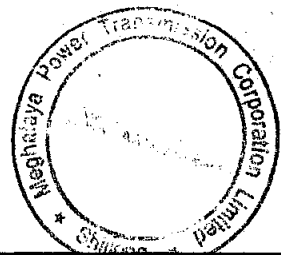
Encls : As stated.

Yours faithfully,

[Handwritten signature]
(K. Song)
Superintending Engineer (P&P)

" SAVE ENERGY FOR BENEFIT OF SELF AND NATION "

1. This notice and storage can be used for personal use only and not for commercial purposes.



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**FEASIBILITY REPORT CUM
DETAILED PROJECT REPORT**

**FOR
MISA - BYRNIHAT
TRANSMISSION SYSTEM**



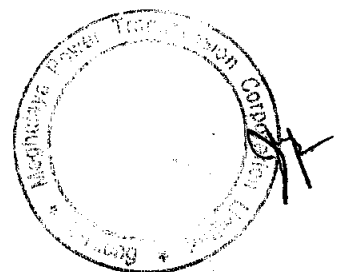
**POWER GRID CORPORATION
OF INDIA LIMITED**

(A Government of India Enterprise)

New Delhi.

September, 2005

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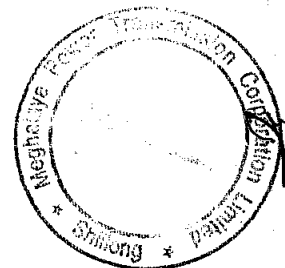
PREAMBLE

This proposal covers the Feasibility cum Detailed Project Report of establishing the *Misa - Byrnihat Transmission System*.

The total estimated cost of the project based on 2nd Quarter 2005 price level is as follows :

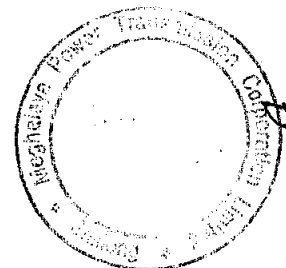
(Rs. in crores)

	Total cost
1. Transmission System	136.53
2. Interest during Construction	7.06
TOTAL	143.59



CONTENTS

<i>Sl. No.</i>	<i>Description</i>	<i>Page No.</i>
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9.0	<i>Means of Finance and Project Budget</i>	14
10.0	<i>Time Frame</i>	16
11.0	<i>Sustainability</i>	16

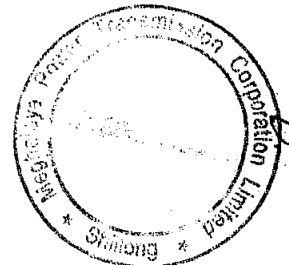


ANNEXURES

Annex. No.

Description

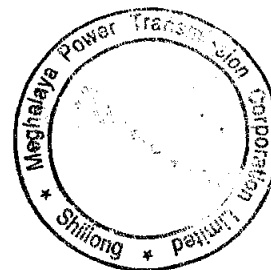
- 1.0 Abstract Cost Estimate - Summary
- 1.1 Abstract Cost Estimate - Preliminary & General Civil Works
- 1.2 Abstract Cost Estimate - Transmission Lines
- 1.3 Abstract Cost Estimate - Substations
- 2.0 Phased Fund Requirement (for Base cost)
- 2.0a Phased Fund Requirement (for Completed cost)
- 3.0 Monthly Fixed Charges (for Base cost)
- 3.0a Monthly Fixed Charges (for Completed cost)
- 4.0 Calculation of Interest during Construction (for Base cost)
- 4.0a Calculation of Interest during Construction (for Completed cost)
- 5.0 Calculation of completed cost of Project



EXHIBITS

<i>Exhibit No.</i>	<i>Description</i>
1.0	Misa - Byrnihat Transmission System
2.0	Single Line Diagrams - Substations

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DETAILED PROJECT REPORT FOR MISA-BYRNIHAT TRANSMISSION SYSTEM

1.0 CONTEXT / BACKGROUND

A meeting chaired by Secretary (Power) regarding construction of the Misa-Byrnihat line was held on 23rd August, 2005 in MOP wherein Chief Secretary, Govt. of Meghalaya, Member(PS), CEA and senior officers of MOP, DONER and POWERGRID were also present. In the meeting, Chief Secretary, Govt. of Meghalaya informed that Byrnihat is an upcoming industrial load centre and to meet the power requirement of this area, Misa-Byrnihat 220kV D/c line is urgently required. This 220kV line would facilitate transfer of about 200-250MW of power to Byrnihat area. Accordingly, the present report is prepared for improvement of power supply in Byrnihat area through construction of Misa-Byrnihat 220kV transmission system.

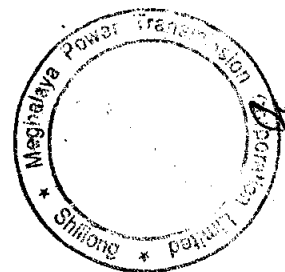
In the meeting, it was decided that a Joint Venture Company between Meghalaya State Electricity Board and Power Grid Corporation of India Ltd. will be formed for construction of Misa – Byrnihat 220kV D/c line and associated sub-stations. Regarding funding and transmission charges, it was decided that :

- 30% of the project cost would be the equity and 70% will be debt to be raised by Joint Venture Company through loans from PFC / REC.
- 11% equity will be contributed by Meghalaya State Electricity Board and 89% equity will be of POWERGRID.
- A special agreement will be signed between Meghalaya State Electricity Board and this Joint Venture Company for payment of full transmission tariff and it will be kept out of the Unified Common Pool Transmission Tariff (UCPTT) for which a ceiling of 35 paise per unit exists.
- Meghalaya State Government will give a guarantee against non-payment for transmission charges by Meghalaya State Electricity Board.
- Meghalaya State Electricity Board will open a separate escrow account of payment of transmission tariff.

Present Detailed Project Report covers the Misa – Byrnihat Transmission System.

2.0 PROBLEMS TO BE ADDRESSED

The Byrnihat area in the state of Meghalaya is witnessing a substantial growth after the industrialization initiatives are taken up in that area. As a result the demand in this area is growing up at a rapid pace. The Meghalaya State is not able to meet its present demand through its own generation stations. The State is also not in a position to draw its peak demand due to transmission constraints. Therefore, in order to provide secure and reliable supply of power in the Byrnihat



area, it is proposed to establish a new 220/132kV substation at Byrnihat in Meghalaya which will be interconnected through a 220 kV D/c line with 400/220kV Misa sub-station of POWERGRID. In this way, strong and reliable power supply to Byrnihat area can be assured from major hydro and thermal power plants like Kopili, Khandong, Kathalguri, Ranganadi HEP etc. located in North-eastern Region through Misa-Byrnihat 220kV D/c line.

3.0 PROJECT OBJECTIVES

The objective of the project is to provide supply of secure and reliable power in the Byrnihat area of Meghalaya.

3.1 Project Highlights

- a) Project : Misa-Byrnihat Transmission System
- b) Location of the Project : Meghalaya & Assam.
- c) Beneficiary States : Meghalaya
- d) Project Cost : Rs.143.59 Crores (including IDC)
(2nd Quarter 2005 price level)
- e) Monthly Fixed Charges : Rs.190.58 Lakhs
- f) Commissioning schedule : The Transmission Scheme is scheduled to be commissioned within 30 months from the date of first Letter of award.

3.2 Power Evacuation System

3.2.1 Proposed Misa-Byrnihat Transmission system consists of following elements:

- i. Misa-Byrnihat 220kV D/C line
- ii. Establishment of new 220/132 kV, 2x160 MVA S/s at Byrnihat

The schematic of the proposed Tr. system is shown at Exhibit - 1.0.

3.3 Scope of work

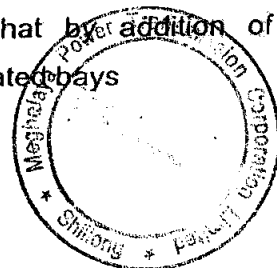
The scope of work covered under the project broadly includes the implementation of following transmission lines, substation and other associated works.

Transmission Lines

- a) Misa-Byrnihat 220kV D/C line – 90 Kms.

Substations

- Establishment of 220/132kV sub-station at Byrnihat by addition of 220/132kV, 2x160MVA transformers along with associated works



- > 2 nos. of 220 kV bays at Misa
- > 2 nos. of 220 kV bays at Byrnihat

The Transmission Scheme would be implemented through formation of a Joint Venture Company between POWERGRID and Meghalaya State Electricity Board (MeSEB) with POWERGRID as 89% equity partner and MeSEB as 11% equity partner.

4.0 TARGET BENEFICIARIES

The target beneficiaries of this project is the State of Meghalaya.

5.0 ENVIRONMENTAL IMPACT ASSESSMENT

5.1 Forest involvement / Clearance

As per the practice, preliminary route selection is done by POWERGRID based on such documents as the Forest Atlas and the Survey of India maps using "bee" line method, followed by field verification through walk over survey. All possible steps are taken to avoid the route alignment through forests. In cases where it becomes unavoidable due to the geography of terrain, the alignment is made in such a way that the route through the forests is the barest minimum.

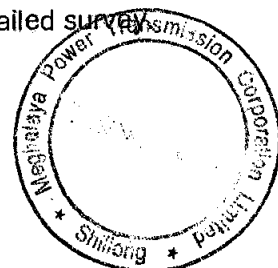
For selection of optimum route, following points are taken into consideration :

- (i) The route of the proposed transmission line does not involve any human rehabilitation.
- (ii) Any monument of cultural or historical importance is not getting affected.
- (iii) The route does not create any threat to the survival of any community.
- (iv) It does not affect any Public-Utility Services like Playground, School, Other establishments, etc.
- (v) It does not pass through any sanctuaries, National Park, etc.
- (vi) It does not infringe with areas of natural resources.

As per the preliminary assessment based on Forest Atlas, topo-sheet and walk over survey of the area, certain forest stretches are likely to be encountered for this comprising of the following :

<u>NAME OF TRANSMISSION LINE</u>	<u>FOREST INVOLVEMENT</u> (Approx. in Ha)
Misa – Byrnihat 220 kV D/C Line	82.95 Ha (23.7 Kms.)

However, exact extent of forest shall be known only after detailed survey.



5.2 Social Issues/R&R measures

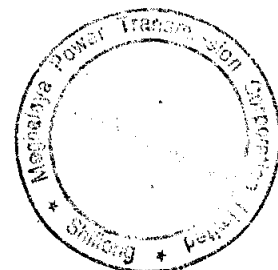
As per the prevailing law, land below transmission line is not required to be acquired and only land for sub station is acquired. Land management practice is so as to minimize the land requirement to the barest minimum. Generally 20 to 30 hectare of land is required for constructing a substation depending upon the type and voltage level. Even for this 20 to 30 hectare land, it is preferred to locate sub station on Government land as far as possible and in the absence of Government land, private land is acquired. In order to ensure that indigenous (Tribal) people do not suffer adverse effects, utmost care is taken to avoid acquisition of land belonging to tribal community and it is ensured that they receive culturally compatible social and economic benefits for any adverse effects.

In order to minimize / mitigate impact of land acquisition and to provide "people displaced / affected by our projects, means to improve or at least restore their former living standards, earning capacity and production levels" through a process in which they participate through their own social and cultural institutions. Whenever affected families are more than 40, a detailed socio-economic survey of the proposed area is undertaken by the outside agency for making a detailed socio-economic profile. Based on that, a Rehabilitation Action Plan (RAP) is prepared, which lists out the measures for rehabilitation of all affected persons through IGS, Training or other innovative schemes as per available skills and resources in the area. However, if the affected families are less than 40, Social Assessment and Management (SAMP) is prepared in-house.

In the instant project, construction of one new Substation at Byrnihat is envisaged and approx. 10 Acres land is to be acquired afresh for the Substation. To meet the cost of R&R measures, a provision of Rs.30 Lakhs has been kept in the present FR.

6.0 ON-GOING INITIATIVES

The Misa-Byrnihat Transmission system has been designed in the most optimal manner based on the various studies as mentioned above. The system and equipment parameters are chosen keeping in view the present trend in technology. The conductors are selected such that the losses in them due to internal resistance as well as due to external effects are bare minimum. The bus bar materials and the clamps and connectors are chosen meeting the stringent international requirements so that there is least loss of energy in them. The transformers and other switchgears are also suitably selected and evaluated before award itself for most efficient operation from thermal and loss efficiency point of view. The energy thus saved is energy transmitted to the constituent. This is a major step in energy conservation as the energy saved on account of losses is construed as energy generated.



7.0 TECHNOLOGY ISSUES

7.1 Salient features of 245 & 132 KV Sub station Equipment and facilities

The design and specification of substation equipment are to be governed by the following factors:

7.1.1 Insulation Coordination

220kV and 132 kV System would be designed to limit the overvoltages as recommended by IEC. Consistent with these values and protective levels provided by lightning arresters, the following insulation levels are proposed to be adopted for 220Kv & 132kV systems.

	220kV	132 KV
a. Impulse withstand voltage for		
- transformer and reactors	950kVp	550 kVp
- Other Equipment	1050kVp	650 kVp
b. Minimum creepage distance	6125mm	3625mm
c. Max. fault current	40kA	31.5 kA
d. Duration of fault	1 sec	1 sec
e. Corona extinction voltage		

7.1.2 Steady State Stability

The Steady State Stability is the ability of a system, to return/remains in the state of equilibrium when subjected to a small or gradual changes of disturbances. The steady state stability limit is the maximum power that can flow through some lines in the system when the entire or part of the system to which the stability limit refers is subjected to a small disturbance without loss of its stability.

The steady state stability is usually quantified by measuring the relative angular displacement (also called as swing curve) between the two buses (nodes) in a network when a small disturbance is applied somewhere into the system.

In an integrated power system consisting of large number of generator, load and line etc., a maximum relative angular separation of about 30 deg. between the two buses may be assumed to be acceptable (safest) limit for maintaining the steady state stability of the system. Angular separation for different alternatives have been studied and found to be in order.

7.1.3 Switching Schemes

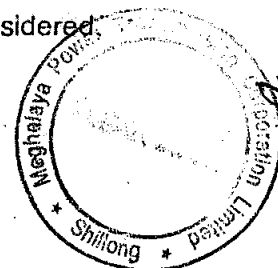
The following switching schemes have been considered in various substations:

220 KV

For Byrnihat (New) & Misa (Extn.), Double main and Transfer Scheme has been considered.

132 KV

For Byrnihat (New), Single main and Transfer Scheme has been considered.



7.1.4 Substation Equipment:

The switchgear shall be designed and specified to withstand operating conditions and duty requirements.

7.1.4.1 Power Transformer

Power transformers shall conform to IEC : 60076 / IS : 2026 in general. These transformers shall generally have OLTC with a range of +8.5%, the range and requirement of which shall be finalized based on the system requirement. The air core reactance shall be of the order of 20%. 220/132kV and 132/33kV transformers shall generally have OLTC while 33/11kV transformers shall be provided with off-circuit tap-changers. The range and requirement of tap-changers shall be finalized based on the system requirement.

7.1.4.2 Circuit Breakers

Circuit breakers shall in general comply to IEC 62271-100 & IEC-60694 and shall be of SF6 Type. The rated break time shall not exceed 60ms for 220kV and 132 KV circuit breakers. The short line fault capacity shall be same as the rated capacity and this is proposed to be achieved without use of opening resistors.

7.1.4.3 Isolators

The isolators shall comply to IEC 62271-102 in general. 220kV, 132 kV & 33 kV Isolators shall be of horizontal centre break /double break type. Isolators and earth switches shall be motor operated for 220kV & 132 kV system and manually operated for 33 kV system. Main blades and earth blades shall be interlocked and interlock shall be fail safe type.

7.1.4.4 Current Transformers

For 220/132 KV

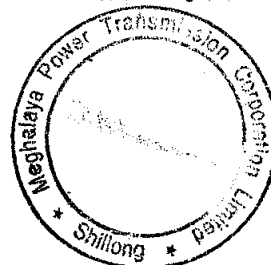
Current Transformers shall comply to IEC 44-1 in general. All ratios shall be obtained by secondary taps. 220kV and 132kV Current transformers shall have five secondaries, four for protection and one for metering. The burden and knee point voltage shall be in accordance with the requirements of the system including possible feeds for telemetry.

7.1.4.5 Capacitor Voltage Transformers

Voltage transformers shall comply to IEC 60044-2 in general. These shall have three secondaries out of which two shall be used for protection and one for metering. Accuracy class for protection core shall be 3 P and for metering core shall be 0.2. The voltage transformers on lines shall be suitable for Carrier Coupling. The Capacitance of CVT Shall be 4400/6600/8800 pF depending on PLCC requirements.

7.1.4.6 Surge Arresters

Station class current limiting, heavy duty gapless type Surge arresters conforming to IEC 60099-4 in general shall be provided. The rated voltage of Surge arrester and other characteristics are chosen in accordance with system



requirements. Surge arresters shall be provided near line entrances, transformers and buses so as to achieve proper insulation coordination. These shall be fitted with pressure relief devices and diverting ports suitable for preventing shattering of porcelain housing providing path for the flow of rated currents in the event of arrestors failure. The switchgear shall be designed and specified to withstand operating conditions and duty requirements.

7.1.5 Substation Support facilities

Certain facilities required for operation & maintenance of substations as described below shall be provided in new substation and in existing substation they have already been provided and would be extended, wherever required.

7.1.5.1 AC & DC power supplies

For catering to the requirements of three phase & single phase AC supply and DC supply for various substation equipment the following arrangement is envisaged :-

- i) For 220kV and 132kV new sub-stations, 1 no. 33/0.433kV, 630 KVA auxiliary transformer would be provided for the LT auxiliary power supply.
- ii) In general, 2 Nos. battery of 220 V of 300 AH for control & protection and 1 No. 48 V battery of 300 AH for PLCC would be provided. Each battery would have a boost charger and a trickle charger. Suitable AC & DC distribution boards and associated LT Switchgear would be provided.
- iii) In new Substations, one No. 250KVA DG set shall be provided.

7.1.5.2 Fire Fighting System

Fire fighting system in general conforms to fire insurance regulations of India. The fire fighting system is proposed with both AC motor & diesel engine driven pumps. Automatic heat actuated emulsifying system is proposed for transformers & reactors. In addition for alarm system based on heat/smoke detectors are proposed to be installed at sensitive points in a substation e.g. Cable Vault, Main Control Room, MCC Room etc. Further, adequate water hydrants and portable fire extinguishers shall be provided in the substations.

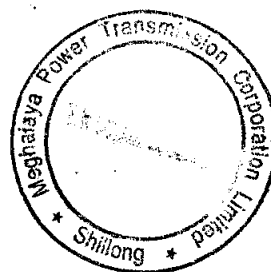
Hydrant system shall be provided for 132kV sub-stations. Further, portable fire extinguishers shall be provided in all substations.

7.1.5.3 Oil evacuating, filtering, testing & filling apparatus

To monitor the quality of oil for satisfactory performance of transformers, shunt reactors and for periodical maintenance necessary oil evacuating, filtering, testing and filling apparatus would be provided at new substations. Oil tanks of adequate capacities for storage of pure and impure transformer oil would be provided.

7.1.5.4 Lighting & communication

Adequate normal & emergency AC & DC lighting shall be provided in the control room of the substation. The switchyards shall also be provided with adequate



lighting. A telephone exchange of 24 lines shall be provided at new substations as means of effective communication between various buildings of the substation.

7.1.5.5 Control Room

Substation control room would be provided to house the control and relay panels, PLCC equipments, telemetry equipments and recording equipments, AC & DC distribution boards, DC batteries, etc. Central air conditioning will be provided in the building as functional requirements.

7.1.6 Protection & Control

Protective Relaying System

The protective relaying system proposed to be provided for transmission lines, auto-transformers and bus bars to minimize the damage to the equipments in the events of faults and abnormal conditions, is dealt in this section.

Transmission Lines

220 kV lines shall have MAIN-I protection as three zone distance type with carrier aided inter-tripping feature. All 220 kV lines shall have MAIN-II protection as three zone distance type having different measuring technique to that of MAIN-I. For 132KV Main-I distance protection and directional O/C & E/F protection is provided.

Further, all 220 kV lines shall be provided with single and three phase auto-reclosing facility to allow reclosing of circuit breakers in case of transient faults. These lines shall also be provided with distance to fault locators to identify the location of fault on transmission lines.

Auto Transformer

These shall have the following protections :

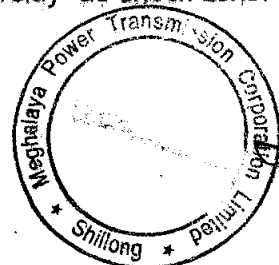
- i) Differential protection
- ii) Restricted earth fault protection
- iii) Over-current and earth fault protection on HV/MV side
- iv) Over fluxing protection
- v) Overload alarm.

Besides these, power transformers shall have BUCHOLZ relay, protection against high oil and winding temperature and pressure relief device.

Bus bar Protection

The high speed bus bar differential protection which is essential to minimize the damage and maintain system stability at the time of bus bar faults shall be provided for 220 KV bus. Bus bar protection scheme shall be such that it operates selectively for each bus and incorporate necessary features required for ensuring security. The scheme shall have the provision for future expansion.

For 132 KV, bus bar protection shall have three phase differential relay separate for main bus zone, and one number three phase differential relay as check zone.



Each differential relay shall have separate bus wire supervision relays. Bus bar protection shall include necessary trip relays for each circuit breaker.

Local Breaker Back up Protection

This shall be provided for each 245 kV & 132 KV breaker and will be connected to de-energize the affected stuck breaker from both sides.

Time synchronisation equipment

Time synchronisation equipment complete in all respect including antenna, cable, processing equipment required to receive time signal through GPS or from National Physical Laboratory(NPL) through INSAT shall be provided.

7.1.7 PLCC

Power line carrier communication (PLCC) equipment complete for speech transmission, line protections, and data channels shall be provided on each 220 KV & 132 KV transmission line. The protections for transmission line and the line compensating equipment shall have hundred percent back up communication channels. The PLCC equipment shall in brief include the following :-

Coupling device, line traps, carrier terminals, protection couplers, HF cables, trunk selectors, automatic exchange, maintenance and testing instruments.

Coupling devices shall be suitable for 4400/6600/8800 pF for 220/132 kV CVTs. The pass band of coupling devices shall have sufficient margin for adding communication channel in future if required. Necessary protection devices for the safety of personnel and low voltage part against power frequency voltages and transient over voltage shall also be provided. The line traps shall be broad band tuned suitable for blocking the complete range of carrier frequencies.

Line Trap shall have the necessary protective devices such as lightning arresters for the protection of tuning device and shall be equipped with corona rings. The carrier terminals shall be of single side - band (SSB) amplitude modulation (AM) type and shall have 4KHz band width. Decoupling network consisting of line traps and coupling capacitors may also be required at certain substation in case of extreme frequency congestion.

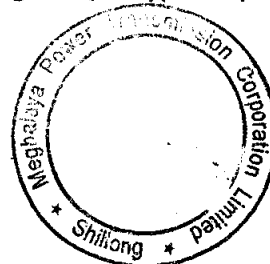
7.1.8 Control Concept

All the EHV breakers in substation/switching stations shall be controlled and synchronized from the switchyard control room. Each breaker would have two sets of trip circuits which would be connected to separately fused DC supplies for greater reliability. All the isolators shall have control from remote/local whereas the earth switches shall have local control only.

Import and export of MWH and MVARH through each feeder shall be registered and meters shall be housed in a metering panel to be located in the control room.

7.1.9 Township

In a substation, township Quarters of different categories like B,C & D types are provided and these Quarters are allotted to various categories of employees. The different type of buildings like administrative building, shopping complex, primary



school, recreation center, guest house, etc. are also provided. The township is generally provided within the substation area. Some temporary stores/warehousing are proposed to be constructed for storing substation materials, it is also proposed to construct some houses to accommodate erection personnel, operation and maintenance staff. Detail engineering and construction drawing shall as per MNW of the project. Other facilities of substation township like roads, water supply, sewer line, telephone lines, electricity supply, etc. are provided as per the requirement of the project. The provision of Quarters for the future expansion is also considered in the township estimates.

7.2 Salient features of Transmission Lines

The salient features of the proposed transmission lines are given here under :

The primary consideration for design and estimation of transmission line is walk over survey, which is based upon topographical map/forest map of India. Type of terrain, forest stretches, crossings etc. to be encountered by the transmission line has been taken into consideration while estimating the quantities.

The weight of tower will vary in an ascending order from wind zone 1 to wind zone 6 as the transverse load on the tower considered owing to the wind pressure increases in the same pattern. The identification of wind zone is based on the wind zone map given in IS:875 (part-I) 1987 and the past experience in the region.

The design parameters are generally based on the report of standardization committee of CEA. The details of equipment have been given in subsequent clauses. The transmission lines would be designed with maximum conductor temperature of 85 Degree C so that its loadability can be increased in future.

7.2.1 220 KV AC Transmission Line

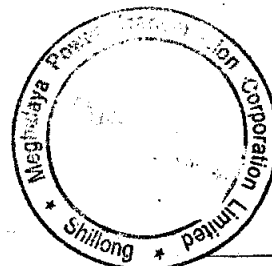
7.2.1.1 Line configuration

The 220 KV D/C transmission lines shall have vertical configuration of conductors.

7.2.1.2 Tower

Self supporting lattice steel, towers, fabricated from structural steel (Mild steel or combination of mild and high tensile steel) angle sections would be used. All the components of the towers shall be hot dipped galvanized. The following few types of towers shall be used :

- i) 'DA' type tangent towers with suspension strings for line deviations upto 2 degree.
- ii) 'DB' type angle towers with tension strings for line deviations upto 15 degree.
- iii) 'DC' type angle towers with tension strings for line deviations upto 30 degree.
- iv) 'DD' type tension towers upto 60 degree angle of deviation and suitable for dead-end condition. These may also be used for terminal locations.



7.2.1.3 Conductors

For 220 KV lines, single ACSR 'Zebra' conductor of overall diameter of 28.71 mm / equivalent AAAC Conductor shall be used per phase.

7.2.1.4 Earthwire and Lightning Protection

One 7/3.15 mm galvanised steel earth wire shall be used on the line so that it can withstand two successive lightning stroke of 150 KA.

For double circuit transmission lines 30 degree shielding angle shall be adopted.

7.2.1.5 Earthwire GROUNDING

The tower footing resistance shall be kept below 10 ohms. Normally pipe type grounding shall be used. In case of rocky ground where the ground resistance is high, counterpoise earthing shall be used to bring the tower footing resistance down to acceptable level.

7.2.1.6 INSULATOR AND HARDWARE FITTINGS

High strength glazed electro porcelain / toughened glass disc insulators or porcelain long rod insulators shall be used. The following types of insulator strings along with hardware fittings shall be used.

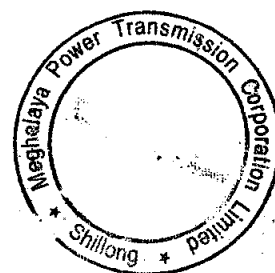
	No. of discs	Dia- meter (mm)	Ball to ball spacing (mm)	Nominal creepage distance (mm)	Electro-mech. strength of disc (KN)	Electro-mechanical strength of string (ken)
a) Single suspension	14	255/280	145	292	70	70
b) Double suspension	28	255/280	145	292	70	2 x 70
c) Single tension	15	255/280	145	315	120	120
d) Double tension	30	255/280	145	315	120	2 x 120
e) Single suspension pilot	14	255/280	145	292	70	70

Item (a) and (c) are mostly used for suspension and tension towers respectively. Item (b) and (d) are used in river crossing towers and river crossing anchor towers respectively. Item (e) is used in heavy angle (DD type) tower to restrict jumper movement.

Suitable hardware fittings shall be used for attachment of the insulators with the tower at one end and also for supporting the conductors at the other end. Grading rings/arcing horn shall be used for improving corona and RIV performance as well as to improve the voltage distribution across the insulator discs.

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7.2.1.7 LINE ACCESSORIES

i) Mid span compression joint for conductor/ earthwire:

Compression joints suitable for conductor /earth wire shall be used for joining two lengths of conductor / earthwire. The minimum slipping strength of the joint after compression shall not be less than 95 % of the UTS of conductor / earthwire.

ii) Repair sleeve for conductor

Repair sleeve shall be used only for repairing not more than two strands broken in the outer layer of aluminium. It shall be of compression type in two parts with a provision of seat for sliding of keeper piece.

iii) Flexible copper bond for earthwire

Flexible copper bonds shall be used for good electrical continuity between the earthwire and the tower. One bond per suspension tower and two bonds per tension tower shall be used.

iv) Vibration dampers for conductor/earthwire

Stockbridge vibration dampers shall be used to reduce the maximum dynamic strain caused by Aeolian vibrations to a value of 150 micro-strain.

7.2.1.8 River Crossings:

Special towers shall be used for major river crossings where the span is more than 600 mtrs with anchor towers on either end of river crossing span.

7.2.1.9 Power line, Railway line, Road and P&T line crossing

The transmission lines shall be crossing power lines, railway lines roads and P&T lines for which suitable extensions of towers shall be used.

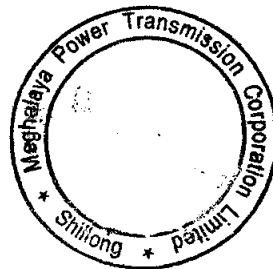
The standard extension normally used for various types of towers are as follows:

A/DA & D/DD : 3m, 6m, 9m, 18m, 25m
B/DB & C/DC : 3m, 6m

In addition, hill side lap extension shall also be provided wherever required, to reduce the benching.

8.0 PROJECT IMPLEMENTATION

Based on the decision taken in the meeting dated 23.8.2005 chaired by Secretary (Power); it was decided that this Transmission Scheme would be implemented through formation of a Joint Venture Company between POWERGRID and Meghalaya State Electricity Board (MeSEB) as mentioned at para 1.0 above. The modalities of the same are detailed below :



8.1 IMPLEMENTATION BY JOINT VENTURE COMPANY BETWEEN POWERGRID AND MEGHALAYA STATE ELECTRICITY BOARD

The Transmission Scheme would be implemented through formation of a Joint Venture Company between Power Grid Corporation of India Ltd. (POWERGRID) and Meghalaya State Electricity Board (MeSEB). The Debt : Equity ratio of the project is proposed to be 70 : 30. The proposed name of the JV Company is "Byrnihat Transmission Company Limited".

8.1.1 Implementation schedule

The Transmission System is scheduled to be commissioned within 30 months from the date of first Letter of Award.

8.2 Organisational set up

The 'Organisational Concept' will be given due importance and the basic structure of organisation would be made with a view to achieve the following objectives :

- i) To group related functions together to have clearly defined 'Roles' for the relevant 'functional heads'.
- ii) To have well defined 'Responsibility & Authority' centres in the structure.
- iii) To have well defined 'communication channels' and optimum 'span of control' in the organisation.
- iv) To have optimum manpower.
- v) To have decentralisation of activities as far as possible.

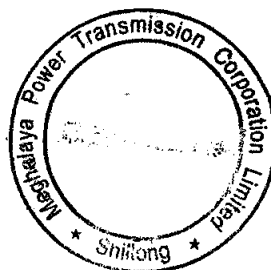
8.3 Project Management

The project of transmission system will be planned, implemented, monitored and controlled through Integrated Project Management and Control System (IPMCS).

IPMCS uses PERT/CPM technique as the basic management tool. For effective project planning and review, three tier level of planning and review have been adopted.

Level-i :

Planning is done by the Corporate Monitoring Group, a central planning cell, which is in the form of an overall project schedule called the Master Network, for the project which forms the basis for all subsequent planning and monitoring of the activities. This covers broadly all the packages of project and indicates activities of engineering, contracts, manufacturing, erection and commissioning. The Master Network is prepared using computerised techniques which subsequently helps in comparing the actual progress of the project with the scheduled progress. This gives indication of the likely critical areas and helps in preventing the same, thereby resulting in smoother implementation. The Master Network also acts as a source for the planning to be done at Level - II & Level - III.



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Level-II :

Planning is done package-wise and is worked out and finalised with the respective contractor/vendor during the pre-award stage. Level II networks are made within the milestones identified in the project Master Network (L-I).

Level-III :

Plans deal with elaborate schedules and weekly/monthly rolling plans which are prepared for activities of engineering, supply (as the case may be) & field activities. These form the basis of monitoring by the various functions.

The system envisages monthly review of the level II programmes with contractors and at field on a weekly basis. A site monthly progress report is sent to the head office having four sections, i.e.

- i) Project completion trend
- ii) Salient achievements for the month
- iii) Programme for next month
- iv) Areas needing attention of top management

9.0 MEANS OF FINANCE AND PROJECT BUDGET

9.1 Project Cost Estimate (Base Cost)

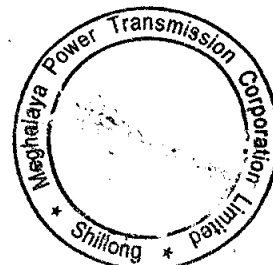
9.1.1 The estimated cost of the project (Base Cost) based on 2nd Quarter 2005 price level is as follows :

	(Rs. in crores)
	Total cost
1. Transmission System	136.53
2. Interest during Construction	7.06
TOTAL	143.59

The abstract cost estimate for Transmission Line and Substation portion separately are given at ANNEXURE - 1.0. The break-up of the cost estimate for civil works, transmission lines and substations are given at ANNEXURES - 1.1, 1.2 and 1.3 respectively.

9.2 Project Cost Estimate (Completion Cost)

The completion cost of the project is expected to be Rs.158.18 crores including IDC of Rs.7.54 crores. The above cost has been worked out based on the average movement of WPI (80% weightage) and CPI (20% weightage) for the preceding 12 month period as per guide lines dated 06.08.1997. Details of calculation are enclosed at ANNEXURE - 5.0. The abstract cost estimate for



completed cost is enclosed at ANNEXURE - 1.0a. The phased fund requirement and calculation for IDC for completed cost are enclosed at ANNEXURES - 2.0a and 4.0a respectively.

9.3 Basis of Cost Estimate

The detailed cost estimates for the civil works for Transmission Lines and Substations have been given at ANNEXURES - 1.1.1, 1.1.2, 1.1.3 and 1.1.4.

The cost estimates for all equipment for 220 KV transmission lines and 220/132 KV Substations are based on the average rate of last three contracts awarded by POWERGRID updated to 2nd Quarter 2005 price level. The cost estimates for all Transmission lines and Substation Equipment are inclusive of Excise Duty and CST (as funding is proposed to be done through domestic borrowings / bonds). Service Tax @ 10% & Educational Cess @ 2% have been considered in the Estimate. Further the Freight & Insurance Charges have been considered @ 12%.

9.4 Project Overheads

The following overheads have been charged on to the cost of the transmission system as a percentage of the equipment cost :

	For Tr. Lines & Substations
i) Misc. Tools & Plants	1.00%
ii) Maintenance	1.00%
iii) Establishment charges including Audit & Accounts	8.50%
iv) Losses on stock	0.25%
v) Contingencies	3.00%

9.5 Funding arrangement

9.5.1 Phased Fund Requirement

The anticipated year wise fund requirement for the project including interest during construction are given below :

(Rs in Crores)

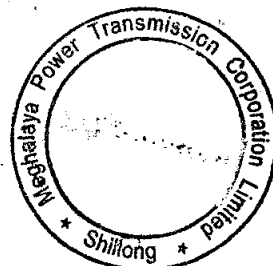
YEAR	EQUITY - POWERGRID	EQUITY- MeSEB	LOAN	TOTAL
1 st Year	7.49	0.93	19.64	28.06
2 nd Year	17.27	2.13	45.28	64.69
3 rd Year	11.75	1.45	30.81	44.01
4 th Year	1.82	0.23	4.78	6.83
TOTAL	38.34	4.74	100.51	143.59

9.6 Mode of Financing

The project is proposed to be funded through internal resources of JV Company (30%) and through Domestic borrowings / bonds (70%). The loan component is proposed to be funded by Power Finance Corporation(PFC) / Rural Electrification Corporation(REC).

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9.7 Interest during Construction

Based on the assumption that the project being financed from equity and loan in the ratio of 30:70, and the equity component being released simultaneously along with the loan component, the interest during construction works out to Rs.7.06 crores. The interest rate for the loan amount has been considered @ 8%. The details of calculation are furnished in ANNEXURE - 4.0. The transmission system is scheduled to be commissioned within 30 months from the date of issue of first letter of award.

The interest during construction would however be based on the actual financial structure of the project and applicable terms of interest on loan(s), etc.

9.8 Monthly Fixed Charges

Considering the interest on loan @ 8% for Domestic loan, return on equity @ 14%, depreciation @ 0% for land, 1.8% for building, 2.57% for transmission lines, 3.6% for substations and 6% for PLCC, O&M charges @ Rs.0.266 Lakhs per Ckt.Km. for line and @ Rs.32.90 Lakhs per bay for Substation, Debt:Equity ratio 70:30, interest on working capital @ 10.5%, the tentative monthly fixed charges work out as Rs.190.58 Lakhs (ANNEXURE - 3.0).

The Transmission Service Charge shall be paid to the Joint Venture Company through an escrow arrangement supported by State Government Guarantee from State of Meghalaya. Transmission Service Charge shall be paid as approved by CERC. However, details of this arrangement i.e. payment of full transmission tariff without linkage to prevailing Unified Common Pool Transmission Tariff (UCPTT) shall be informed to CERC in advance so as to avoid any complication in realization of tariff at later stage.

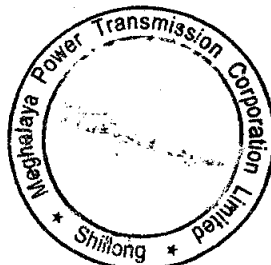
10.0 TIME FRAME

The Misa - Byrnihat transmission system is scheduled to be commissioned within 30 months from the date of issue of first letter of award.

11.0 SUSTAINABILITY

11.1 System Design Philosophy

The power evacuation system is designed in the most optimum manner such that losses in the system are minimal. The system and equipment parameters are chosen according to the present trends in technology, the conductors available are such that the losses in them due to internal resistance as well as due to external effects such as corona and RIV are bare minimum. The busbar materials and the clamps and connectors are chosen after meeting the stringent international requirements so that there is least loss of energy in them. The transformers, reactors and other switchgear are also similarly selected and



evaluated before award itself for most efficient operation from thermal loss and efficiency.

11.2 System Operation Philosophy

The power flow in a particular line varies due to demand variation, failure of equipment, line faults, etc. For the system to be stable and to use optimised resources, it is very important to record the power flow at each and every time. This necessitates the monitoring of operation of the system on a three shift basis.

11.3 System Maintenance Philosophy

The maintenance management system would be so as to aim at keeping the system under stable conditions while ensuring minimum maintenance cost and safety of equipment and personnel.

11.3.1 Spare parts Management System

The primary objective of spare part management system will be to ensure timely availability of proper spare parts for efficient maintenance of the substations and lines without excessive build-up on non-moving and slow moving inventory. The spare parts management system for this project will cover the following areas :

- a) Proper codification of all spares and consumables
- b) Spare parts indenting and procurement policy
- c) Ordering of critical mandatory and recommended spares
- d) Judicious fixation of inventory levels and ordering levels for spare parts based on our experience in other projects.
- e) Development of more than one source wherever practicable.

11.3.2 Training of personnel

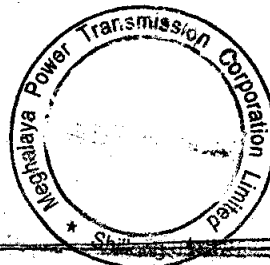
The expertise available with the country is adequate to cover maintenance of Transmission Line and sub station EHV equipments, etc. Training in these areas can be arranged with the help of training officers, equipment suppliers and consultants, site commissioning personnel as well as comopany's own specialists.

11.3.3 O & M Manuals

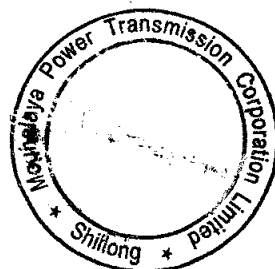
- a) Adequate O & M manuals will be distributed to all concerned as per the approved distribution policy of the company.
- b) O & M manuals will be available to all concerned prior to commissioning of substations and transmission lines to avoid problems in preparation of commissioning documents as well as proper installation & commissioning of equipment.

11.3.4 Special tools and tackles

Two unused sets of special tools and tackles shall be provided for installation, commissioning and proper maintenance of equipment.



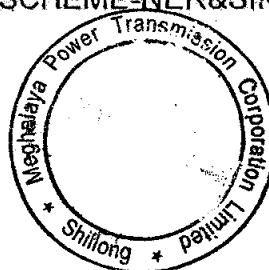
ANNEXURES



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**SCOPE OF WORKS FOR
MISA - BYRNIHAT TRANSMISSION SYSTEM**

	<u>Transmission Lines</u>	<u>Length (Km)</u>
1.0	MISA - BYRNIHAT 220KV D/C TL	90.00
	<u>Substation Works</u>	
1.0	Byrnihat 220/132 kV (NEW) S/S	2X160MVA, 220/132 kV transformer with associated 2 nos. of 220 kV bays for termination of Misa -Byrnihat 220 kV D/c line 1 No TBC Bay 1 No BC Bay
2.0	Misa 220/132 kV (EXTN.) S/S	2 nos. 220 kV Line bays



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ABSTRACT COST ESTIMATE

(BASE COST)

MISA - BYRNIHAT TRANSMISSION SYSTEM

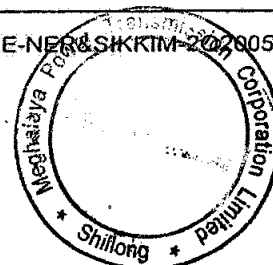
(Cost updated to 2nd Qtr. 2005 price level)

DESCRIPTION	AMOUNT (Rs. in Crs.)
Preliminary Survey & Soil Investigation	0.21
Land Acquisition for Substation and R & R Compensation	0.90
Cost of Compensation for Transamission Lines	
i) Compensation towards Crop, Tree & PTCC	0.45
ii) Compensation towards Forest	8.38
<u>Civil Works (Annex. - 1.1)</u>	
i) Infrastructure for substations	2.12
ii) Non Residential Buildings	1.01
iii) Colony for Trans. Lines & Substations	8.04
<u>Equipment (Supply & Erection) Cost</u>	
a) Trans.Lines (Annex.-1.2)	61.17
b) Sub-Stations (Annex.-1.3)	40.30
Sub Total (E)	101.47
F Misc. Tools & Plants (@1% of E)	1.01
G Maintenance during construction(@1% of E)	1.01
H Engg. & Administration(@8.5% of E)	8.62
I Losses on Stock (@0.25% of E)	0.25
J Contingencies (@3% of E)	3.04
Sub Total (A to J)	136.53
L Interest During Construction(IDC)	7.06
GRAND TOTAL	143.59

- Note: 1. Debt:Equity ratio has been considered as 70:30.
 2. Debt component is envisaged to be covered under Domestic loan/ Bonds.
 Equity component is through IR.
 3. Interest rate on Debt has been considered @8.0% p.a. for Domestic loan

C:\dev\FR\NER\NER-Missing Links\FR-RELIABILITY-IMP-SCHEME-NER & SHKTM-2002-005-rev1

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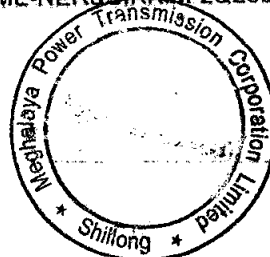
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ABSTRACT COST ESTIMATE MISA - BYRNIHAT TRANSMISSION SYSTEM

(FOR COMPLETED COST)
(Rupees in Crores)

Sr. No.	DESCRIPTION	TOTAL COST
A	Preliminary Survey & Soil Investigation	0.23
B	Land Acquisition for Substation and R & R Compensation	0.99
C	Cost of Compensation for Transmission Lines	
	i) Compensation towards Crop, Tree & PTCC	0.50
	ii) Compensation towards Forest	9.24
D	<u>Civil Works (Annex. - 1.1)</u>	
	i) Infrastructure for substations	2.34
	ii) Non Residential Buildings	1.11
	iii) Colony for Trans. Lines & Substations	8.87
E	<u>Equipment (Supply & Erection) Cost</u>	
	a) Trans.Lines (Annex.-1.2)	67.49
	b) Sub-Stations (Annex.-1.3)	44.47
	Sub Total (E)	111.96
F	Misc. Tools & Plants (@1% of E)	1.12
G	Maintenance during construction(@1% of E)	1.12
H	Engg. & Administration(@8.5% of E)	9.52
I	Losses on Stock (@0.25% of E)	0.28
J	Contingencies (@3% of E)	3.36
K	Grand Total excl. IDC (A to J)	150.64
L	Interest During Construction(IDC)	7.54
	GRAND TOTAL INCL. IDC	158.18

- Note: 1. Debt:Equity ratio has been considered as 70:30.
2. Debt component is envisaged to be covered under Domestic loan/ Bonds.
Equity component is through IR.
3. Interest rate on Debt has been considered @8.0% p.a. for Domestic loan



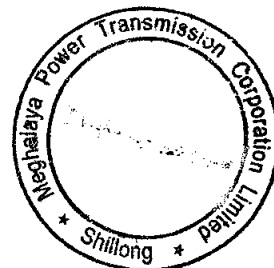
**ABSTRACT COST ESTIMATE
PRELIMINARY & GENERAL CIVIL WORKS**

ANNEXURE - 1.1

PROJ: MISA - BYRNIHAT TRANSMISSION SYSTEM

		(Rs. in Lakhs)						
Sr.	Line/Sub station	Survey & Soil Investigation		Crop & PTCC compensation	Forest compensation incl. NPV	Colony	Total Cost	
A. Transmission Line								
1.00	MISA - BYRNIHAT 220KV D/C TL	4.96	0.00	45.00	837.80	0.00	887.75	
Sub total		4.96	0.00	45.00	837.80	0.00	887.75	
Sr.	Sub station	Preliminary Survey & Soil Investigation	Land Cost	R & R Cost	Infrastructure	Non- Residential Buildings	Colony	Total Cost
B. Sub station								
1.00	Byrnihat 220/132 KV (NEW) S/S	11.02	50.00	30.00	172.00	101.00	804.00	1168.02
2.00	Misa 220/132 KV (EXTN.) S/S	5.00	10.00	0.00	40.00	0.00	0.00	55.00
Sub total		16.02	60.00	30.00	212.00	101.00	804.00	1223.02

Infrastructure : Levelling/Site surfacing, Boundary wall & fencing, Approach roads & Internal roads, Internal & peripheral drainage, Bridges & Culverts, etc.
 Non- Residential Buildings: Control Room Building, Administrative /office building/ Fire fighting pump house, DG Set building, etc.
 Forest Compensation : Cost of compensatory afforestation on double degraded forest & NPV of forest area diverted



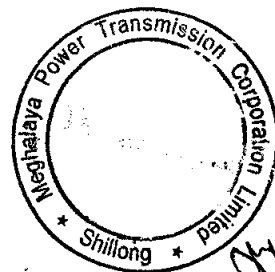
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ANNEXURE - 1.1.1

**DETAILS OF PRELIMINARY WORKS AND LAND & COMPENSATION
FOR TRANSMISSION LINES**

PRELIMINARY WORKS

	LINE LENGTH (Km.)	RATE PER KM. (Rupees)	AMOUNT (Rs. Lakhs) (Incl. Service Tax)
<u>Preliminary survey & soil investigation for :</u>			
1 MISA - BYRNIHAT 220KV D/C TL	90.00	5,000	4.96
TOTAL COST			4.96

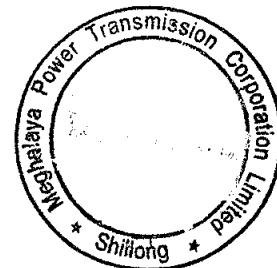


ANNEXURE - 1.1.2

LAND & COMPENSATION**MISA - BYRNIHAT TRANSMISSION SYSTEM**

	LINE LENGTH (Km.)	RATE PER KM. (Rupees)	AMOUNT (Rs. Lakhs)
1.0 MISA - BYRNIHAT 220KV D/C TL			
i) Cost of Crop, tree (and others) & PTCC compensation	90	50,000	45.00
Total Cost of Crop & PTCC compensation			45.00
i) Cost of compensatory afforestation on double degraded forest	165.90 Ha	45,000 per Ha	74.655
ii) NPV for forest area diverted	82.95 Ha	920,000 per Ha	763.14
Total Cost of Compensatory afforestation	(23.7 Km Forest Stretch)		837.80
Total Cost of Compensation towards Crop & PTCC			45.00
Total cost of Compensatory Afforestation			837.80

*Note: A total of 82.95 Ha. of forest (Road /canal crossings+reserved forest+Social forest) covered under Supreme Court ruling of 1996 (Forest like area irrespective of ownership) is likely to be encountered in the proposed transmission project. As per the recent Supreme Court Ruling dated 29.10.2002 issued on 19.11.2002 User agency in addition to cost of compensatory afforestation (CA) has to pay now cost of Forest land based on Net Present Value (NPV) ranging from Rs.5.8 Lakhs to Rs. 9.2 Lakhs per Hectare depending upon the type of forest land diverted. However, most of the state govt.(Forest deptt.) are charging the maximum amount of Rs.9.2 Lakhs per Ha. therefore the same has been considered as cost of compensatory afforestation.

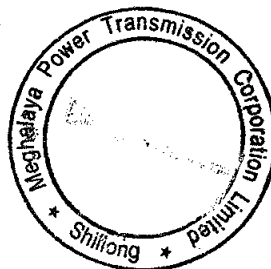


ANNEXURE - 1.1.3

SHEET 1 OF 3

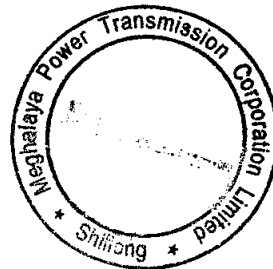
DETAILS OF RESIDENTIAL COLONY
PROPOSED AT 220/132 KV NEW SUBSTATION
AT BYRNIHAT

DESCRIPTION	NOS.	AREA (SQ.M.)	AMOUNT (RS.LAKHS) (Rounded off)
Residential Quarters :			
a) Type B @ Rs.12500 / Sq.m.	36	70.00	315.00
b) Type C @ Rs.12500/ Sq.m.	4	100.00	50.00
c) Type D with Servant quarters & garage @ Rs.13500 / Sq.m.	1	176.00	24.00
Nursery School @ Rs.12500 / Sq.m.	1	250.00	31.00
Dispensary / First Aid Centre @ Rs.12500 / S	1	50.00	6.00
Community Centre @ Rs.12500 / Sq.m.	1	300.00	38.00
Transit Camp & Field Hostel @ Rs.12500 / Sq	1	500.00	63.00
Co-operative Store @ Rs.10000 / Sq.m.	1	300.00	30.00
Cost of Infrastructure @ 31% (Roads @ 5%, Fencing & Boundary wall @ 4%, Lawns, Gardens, Plantation @ 2%, Water Supply @ 6%, Internal Sanitation @ 6%, Internal Electrification @ 8%)			173.00
TOTAL - RESIDENTIAL COLONY			730.00
			730.00
TOTAL - COLONY (including Service Tax)			804.00



**DETAILS OF CIVIL WORKS PROPOSED AT NEW SUBSTATIONS
AT BYRNIHAT**

SL. NO.	DESCRIPTION	NOS.	AREA (SQ.M.)	RATE PER SQ.M.(Rs.)	AMOUNT (RS.LAKHS) (Rounded off)
PRELIMINARY WORKS					
1.	Survey & Soil investigation	L.S.			10.00
	PRELIMINARY WORKS (incl. service tax)				11.02
INFRASTRUCTURE FOR SUBSTATION					
1.	Levelling / Site Surfacing	L.S.			62.50
2.	Boundary wall & fencing	L.S.			31.25
3.	Approach roads & internal roads	L.S.			37.50
4.	Internal & peripheral drainage	L.S.			21.25
5.	Bridges / culverts	L.S.			3.75
	TOTAL - INFRASTRUCTURE				156.25
	TOTAL - INFRASTRUCTURE (including Service tax)				172.00
NON - RESIDENTIAL BUILDINGS					
1.	Transformer foundation & Rail track	LS			Included in S/S Civil Works
2.	Control Room Building cum Administrative / office building	1	800		67.00
3.	Fire fighting pump house, DG set building, etc.	L.S.			25.00
	TOTAL - NON-RESIDENTIAL BUILDINGS				92.00
	TOTAL - NON-RESIDENTIAL BUILDINGS (incl. Service Tax)				101.00



**ANNEXURE - 1.1.3
SHEET 3 OF 3**

LAND & COMPENSATION COST PROPOSED AT NEW SUBSTATIONS

	APPROX. AREA (ACRE)	RATE PER ACRE (Rs. Lakhs)	R&R AND IGS (Rs. Lakhs)	AMOUNT (RS. LAKHS)
New 220/132 KV S/S at BYRNIHAT	10.00	5.00		50.00
Provision for R&R / IGS at BYRNIHAT S/S			30.00	30.00
Total Land & Compensation cost for BYRNIHAT New S/S				80.00

DETAILS OF CIVIL WORKS PROPOSED AT EXISTING SUBSTATIONS.

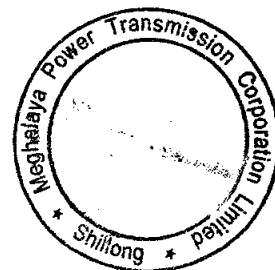
INFRASTRUCTURE FOR SUBSTATION

Misc. Infrastructure works e.g., Levelling including filling, modification of existing Fencing/Boundary wall, modification of existing Roads, culverts, storm water drainage etc, are being proposed for the following Substations where bay extension works are to be carried out :

Cost of additional land to be purchased for Misa S/S (tentative)	10.00
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Misa 220/132 KV (EXTN.) S/S Rs.40.00 LAKHS

Note: In addition provision of an amount of Rs.5.00 lakhs towards Preliminary works has been kept .



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**ABSTRACT COST ESTIMATE
TRANSMISSION LINES**

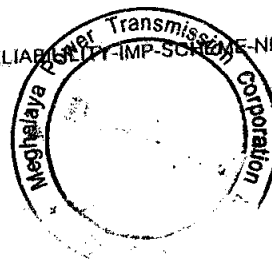
PROJ: MISA - BYRNIHAT TRANSMISSION SYSTEM

LINE 01

MISA -BYRNIHAT

S.NO.	DESCRIPTION	220 KV D/C	TOTAL
		TRANS.LINE 90 KM	
1.00	Tower Steel	1865.92	1865.92
2.00	Conductor	1306.74	1306.74
3.00	Earthwire	47.23	47.23
4.00	Insulator	314.08	314.08
5.00	Hardware Fittings	104.47	104.47
6.00	Conductor & E'wire Accessories	93.35	93.35
	Sub-Total - Supply Cost	3731.79	3731.79
7.00	Freight, Insurance & Taxes	526.87	526.87
8.00	Entry Tax	0.00	0.00
	Service Tax	173.11	173.11
9.00	Erection	314.13	314.13
10.00	Stringing	169.16	169.16
11.00	Civil Works	1201.66	1201.66
	Sub-Total	6116.72	6116.72
	Equipment Cost per Km	67.96	
12.00	River Crossings	0.00	0.00
	Total Equipment Cost	6116.72	6116.72
	Cost per Km	67.96	
	Preliminary & Gen. Civil Works	887.75	887.75
	Total Cost	7004.47	7004.47
	Total Cost per Km	77.83	

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COST BREAK UP OF TRANSMISSION LINE

ANNEXURE - 1.2.1

PROJ: MISA - BYRNIHAT TRANSMISSION SYSTEM

TRANSMISSION LINE : MISA - BYRNIHAT 220KV DIC TL
Line Length : 90.00 Km.

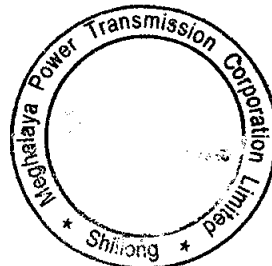
Wind Zone 5: 50m/s

(Rs. in Lakhs)

Sr. No.	Description	Eqpt Exworks Incl. Excise Duty			S P A R E S			TOTAL Exw & Spares	F&I @12% & CST @ 4%	Entry Tax @ 0.00%	Ere/Civil Works	Service Tax 10.20%	TOTAL
		Unit	Quantity	Rate (Rs.)	Total	Quantity	Total						
1	2	3	4	5	6=4x5	7	8=7x5	9=6+8	10	11	12	13	14=9+10+11+12+13
1.0	Supply of Tower Parts incl Bolts & Nuts Proto Assembly charges for tower	MT	2,874	63,590	1827.56	58	36.88	1864.46	268.92	0.00			2131.36
		LS			1.46		0.00	1.46				0.15	1.81
2.0	Conductor												
2.1	ACSR "ZEBRA" Type test charges for conductor	K.M.	701	184.484	1293.23	7	12.91	1306.14	186.99	0.00		0.06	1493.13
		LS			0.60		0.00	0.60					0.66
3.0	Earthwire												
3.1	Earthwire (G.S. 7/3.15 mm) Type test charges for earthwire	K.M.	117	39.858	46.63	1	0.40	47.03	5.84	0.00		0.02	52.67
		LS			0.20		0.00	0.20					0.22
4.0	Insulator												
4.1	Insulator (70 KN Standard)	Nos.	20,546	561	115.25	205	1.15	116.40	16.66	0.00			133.06
4.2	Insulator (120 KN Standard) Type test charges for insulator	Nos.	29,670	633	187.78	297	1.88	189.66	27.15	0.00		0.82	216.81
		LS			6.02		0.00	6.02				0.82	8.84
	Sub Total : 4				311.05		3.03	314.08	43.01	0.00	0.00	0.82	356.71
5.0	Hardware Fitting												
5.1	Single Suspension 'I' Fittings	Set	1,267	3,573	45.27	13	0.46	45.73	5.49	0.00			51.22
5.2	Single Suspension pilot Fittings	Set	149	1,633	2.43	1	0.02	2.45	0.29	0.00			2.74
5.3	Single Tension Fittings	Set	1,734	2,834	49.13	17	0.48	49.61	5.95	0.00			55.56
5.4	Double Tension Fittings	Set	122	3,714	4.53	1	0.04	4.57	0.55	0.00			5.12
5.5	Double 'I' Suspension Fittings Type test charges for hardware fittings	Set	26	6,369	1.66	0	0.00	1.66	0.20	0.00		0.05	1.86
		LS			0.45		0.00	0.45				0.05	0.49
	Sub Total : 5				103.47		1.00	104.47	12.48	0.00	0.00	0.05	116.98
6.0	Conductor & Ewire Accessories												
6.1	MSCJ For Conductor	Nos.	433	1,372	5.94	4	0.06	6.00	0.72	0.00			6.72
6.2	MSCJ For Earthwire	Nos.	65	418	0.27	1	0.00	0.27	0.03	0.00			0.30
6.3	Repair Sleeve for Conductor	Nos.	130	470	0.61	1	0.01	0.62	0.07	0.00			0.69
6.4	Flexible Copper Bonds	Nos.	521	514	2.88	5	0.03	2.71	0.33	0.00			3.04
6.5	Vibration damper for ACSR Conductor	Nos.	6,267	1,115	69.85	63	0.70	70.55	8.47	0.00			79.02

mca-hvr

PROJECT REPORT MISA - BYRNIHAT TRANSMISSION SYSTEM



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COST BREAK UP OF TRANSMISSION LINE

ANNEXURE - 1.2.1

PROJ: MISA - BYRNHAT TRANSMISSION SYSTEM

TRANSMISSION LINE : MISA - BYRNHAT 220KV D/C TL
Line Length : 90.00 Km.

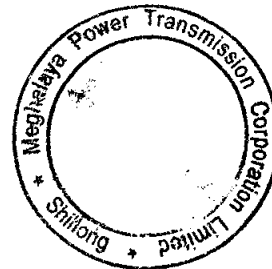
Wind Zone 5: 50m/s

(Rs. in Lakhs)

Sr. No.	Description	Eqpt Exworks Incl. Excise Duty			S P A R E S			TOTAL Exw & Spares	F&I @12% & CST @ 4%	Entry Tax @ 0.00%	Ere/Civil Works	Service Tax 10.20%	TOTAL
		Unit	Quantity	Rate (Rs.)	Total	Quantity	Total						
1	2	3	4	5	6=4x5	7	8=7x5	9=6+8	10	11	12	13	14=9+10+11+12+13
6.6	Vibration Damper Earthwire	Nos.	1,045	600	6.27	10	0.06	6.33	0.76	0.00			7.09
6.7	Suridle Spacer for Conductor	Nos.	0	-	0.00	0	0.00	0.00	0.00	0.00			0.00
6.8	Rigid Spacer for jumpers	Nos.	0	-	0.00	0	0.00	0.00	0.00	0.00			0.00
6.9	Earthwire Tension Clamps	Nos.	310	1,023	3.17	3	0.03	3.20	0.38	0.00			3.58
5.10	Earthwire Suspension Clamps	Nos.	214	1,024	2.19	2	0.02	2.21	0.27	0.00			2.48
6.11	T - Connector	Nos.	0	1,293	0.00	0	0.00	0.00	0.00	0.00			0.00
	Type test charges for C & E accessories	LS			1.46		0.00	1.46				0.15	1.61
	Sub Total :	6			82.44		0.91	83.35	11.03	0.00	0.00	0.15	104.53
7.0	<u>Tower Erection</u>												
	i) Normal towers	MT	2,874	10,930							314.13	32.04	346.17
	Sub Total :	7									314.13	32.04	346.17
8.0	<u>Foundations</u>												
8.1	<u>Excavations</u>												
	Normal Dry soil	Cu.M.	5,866	216							12.74	1.30	14.04
	Normal Wet soil	Cu.M.	45,017	258							716.14	11.85	127.99
	Dry Fissured Rock	Cu.M.	2,924	804							17.66	1.80	19.46
	Wet Fissured Rock	Cu.M.		889							0.00	0.09	0.00
	Hard Rock	Cu.M.	25	949							0.24	0.02	0.26
8.2	<u>Concreting</u>												
	Concreting 1:1.5:3(M20)	Cu.M.	5,387	10,636							572.96	58.44	631.40
	Concreting 1:3:6	Cu.M.	740	9,572							70.63	7.22	78.05
8.3	<u>Reinforcement</u>	MT	412	53,280							219.58	22.40	241.98
	Sub Total :	8					0.00	0.00	0.00	0.00	1010.15	103.04	1113.19
9.0	<u>Benching</u>												
	All kinds of soil except HR & FR	Cu.M.	1,200	173							2.08	0.21	2.29
	Normal Soil	Cu.M.		216							0.00	0.00	0.00
	Fissured Rock	Cu.M.	1,200	561							6.73	0.69	7.42
	Hard Rock	Cu.M.	200	817							1.63	0.17	1.80
	Sub Total :	9					0.00	0.00	0.00	0.00	10.44	1.06	11.50

misa-byr

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COST BREAK UP OF TRANSMISSION LINE

ANNEXURE - 1.2.1

PROJ: MISA - BYRNIHAT TRANSMISSION SYSTEM

TRANSMISSION LINE : MISA - BYRNIHAT 220KV D/C TL

(Rs. in Lakhs)

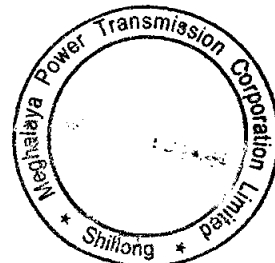
Line Length: 90.00 Km.

Wind Zone 5: 50m/s

Sr. No.	Description	Eqpt Exworks Incl. Excise Duty				S P A R E S		TOTAL Exw & Spares	F&I @12% & CST @ 4%	Entry Tax @ 0.00%	Ere/Civil Works	Service Tax 10.20%	TOTAL
		Unit	Quantity	Rate (Rs.)	Total	Quantity	Total						
1	2	3	4	5	6=4x5	7	8=7x5	9=6+8	10	11	12	13	14=9+10+11+12+13
10.0	Revetment												
i)	Random Rubble Stone	Cu.M.	600	5,052							30.31	3.09	33.40
	Masonry including excavation												
ii)	Stone bound in galvanised wire netting including excavation	Cu.M.	-	4,491							0.00	0.00	0.00
iii)	Backfilling and leveling of												
	Volumes enclosed in revetment	Cu.M.	600	281							1.69	0.17	1.86
iv)	M-15(1:2:4) Concrete for top seat cover of revetment	Cu.M.		9,543							0.00	0.00	0.00
	Sub Total : 10					0.00	0.00	0.00	0.00		32.00	3.26	35.26
11.0	Stringing D/C (normal)	K.M.	90.0	187,959							169.16	17.25	186.41
	Stringing D/C (Hilly Terrain)	K.M.	25.0	366,868							91.72	9.36	101.08
12.0	River crossing towers												
i)	MS steel	MT		67,551	0.00	0.00	0.00	0.00	0.00				0.00
ii)	File / well foundation	LS										0.00	0.00
13.0	Detail Survey using modern survey techniques												
	Detailed survey incl check survey	K.M.									46.48	4.74	51.22
	Check survey	KM	115	40,419							0.00	0.00	0.00
		KM		16,841									
14.0	Soil investigation in												
	All kinds of soil except HR &FR	Loc.	35	19,834							6.94	0.71	7.65
	Fissured rock	Loc.	10	33,682							3.37	0.34	3.71
	Hard rock	Loc.	1	56,137							0.56	0.06	0.62
	River crossing Locations	Loc.	0	102,757							0.00	0.00	0.00
Transmission Line Total					3,676.66	55.13	3,731.79	526.87	0.00	1,684.95	173.11	6,116.72	
PROJECT TOTAL					3,676.66	55.13	3,731.79	526.87	0.00	1,684.95	173.11	6,116.72	

misa-byr

PROJECT OWNER-NER-Missing Links\FR-RELIABILITY-IMP-SCHEME-NER&SIKKIM-202005-rev1



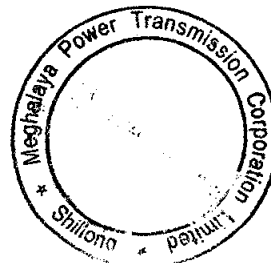
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**ABSTRACT COST ESTIMATE
SUBSTATIONS**

PROJ: MISA - BYRNIHAT TRANSMISSION SYSTEM

SL. NO.	DESCRIPTION	220/132 KV BYRNIHAT	220/132 KV MISA	TOTAL
		NEW S/S	S/S EXTN	
1.0	Auto Transformer			
	315 MVA, 400/132 KV 3PH Auto Trmr.			0.00
	100 MVA, 220/132 KV 3PH Auto Trmr.			0.00
	160 MVA, 220/132 KV 3PH Auto Trmr.	1148.77	0.00	1148.77
	53.3 MVA, 220/132 KV 1PH Trmr.			0.00
	50 MVA, 132/33 KV 3PH Trmr.	0.00		0.00
	20 MVA, 132/66 KV 3PH Trmr.			0.00
	20 MVA, 132/33 KV 3PH Trmr.			0.00
	Sub-Total 1.0	1148.77	0.00	1148.77
2	400 KV EQUIPMENT			
	Circuit Breaker	0.00		0.00
	Isolator	0.00		0.00
	Current Transformer	0.00		0.00
	Capacitive Voltage Transformer	0.00		0.00
	Lightning Arrestor	0.00		0.00
	Sub-Total 2.0	0.00		0.00
2	220 KV EQUIPMENT			
	Circuit Breaker	192.76	67.31	260.07
	Isolator	122.33	46.11	168.44
	Current Transformer	114.17	39.95	154.12
	Capacitive Voltage Transformer	97.35	48.68	146.02
	Lightning Arrestor	15.71	7.86	23.56
	Sub-Total 2.0	542.30	209.81	752.21
3	132 KV EQUIPMENT			
	Circuit Breaker	48.18	0.00	48.18

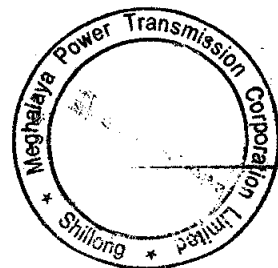


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**ABSTRACT COST ESTIMATE
SUBSTATIONS**

PROJ: MISA - BYRNHAT TRANSMISSION SYSTEM

SL. NO.	DESCRIPTION	220/132 KV BYRNHAT NEW S/S	220/132 KV MISA S/S EXTN	TOTAL
	Isolator	33.95	0.00	33.95
	Current Transformer	28.54	0.00	28.54
	Capacitive Voltage Transformer	13.89	0.00	13.89
	Lightning Arrestor	4.34	0.00	4.34
	Sub-Total	128.90	0.00	128.90
4	GIS EQUIPMENT			0.00
5	72.5 KV EQUIPMENT	0.85	0.00	0.85
6	36KV EQUIPMENT	0.00	0.00	0.00
6	11 KV EQUIPMENT	0.00	0.00	0.00
7	Control & Relay Panels	415.68	118.90	534.58
8	PLCC Equipment	43.62	38.72	80.34
9	SWITCHYARD ERECTION			
	Equipment Structure	240.00	60.00	300.00
	Other Equipment (Busbar matls.)	177.00	54.00	231.00
	Equipment Civil Works	275.50	55.10	330.60
	Erection	49.81	16.37	66.19
	Dismantling & Re-erection			0.00
	Sub-Total	742.31	185.47	927.79
10	SUBSTATION AUXILIARIES	408.50	48.00	456.50
	Total Equipment Cost.	3,430.94	595.01	4,025.95
11	OVERHEADS PAYABLE TO SEB	0.00	0.00	0.00
	TOTAL S/S COST	3,430.94	595.01	4,025.95
	Preliminary & Gen. Civil Works	1,168.02	55.00	1,223.02
	Total Cost	4,598.96	654.01	5,252.97



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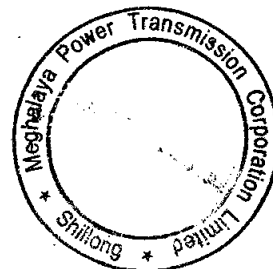
COST BREAK UP OF SUB STATION -EQUIPMENT

PROJ MISA - BYRNIHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV BYRNIHAT SUB STATION (NEW) - MEGHALAYA

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
1.0	180 MVA, 220/132KV, 3PH Auto Transformer Type test charges	Nos.	2	470.34	940.69	47.03	987.72 3.13	141.41	0.00	14.69	1.50 0.32	1145.32 3.45
1.0	50 MVA, 132/33KV, 3PH Transformer Type test charges 366.41	Nos.	0	281.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.1	220KV Equipment											
2.1.1	220 KV Circuit Breaker 3Ph	Nos.	6	25.62	153.73	17.17	170.90	20.51	0.00	1.23	0.13	192.76
2.1.2	220KV Isolator 3-ph	Nos.	21	4.66	97.79	9.31	107.10	12.85	0.00	2.15	0.22	122.33
2.1.3	220KV Current Transformer 1PH	Nos.	18	5.07	91.22	10.14	101.36	12.18	0.00	0.59	0.06	114.17
2.1.4	220KV CVT 1Ph	Nos.	12	6.18	74.17	12.36	86.53	10.38	0.00	0.39	0.04	97.35
2.1.5	216 KV Surge Arrestor 1Ph	Nos.	12	0.89	11.83	1.97	13.80	1.66	0.00	0.22	0.02	15.71
	Sub - Total 2.1				428.74	50.95	479.69	57.56	0.00	4.59	0.47	542.30
2.2	132KV Equipment											
2.2.1	132 KV Circuit Breaker 3Ph	Nos.	3	12.81	38.43	4.23	42.66	5.12	0.00	0.37	0.04	48.18
2.2.2	132KV Isolator 3-ph	Nos.	8	3.30	26.37	3.30	29.67	3.56	0.00	0.66	0.07	33.95
2.2.3	132KV Current Transformer 1PH	Nos.	9	2.53	22.60	2.53	25.33	3.04	0.00	0.15	0.02	28.54
2.2.4	132KV CVT 1Ph	Nos.	3	3.09	9.27	3.09	12.36	1.43	0.00	0.05	0.01	13.89
2.2.5	120 KV Surge Arrestor 1Ph	Nos.	6	0.54	3.24	0.54	3.78	0.45	0.00	0.10	0.01	4.34
	Sub - Total 2.2				100.11	13.69	113.80	13.65	0.00	1.32	0.13	128.90
2.3	72.5KV Equipment											
2.3.1	72.5KV Isolator 3-ph	Nos.	0	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.3.2	72.5KV Horn gap fuse 1Ph	Nos.	2	0.37	0.74	0.00	0.74	0.09	0.00	0.02	0.00	0.85
	Sub - Total 2.3				0.74	0.00	0.74	0.09	0.00	0.02	0.00	0.85
2.4	33 KV Equipment											
2.4.1	33 KV Circuit Breaker - 3Ph	Nos.	0	6.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.2	33 KV Isolator 3-ph	Nos.	0	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.3	33 KV Current Transformer 1-ph	Nos.	0	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.4	33 KV Potential Transformer 1-ph	Nos.	0	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.5	33 KV Horn gap fuse (1 ph)	Nos.	0	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.6	33 kv Lightning Arrestor(1 ph)	Nos.	0	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 2.4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



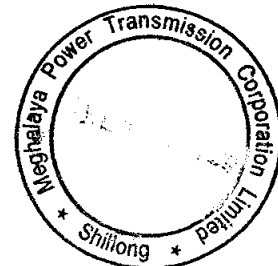
COST BREAK UP OF SUB STATION -EQUIPMENT

PROJ MISA - BYRNHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV BYRNHAT SUB STATION (NEW) - MEGHALAYA

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
3.0 Control & Relay Panels												
3.1	SUBSTATION AUTOMATION SYSTEM FOR 220 & 132KV	Set	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2 Control & Relay Panels (220KV)												
3.2.1	Control Panel for two bays	Nos.	3	4.81	14.44	1.44	15.88	1.91	0.00	0.37	0.04	18.20
3.2.2	CB relay panels with A/R	Nos.	3	20.00	59.99	6.00	65.99	7.92	0.00	0.17	0.02	74.09
3.2.3	CB Relay panel without A/R	Nos.	3	16.06	48.18	4.82	53.00	6.36	0.00	0.13	0.01	59.50
3.2.4	Line Protection Panel	Sets	2	25.63	51.26	5.13	56.39	6.77	0.00	0.28	0.03	63.45
3.2.5	Transformer protection panel (HV & MV sides)	Sets	2	17.64	35.27	3.53	38.80	4.66	0.00	0.63	0.05	44.15
3.2.6	Bus bar protection panel	Sets	1	93.89	93.89	9.39	103.28	12.39	0.00	0.14	0.01	115.82
3.2.7	Bus bar protection (Augmentation)	Sets	0	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.8	Common Equipment	Sets	1	5.43	5.43	0.54	5.97	0.72	0.00	0.02	0.00	6.72
3.2.9	Time synchronisation equipment	Sets	1	6.88	6.88	0.69	7.57	0.91	0.00	0.07	0.01	8.55
3.2.10	Relay Test Kit	Nos.	1	1.71	1.71	0.17	1.88	0.23	0.00	0.00	0.00	2.11
3.2.11	Synchronizing Panel	Nos.	1	0.81	0.81	0.08	0.89	0.11	0.00	0.01	0.00	1.02
3.2.12	Event logger panel	Nos.	0	23.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3.2				317.85	31.79	349.64	41.98	0.00	1.81	0.19	393.62
3.3 Control & Relay Panels (132KV)												
3.3.1	Control Panel for one bay	Nos.	1	3.43	3.43	0.34	3.77	0.45	0.00	0.04	0.00	4.27
3.3.1	Control Panel for two bays	Nos.	1	4.81	4.81	0.48	5.29	0.63	0.00	0.12	0.01	6.06
3.3.2	CB relay panels with A/R	Nos.	1	4.71	4.71	0.47	5.18	0.62	0.00	0.04	0.00	5.85
3.3.3	CB Relay panel without A/R	Nos.	2	2.36	4.71	0.47	5.18	0.62	0.00	0.08	0.01	5.89
3.3.4	Line Protection Panel	Sets	0	13.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.5	Transformer protection panel (HV & MV sides)	Sets	0	5.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.6	Bus bar protection panel	Sets	0	5.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.7	Common Equipment	Sets	0	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3.3				17.66	1.76	19.42	2.32	0.00	0.29	0.03	22.06
3.4	Control & Relay Panels (33 KV)	Nos.	0	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3				335.51	33.55	369.06	44.30	0.00	2.10	0.21	415.88



COST BREAK UP OF SUB STATION -EQUIPMENT

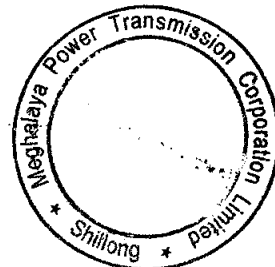
ANNEXURE - 1.3.2

PROJ MISA - BYRNIHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV MISA SUB STATION (EXTN)

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
1.0	100 MVA, 220/132KV, 3PH Auto Transformer Type test charges	Nos.	0	470.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.1	220KV Equipment											
2.1.1	220 KV Circuit Breaker 3Ph	Nos.	2	25.62	51.24	8.45	59.69	7.16	0.00	0.41	0.04	67.31
2.1.2	220KV Isolator 3-ph	Nos.	8	4.66	37.25	3.12	40.37	4.84	0.00	0.82	0.09	46.11
2.1.3	220KV Current Transformer 1PH	Nos.	6	5.07	30.41	5.07	35.48	4.26	0.00	0.20	0.02	39.95
2.1.4	220KV CVT 1Ph	Nos.	6	6.18	37.09	6.18	43.27	5.19	0.00	0.20	0.02	48.68
2.1.5	216 KV Surge Arrester 1Ph	Nos.	6	0.99	5.92	0.99	6.91	0.83	0.00	0.11	0.01	7.86
	Sub - Total 2.1				161.91	23.81	185.72	22.28	0.00	1.73	0.18	209.91
2.2	132KV Equipment											
2.2.1	132 KV Circuit Breaker 3Ph	Nos.	0	12.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.2.2	132KV Isolator 3-ph	Nos.	0	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.2.3	132KV Current Transformer 1PH	Nos.	0	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.2.4	132KV CVT 1Ph	Nos.	0	3.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.2.5	120 KV Surge Arrester 1Ph	Nos.	0	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 2.2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.3	72.5KV Equipment											
2.3.1	72.5KV Isolator 3-ph	Nos.	0	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.3.2	72.5KV Horn gap fuse 1Ph	Nos.	0	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 2.3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4	33 KV Equipment											
2.4.1	33 KV Isolator 3-ph	Nos.	0	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.2	33 KV Horn gap fuse (1 ph)	Nos.	0	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.3	33 KV Lightning Arrester(1 ph)	Nos.	0	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 2.4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.0	Control & Relay Panels											
3.1	SUBSTATION AUTOMATION SYSTEM FOR 220 & 132KV	Set	0	32.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2	Control & Relay Panels (220kV)											
3.2.1	Control Panel for TWO bay	Nos.	1	4.81	4.81	0.48	5.29	0.63	0.00	0.12	0.01	6.06
3.2.2	CB relay panels with A/R	Nos.	2	20.00	39.99	4.00	43.99	5.28	0.00	0.11	0.01	49.39



COST BREAK UP OF SUB STATION -EQUIPMENT

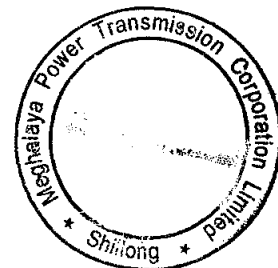
ANNEXURE -1.3.2

PROJ. MISA - BYRNHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV MISA SUB STATION (EXTN)

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Eref/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
3.2.3	CB Relay panel without AVR	Nos.	0	18.06	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00
3.2.4	Line Protection Panel	Sets	2	25.63	51.25	5.13	56.38	6.77	0.00	0.28	0.03	63.45
3.2.5	Transformer protection panel (HV & MV sides)	Sets	0	17.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.6	Bus bar protection panel	Sets	0	93.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.7	Bus bar protection (Augmentation)	Sets	0	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.8	Common Equipment	Sets	0	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.9	Time synchronisation equipment	Sets	0	8.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.10	Relay Test Kit	Nos.	0	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.11	Synchronizing Panel	Nos.	0	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.12	Event logger panel	Nos.	0	23.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3.2				96.05	9.61	105.66	12.68	0.00	0.51	0.05	118.90
3.3	Control & Relay Panels (132KV)											
3.3.1	Control Panel for one bay	Nos.	0	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.2	CB relay panels with AVR	Nos.	0	4.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.3	CB Relay panel without AVR	Nos.	0	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.4	Line Protection Panel	Sets	0	13.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.5	Transformer protection panel (HV & MV sides)	Sets	0	5.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.6	Bus bar protection panel	Sets	0	5.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.7	Common Equipment	Sets	0	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3.3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3				96.05	9.61	105.66	12.68	0.00	0.51	0.05	118.90
4.0	PLCC Equipment											
4.1	PLCC Equipment (220 KV)											
4.1.1	1600A, 0.5/1.0 mH Line Traps	Nos.	2	4.65	9.31	0.93	10.24	1.23	0.80	0.15	0.02	11.63
4.1.2	Ph. To Ph. Coupling Device	Nos.	1	1.03	1.03	0.10	1.13	0.14	0.00	0.02	0.00	1.29
4.1.3	H.F. Cable	Km.	0.5	1.16	0.58	0.06	0.64	0.08	0.00	0.20	0.02	0.95
4.1.4	Carrier Equipment	Nos.	3	4.73	14.18	1.42	16.60	1.87	0.00	0.12	0.01	17.61
4.1.5	Prot'n. Coupler	Nos.	2	2.09	4.18	0.42	4.60	0.55	0.00	0.08	0.01	5.24
4.1.6	EPAX(24/8)	Nos.	0	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.1.7	Testing and maintenance Equipment	Nos.	0	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total - 4.1				29.28	2.93	32.21	3.87	0.00	0.58	0.06	36.72
4.2	PLCC Equipment (132 KV) *											
4.2.1	1250A, 0.5/1.0 mH Line Traps	Nos.	0	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



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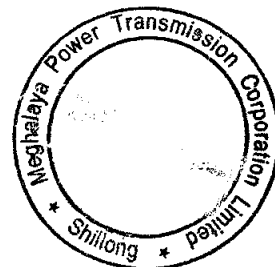
COST BREAK UP OF SUB STATION EQUIPMENT

ANNEXURE - 1.3.2

PROJ MISA - BYRNIHAT TRANSMISSION SYSTEM
SUBSTATION: 220/132 KV MISA SUB STATION (EXTN)

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
4.2.2	Ph. To Ph. Coupling Device	Nos.	0	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.3	H.F. Cable	Km.	0	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.4	Carrier Equipment	Nos.	0	4.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.5	Protin. Coupler	Nos.	0	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total - 4.2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 4.0				9.00	9.00	9.00	3.87	0.00	0.58	0.06	0.08
	SWITCHYARD ERECTION				29.28	2.93	32.21					36.72
5.0	Equipment Structure	L.S.	1		60.00		60.00		0.00			60.00
6.0	Other Equipment (Bus Bar materials)	L.S.	1		54.00		54.00		0.00			54.00
7.0	Equipment Civil works	L.S.	1							50.00	5.10	55.10
8.0	Erection	L.S.	1							14.86	1.52	16.37
	Sub - Total				114.00	0.00	114.00	0.00	0.00	64.86	6.62	185.47
	SUBSTATION AUXILIARIES											
9.0	Fire Fighting System	L.S.	0									
10.0	Air Conditioning & Ventilation	L.S.	0				0.00		0.00			0.00
11.0	Lighting system	L.S.	1		8.00		8.00		0.00			8.00
12.0	D.G. Set (100 KVA)	Nos	0	10.21	0.00		0.00	0.00	0.00	0.00	0.00	0.00
12.0	Battery and Battery charger	L.S.	0									
13.0	Power & Control Cables incl. 33 kv cables	L.S.	0		40.00		40.00		0.00			40.00
14.0	Misc. testing instruments	L.S.	0									
15.0	LT Transformer 33KV/0.433KV, 800 KVA	Nos	0	7.72	0.00		0.00	0.00	0.00	0.00	0.00	0.00
15.0	LT Transformer 33KV/0.433KV, 630 KVA	Nos	0	5.85	0.00		0.00	0.00	0.00	0.00	0.00	0.00
16.0	LT Switch gear	L.S.	0									
17.0	Type test charges											
	Sub Total				48.00	0.00	48.00	0.00	0.00	0.00	0.00	48.00
	Sub station Total				449.24	36.35	485.59	38.83	0.00	67.68	6.90	599.01
	PROJECT TOTAL				829.53	60.85	890.38	72.15	0.00	124.32	12.68	1099.54



COST BREAK UP OF SUB STATION -EQUIPMENT

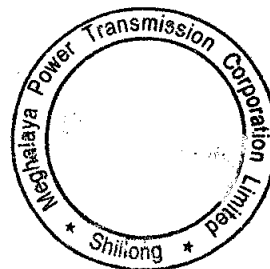
ANNEXURE - 1.3.1

PROJ MISA - BYRNIHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV BYRNIHAT SUB STATION (NEW) - MEGHALAYA

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
1.0	160 MVA, 220/132KV, 3PH Auto Transformer Type test charges	Nos.	2	470.34	940.69	47.03	987.72	141.41	0.00	14.69	1.50	1145.32
							3.13				8.32	3.45
1.0	50 MVA, 132/33KV, 3PH Transformer Type test charges 366.41	Nos.	0	281.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00
2.1	220KV Equipment											
2.1.1	220 KV Circuit Breaker 3Ph	Nos.	6	25.62	153.73	17.17	170.90	20.51	0.00	1.23	0.13	192.76
2.1.2	220KV Isolator 3-ph	Nos.	21	4.66	97.79	9.31	107.10	12.85	0.00	2.15	0.22	122.33
2.1.3	220KV Current Transformer 1PH	Nos.	18	5.07	91.22	10.14	101.36	12.16	0.00	0.59	0.06	114.17
2.1.4	220KV CVT 1Ph	Nos.	12	6.18	74.17	12.36	86.53	10.38	0.00	0.39	0.04	97.35
2.1.5	216 KV Surge Arrestor 1Ph	Nos.	12	0.99	11.83	1.97	13.80	1.66	0.00	0.22	0.02	15.71
	Sub - Total 2.1				428.74	50.95	479.69	57.56	0.00	4.59	0.47	542.30
2.2	132KV Equipment											
2.2.1	132 KV Circuit Breaker 3Ph	Nos.	3	12.81	38.43	4.23	42.66	5.12	0.00	0.37	0.04	48.18
2.2.2	132KV Isolator 3-ph	Nos.	8	3.30	26.37	3.30	29.67	3.58	0.00	0.68	0.07	33.95
2.2.3	132KV Current Transformer 1PH	Nos.	9	2.53	22.80	2.53	25.33	3.04	0.00	0.15	0.02	28.54
2.2.4	132KV CVT 1Ph	Nos.	3	3.09	9.27	3.09	12.36	1.48	0.00	0.05	0.01	13.69
2.2.5	120 KV Surge Arrestor 1Ph	Nos.	6	0.54	3.24	0.54	3.78	0.45	0.00	0.10	0.01	4.34
	Sub - Total 2.2				100.11	13.69	113.80	13.65	0.00	1.22	0.13	128.90
2.3	72.5KV Equipment											
2.3.1	72.5KV Isolator 3-ph	Nos.	0	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
2.3.2	72.5KV Horn gap fuse 1Ph	Nos.	2	0.37	0.74	0.00	0.74	0.09	0.00	8.02	0.00	0.85
	Sub - Total 2.3				0.74	0.00	0.74	0.09	0.00	0.02	0.00	0.85
2.4	33 KV Equipment											
2.4.1	33 KV Circuit Breaker - 3PH	Nos.	0	6.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.2	33 KV Isolator 3-ph	Nos.	0	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.3	33 KV Current Transformer 1-ph	Nos.	0	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.4	33 KV Potential Transformer 1-ph	Nos.	0	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.5	33 KV Horn gap fuse (1 ph)	Nos.	0	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.4.6	33 KV Lightning Arrestor(1 ph)	Nos.	0	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 2.4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



COST BREAK UP OF SUB STATION -EQUIPMENT

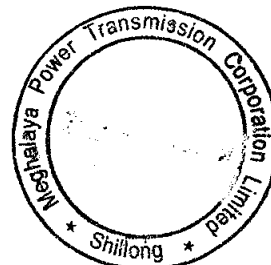
ANNEXURE - 1.3.1

PROJ. MISA - BYRNIHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV BYRNIHAT SUB STATION (NEW) - MEGHALAYA

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Era/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
3.0	Control & Relay Panels											
3.1	SUBSTATION AUTOMATION SYSTEM FOR 220 & 132KV	Set	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2	Control & Relay Panels (220kV)											
3.2.1	Control Panel for two bays	Nos.	3	4.81	14.44	1.44	15.88	1.91	0.00	0.37	0.04	18.20
3.2.2	CB relay panels with AVR	Nos.	3	20.00	59.99	6.00	65.99	7.82	0.00	0.17	0.02	74.09
3.2.3	CB Relay panel without AVR	Nos.	3	16.06	48.18	4.82	53.00	5.96	0.00	0.13	0.01	59.50
3.2.4	Line Protection Panel	Sets	2	25.63	51.25	5.13	56.38	6.77	0.00	0.28	0.03	63.45
3.2.5	Transformer protection panel (HV & MV sides)	Sets	2	17.64	35.27	3.53	38.80	4.66	0.00	0.63	0.06	44.15
3.2.6	Bus bar protection panel	Sets	1	93.89	93.89	9.39	103.28	12.39	0.00	0.14	0.01	115.82
3.2.7	Bus bar protection (Augmentation)	Sets	0	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.2.8	Common Equipment	Sets	1	5.43	5.43	0.54	5.97	0.72	0.00	0.02	0.00	6.72
3.2.9	Time synchronisation equipment	Sets	1	6.88	6.88	0.69	7.57	0.91	0.00	0.07	0.01	8.55
3.2.10	Relay Test Kit	Nos.	1	1.71	1.71	0.17	1.88	0.23	0.00	0.00	0.00	2.11
3.2.11	Synchronizing Panel	Nos.	1	0.81	0.81	0.08	0.89	0.11	0.00	0.01	0.00	1.02
3.2.12	Event logger panel	Nos.	0	23.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3.2				317.85	31.79	349.64	41.98	0.00	1.81	0.19	393.62
3.3	Control & Relay Panels (132kV)											
3.3.1	Control Panel for one bay	Nos.	1	3.43	3.43	0.34	3.77	0.45	0.00	0.04	0.00	4.27
3.3.2	Control Panel for two bays	Nos.	1	4.81	4.81	0.48	5.29	0.63	0.00	0.12	0.01	6.06
3.3.3	CB relay panels with AVR	Nos.	1	4.71	4.71	0.47	5.18	0.62	0.00	0.04	0.00	5.85
3.3.4	CB Relay panel without AVR	Nos.	2	2.36	4.71	0.47	5.18	0.62	0.00	0.08	0.01	5.89
3.3.5	Line Protection Panel	Sets	0	13.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.6	Transformer protection panel (HV & MV sides)	Sets	0	5.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.7	Bus bar protection panel	Sets	0	5.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.3.8	Common Equipment	Sets	0	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3.3				17.66	1.76	19.42	2.32	0.00	0.29	0.03	22.06
3.4	Control & Relay Panels (33 KV)	Nos.	0	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 3				335.51	33.55	369.06	44.30	0.00	2.10	0.21	415.88



COST BREAK UP OF SUB STATION -EQUIPMENT

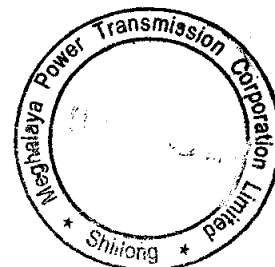
PROJ MISA - BYRNIHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV BYRNIHAT SUB STATION (NEW) - MEGHALAYA

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
4.0	PLCC Equipment											
4.1	PLCC Equipment (220 KV)											
4.1.1	1600A, 0.5/1.0 mH Line Traps	Nos.	2	4.65	9.31	0.93	10.24	1.23	0.00	0.15	0.02	11.63
4.1.2	Ph. To Ph. Coupling Device	Nos.	1	1.03	1.03	0.10	1.13	0.14	0.00	0.02	0.00	1.29
4.1.3	H.F. Cable	Km.	0.25	1.16	0.29	0.03	0.32	0.04	0.00	0.10	0.01	0.47
4.1.4	Carrier Equipment	Nos.	3	4.73	14.18	1.42	15.60	1.87	0.00	0.12	0.01	17.61
4.1.5	Protn. Coupler	Nos.	2	2.09	4.18	0.42	4.60	0.55	0.00	0.08	0.01	5.24
4.1.6	EPAX(24/8)	Nos.	1	5.00	5.00	0.50	5.50	0.66	0.00	0.06	0.01	6.23
4.1.7	Testing and maintenance Equipment	Nos.	1	0.94	0.94	0.09	1.03	0.12	0.00	0.00	0.00	1.15
	Sub - Total - 4.1				34.93	3.49	38.42	4.61	0.00	0.54	0.05	43.62
4.2	PLCC Equipment (132 KV)*											
4.2.1	1250A, 0.5/1.0 mH Line Traps	Nos.	0	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.2	Ph. To Ph. Coupling Device	Nos.	0	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.3	H.F. Cable	Km.	0	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.4	Carrier Equipment	Nos.	0	4.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.2.5	Protn. Coupler	Nos.	0	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total - 4.2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub - Total 4.0				34.93	3.49	38.42	4.61	0.00	0.54	0.05	43.62
	SWITCHYARD ERECTION											
5.0	Equipment Structure	L.S.	1		240.00		240.00		0.00			240.00
6.0	Other Equipment (Bus Bar materials)	L.S.	1		177.00		177.00		0.00			177.00
7.0	Equipment Civil works	L.S.	1							250.00	25.50	275.50
8.0	Erection	L.S.	1							45.20	4.61	49.81
	Sub - Total				417.00	0.00	417.00	0.00	0.00	295.20	30.11	742.31
	SUBSTATION AUXILIARIES											
9.0	Fire Fighting System	L.S.	1		41.00		41.00		0.00			41.00
10.0	Air Conditioning & Ventilation	L.S.	1		6.00		6.00		0.00			6.00
11.0	Lighting system	L.S.	1		53.00		53.00		0.00			53.00
12.0	D.G. Set (100 KVA)	Nos	1	10.21	10.21		10.21	1.22	0.00	0.30	0.03	11.76
12.0	Battery and Battery charger	L.S.	1		25.00		25.00		0.00			25.00

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ANNEXURE- 1.3.1

COST BREAK UP OF SUB STATION -EQUIPMENT

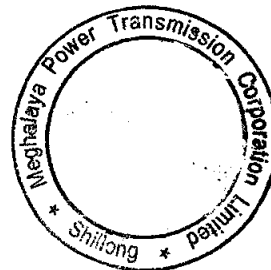
PROJ MISA - BYRNIHAT TRANSMISSION SYSTEM

SUBSTATION: 220/132 KV BYRNIHAT SUB STATION (NEW) - MEGHALAYA

(Rs. in Lakhs)

Sr. No.	Description	Unit	Qty.	Rate Incl. E.D.	Total	Spares	Total Exw. & Spares	F&I @ 12% & CST @ 4%	Entry Tax @ 0.0%	Ere/Civil Works	Service Tax @ 10.2%	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11	12	13=8+9+10+11+12
13.0	Power & Control Cables incl. 33 kV cables	L.S.	1		140.00		140.00		0.00			140.00
14.0	Misc. testing instruments	L.S.	1		90.00		90.00		0.00			90.00
15.0	LT Transformer 33KV/0.433KV, 800 KVA	Nos	0	7.72	0.00		0.00	0.00	0.00	0.00	0.00	0.00
15.0	LT Transformer 33KV/0.433KV, 630 KVA	Nos	2	5.85	11.70		11.70	1.67	0.00	0.22	0.02	13.60
16.0	LT Switch gear	L.S.	1		20.00		20.00		0.00			20.00
17.0	Type test charges											8.14
	Sub Total				396.90	0.00	396.90	2.89	0.00	7.39	0.75	408.50
	Sub station Total				2,654.62	148.71	2,806.46	264.51	0.00	326.36	33.61	3,430.94

Note: * PLCC for remote end has been covered.



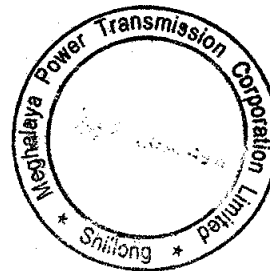
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ANNEXURE - 2.0

PHASED FUND REQUIREMENT
(BASE COST)
MISA - BYRNIHAT TRANSMISSION SYSTEM

FIGS. IN RS. CRORES

YEAR	EXP. EXCL. IDC	IDC	TOTAL
1ST YEAR	27.31	0.76	28.06
2ND YEAR	61.44	3.25	64.69
3RD YEAR	40.96	3.06	44.01
4TH YEAR	6.83	0.00	6.83
TOTAL	136.53	7.06	143.59

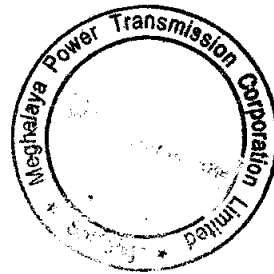


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ANNEXURE - 2.0

PHASED FUND REQUIREMENT INDICATING LOAN/EQUITY
MISA - BYRNIHAT TRANSMISSION SYSTEM
(BASE COST)

YEAR	EQUITY		DOMESTIC LOAN	TOTAL
	POWERGRID (89%)	MESEB (11%)		
1ST YEAR	7.49	0.93	19.64	28.06
2ND YEAR	17.27	2.13	45.28	64.69
3RD YEAR	11.75	1.45	30.81	44.01
4TH YEAR	1.82	0.23	4.78	6.83
TOTAL	38.34	4.74	100.51	143.59



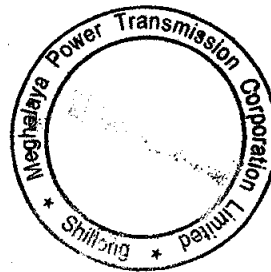
97

ANNEXURE - 2.0a

**PHASED FUND REQUIREMENT
(COMPLETED COST)
MISA - BYRNIHAT TRANSMISSION SYSTEM**

FIGS. IN RS. CRORES

YEAR	EXP. EXCL. IDC	IDC	TOTAL
1ST YEAR	28.13	0.78	28.91
2ND YEAR	67.12	3.46	70.58
3RD YEAR	38.97	3.31	42.27
4TH YEAR	16.43	0.00	16.43
TOTAL	150.64	7.54	158.18



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WHEELING CHARGES
(AS PER CERC NORMS)
(BASE COST)

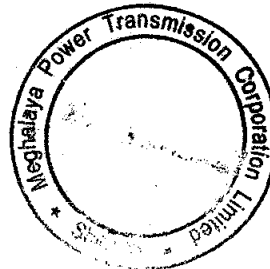
ANNEXURE -3.0

(Considering Return on Equity @ 14%)

PROJ: MISA - BYRNIHAT TRANSMISSION SYSTEM

1.0. Project Cost (Equity 30%, Debt 70%)	Rs.	143.59 Crs.
2.0. Fixed Charges		
2.1. O & M Charges @ Rs. 0.266 lakhs per Ckt Km for line @ Rs.32.90 lakhs per bay for Substation (Total Ckt Km= 180.00 ; Total no of bays = 11.00)	Rs.	4.10 Crs.
2.2. Depreciation (@2.57% for TL, @0% for land, @1.8% for building,@3.6% for Sub station, @6.0% for PLCC) (TL= Rs 82.05 Crs.; S/S= Rs 48.94 Crs.; Land= Rs 1.05 Crs. Building= Rs 10.60 Crs.; PLCC= Rs 0.94 Crs.)	Rs.	4.12 Crs.
2.3. Return on Equity @14%	Rs.	6.03 Crs.
2.4. Interest on Loans @ 8.0%(average)	Rs.	8.04 Crs.
2.5. Interest on Working Capital @ 10.5% a) on 2 months receivables b) O & M (1 month) c) Spares @ 1% of Project Cost (1 year)	Rs.	0.58 Crs.
Total Annual Fixed Charges	Rs.	22.87 Crs.
3.0. Monthly Fixed Charges (for Base Cost)	Rs.	190.58 Lakhs.

Note : The O&M charges have been calculated as per new CERC NORMS(Notification dated 26.03.2004). Taxes & Incentives shall be taken as per Actuals.



WHEELING CHARGES
(AS PER CERC NORMS)
(COMPLETED COST)

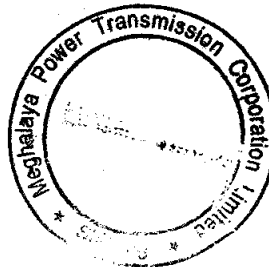
ANNEXURE - 3.0a

(Considering Return on Equity @ 14%)

PROJ : MISA - BYRNIHAT TRANSMISSION SYSTEM

1.0. Project Cost (Equity 30%, Debt 70%)	Rs. 158.18 Crs.
2.0. Fixed Charges	
2.1. O & M Charges @ Rs. 0.266 lakhs per Ckt Km for line @ Rs.32.90 lakhs per bay for Substation (Total Ckt Km= 180.00 ; Total no of bays = 11.00)	Rs. 4.10 Crs.
2.2. Depreciation (@2.57% for TL, @0% for land, @1.8% for building, @3.6% for Sub station, @6.0% for PLCC) (TL= Rs 90.39 Crs.; S/S= Rs 53.91 Crs.; Land= Rs 1.16 Crs. Building= Rs 11.68 Crs.; PLCC= Rs 1.04 Crs.)	Rs. 4.54 Crs.
2.3. Return on Equity @14%	Rs. 6.66 Crs.
2.4. Interest on Loans @ 8.0%(average)	Rs. 8.85 Crs.
2.5. Interest on Working Capital @ 10.5% a) on 2 months receivables b) O & M (1 month) c) Spares @ 1% of Project Cost (1 year)	Rs. 0.62 Crs.
Total Annual Fixed Charges	Rs. 24.77 Crs.
3.0. Monthly Fixed Charges (for Completed Cost)	Rs. 206.41 Lakhs.

Note : The O&M charges have been calculated as per new CERC NORMS(Notification dated 26.03.2004) . Taxes & Incentives shall be taken as per Actuals.



JK

**CALCULATION OF INTEREST DURING CONSTRUCTION FOR
MISA - BURNIHAT TRANSMISSION SYSTEM
(FOR BASE COST)**

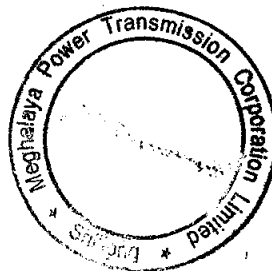
ANNEXURE - 4.0

	Rate of Interest	1ST YEAR				2ND YEAR				3RD YEAR (1ST - 2ND QUARTER)				3RD YEAR (3RD - 4TH QUARTER)				4TH YEAR		GRAND TOTAL
		Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	TOTAL Closing Bal.	
Domestic Loan (70%)	6.0%	18.55	0.76	19.64	19.64	42.03	3.25	45.28	64.92	22.98	3.05	26.03	90.96	4.78	0.00	4.78	95.74	4.78	100.51	100.51
Equity (IR) (30%)		8.42		8.42	8.42	19.41		19.41	27.83	11.15		11.15	38.98	2.05		2.05	41.03	2.05	43.08	43.08
TOTAL		27.31	0.76	28.05	28.05	61.44	3.25	64.69	92.75	34.13	3.06	37.19	129.94	6.83	8.00	6.83	136.76	6.83	143.59	143.59
Equity as % of Total cost					30.00%				30.00%				30.00%				30.00%		30.00%	30.00%

NOTE:
 1. Scheduled commissioning date for the project has been considered 30 months from zero date.
 2. Rate of Interest on Domestic Loan Bonds is considered as 6.0% payable at the end of the year.
 3. The Transmission System has been considered to be executed by the POWERGRID with a Debt : Equity ratio of 70:30

**GRAND TOTAL (1ST YEAR TO 4TH YEAR)
(FOR BASE COST)**

Financing Details	Rate of Interest	Original Phasing	IDC	Total incl. IDC
Domestic Loan (70%)	6.0%	83.45	7.05	100.51
Equity (IR) (30%)		43.08		43.08
TOTAL		126.53	7.05	143.59



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**CALCULATION OF INTEREST DURING CONSTRUCTION FOR
MISA - BYRNHAT TRANSMISSION SYSTEM
(FOR COMPLETED COST)**

ANNEXURE - 4.0(a)

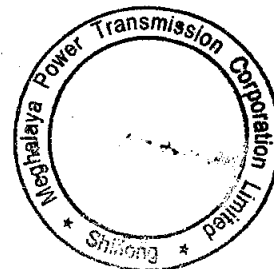
	Rate of Interest	1ST YEAR				2ND YEAR				3RD YEAR (1ST - 2ND QUARTER)				3RD YEAR (3RD - 4TH QUARTER)				4TH YEAR		GRAND TOTAL
		Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	IDC	TOTAL for the year	TOTAL Closing Bal.	Original Phasing	TOTAL Closing Bal.	
Domestic Loan (70%)	5.0%	19.45	0.78	20.23	20.23	45.92	3.46	49.37	69.81	26.23	3.31	29.54	99.15	5.62	0.00	5.62	104.77	5.88	110.64	110.64
Equity (IP) (30%)		8.67		8.67	8.67	21.20		21.20	29.88	12.73		12.73	42.61	2.41		2.41	45.02	2.52	47.54	47.54
TOTAL		28.12	0.78	28.91	28.91	67.12	3.46	70.58	99.69	38.97	3.31	42.27	141.76	8.03	0.00	8.03	149.79	8.40	158.18	158.18
Equity as % of Total Cost									30.03%								30.06%		30.05%	30.05%

NOTE:

- Scheduled commissioning date for the project has been considered 30 months from zero date.
- Rate of interest on Domestic Loans/ Bonds is considered as 8.0% payable at the end of the year.
- The Transmission System has been considered to be executed by the POWERGRID with a Debt : Equity ratio of 70:30.

**GRAND TOTAL (1ST YEAR TO 4TH YEAR)
(FOR COMPLETED COST)**

Financing Details	Rate of Interest	Total Int.		Total
		Original Phasing	IDC	
Domestic Loan (70%)	8.0%	103.16	7.54	110.64
Equity (IP) (30%)		47.54	0.00	47.54
TOTAL		150.64	7.54	158.18



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MISA - BYRNIHAT TRANSMISSION SYSTEM

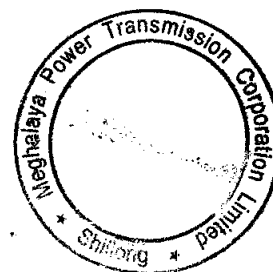
ANNEXURE - 5.0

CALCULATION OF COMPLETED COST OF PROJECT

(Figures in Rs. Crores)

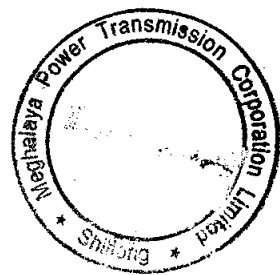
YEAR	Indigenous Component	Indian Escln. Rate		Ind. Escalated	Completed Cost excl. IDC
		Based on WPI (80%)	Based on CPI (20%)		
1ST YEAR	27.31	6.54%	4.05%	28.13	28.13
2ND YEAR	61.44	6.54%	4.05%	67.12	67.12
3RD YEAR (1ST - 2ND QUARTER)	34.13	3.27%	2.03%	38.97	38.97
3RD YEAR (3RD - 4TH QUARTER)	6.83	3.27%	2.03%	8.03	8.03
4TH YEAR	6.83	6.54%	4.05%	8.40	8.40
136.53				150.64	150.64

For Indigenous escalation, GOI guidelines dated 6.8.97 have been referred.
 Indigenous component has been assumed as 20% of the total Indigenous component
 and balance 80% updated based on average WPI (for all commodities).

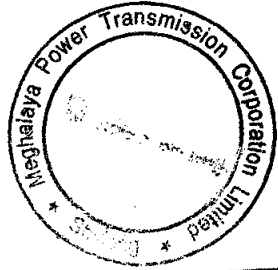
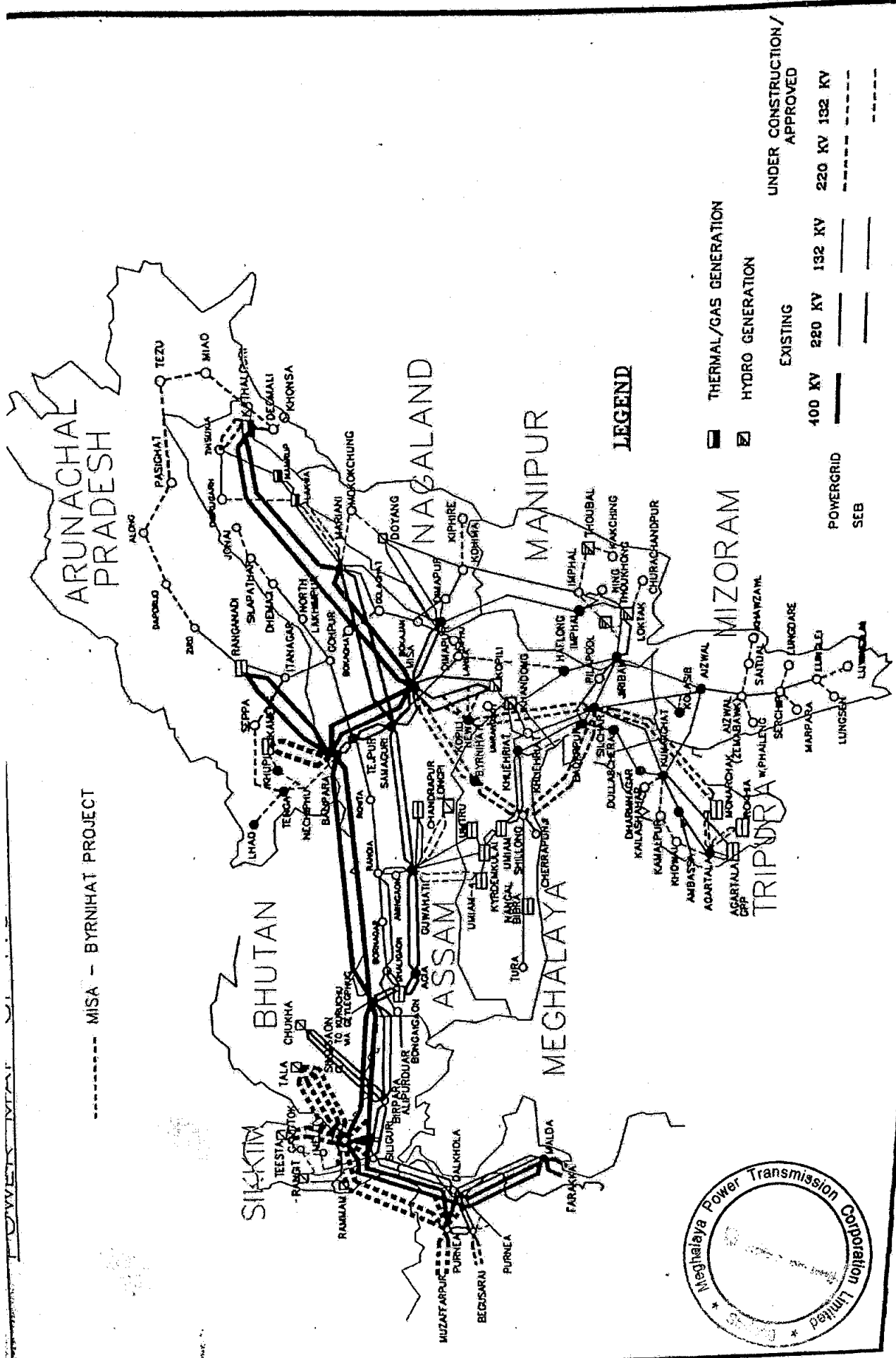


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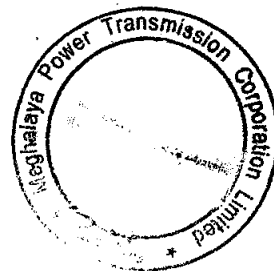
EXHIBITS



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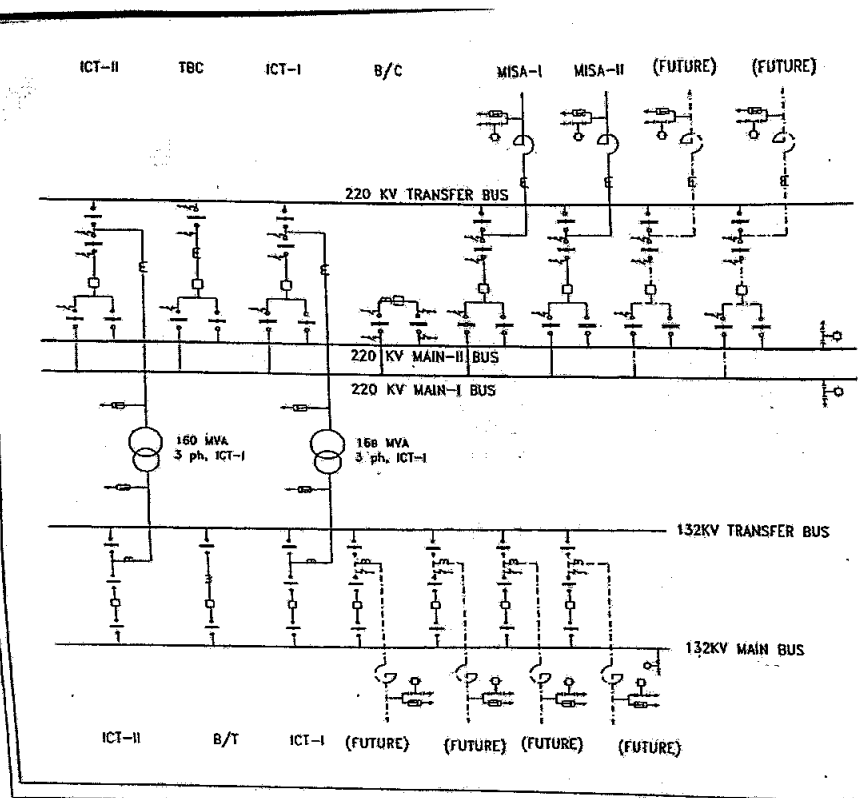


SINGLE LINE DIAGRAM - SUBSTATIONS



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BILL OF QUANTITY (220KV)

SL. ITEM	DESCRIPTION	QTY	UNIT
1	160 MVA, 220/132 KV, 3 PH. TRANSFORMER	2	NO
2	CIRCUIT BREAKER	6	NO
3	ISOLATOR WITH TWO E/S	7	NO
4	ISOLATOR WITH ONE E/S	5	NO
5	ISOLATOR W/O E/S (TANDEM)	9	NO
6	CURRENT TRANSFORMER	18	NO
7	CAPACITOR VOLTAGE TRANSFORMER	12	NO
8	SURGE ARRESTER	12	NO
9	WAVE TRAP	2	NO

BILL OF QUANTITY (132 KV)

SL. ITEM	DESCRIPTION	QTY	UNIT
1	CIRCUIT BREAKER	3	NO
2	ISOLATOR WITH ONE E/S	0	NO
3	ISOLATOR WITHOUT E/S	5	NO
4	ISOLATOR W/O E/S (TANDEM)	3	NO
5	CURRENT TRANSFORMER	15	NO
6	CAPACITOR VOLTAGE TRANSFORMER	3	NO
7	SURGE ARRESTER	8	NO
8	WAVE TRAP	0	NO
9	330 KVA LT TRANSFORMER	2	NO

LEGEND:
 — Present scope
 - - - Future

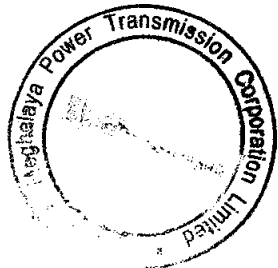
FOR FR PURPOSE ONLY

POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

PROJECT : RELIABILITY IMPROVEMENT SCHEME IN NER

TITLE : SINGLE LINE DIAGRAM OF 220/132 KV BYRNHAT S/S

Date	Prepared	Checked	Drawn	Rev.
			CV/202/2002/100/100/100	00



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S.K.Tewari,
INDIAN ADMINISTRATIVE SERVICE
CHIEF SECRETARY.

GOVERNMENT OF MEGHALAYA
Main Secretariat Building
SHILLONG - 793001.

D.O.No.PE.62/93/Vol.III/107.
Dated Shillong, the 30th March, 2006.

Dear Smt. Chatterjee.

Kindly refer to our discussions in New Delhi on 9th March 2006 regarding construction of a Transmission Line from Misa in Assam to Byrnihat in Meghalaya to meet the growing industrial demand for power in Meghalaya.

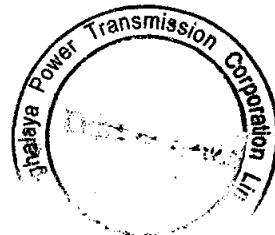
The construction of a 220 KV Single Circuit Transmission line from Misa to Byrnihat had been retained in the 24th meeting of the NLCPR Committee on 22.08.03. The DPR for an estimated cost of Rs. 43.36 crore was forwarded to the Ministry of DONER in October 2003. Subsequently, the Central Electricity Authority (CEA) advised opting for a Double Circuit Line instead of a Single Circuit Line. Accordingly a revised DPR for an estimated cost of Rs. 88.71 crore was prepared by the Power Grid Corporation of India (PGCIL) and forwarded to the Ministry of DONER. The DPR was cleared by CEA for a cost estimate of Rs. 84.81 crore.

Since the scheme had not been sanctioned for a long time, the State Government requested the Ministry of Power to intercede. After a series of discussion between Secretary Power, Government of India and Chief Secretary, Meghalaya, it was decided to form a Joint Venture Company between PGCIL and MeSEB for construction of this transmission line. PGCIL formulated a revised DPR for an estimated cost of Rs. 143.61 crore opting for a 320 MVA Sub-station instead of a 100 MVA Sub-station. An agreement was signed between PGCIL and MeSEB in September 2005 for implementation of the project. Work on the ground has not yet begun.

In its present form, the project is to be funded through a mix of debt (70%) and equity (26.7% PGCIL & 3.3% MeSEB). This funding structure is leading to huge demands being placed on the MeSEB and in turn on the State Government on account of debt servicing and assured return on equity over the next 25 years. Since this transmission line is an inter-state line connecting the State to the North Eastern Grid and will fill a key infrastructure gap, the Ministry of DONER, may kindly consider funding this project so that the funding structure becomes benign and benefits accrue to the State and the Region. This would also enable the State to effectively meet the demand of the industrial area where at present we are forced to discourage new industries from coming into the State and even established industries may have to close down because of the persistent shortage of power.

I am enclosing the DPR for Rs. 143.61 crore as prepared by PGCIL. The current implementation arrangements through PGCIL are proposed to be retained if funding is provided by the Ministry of DONER. Since the clearance of this DPR by CEA may take some time, it is requested that the estimate approved earlier by CEA for Rs. 84.81 crore may be sanctioned as the first instalment so that the works may commence immediately. The balance amount may be released as second instalment after clearance of the DPR by the concerned authorities.

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JK

In this connection, I would request you to kindly convene a meeting in Delhi and invite officials from the Ministry of Power and PGCIL to discuss the restructuring of the financing pattern of the project. Needless to add, this would also involve a review of the terms of the existing agreement between the PGCIL and the MeSEB.

I would be happy to attend this meeting along with officials from the State Government and MeSEB.

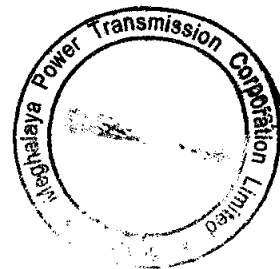
With regards,

Yours sincerely,
[Signature]
[S.K.Tewari]

Smti Gauri Chatterjee, IAS,
Secretary to the Government of India,
Ministry of DONER,
New Delhi.

Email: Chiefsec@shillong.meg.nic.in

Phone No.(0364) 2224801 (Office) Fax-2225978 (0364) 2537853 (Residence)



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ATTN: DR. H.K. PAUL
JOINT SECRETARY
DO NER

Annexure

Government of India
Central Electricity Authority
SP&PA Division, Sewa Bhawan,
R.K. Puram, New Delhi - 110 066.

Sub:- 220kV Misa-Byrnihat D/C line and 220/132 kV 2x160 MVA Byrnihat
Substation in Meghalaya
Ref:- Ministry of Dev. of NER letter no. F.No. DNER/NLP/Meg/28/2004 dated 29.05.07

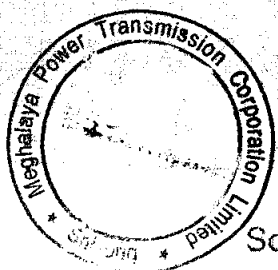
With reference to above and further to our letter dated 16th May 2007 wherein the above project has been vetted for estimated cost of Rs. 150 Cr. (estimated completion cost excluding IDC at first quarter 2007 price level), as requested, the component wise cost of the above project is vetted as following:-

Abstract Cost Estimate
Misa - Byrnihat Transmission System

(For Completed Cost)

Sl. No.	Description	Total Cost (Rs. Crore)
A	Preliminary Survey & Soil Investigation	0.23
B	Land Acquisition for substation and R&R Compensation	0.99
C	Cost of Compensation for Transmission Lines	
	i) Compensation towards Crop, Tree & PTCC	0.50
	ii) Compensation for Trans. Lines & Substations	9.24
D	Civil Works	
	i) Infrastructure for substations	2.34
	ii) Non Residential Buildings	1.11
	iii) Colony for Trans. Lines & Substations	8.87
E	Equipment (Supply & Erection) Cost	
	a) Trans. Lines	67.49
	b) Substations	44.47
	Sub Total (E)	111.96
F	Misc. Tools & Plants (@ 1% of E)	1.12
G	Maintenance during construction (@ 1% of E)	1.12
H	Engg. & Administration (@ 8.5% of E)	9.52

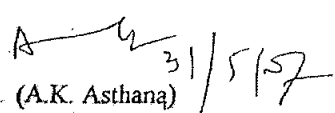
Page 1 of 2



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I	Losses on Stock (@ 0.25% of E)	0.28
J	Contingencies (@ 3% of E)	3.36
K	Grand Total excl. IDC (A to J)	150.64
L	Interest During Construction (IDC) (No IDC as project is grant funded)	Nil
	Grand Total Incl. IDC	150.64 (Say Rs. 150 Cr.)

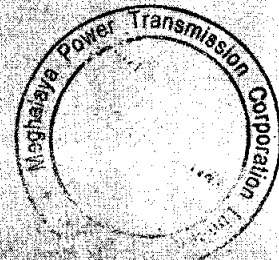

 (A.K. Asthana)
 Chief Engineer (SP&PA)

Joint Director, Ministry of DoNER, Vigyan Bhawan Annexe, Maulana Azad Road,
New Delhi.

No. 84/4/2006/SP&PA/462

Dated: 31.05.07

swg
106/2007



Page 2 of 2

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MEGHALAYA POWER TRANSMISSION CORPORATION LTD.

OFFICE OF THE DIRECTOR (TRANSMISSION)

LUMJINGSHAI, SHORT ROUND ROAD, SHILLONG: 793001.

E. Slong
Director Transmission

No. MePTCL/DT/T-59/2013/29

Dated, Shillong the 29th October, 2013

To,

The Additional Chief Secretary to the Government of Meghalaya
Power Department,
Shillong

Sub: Submission of Completion Certificate for the "Construction of the 220 kV Double Circuit transmission line from Misa to Byrnihat, along with the construction of the 220/ 132 kV, 2 x 160 MVA substation at Byrnihat & the 220 kV bay extensions at Misa" under NLCPR funding.

Ref: Letter No. PLR.113/2008/221 dated 24.10.2013

Sir,

With reference to the above, I am enclosing herewith the Completion Certificate for the "Construction of the 220 kV Double Circuit transmission line from Misa to Byrnihat, along with the construction of the 220/ 132 kV, 2 x 160 MVA substation at Byrnihat & the 220 kV bay extensions at Misa" under NLCPR funding, for favour of your kind information and necessary action.

Encl: As stated.

Yours faithfully

(E. Slong)

Director Transmission

Memo No. MePTCL/DT/T-59/2013/29 (a)

Dated; Shillong the 29th October, 2013

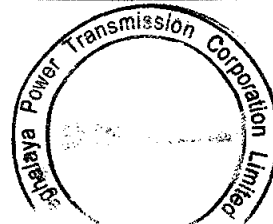
Copy to:

1. The Principal Secretary, Planning Department, Govt. of Meghalaya, Shillong for favour of kind information and necessary action. The copy of the enclosure is also enclosed herewith. This has a reference to his letter mentioned above.
2. The Commissioner & Secretary, Power Department, Govt. of Meghalaya, Shillong for favour of information and kind necessary action. The copy of the enclosure is also enclosed herewith.
3. The Chief Engineer (T), MePTCL, Shillong for information along with a copy of the completion report.
4. The Additional Chief Engineer (P&D), MeECL, Shillong for information along with a copy of the completion report.
5. File T-15/T-60

29/10/13
Director Transmission

"SAVE ENERGY FOR BENEFIT OF SELF AND NATION"

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COMPLETION CERTIFICATE

1. Name of the Project : **Construction of the 220 KV Double Circuit transmission line from Misa to Byrnihat, along with the construction of the 220/ 132 KV, 2 x 160 MVA Sub Station at Byrnihat & the 220 KV bay extensions at Misa.**
2. Location : **Byrnihat**
3. Date of approval of the project : **28th September, 2007.**
4. Approved Cost : **₹ 6337.00 Lakhs (under NLCPR funding)**
5. Date of completion of the project / scheme : **The transmission line and sub-station was commissioned & charged on the 25th January, 2011.**
6. Executing Agency (State Govt./PSU/Other Agency) : **Me.P.T.C.L.**

Certified that a total sum of ₹5603.00 Lakhs was made available as assistance under the NLCPR scheme against the sanctioned project i.e. for the 'Construction of the 220 KV Double Circuit transmission line from Misa to Byrnihat, along with the construction of the 220/ 132 KV, 2 x 160 MVA Sub Station at Byrnihat & the 220 KV bay extensions at Misa and a sum of ₹ 5603.00 Lakhs had been fully utilized for the works for which it was sanctioned.

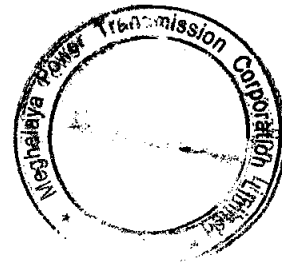
It is also certified that the following components of the Project in accordance with the Detailed Project Report, have been physically completed out of the above fund:

The work for construction of the 220 KV Double Circuit transmission line from Misa to Byrnihat, along with the construction of the 220/ 132 KV, 2 x 160 MVA Sub Station at Byrnihat & the 220 KV bay extensions at Misa

Therefore the cost of the project which was made available as assistance under the NLCPR Schemes as per approved cost of ₹ 6337.00 Lakhs had been fully utilized.

(E. Slong)

Director Transmission

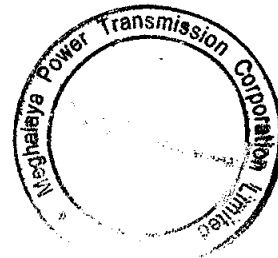


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Asset IV

STATE LOAN FUNDING DETAILS	
Sanction No. & date	10% State Share (Loan)@ 8.75% 6801
No. PE.62/93/ VOL-IV/54 Dt.31.3.2009	1100
PE.99/2008/51 Dt.18.3.2009	175.6
No. PE.109/2000/VOL-II/379 Dt.19.1.2011	277.77
No. PE.62/93/ VOL-IV/110 Dt.28.2.2011	123.00
No. PE.148/2014/51 Dt.31.3.2015	221.78
No. PE.62/93/ VOL-IV/127 Dt.31.3.2017	11.14
	19.0929



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GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No.PE.62/93/Vol.IV/54,

Dated Shillong, the 31st March, 2009.

From :- Shri C.M. Syiem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To
The Senior Electrical Inspector,
Inspectorate of Electricity Govt. of Meghalaya, Shillong.

Subject :- Sanction of Scheme for Misa Byrnihat Transmission Line.

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for an amount of Rs. 9,00,00,000/- (Rupees Nine crores) only as Grant-in-aid to Meghalaya State Electricity Board, for Construction of 220 KV D/C line from Mia to Byrnihat and amount of Rs. 11,00,00,000/- (Rupees eleven crores) only as Loan Component. Amount for Grant is sanctioned by way of Re-appropriation vide Memo No.FC(I)NL/08-09/36 (R), dated 31.3.2009.

The expenditure is debitible to the Head of Accounts as follows :-

Grant :- "2801-Power-01-Hydel Generation-800-Other Expenditure-01—Grant-in-aid to Meghalaya State Electricity Board-31-Grant-in-aid General Plan" during 2008-09.

Loan :- "6801-Loans for Power Projects-800-Other Loans to EBs (05)-State Plan Loan-55-Loans and Advances-General-Plan" during 2008-2009.

The terms and conditions for Loan Component are as follows :-

1. The Loan will bear a rate of interest at 8.75% per annum with a rebate of 0.25% for timely repayment. Payment of interest is half-yearly.
2. In case of default, a penal interest of 2.5% over normal rate is chargeable.
3. The Loan is to be repaid in 10 (ten) equal installments Commencing from the Second Anniversary of the date of drawal of the Loan.

This sanction issues with the concurrence of Finance (EC-I) Department vide I/D No.FC(I)1311/08-09, dated 31.3.2009.

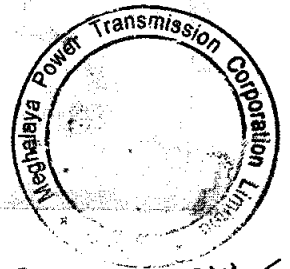
The amount shall be credited to "8443-Civil Deposit" (111-Other Departmental Deposit) as per Finance (EA) Department instruction vide No.FEA.38/2008/Vol.V/2, dated 10.3.2009.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department

Contd.../-

SOPT
2/11/09



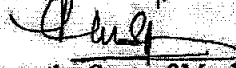
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Memo No. PE.62/93/Vol.IV/54-A,
Copy to :-

Dated Shillong, the 31st March, 2009.

1. Finance (EC-I) Department with reference to above I/D.
2. Finance (Budget) Department with a request for issue L.O.A.
3. Planning Department.
4. Finance (EA) Department.
5. Member (Technical)/ Member (Finance) Meghalaya State Electricity Board, Shillong.
6. Treasury Officer, East Khasi Hills, Shillong.

By Order, Etc.,



Under Secretary to the Govt. of Meghalaya,
Power Department

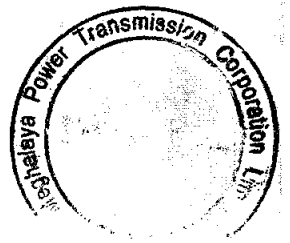
Memo No. PE.62/93/Vol.IV/54-B,

Dated Shillong, the 31st March, 2009.

Copy forwarded to Accountant General (Accounts/Audit), Meghalaya, Shillong.

By Order, Etc.,

Financial Adviser,
Power Department



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GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No.PE.99/2008/51,

Dated Shillong, the 18th March, 2009.

From :-

Shri C.M. Syiem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To

The Senior Electrical Inspector,
Inspectorate of Electricity Govt. of Meghalaya, Shillong.

Subject :-

Sanction of Scheme for construction of Misa-Byrnihat Transmission line.

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for an amount of Rs. 1,75,60,000/- (Rupees one crore seventy five lakhs sixty thousand) only as Loan component to Meghalaya State Electricity Board, . An amount of Rs. 75,60,000/- (Rupees seventy five lakhs sixty thousand)only is sanctioned by Re-appropriation vide Memo No.FC(I)NL/08-09/23(R), dated 14.3.2009.

The terms and conditions toward the loan component should be paid as follows:-

1. The Loan will carry an interest rate of 8.75% for annum with a rebate of 0.25% for timely payment. Payment of interest is half-yearly.
2. In case of default a penal interest of 2.5% over normal rate is the chargeable.
3. The loan is to be repaid in 10(ten) equal annual installments commencing from the Second Anniversary of the date of drawal of the loan.

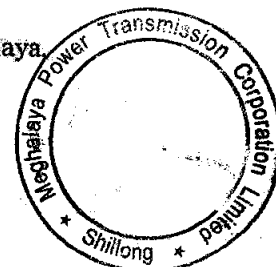
The expenditure is debitable to the Head of Account "6801-Loan for Power Projects-800-other Loans to Electricity Board-(02) Loan to Electricity Board(Rural Electrification Programme)-55-Loans and Advance-General Plan" during 2008-2009.

This issued with concurrence of Finance (EC-I) Department vide I/D No.FC(I)940/2008-2009, dated 14.3.2009.

The amount shall be credited to "8443-Civil-Deposit -(111-Other Departmental Deposit) as per Finance (EA) No.FEA.38/2008/Pl.V/2, dated 10.3.2009.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya
Power Department



94

Memo No. PE. 99/2008/51-A,

Dated Shillong, the 18th March, 2009.

Copy to :- 1. Finance (EC-I) Department with reference to above I/D.

2. Finance (Budget) Department with a request for issue L.O.A.
3. Planning Department.
4. Finance (EA) Department.
5. The Member (Technical) Meghalaya State Electricity Board, Shillong.
6. The Member (Finance) Me.S.E.B., Shillong.
7. Treasury Officer, Shillong.

By Order, Etc.,

[Signature]
Under Secretary to the Govt. of Meghalaya,
Power Department

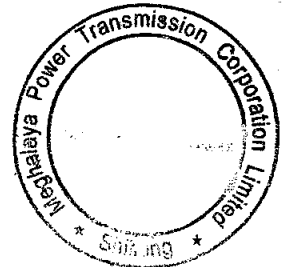
Memo No. PE. 99/2008/57-B

Dated Shillong, the 18th March, 2009.

Copy forwarded to Accountant General (Accounts/Audit), Meghalaya, Shillong.

By Order Etc.,

[Signature]
Financial Adviser,
Power Department.



[Handwritten mark]

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1

GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No. PE.109/2000/Vol.II/379,

Dated Shillong, the 19th January, 2011.

From :- Shri C.M. Syiem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To
The Senior Electrical Inspector,
Inspectorate of Electricity Govt. of Meghalaya, Shillong.

Subject :- Release of Loan Sanction for Construction of 220 KV D/C Transmission Line
from Misa (Assam) to Byrnihat (Meghalaya)

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for an amount of Rs. 2,77,77,000/- (Rupees two Crores seventy seven lakhs seventy seven thousand) only as Loan to Meghalaya Energy Corporation Limited for construction of 220 KV D/C Transmission Line from Misa (Assam) to Byrnihat (Meghalaya) from the Central Pool of Resources under the following terms and conditions.

- 1 The Loan will carry interest rate of 8.50 % per annum with a rebate of 0.25 % for timely payment. Payment of interest rate is half-yearly.
- 2 In case of default, a penal interest of 2.5% over the normal rate is chargeable.
- 3 The loan is repayable in 10(ten) equal annual instalments commencing from the second anniversary of the date of drawal of the loan.

The expenditure is debitable to the Head of account "6801-Loan for Power Projects-800-Other Loans to Electricity Boards-(04)-Non-Lapsable Central Pool of Resources-55-Loans and Advances -Sixth Scheduled (Part-II) Areas Plan" during 2010-11.

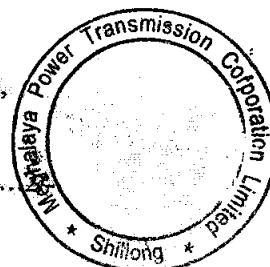
The sanction is issued with the concurrence of Finance (EC-I) Department vide I/D No. FC (I)582/2010-11 dt.7/1/11.

Fund for which is being made available by way of RE-appropriation duly sanctioned by Finance Department vide Memo No. FC (1) NL/10-11/7 (R) dt. 7/1/11.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department.

Contd..



NLC PR

State Govt.
202-2011

Memo No. PE.109/2000/Vol.II/379-A,

Dated Shillong, the 19th January, 2011.

Copy to :-

- 1 Finance EC (I) Deptt. for information with reference to their I/D No. FC (I) 582/2010-11 dt. 7/1/11.
- 2 Planning Departments .
- 3 Finance (Budget) Deptt. with a request for issue LOA as per Statement enclosed.
- 4 Finance (EA) Department.
- 5 Director (Finance) MeECL, Shillong.
- 6 Treasury Officer, Meghalaya, Shilling.
- 7 Guard File.

By Order, Etc.,

Under Secretary to the Govt. of Meghalaya,
Power Department.

Memo No. PE. 109/2000/Vol.II/379-B,

Dated Shillong, the 19th January, 2011.

Copy to :-

- 1 The Principal Accountant General (Audit) Meghalaya (Attention CASS Section), Shillong – 793001.
2. Accountant General (A&E) Meghalaya, Shillong – 793001.

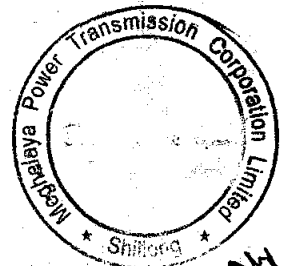
By Order Etc.,

Senior Financial Adviser,
Power Department.

Sr AO (C&B)

21/1

From



GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No. PE.62/93/Vol. IV/110.

Dated Shillong, the 28th February 2011.

From :- Shri C.M. Syiem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To,
The Senior Electrical Inspector,
Inspectorate of Electricity Govt. of Meghalaya, Shillong.

Subject :- Sanction of Scheme for Construction of the 220 KV D/C Line from Misa to Byrnihat
funded under NLCPR.

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for an amount of Rs. 1,23,00,000/- (Rupees one crore twenty three lakhs) only as Loan component to Meghalaya Energy Corporation Limited for construction of 220 KV D/C Transmission Line from Misa (Assam) to Byrnihat Meghalaya funded under Non-Lapsable Central Pool of Resources.

The above amount has been made available by Re-appropriation vide Memo No. FC(I)NL/10-11/15(R) dated 21-02-2011.

The terms and conditions of the Loan are as follows:-

1. The Loan will carry an interest rate of 8.50% per annum with a rebate of 0.25% for timely payment. Pay of interest is half-yearly.
2. In case of default, a penal interest of 2.5% over the normal rate is chargeable.
3. The loan is repayable in 10(10) equal annual installments commencing from the Second anniversary of the date of the drawal of the Loan.

The expenditure is debit to the head of Account "6801-Loans for Power Projects-800-Other Loans to Electricity Board(04)-Non-Lapsable Central Pool of Resources-55-Loans & Advances-Sixth Schedule Part-II Areas Plan" during 2010-2011.

This sanction is issued with the concurrence of Finance (EC-I) Department vide their I/D

No. FC (I)725/2010-11 dt.21/2/11.

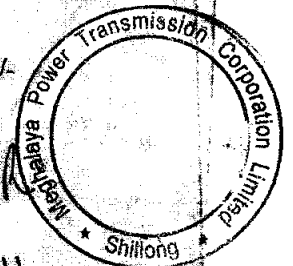
Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department.

Wd. C. M. Syiem
C. M. Syiem

A (Com) / SO (Com)

Contd. 2/-



8/3/2011
NLCPR

2015-16

55

GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No. POWER.148/2014/51

Dated Shillong, the 31st March, 2015.

From :- Smti E.Rapthap,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To,

The Senior Electrical Inspector,
Inspectorate of Electricity,
Meghalaya, Shillong.

Subject :- Sanction of Scheme for construction of the 220 KV D/C line from Misa to Byrnihat along with the construction of 220/132 KV, 2 x 160 MVA Sub-station at Byrnihat.(NLCPR)

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for an amount of Rs. 2,21,78,000/- (Rupees two crores twenty one lakhs seventy eight thousand) only as Loan Component under NLCPR to Meghalaya Energy Corporation Limited for the project construction of the 220 KV D/C line from Misa to Byrnihat along with the construction of 220/132 KV, 2 x 160 MVA Sub-station at Byrnihat, under the following terms and conditions :-

1. The loan will carry an Interest rate of 8.09% per annum with a rebate of 0.25% for timely payment. Payment of interest is half-yearly.
2. In case of default, a penal interest of 2.5% over and above the normal rate is chargeable
3. The loan is repayable in 10(ten) equal installments commencing from the Second Anniversary of the date of drawal of the loan.

The above amount of Rs. 2,21,78,000/- (Rupees two crores twenty one lakhs seventy eight thousand) only has been made available by Supplementary Demand as communicated by Finance Department vide I/D No. FIN(B) 157/2014/82 dt. 24.3.2015.

The expenditure is debitible to the Head of Account "6801 -Loans for Power Projects-800-Other Loans to Electricity Boards(04) - NLCPR -55-Loans and Advances-General-Plan" during 2014-2015.

This sanction issues with the concurrence of Finance (EC-I) Deptt. Vide their I/D No. FC(I) 1049/2014-15, dated 31.03.2015.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department
Dated Shillong, the 31st March, 2015.

Memo No. Power. 148/2014/51-A.

Copy to :-

1. Planning Department.
 2. Finance (EC-I) Department.
 3. Finance (EA) Department.
 4. Finance (Budget) Department.
 5. Director (Transmission) Meghalaya Energy Corporation Limited, Shillong.
 6. Director (Finance), Meghalaya Energy Corporation Limited, Shillong.
 7. The Chief Accounts Officer, Meghalaya Energy Corporation Limited, Shillong.
 8. Treasury Officer, Shillong., North, District Treasury.
 9. Guard file.
- L - credited on 29.5.15

By Order, etc.,

Rapthap
Under Secretary to the Govt. of Meghalaya,
Power Department
Dated Shillong, the 31st March, 2015.

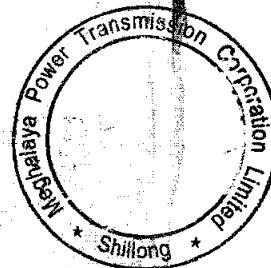
Memo No. Power. 148/2014/51-B.

Copy forwarded to :-

1. The Principal Accountant General (Audit), Meghalaya (Attention CASS Section), Shillong - 793 001.
2. The Accountant General (A & E), Meghalaya, Shillong - 793 001.

By Order, etc.,

Senior Financial Adviser,
Power Department



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GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No. POWER.62/93/VOL-IV/127.

Dated Shillong, the 31st March, 2017.

From :- Smti. E. Rapthap,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To
The Senior Electrical Inspector,
Inspectorate of Electricity,
Meghalaya, Shillong.

Subject :- Sanction for 'Construction of the 220 kV Misa-Byrnihat line along with 220/132 kV, 2x160 MVA Sub-station of Killing and bay extension at Misa'.

Sir,

I am directed to convey the sanction of the Governor of Meghalaya to MeECL for the balance amount of Rs.1,00,30,000/- (Rupees one crore thirty thousand) only as Grant approved by the Ministry of DONER under NLCPR and Rs. 11,14,000/- (Rupees eleven lakhs fourteen thousand) only being the 10% state share(Loan) for 'Construction of the 220 kV Misa-Byrnihat line along with 220/132 kV, 2x160 MVA Sub-station of Killing and bay extension at Misa', to MeECL during 2016-17 subject to the condition that the expenditure should be within the ceiling of the Revised outlay.

The above amount of Rs.1,00,30,000/- under Grant is debitible to the Head of Account "2801-Power-80-General-101 Assistance to EBs-(08) NLCPR-01.Maintenance of 220 kV/DC Transmission Line from Misa (Assam) to Byrnihat (Meghalaya)-50-Other Charges General Plan" made available by R.A. sanctioned vide Memo No.FC(I)NL/16-17/41(R), dated 31-03-2017 and the amount of Rs. 11,14,000/- under state share is debitible to the Head of Account '6801 Loans for Power Projects-800-Other Loans to EBs-(04) NLCPR-55. Loans and advances-General Plan' also made available by R.A. sanctioned vide Memo No.FC(I)NL/16-17/42(R) dated 31-03-2017, subject to the following terms and conditions :-

1. The Loan will bear a rate of interest at 8.10% per annum with a rebate of 0.25% for timely payment. Payment of interest is half-yearly.
2. In case of default, a penal interest of 2.5% over and above the normal rate will be charged.
3. The Loan is repayable in 10(ten) equal installments commencing from the Second Anniversary of the date of drawal of the loan.

This sanction issues with the approval of the Empowered Sanctioning Committee communicated by Planning Department vide Memo No.PLR.143/2011/Pt-I/112-A, dated 31-03-2017 and concurrence of Finance Department vide I/D No.FC(I)1346/2016-17, dated 31-03-2017.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department

Memo No.POWER-62/93/VOL-IV/127-A .

Dated Shillong, the 31st March, 2017.

Copy to :-

1. Planning Department with reference to I/D No.2107 dated 31-03-2017.
2. Finance (EA) Department.
3. Finance (EC-I) Department, with reference to ID No.FC(I)1346/2016-17 dated 31-03-2017.
4. Finance (B) Department, with a request for issue of L.O.A.
5. The Chairman-cum-Managing Director, MeECL.
6. The Director (Finance), MeECL.
7. Director (Transmission), MePTCL.
8. The Chief Accounts Officer, MeECL
9. The Treasury Officer, Shillong District Treasury.
10. Guard File

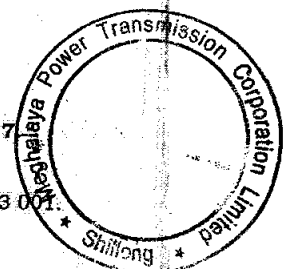
Memo No.POWER.62/93/VOL-IV/127-B

Copy forwarded to :-

1. The Principal Accountant General (Audit), Meghalaya (Attention CASS Section), Shillong - 793 001.
2. The Accountant General (A & E), Meghalaya, Shillong - 793 001.

By Order, etc.,

Senior Financial Adviser,
Power Department



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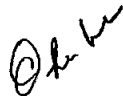
Statement of Capital Cost/ Additional Capital Expenditure (Annexure A)

On the basis of verification of Books of Accounts of Meghalaya Power Transmission Corporation Limited (i.e MePTCL) and the Statement of Accounts of Power Grid Corporation of India-i.e. M/s. PGCIL produced by MePTCL, the Capital cost of 220 kV D/C (Transmission line) Line Misa- Killing (Asset-IV), of M/S Meghalaya Power Transmission Corporation Limited, which has been put into commercial operation w.e.f 25.01.2011, is detailed as under :

Rs. in Lakhs

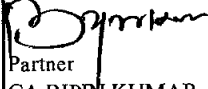
S.No		Land and building	Transmission Line & Sub station Cost	IEDC	IDC	Total cost (2+3+4+5)
	1	2	3	4	5	6
1	Expenditure up to DOCO on 25.01.2011	178.99	11495.61	0.00	0.00	11674.59
2	Expenditure from 25.01.2011 to 31.03.2011	7.04	320.42	0.00	0.00	327.46
3	Expenditure for the period 01.04.2011 to 31.03.2012	30.75	236.96	0.00	0.00	267.70
4	Expenditure for the period 01.04.2012 to 31.03.2013	31.36	46.15	0.00	0.00	77.51
5	Expenditure for the period 01.04.2013 to 31.03.2014	44.28	0.47	0.00	0.00	44.76
6	Expenditure for the period 01.04.2014 to 31.03.2015	0.00	18.92	0.00	0.00	18.92
7	Expenditure for the period 01.04.2015 to 31.03.2016	40.74	0.00	0.00	0.00	40.74
8	Expenditure for the period 01.04.2016 to 31.03.2017	4.06	0.00	0.00	0.00	4.06
9	Expenditure for the period 01.04.2017 to 31.03.2018	10.56	60.86	0.00	0.00	71.42
10	Expenditure for the period 01.04.2018 to 31.03.2019	0.00	5.81	0.00	0.00	5.81
11	Expenditure for the period 01.04.2019 to 31.03.2020	33.47	16.32	0.00	0.00	49.79
12	Expenditure for the period 01.04.2020 to 31.03.2021	35.00	19.13	0.00	0.00	54.13
13	Expenditure for the period 01.04.2021 to 31.03.2022	214.78	3.50	0.00	0.00	218.27
14	Expenditure for the period 01.04.2022 to 31.03.2023	0.00	0.00	0.00	0.00	0.00
15	Expenditure for the period 01.04.2023 to 31.03.2024	0.00	0.00	0.00	0.00	0.00
	TOTAL	631.02	12224.14	0.00	0.00	12855.16

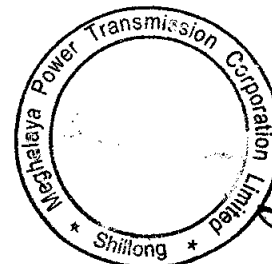
For Meghalaya Power Transmission Corporation Limited


Name of Person: R CHITTURI, IAS
Director Finance
DIN: 09712409

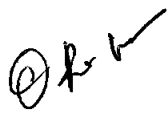

Date:

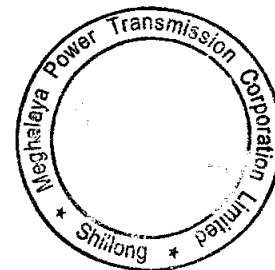
For PARIK & CO
Chartered Accountants
FRN: 302147E


Partner
CA BIPIN KUMAR
ICAI Membership No. 059805
UDIN: 23059805BGWEDQ4788
Date: 29/09/2023



Statement of Capital Cost/ Additional Capital Expenditure (Annexure B)					
On the basis of verification of Books of Accounts of Meghalaya Power Transmission Corporation Limited (i.e MePTCL) and the Statement of Accounts of Power Grid Corporation of India-i.e. M/s. PGCIL produced by MePTCL , the Capital cost of 220 kV D/C (Transmission line) Line Misa- Killing (Asset-IV) , of M/S Meghalaya Power Transmission Corporation Limited, which has been put into commercial operation w.e.f 25.01.2011 , is detailed as under:					
Rs. in Lakhs					
S.No	Particulars	Capital cost	IEDC	IOC	Total cost (2+3+4)
1	2	3	4	5	
1	Expenditure up to DOCO on 25.01.2011	11674.59	0.00	0.00	11674.59
2	Expenditure from 25.01.2011 to 31.03.2011	327.46	0.00	0.00	327.46
3	Expenditure for the period 01.04.2011 to 31.03.2012	267.70	0.00	0.00	267.70
4	Expenditure for the period 01.04.2012 to 31.03.2013	77.51	0.00	0.00	77.51
5	Expenditure for the period 01.04.2013 to 31.03.2014	44.76	0.00	0.00	44.76
6	Expenditure for the period 01.04.2014 to 31.03.2015	18.92	0.00	0.00	18.92
7	Expenditure for the period 01.04.2015 to 31.03.2016	40.74	0.00	0.00	40.74
8	Expenditure for the period 01.04.2016 to 31.03.2017	4.06	0.00	0.00	4.06
9	Expenditure for the period 01.04.2017 to 31.03.2018	71.42	0.00	0.00	71.42
10	Expenditure for the period 01.04.2018 to 31.03.2019	5.81	0.00	0.00	5.81
11	Expenditure for the period 01.04.2019 to 31.03.2020	49.79	0.00	0.00	49.79
12	Expenditure for the period 01.04.2020 to 31.03.2021	54.13	0.00	0.00	54.13
13	Expenditure for the period 01.04.2021 to 31.03.2022	218.27	0.00	0.00	218.27
14	Expenditure for the period 01.04.2022 to 31.03.2023	0.00	0.00	0.00	0.00
15	Expenditure for the period 01.04.2023 to 31.03.2024	0.00	0.00	0.00	0.00
	TOTAL	12855.16	0.00	0.00	12855.16

<p>For Meghalaya Power Transmission Corporation Limited</p> <p style="text-align: center;"></p> <p>Name of Person: R CHITTURI, IAS Director Finance DIN: 09712409 Date:</p>	<p>For PARIK & CO Chartered Accountants FRN: 302147E</p> <p style="text-align: center;"></p> <p>Partner CA BIPIN KUMAR ICAI Membership No. 059805 UDIN: 23059805BGWEDQ4788 Date: 29/09/2023</p>
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INDEX

220 kV D/C Missa-Killing (Asset-IV)

PART-III

Checklist of Forms and other information/ documents for tariff filing for Transmission System

Form No.	Tariff Filing Formats (Transmission)	Tick
FORM- 1	Summary Sheet	✓
FORM-2	Details of Transmission Lines and Substations	✓
FORM-3	Normative Parameters considered for tariff calculations	✓
FORM- 4	Details of Foreign loans	
FORM- 4A	Details of Foreign Equity	
FORM-5	Abstract of Admitted Cost for the existing Projects	✓
FORM-5A	Abstract of Project Cost Estimates and Schedule of Commissioning for the new Projects	✓
FORM-5B	Element wise break-up of Project Cost for Transmission System	✓
FORM-5C	Break-up of Construction/Supply/Service packages	✓
FORM-5D	Details of elementwise cost	✓
FORM- 6	Financial Package upto COD	✓
FORM- 7	Details of Project Specific Loans	✓
FORM- 8	Details of Allocation of corporate loans to various transmission elements	✓
FORM-9	Statement of Additional Capitalisation after COD	✓
FORM-9A	Statement of Capital Cost	✓
FORM- 9B	Statement of CWIP	
FORM- 10	Financing of Additional Capitalisation	✓
FORM- 11	Calculation of Depreciation Rate	✓
FORM- 12	Statement of Depreciation	✓
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM- 13A	Calculation of Interest on Normative Loan	✓
FORM- 13B	Calculation of Interest on Working Capital	✓
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	✓
FORM- 14A	Actual cash expenditure	✓
Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Regionwise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & for the relevant years.	
3	3 Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the ITSA with the beneficiaries, if any	
7	Detailed note giving reasons of time and cost over run, if applicable.	
8	Any other relevant information, (Please specify)	-

Note:1. Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excell format) and any other information submitted shall also be furnished in the form of CD/Floppy disc .

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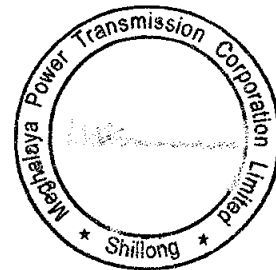
SUMMARY SHEET

Name of the Transmission Licensee : **Meghalaya Power Transmission Company Limited**
 Name of Region : **North Eastern**
 Name of the Project : **220 kv D/C Missa-Killing Transmission Line**
 Name of the Transmission Element : **220 kv D/C Missa-Killing (Asset-IV)**

S.No.	Particulars	Form No	Rs. In Lakhs							
			Existing	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	
1			3	4	5	6	7	8		
1	Depreciation	Form-12			37.76	65.35	68.84	70.34		
2	Interest on Loan	Form-13			13.86	96.99	105.90	105.16		
3	Return on Equity				0.00	0.00	0.00	0.00		
4	Interest On Working Capital	Form-13B			1.08	32.28	34.19	37.21		
5	O & M Expenses	Form-2 & 3			82.96	485.14	512.81	542.13		
	Total		0	0.00	135.67	679.76	721.73	754.85		

NOTE : In addition to above tariff calculated, it is prayed that additional expenses may please be allowed as per explanation given in the petition

Petitioner



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DETAILS OF TRANSMISSION LINES & SUBSTATIONS

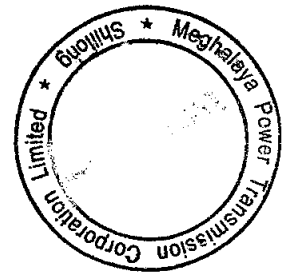
Meghalaya Power Transmission Company Limited
North Eastern
220 kV D/C Missa-Killing Transmission Line
220 kV D/C Missa-Killing (Asset-IV)

Name of the Transmission Licensee :
Name of the Region:
Name of the Project :
Name of the Transmission Element :

S.NO.	Name of line	Type of line AC/HVDC	S/C or D/C	No. of Sub- Conductors	Voltage level kV	Line length Ckt.-km.	Line length Km.	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No,petition No.
1	220 kV D/C Missa-Killing (Asset-IV)		D/C	1	220	226.84	113.42	25-01-2011	No	No

Substations

S.NO.	Name of Sub- station	Type of Substation Conventional/ GIS/HVDC terminal/HVDC Back to Back	Voltage level kV	No. of transformers /Reactors/SVC etc (with capacity)	No. of Bays			Date of Commercial operation	Covered in the present petition	
					765 KV	400 KV	220KV		132KV & Below	Yes/No
1					0			25-01-2011	Yes/No	
2										
3										
4										
5										



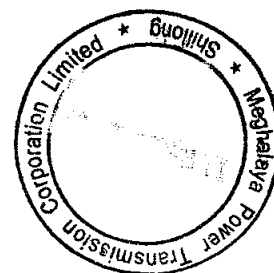
Petitioner

Normative Parameters considered for tariff calculations

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 kV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

Particulars	Year Ending March				
		2010-11	2011-12	2012-13	2013-14
1	2	3	4	5	6
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	20.96%	20.96%	20.96%	20.96%
Target Availability	%	98%	98%	98%	98%
Normative O&M per ckt.km	Rs. lacs	0.284	0.301	0.318	0.336
Normative O&M per bay-400kV	Rs. lacs	55.40	58.57	61.92	65.46
Normative O&M per bay-220kV	Rs. lacs	38.78	41.00	43.34	45.82
Spares for WC as % of O&M	%	15%	15%	15%	15%
Receivables in Months for WC	months	2	2	2	2
Prime lending Rate of SBI as on	%	14.25%	14.25%	14.25%	14.75%
Prime lending rate as on 7.11.2013 is 14.75					

Petitioner



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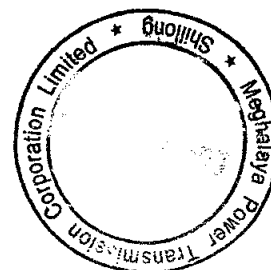
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Abstract of Admitted Capital Cost for the existing Projects

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

Capital cost as admitted by CERC	
Capital cost admitted as on 25.01.2011	Not Applicable
(Give reference of the CERC relevant Order with Petition No. & Date)	Not Applicable
Foreign Component, if any (In Million US \$ or the relevant Currency):	Not Applicable
Domestic Component (Rs. Cr.):	Not Applicable
Foreign Exchange rate considered for the admitted cost:	Not Applicable
Hedging cost, if any, considered for the admitted Capital cost	Not Applicable
Total Project cost admitted (Rs. Cr):	Not Applicable

Petitioner



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**PART III
Form 5A**

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects

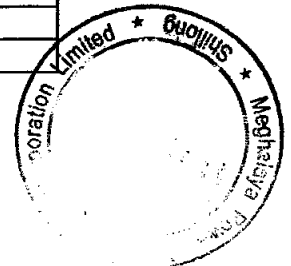
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

Rs. In Lakhs.

Board of Director/ Agency approving the Capital cost :	Board of Directors	Board of Directors
Date of approval of the Capital cost :		GOI -CEA letter 31.05.2007
	Present Day Cost (up to 25.01.2011)	completed cost (up to 31.03.2014)
Price level of approved cost		
Foreign Exchange rate considered for the Capital cost	NOT APPLICABLE	
	Capital Cost excluding IDC & FC	
Foreign Component, if any (In Million US \$ or the relevant Currency)	NOT APPLICABLE	
Domestic Component (Rs. Cr.)		
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Cr)	0	0
	IDC, FC, FERV & Hedging Cost	
Foreign Component, if any (In Million US \$ or the relevant Currency)	NOT APPLICABLE	
Domestic Component (Rs. Cr.)	NOT APPLICABLE	0
Total IDC, FC, FERV & Hedging Cost (Rs.Cr.)	NOT APPLICABLE	0
Rate of taxes & duties considered		
	Capital cost Including IDC, FC, FERV & Hedging Cost	
Foreign Component, if any (In Million US \$ or the relevant Currency)	NOT APPLICABLE	
Domestic Component (Rs. Cr.)		
Capital cost Including IDC & FC (Rs. Cr)		
Schedule of Commissioning		
SCOD		
220 kV D/C Missa-Killing (Asset-IV)	25-01-2011	25-01-2011

Note:

- Copy of approval letter should be enclosed.
- Details of Capital cost are to be furnished as per FORM-5B or 5C as applicable.
- Details of IDC & Financing Charges are to be furnished as per FORM-14.



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PETITIONER

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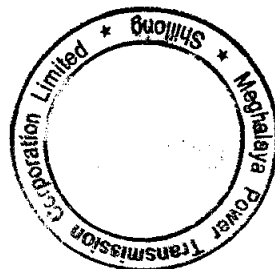
Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North Eastern
 Name of the Project: 220 KV D/C Nissa-Killing Transmission Line
 Name of the Transmission Element or Communication system: 220 KV D/C Nissa-Killing (Asset-TV)

(Amount in Rs. Lakhs)

Sl. No. (1)	Particulars (2)	As per Revised Cost Estimates vetted by CEA on 31.05.2007 (3)	Actual Capital Expenditure as on COD (4) (25.01.2011)	Actual Capital expenditure from 25.01.2011 to 31.03.2011	Actual Capital expenditure from 01.04.2011 to 31.03.2012	Actual Capital expenditure from 01.04.2012 to 31.03.2013	Actual Capital expenditure from 31.03.2013 to 31.03.2014	Actual Capital expenditure upto 31.03.2014	Admitted Cost (8)
A	TRANSMISSION LINE								
1	Preliminary works								
1.1	Design & Engineering	23	3.36	1.15	0.00	0.00	0.00	4.50	
1.2	Preliminary Investigation, Right of way, forest clearance, PTCC, general civil works etc.	50	40.27	0.00	0.00	0.00	0.00	40.27	
1.3	Total Preliminary works	73.00	43.62462	1.14854	0	0	0	44.77316	0
2	Transmission Lines material								0
2.1	Towers Steel	6749	5508.79	192.03	102.15	0.00	0.00	5802.97	
2.2	Conductor								
2.3	Earth Wire								
2.4	Insulators								
2.5	Hardware Fittings								
2.6	Conductor & Earth wire accessories								
2.7	Spares including taxes & Duties								
2.8	Erection, Stringing & Civil works including foundation								
2.9	ERS								
2.10	OPGW								
2.11	Township/Office/Store for TL								
	Total Transmission Lines material	6749	5508.78874	192.034	102.146	0.000	0.000	5802.97	0.00
3	Taxes and Duties								
3.1	Custom Duty	0.00							0
3.2	Other Taxes & Duties	0							
	Total Taxes & Duties	0.00	0.00	0.000	0.000	0.00	0.00	0.00	0
	Total -Transmission lines	6822.00	5552.41	193.18	102.15	0.00	0.00	5847.74	0.00
B	SUBSTATIONS								
4	Preliminary works & land	924	310.86	0.17	82.99	24.35	0.00	418.37	
4.1	Design & Engineering								
4.2	Land	99	71.63	0.00	7.60	0.00	0.00	79.23	
4.3	Site preparation								
	Total Preliminary works & land	1023	382.48752	0.1672	90.58761	24.35075	0	497.59308	
5	Civil Works								
5.1	Control Room & Office Building including HVAC	5679	3798.03	118.65	49.57	33.28	44.28	4043.81	
5.2	Township & Colony								
5.3	Roads and Drainage								
5.4	Foundation for structures								
5.5	Misc. civil works								
	Total Civil Works	5679	3798.02888	118.65102	49.56929	33.27609	44.28216	4043.80744	
6	Substation Equipments								
6.1	Switchgear (C.T,PT, Circuit Breaker, Isolator etc)								
6.2	Transformers								
6.3	Compensating Equipment(Reactor, SVCs etc)								
6.4	Control , Relay & Protection Panel								
6.5	PLCC								
6.6	HVDC package								
6.7	Bus Bars/ conductors/Insulators								
6.8	Outdoor lighting								
6.9	Emergency D.G. Set								
6.11	Grounding System								
6.11	Structure for switchyard								
	Total Substation Equipments	0	0	0	0	0	0	0	0
7	Spares	0	0	0	0	0	0	0	0

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Sl. No. (1)	Particulars (2)	As per Revised Cost Estimates vetted by CEA on 31.05.2007 (3)	Actual Capital Expenditure as on COD (4) (25.01.2011)	Actual Capital expenditure from 25.01.2011 to 31.03.2011	Actual Capital expenditure from 01.04.2011 to 31.03.2012	Actual Capital expenditure from 01.04.2012 to 31.03.2013	Actual Capital expenditure from 31.03.2013 to 31.03.2014	Actual Capital expenditure upto 31.03.2014	Admitted Cost (8)
A	TRANSMISSION LINE								
8	Taxes and Duties								
8.1	Custom Duty								
8.2	Other Taxes & Duties								
8.3	Total Taxes & Duties	0	0	0	0	0	0	0	
	Total (Sub-station)	6702	4180.5164	118.81822	140.1569	57.62684	44.28216	4541.40052	
C	Communication System								
9.1	Preliminary Works								
9.2	Communication System equipments								
9.3	Taxes and Duties								
	Total (Communication System)	0	0	0	0	0	0	0	
10	Construction and pre-commissioning expenses								
10.1	Site supervision & site administration etc.	952.00	84.14	3.22	18.60	0.00	0.00	105.96	
10.2	Tools and Plants	112.00	85.99	11.28	0.00	0.19	0.00	97.46	
10.3	Other assets	112.00	35.13	0.00	3.22	0.00	0.00	38.35	
	Total Construction and pre commissioning expenses	1176.00	205.26	14.50	21.82	0.19	0.00	261.77	0
11	Overheads								0
11.1	Establishment								0
11.2	Audit & Accounts								0
11.3	Contingency	336	9.22	0.96	3.58	19.69	0.47	33.9341	
	Total Overheads	336	9.22182	0.96208	3.5841	19.692	0.47406	33.93406	0
12	Cost of Plant & Machinery	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
13	Capital Cost including Plant & Machinery								0
13.1	Interest During Construction (IDC)								
13.2	Financing Charges (FC)								
13.3	Foreign Exchange Rate Variation (FERV)								
13.4	Hedging Cost								
13.5	Losses on stock								
13.6	Margin Money for working capital								
13.7	Project Management Consultancy Includ Service Tax		1727.18				0	1727.18	
	Total of IDC, FC, FERV & Hedging Cost	1512.00	1941.66	15.46	25.40	19.89	0.47	2002.88	0
14	Capital cost including IDC, FC, FERV & Hedging Cost	15036.00	11674.59	327.46	267.70	77.51	44.76	12392.03	0.00

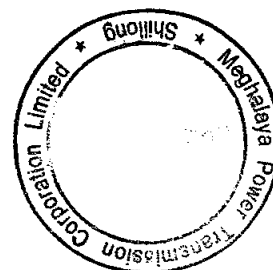
12392.03

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the
2. Separate details of free hold/lease hold land should be submitted.
3. The Revised cost Estimate vetted by CEA is inclusive of PMC charges.

(Petitioner)

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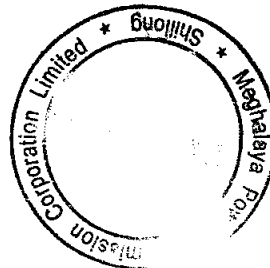
Break-up of Construction/Supply/Service packages

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 KV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 KV D/C Missa-Killing (Asset-IV)

S.No.	Name/No. of Construction/ supply/s service package	Scope of works (in line with head of cost break-ups	Whether awarded through ICB/DCS/D ependent ly/Deposit Work etc	No. of bids received	Date of Award	Date of Start of work	Date of Completion of work	Value of Award 2 in (Rs. Cr.)	Firm or With Escalation in prices	Actual expenditure till the completion or up to CDD whichever is earlier (Rs. Cr.)	Taxes & Duties and IEDC	In INR lacs			
												IDC, FC, FERY & Hedging cost	Sub- Total		
1	Power Grid Corporation of India Limited (Package A.1)	Supply & Erection (Tower Parts)	Deposite Work	1	2005	2007 -		12855.16	With Escalation			As per Form 5			
2															
3															
4															
5															

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DETAILS OF ELEMENTWISE COST OF THE PROJECT

Name of the Transmission Lic Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 kV D/C Missa-Killing Transmission Line

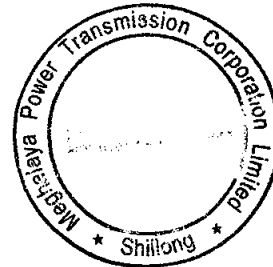
Transmission Line 220 kV D/C Missa-Killing (Asset-IV)

S.NO.	Name of line	Apportioned approved Cost	Cost as on DOCO on 25.01.2011	Cost as on 31.03.2014	Estimated completed cost as on 31.03.2014	Covered in the present petition	
		(Rs. Lakhs)	(Rs. Lakhs)		(Rs. Lakhs)	Yes/No	If No, petition No.
1	220 kV D/C Missa-Killing	15036.00	11674.59	12392.03	12392.03	YES	

Substations

S.NO.	Name of Substations	Apportioned approved Cost	Completed Cost			Covered in the present petition	
		(Rs. Lacs)	(Rs. Lacs)			Yes/No	If No, petition No.
1	NA						
2							
3							
4							
5							

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PART III
Form 6

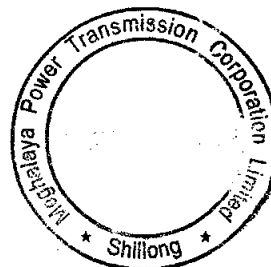
Financial Package upto COD

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 kV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)
 Project Cost as on COD:
 Date of Commercial Operation of the Transmission element: 25-01-2011

(Amount in Lakhs)

1	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount		Currency and Amount		Currency and Amount	
2	3	4	5	6	7	
Loan-I	INR	1902.76	INR	722.19	INR	0.00
Loan-II						
Loan-III						
and so on						
Total Loans	INR	1902.76	INR	722.19	INR	0.00
Equity						
Foreign						
Domestic Grant	INR	10952.40	INR	10952.40	INR	
Total Equity/Grant	INR	10952.40	INR	10952.4	INR	0.00
Debt : Equity Ratio		100%		100%		100%
Total Cost	INR	12855.16	INR	11674.59	INR	
	Debt	Equity	Total			
Add cap for Year 2010-11	327.46	0	327.46			
Add cap for Year 2011-12	267.70	0	267.70			
Add cap for Year 2012-13	77.51	0	77.51			
Add cap for Year 2013-14	44.76	0	44.76			
Add cap for year-1	Actual	Normative				
Debt	327.46					
Equity	0.00					
Total	327.46					
Add cap for year-2	Actual	Normative				
Debt	267.70					
Equity	0.00					
Total	267.70					
Add cap for year-3	Actual	Normative				
Debt	77.51					
Equity	0.00					
Total	77.51					
Add cap for year-4	Actual	Normative				
Debt	44.76					
Equity	0.00					
Total	44.76					

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PART-III FORM-7

Details of Project Specific Loans

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

		In Rs lakhs.			
Particulars	Package1				
1	2				
Source of Loan ¹	Domestic (State Govt.)				
Currency ²	INR				
Amount of Loan sanctioned	1902.76				
Amount of Gross Loan drawn upto 25.01.2011	722.19				
Interest Type ⁶	Fixed				
Fixed Interest Rate, if applicable					
Base Rate, if Floating Interest ⁷					
Margin, if Floating Interest ⁸					
Are there any Caps/Floor ⁹	No				
If above is yes, specify caps/floor					
Moratorium Period ¹⁰	Nil				
Moratorium effective from					
Repayment Period ¹¹					
Repayment effective from					
Repayment Frequency ¹²	Annual				
Repayment Instalment ^{13,14}					
Base Exchange Rate ¹⁶	NA				
Are foreign currency loan hedged?	No				
If above is yes, specify details ¹⁷					
Share of loan of Missa-Killing 220 D/C (Asset-IV)					

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.

3. Details are to be submitted as on 31.03.2009 for existing assets and as on COD for the remaining assets.

4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

5. If the Tariff in the petition is claimed separately for various transmission elements, details in the Form is to be given separately for all the elements in the same form.

6. Interest type means whether the interest is fixed or floating.

7. Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

8. Margin means the points over and above the floating rate.

9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

10. Meratorium period refers to the period during which loan servicing liability is not required.

11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately

14. If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished separately.

15. In case of Foreign loan, date of each drawal & repayment alongwith exchange rate at that date may be given.

16. Base exchange rate means the exchange rate prevailing as on 31.03.2009 for existing assets and as on COD for the remaining assets.

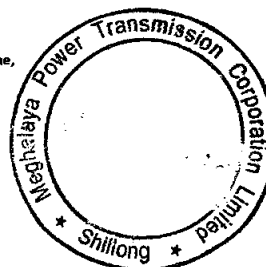
17. In case of hedging, specify details like type of hedging, period of hedging, cost of heging, etc.

18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately

19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

Petitioner

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Part-III
Form-8

Details of Allocation of corporate loans to transmission element - Misa -Killing 220 D/C (Asset-IV)

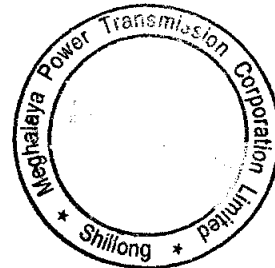
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 kV D/C Misa-Killing Transmission Line
 Name of the Transmission Element : 220 kV D/C Misa-Killing (Asset-IV)

Rs. in lakhs

Particulars	Package 1					Remarks
1	2	3	4	5	6	7
Source of Loan ¹	State Govt					
Currency ²	INR					
Amount of Loan sanctioned	1902.76					
Amount of Gross Loan drawn upto 31.03.2014	722.19					
Interest Type ³	Fixed rate					
Fixed Interest Rate, if applicable	0.00%					
Base Rate, if Floating Interest ⁴	NA					
Margin, if Floating Interest ⁵	NA					
Are there any Caps/Floor ⁶						
If above is yes, specify caps/floor	No					
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²	Annual					
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁵	NA					
Are foreign currency loan hedged?	NA					
If above is yes, specify details ¹⁷	NA					
Distribution of loan packages to various transmission elements						
Name of the Transmission elements						
Asset- IV(Misa-Killing 220 kV D/C)	1902.76					
Total	1902.76					

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2009 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission elements, details in the Form is to be given separately for all the transmission elements in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of draw may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment and its allocation may also be given separately.
14. If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment alongwith exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2009 for existing assets and as on COD for the remaining assets.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

Petitioner



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Statement of Additional Capitalisation after COD

Name of the Transmission Licensee Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element 220 kV D/C Missa-Killing (Asset-IV)
COD 25-01-2011

Rs. In lakhs

Sl.No.	Year	Work/Equipment proposed to be added after 25.01.2011	Amount capitalised and Proposed to be capitalised	Justification as per propose	Regulation under which covered	Admitted Cost ¹
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Expenditure up to DOCO on 25.01.2011	Capital Cost	722.19			
2	Expenditure from 25.01.2011 to 31.03.2011	Capital Cost	327.46			
3	Expenditure for the period 01.04.2011 to 31.03.2012	Capital Cost	267.70			
4	Expenditure for the period 01.04.2012 to 31.03.2013	Capital Cost	77.51			
5	Expenditure for the period 01.04.2013 to 31.03.2014	Capital Cost	44.76			
	Total		1439.62			

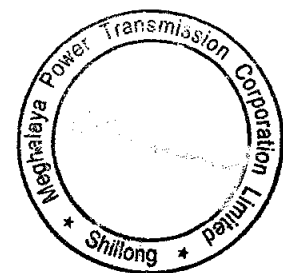
1 In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 giving the cost as admitted for

Note:

1 Fill the form in chronological order year wise along with detailed justification clearly bring out the necessity and the benefits accruing to the beneficiaries.

2 In case initial spares are purchased alongwith any equipment, then the cost of such spares should be indicated separately.

Petitioner



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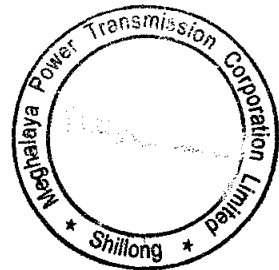
PART-III
FORM-9A

Statement of Capital cost

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of the Region: North Eastern
 Name of the Project : 220 KV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 KV D/C Missa-Killing (Asset-IV)

		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
		In Rs lakhs					
A	a) Opening Gross Block Amount as per books	0.00	0.00	722.19	1049.65	1317.35	1394.87
	b) Amount of capital liabilities in A(a) above	0.00	0.00	0.00	0.00	0.00000	0.00000
	c) Amount of IDC, FC, FERV & Hedging cost included in A(a) above	0.00	0.00	0.00	0.00	0.00	0.00
	d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) a	0.00	0.00	0.00	0.00	0.00	0.00
B	a) Addition in Gross Block Amount during the period			327.46	267.70	77.51	44.76
	b) Amount of capital liabilities in B(a) above	0.00	0.00	0.00	0		
	c) Amount of IDC, FC, FERV & Hedging cost included in B(a) above	0.00	0.00	0.00	0.00	0.00	0
	d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) a	0.00	0.00	0.00	0.00	0.00	0
C	a) Closing Gross Block Amount as per books	0.00	0.00	1049.65	1317.35	1394.87	1439.62
	b) Amount of capital liabilities in C(a) above	0.00	0.00	0.00	0		
	c) Amount of IDC, FC, FERV & Hedging cost included in C(a) above	0.00	0.00	0.00	0.00	0.00	0.00
	d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) a	0.00	0.00	0.00	0.00	0.00	0.00

1 Relevant date/s means date of COD of unit/s, station and financial year start date and end date: Rs 722.19 Lakhs as on DOCO



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Financing of Additional Capitalisation

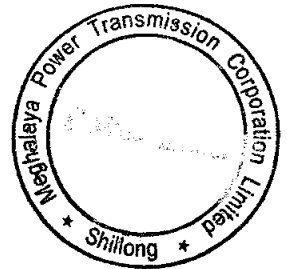
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 KV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 KV D/C Missa-Killing (Asset-IV)

Financial Year (Starting from COD)	Projected/Actual					Admitted				
	Year 1	Year 2	Year 3	Year 4	Year 5 & So on	Year 1	Year 2	Year 3	Year 4	Year 5 & So on
1										
2		3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan ²										
Equity										
Internal Resources										
Others										
Total										

NA

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¹ Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.
² Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.



PETITIONER

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Calculation of Depreciation Rate

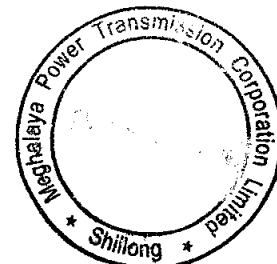
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region : North Eastern
 Name of the Project : 220 kV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

Amount in Lakhs

Sl. no.	Name of the Assets ¹	Gross Block as on on COD i.e. 25.01.2011,	Add cap during the year 2010-11	Gross Block as on 31.03.2011	Avg gross Block as on 31.3.2011	Depreciation Rates as per CERC's Dep. Rate Schedule	Depreciation Amount (on Add Cap)	Depreciation Amount on Opening Balance
1	2	3	4	5	6	7= Col.3 X Col.6		
1	Land	0.00	0	0.00	0	0.00%	0.00	0.00
2	Building	178.99	7.04	186.03	182.51	3.34%	0.04	5.98
3	Furniture & Fixture	0	0.00	0.00	0	6.33%	0.00	0.00
4	office Equipment	0	0.00	0.00	0	6.33%	0.00	0.00
5	Computer & software	0	0.00	0.00	0	30.00%	0.00	0.00
6	Transmission Line	543.20	320.42	863.62	703.41	5.28%	3.06	28.68
	TOTAL	722.19	327.46	1049.65	885.92		3.10	34.66
	Net of Land cost	722.19	327.46	1049.65	885.92			
	Weighted Average Rate of Depreciation (%)						4.26%	
Sl. no.	Name of the Assets ¹	Gross Block as on 01.04.2011	Add cap during the year 2011-12	Gross Block as on 31.03.2012	Avg gross Block as on 31.3.2012	Depreciation Rates as per CERC's Dep. Rate Schedule	Depreciation Amount	Depreciation Amount on Opening Balance
1	2	3	4	5	6	7= Col.3 X Col.6		
1	Land	0.00	0	0.00	0	0.00%	0.00	0.00
2	Building	186.03	30.75	216.78	201.405	3.34%	1.03	6.21
3	Furniture & Fixture	0.00	0.00	0.00	0	6.33%	0.00	0.00
4	office Equipment	0.00	0.00	0.00	0	6.33%	0.00	0.00
5	Computer & software	0.00	0.00	0.00	0	30.00%	0.00	0.00
6	Transmission Line	863.62	236.96	1100.58	982.10	5.28%	12.51	45.60
	TOTAL	1049.65	267.71	1317.36	1183.51		13.54	51.81
	Net of Land cost	1049.65	267.71	1317.36	1183.51			
	Weighted Average Rate of Depreciation (%)						5.52%	
Sl. no.	Name of the Assets ¹	Gross Block as on 01.04.2012	Add cap during the year 2012-13	Gross Block as on 31.03.2013	Avg gross Block as on 31.3.2013	Depreciation Rates as per CERC's Dep. Rate Schedule	Depreciation Amount	Depreciation Amount on Opening Balance
1	2	3	4	5	6	7= Col.3 X Col.6		
1	Land	0.00	0.00	0.00	0	0.00%	0.00	0.00
2	Building	216.78	31.36	248.14	232.46	3.34%	1.05	7.24
3	Furniture & Fixture	0.00	0.00	0.00	0	6.33%	0.00	0.00
4	office Equipment	0.00	0.00	0.00	0	6.33%	0.00	0.00
5	Computer & software	0.00	0.00	0.00	0	30.00%	0.00	0.00
6	Transmission Line	1100.58	46.15	1146.73	1123.66	5.28%	2.44	58.11
	TOTAL	1317.36	77.51	1394.87	1356.12		3.48	65.35
	Net of Land cost	1317.36	77.51	1394.87	1356.12			
	Weighted Average Rate of Depreciation (%)						5.08%	
Sl. no.	Name of the Assets ¹	Gross Block as on 01.04.2013	Add cap during the year 2013-14	Gross Block as on 31.03.2014	Avg gross Block as on 31.3.2014	Depreciation Rates as per CERC's Dep. Rate Schedule	Depreciation Amount	Depreciation Amount on Opening Balance
1	2	3	4	5	6	7= Col.2 X Col.6		
1	Land	0.00	0	0.00	0	0.00%	0.00	0.00
2	Building	248.14	44.28	292.42	270.28	3.34%	1.48	8.29
3	Furniture & Fixture	0.00	0.00	0.00	0.00	6.33%	0.00	0.00
4	office Equipment	0.00	0.00	0.00	0.00	6.33%	0.00	0.00
5	Computer & software	0.00	0.00	0.00	0.00	30.00%	0.00	0.00
6	Transmission Line	1146.73	0.47	1147.20	1146.97	5.28%	0.02	60.55
	TOTAL	1394.87	44.75	1439.62	1417.25		1.50	68.84
	Net of Land cost	1394.87	44.75	1439.62	1417.25			
	Weighted Average Rate of Depreciation (%)						4.96%	

Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

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Statement of Depreciation

Name of the Transmission Licensee :

Meghalaya Power Transmission Company Limited
North Eastern

Name of Region:

Name of the Project :

220 kV D/C Missa-Killing Transmission Line

Name of the Transmission Element :

220 kV D/C Missa-Killing (Asset-IV)

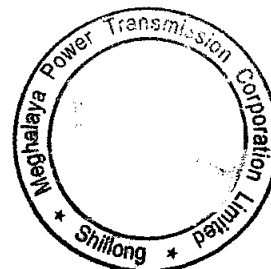
Rs. in lakhs

Financial Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation on Capital Cost			34.66	51.81	65.35	68.84
Depreciation on Additional Capitalisation						
Amount of Additional Capitalisation after DOCO			3.10	13.54	3.48	1.50
Depreciation Amount			37.76	65.35	68.84	70.34
Detail of FERV						
Amount of FERV on which depreciation charged					0	
Depreciation Amount					0	
Depreciation recovered during the Year						
Advance against Depreciation recovered during the Year						
Depreciation & Advance against Depreciation recovered during the year						
Cumulative Depreciation & Advance against Depreciation recovered upto the year			37.76	103.11	171.95	242.29

¹ If the tariff for the period 2004-09 was not ordered by the Commission, Depreciation recovered in Tariff upto 2004-09 to be furnished with yearwise details in the same form separately with supporting details..

² In case of details of FERV and AAD, give information for the applicable period.

PETITIONER



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Calculation of Weighted Average Rate of Interest on Actual Loans¹

Part- III
Form 13

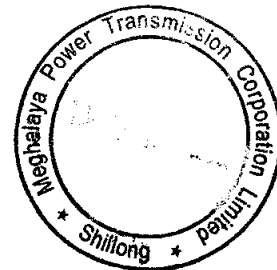
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 kV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

In Rs. Lacs

Sl. No.	Particulars	Existing 2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3	4	5	6	7	8
	Loan-1						
	Gross loan - Opening			1275.60	1676.37	1676.37	1676.37
	Cumulative repayments of Loans upto previous year			0.00	0.00	0.00	0.00
	Net loan - Opening			1275.60	1676.37	1676.37	1676.37
	Add: Drawal(s) during the Year			400.77	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year			0.00	0.00	0.00	0.00
	Net loan - Closing			1676.37	1676.37	1676.37	1676.37
	Average Net Loan			1475.99	1676.37	1676.37	1676.37
	Rate of interest on Loan on annual basis			8.84%	8.71%	8.69%	8.69%
	Interest on loan			130.53	146.08	145.68	145.68
	Loan repayment effective from (date to be indicated)						
	Total Loan						
	Gross loan - Opening						
	Cumulative repayments of Loans upto previous year						
	Net loan - Opening						
	Add: Drawal(s) during the Year						
	Less: Repayment (s) of Loans during the year						
	Net loan - Closing						
	Average Net Loan						
	Interest on loan						

¹ In case of Foreign Loans, the calculations in Indian Rupees is to be furnished. However, the calculations in Original currency is also to be furnished separately in the same form.

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Calculation of Interest on Normative Loan

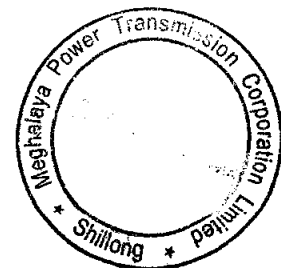
Part-III
Form 13A

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

Particulars	Existing 2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3	4	5	6	7
Gross Normative loan - Opening			722.19	1049.65	1317.35	1394.87
Cumulative repayment of Normative Loan upto previous year			0.00	37.76	103.11	171.95
Net Normative loan - Opening			722.19	1011.89	1214.24	1222.92
Increase/Decrease due to ACE during the Year			327.46	267.70	77.51	44.76
Repayments of Normative Loan during the year			37.76	65.35	68.84	70.34
Net Normative loan - Closing			1011.89	1214.24	1222.92	1197.34
Average Normative Loan			867.04	1113.06	1218.58	1210.13
Weighted average Rate of Interest on actual Loans			8.84%	8.71%	8.69%	8.69%
Interest on Normative loan			13.86	96.99	105.90	105.16

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Calculation of Interest on Working Capital

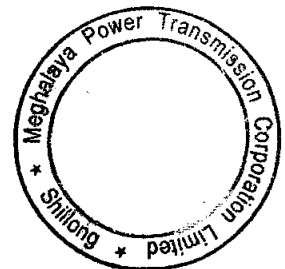
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

In Rs Lakhs

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3	4	5	6	7	8
1	O & M expenses			6.91	40.43	42.73	45.18
2	Maintenance Spares			12.44	72.77	76.92	81.32
3	Receivables			22.61	113.29	120.29	125.81
4	Total Working Capital			41.97	226.49	239.94	252.30
5	Rate of Interest			14.25%	14.25%	14.25%	14.75%
6	Interest on Working Capital			1.08	32.28	34.19	37.21

Note: Rate of Interest P.A. @ 14.50% and for 7 months taken proportionately.

PETITIONER



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Draw Down Schedule for Calculation of IDC & Financing Charges

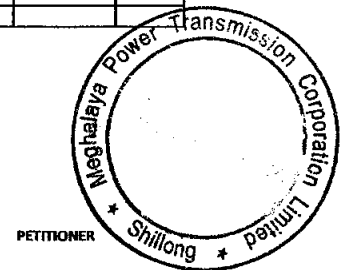
Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
 Name of Region: North Eastern
 Name of the Project : 220 kV D/C Missa-Killing Transmission Line
 Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

Draw Down Schedule for Calculation of IDC & Financing Charges

Sl. No.	Draw Down Particulars	Quarter 1			Quarter 2			Quarter n (COD)		
		Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan 1									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.2	Indian Loans									
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15	
1.2.1	Indian Loan 1									
	Draw down Amount									
	IDC									
	Financing charges									
1.2	Total Indian Loans									
	Draw down Amount									
	IDC									
	Financing charges									
1	Total of Loans drawn									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn									
	Total equity deployed									

NA

- Note:
1. Drawal of debt and equity shall be on paripassu basis quarter wise to meet the commissioning schedule. Drawal of higher equity in the beginning is permissible.
 2. Applicable interest rates including reset dates used for above computation may be furnished separately
 3. In case of multi unit project details of capitalization ratio used to be furnished.



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Part III
Form 14A

Name of the Transmission Licensee : Meghalaya Power Transmission Company Limited
Name of Region: North Eastern
Name of the Project : 220 kV D/C Missa-Killing Transmission Line
Name of the Transmission Element : 220 kV D/C Missa-Killing (Asset-IV)

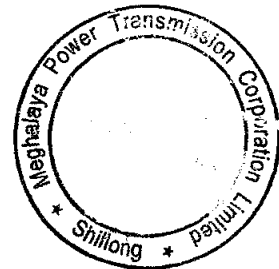
Actual cash expenditure

	Quarter-I	Quarter-II	Quarter-III	Quarter-n (COD)
Payment to contractors/suppliers				
% of fund deployment	As Per Annexure A			

Note: If there is variation between payment and fund deployment justification need to be furnished

NOTE :

PETITIONER



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Part III Form-1
Summary Sheet

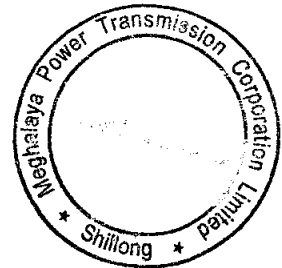
Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

S.No.	Particulars	Form No.	(Amount in Rs. Lakhs)				
			2014-15	2015-16	2016-17	2017-18	2018-19
1	2		4	5	6	7	8
1.1	Depreciation	10A	76.51	78.09	79.27	81.26	83.30
1.2	Interest on Loan	9E	101.55	104.04	92.79	89.09	85.37
1.3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
1.4	Interest on Working Capital	11	31.65	32.65	33.37	34.30	35.28
1.5	O & M Expenses*		498.68	515.21	532.41	549.93	568.34
	Total		708.38	729.99	737.84	754.58	772.29

Note

*:O&M charges as per CERC Tariff Regulations dated 21 Feb, 2014

(Petitioner)



Part III Form-2
Details of Transmission Lines and Substations and Communication Systems

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

S. No.	Name of line	Type of line AC/HV DC	S/C or D/C	No. of Sub-Conductors	Voltage level kV	Line length Ckt.- km.	Line length km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1	220 kV D/C Missa-Killing (Asset-IV)	AC	D/C	2	220	226.84	113.42	25.01.2011	Yes	
2										
3										
4										
-										
-										

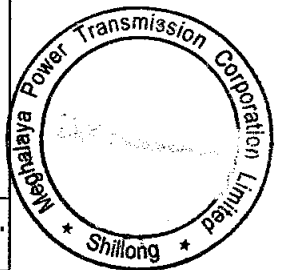
Substations:

S.NO.	Name of Sub-station	Type of Substation Conventional/ Greenfield/ Brownfield	Voltage level kV	No. of transformers / Reactors/SVC etc. (with capacity)	No. of Bays			Covered in the present petition	
					765 kV	400 kV	220 kV	Date of Commercial operation	Yes/No
1					0	11			
2									
3									
4									
-									

Communication System:

S. No.	Name of Communication System	Type of Communication System - SCADA/ WAMS/Fibre Optic System/RTU/PABX etc	Technical Particulars	Number/ length	Covered in the present		
					Date of Commercial operation	Yes/No	If No, petition No.
1							
2							
-							

NA



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(Petitioner)

Part III Form-3

Normative parameters considered for tariff computations

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

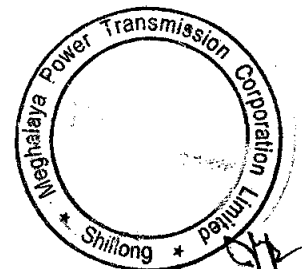
Year Ending March

Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	20.96%	20.96%	21.34%	21.34%	21.34%	21.55%
Effective tax rate ¹	%	19.61%	19.61%	19.71%	19.71%	19.71%	19.76%
Target Availability	%	98.00%	98.50%	98.50%	98.50%	98.50%	98.50%
Normative O&M per km	Rs. Lakh	0.336	0.303	0.313	0.324	0.334	0.346
Normative O&M per bay- 220kv	Rs. Lakh	45.82	42.21	43.61	45.06	46.55	48.1
Normative O&M per bay- 400kv	Rs. Lakh	65.46	60.3	62.3	64.37	66.51	68.71
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Months for WC	Months	2	2	2	2	2	2
Bank Rate as on 01.04.2014 ²	%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

1. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

2. Mention relevant date

(Petitioner)



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Part III Form-4

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs.lakhs)

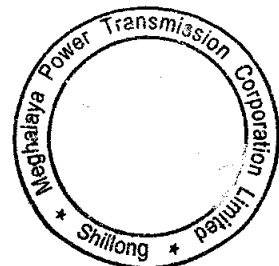
	Asset 1	
Name of the Assets	MePTCL	Total Gross Block as on 31.03.2014
DOCO	25.01.2011	
Petition Number		
Tariff order date		
Particulars	Capital Expenditure admitted as on 31.03.2014	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)	0.00	0.00
Freehold Land		
Leasehold Land		
Building & Other Civil Works		
Transmission Line	1439.62	1439.62
Sub-Station Equipments		
PLCC		
Total	1439.62	1439.62
Notional Loan		
Notional Equity		
Total	1439.62	1439.62
Debt-Equity Ratio	100%-0%	100%-0%
Debt	1439.62	1439.62
Equity	0.00	0.00
Total		
Cumulative amount of Depreciation	0	0
Cumulative Repayment of Loan	0	0
Initial Spares*		

1 * Initial spares claimed for existing whose cut off date falls in current tariff period.

Details of remaining assets of the project yet to be commissioned needs to be included in Form - 5B

(Petitioner)

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Part III Form-4A

Statement of Capital Cost (To be given for relevant dates and year wise)

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

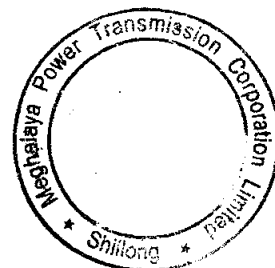
Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

	2014-15	2015-16	2016-17	2017-18	2018-19
A a) Opening Gross Block Amount as per books	1439.62	1458.54	1499.28	1503.33	1574.75
b) Amount of capital liabilities in A(a) above	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00	0.00	0.00
B a) Addition in Gross Block Amount during the period	18.92	40.74	4.06	71.42	5.81
b) Amount of capital liabilities in B(a) above	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00	0.00	0.00
C a) Closing Gross Block Amount as per books	1458.54	1499.28	1503.33	1574.75	1580.56
b) Amount of capital liabilities in C(a) above	0.00	0.00	0.00	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00	0.00	0.00

Note:

1.Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date

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(Petitioner)

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Part III Form-4C

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: 220 KV D/C Missa-Killing (Asset-IV)

New Projects LILD of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

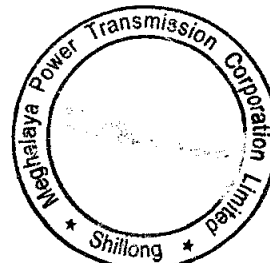
Capital Cost Estimates (In lacs)	15036.0	
Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:	31-05-2007	
	Present Day Cost	Completed Cost
Price level of approved estimates	As of End of Of the year 2019	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC& FC		
Foreign Component, If any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)	12532.97	
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Cr)	12532.97	
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, If any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)	0.00	
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)	0.00	
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, If any (In Million US \$ or the relevant Currency)	0.00	
Domestic Component (Rs Lakh)	12532.97	
Capital cost Including IDC, IEDC& FC (Rs Lakh)	12532.97	
Schedule of Commissioning		
COD of transmission system 1 /transmission element 1/Communication System 1	25.01.2011	

Note:

1. Copy of approval letter by the Board duly certified by the Company secretary should be enclosed
2. Details of Capital Cost are to be furnished as per FORM-5 or 5A as applicable
3. Details of IDC & Financing Charges are to be furnished as per FORM-12(b).

(Petitioner)

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Part-III Form-S

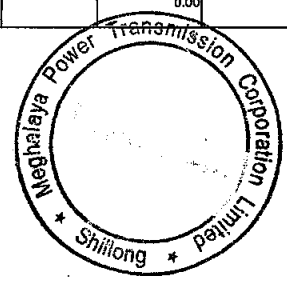
Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: 220 KV D/C Misa-Killing (Asset-IV)

(Amount in Rs.Lakhs)

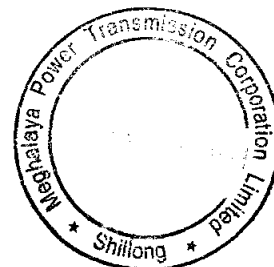
Sl. No. (1)	Particulars (2)	As per Revised Cost Estimates vetted by CEA on 31.05.2007	Actual Capital Expenditure as on							Liabilities/ Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Total Cost till 31-Mar-2019 (8)
			Actual Capital expenditure up to DOCO i.e. 25.01.2011 (as per Audited)	Actual Capital expenditure from 25.01.2011 to 31.03.2014	Actual Capital expenditure from 01.04.2014 to 31.03.2015	Actual Capital expenditure from 01.04.2015 to 31.03.2016	Actual Capital expenditure from 01.04.2016 to 31.03.2017	Actual Capital expenditure from 01.04.2017 to 31.03.2018	Actual Capital expenditure from 01.04.2018 to 31.03.2019				
A	TRANSMISSION LINE												
1.0	Preliminary works	23.00	3.36	1.15	0.00	0.00	0.00	0.00	0.00		-18.50	4.50	
1.1	Design & Engineering										0.00	0.80	
1.2	Preliminary Investigation, Right of way, forest clearance, PTCC, general civil works etc.	50.00	40.27	0.00	0.00	0.00	0.00	0.00	0.00		-9.73	40.27	
1.3	Total Preliminary works	73.00	43.62	1.15	0.00	0.00	0.00	0.00	0.00	0.00	-26.23	44.77	
2.0	Transmission Lines material												
2.1	Towers Steel												
2.2	Conductor												
2.3	Earth Wire												
2.4	Insulators												
2.5	Hardware Fittings												
2.6	Conductor & Earth wire accessories												
2.7	Spare	6749.00	5508.79	294.18	18.92	0.00	0.00	0.00	5.81	0.00	-921.30	5827.70	
2.8	Erection, Stringing & Civil works including foundation												
2.9	ERS/												
2.10	OPGW												
2.11	Township/Office/Store for TL												
	Total Transmission Lines material	6749.00	5508.79	294.18	18.92	8.00	0.00	0.00	5.81	0.00	-921.30	5827.70	
3.0	Taxes and Duties										0.00	0	
3.1	Custom Duty									0.00	0.00	0	
3.2	Other Taxes & Duties									0.00	0.00	0	
	Total Taxes & Duties									0.00	0.00	0	
	Total - Transmission lines	6822.00	5552.41	295.33	18.92	8.00	0.00	0.00	5.81	0.00	-949.53	5872.47012	
B.	SUBSTATIONS										0.00	0	
4.0	Preliminary works & land	924.00	310.86	107.51	0.00	0.00	0.00	0.00	0.00		-505.63	418.37	
4.1	Design & Engineering												
4.2	Land	99.00	71.63	7.60	0.00	0.00	0.00	0.00	0.00		-19.77	79.22602	
4.3	Site preparation												
	Total Preliminary works & land	1023.00	382.49	115.11	0.00	0.00	0.00	0.00	0.00		-525.41	497.59308	
5.0	Civil Works												
5.1	Control Room & Office Building including HVAC												
5.2	Township & Colony	5679.00	3798.03	245.78	0.00	40.74	4.06	10.56	0.00		-1579.84	4099.16	
5.3	Roads and Drainage												
5.4	Foundation for structures												
5.5	Misc. civil works												
	Total Civil Works	5679.00	3798.03	245.78	0.00	40.74	4.06	10.56	0.00		-1579.84	4099.16388	
6.0	Substation Equipments										0.00	0	
6.1	Switchgear (CT,PT, Circuit Breaker, Isolator etc)										0.00	0	

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Sl. No. (1)	Particulars (2)	Actual Capital Expenditure as on								Liabilities/ Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Total Cost till 31-Mar-2019 (8)
		As per Revised Cost Estimates vetted by CEA on 31.05.2007	Actual Capital expenditure up to DOCO i.e. 25.01.2011 (as per Audited)	Actual Capital expenditure from 25.01.2011 to 31.03.2014	Actual Capital expenditure from 01.04.2014 to 31.03.2015	Actual Capital expenditure from 01.04.2015 to 31.03.2016	Actual Capital expenditure from 01.04.2016 to 31.03.2017	Actual Capital expenditure from 01.04.2017 to 31.03.2018	Actual Capital expenditure from 01.04.2018 to 31.03.2019				
6.2	Transformers										0.00		0
6.3	Compensating Equipment(Reactor, SVCs etc)										0.00		0
6.4	Control , Relay & Protection Panel										0.00		0
6.5	PLCC										0.00		0
6.6	HVDC package										0.00		0
6.7	Bus Bars/ conductors/insulators										0.00		0
6.8	Outdoor lighting										0.00		0
6.9	Emergency D.G. Set										0.00		0
6.10	Grounding System										0.00		0
6.11	Structure for switchyard										0.00		0
	Total Substation Equipments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	683.42	-683.42		0
7.00	Spares	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0
8.0	Taxes and Duties										0.00		0
8.1	Custom Duty										0.00		0
8.2	Other Taxes & Duties										0.00		0
8.3	Total Taxes & Duties	0.00	0	0	0	0	0	0	0		0.00		0
	Total (Sub-station)	6702.00	4180.52	360.88	0.00	40.74	4.06	10.56	0.00		-2105.24		4596.75696
													0
C	Communication System												0
9.1	Preliminary Works										0.00		0
9.2	Communication System equipment's										0.00		0
9.3	Taxes and Duties										0.00		0
	Total (Communication System)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0
10.0	Construction and pre-commissioning expenses										0.00		0
10.1	Site supervision & site administration etc.	952.00	84.14	21.82	0.00	0.00	0.00	0.00	0.00	0.00	-846.04		105.95772
10.2	Tools and Plants	112.00	85.99	11.47	0.00	0.00	0.00	0.00	0.00	0.00	-14.54		97.46352
10.3	Other Assets	112.00	35.13	3.22	0.00	0.00	0.00	0.00	0.00	0.00	-73.65		38.34898
	Total Construction and pre commissioning expenses	1176.00	205.26	36.51	0.00	0.00	0.00	0.00	0.00	0.00	-934.23		241.77022
											0.00		0
11.0	Overheads										0.00		0
11.1	Establishment										0.00		0
11.2	Audit & Accounts										0.00		0
11.3	Contingency	336.00	9.22	24.71	0.00	0.00	0.00	60.86	0.00	0.00	-241.21		94.79381
	Total Overheads	336.00	9.22	24.71	0.00	0.00	0.00	60.86	0.00	0.00	-241.21		94.79381
											0.00		0
12.0	Cost of Plant & Machinery									0.00	0.00		0
											0.00		0
13.0	Capital Cost Including Plant & Machinery										0.00		0
											0.00		0
13.1	Interest During Construction (IDC)									0.00	0.00		0
13.2	Financing Charges (FC)									0.00	0.00		0
13.3	Foreign Exchange Rate Variation (FERV)									0.00	0.00		0
13.4	Hedging Cost									0.00	0.00		0
13.5	Losses on Stock									0.00	0.00		0
13.6	Margin Money for Working Capital									0.00	0.00		0
13.7	Project management consultancy		1727.18							0.00	1727.18		1727.18
	Total of IDC, FC, FERV & Hedging Cost	1512.00	1941.66	61.22	0.00	0.00	0.00	60.86	0.00	0.00	551.74		2663.74

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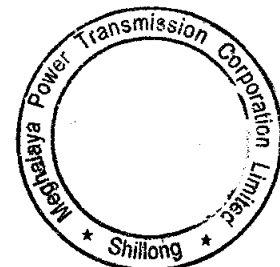


Sl. No. (1)	Particulars (2)	Actual Capital Expenditure as on								Liabilities/Provisions (5)	Variation (6-3-4-5)	Reasons for Variation (7)	Total Cost Bill 31-Mar-2019 (8)
		As per Revised Cost Estimates vetted by CEA on 31.05.2007	Actual Capital expenditure up to DOCO i.e. 25.01.2011 (as per Audited)	Actual Capital expenditure from 25.01.2011 to 31.03.2014	Actual Capital expenditure from 01.04.2014 to 31.03.2015	Actual Capital expenditure from 01.04.2015 to 31.03.2016	Actual Capital expenditure from 01.04.2016 to 31.03.2017	Actual Capital expenditure from 01.04.2017 to 31.03.2018	Actual Capital expenditure from 01.04.2018 to 31.03.2019				
14.0	Capital cost including IDC, FC, FERV & Hedging Cost	15036.00	11674.59	717.43	18.92	40.74	4.06	71.42	5.81	0.00	-2503.03		12532.97

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the transmission licensee.
2. Separate details of free hold/lease hold land should be submitted.
3. The Revised cost Estimate vetted by CEA is inclusive of PMC charges.

[Petitioner]



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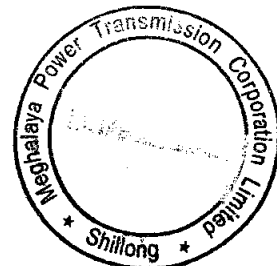
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Part-III Form-6
Financial Package upto COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

1	Financial Package as Approved		Financial Package as on 31-Mar-2014		As Admitted on 31.03.2014	
	2	3	4	5	6	7
	Currency and Amount		Currency and Amount		Currency and	
Loan-I	INR	1909.29	INR	1439.62		
Loan-II						
Loan-III						
and so on						
Total Loans					INR	1439.62
Grant	INR	10952.4	INR	10952.4		
Foreign						
Domestic						
Total Equity				0	INR	0
Debt : Equity Ratio						
Total Cost				12392.02	INR	1439.62
	Debt	Equity/Grant	Total			
Add cap for Year 2014-15			18.92			
Add cap for Year 2015-16			40.74			
Add cap for Year 2016-17	0	0	4.06			
Add cap for Year 2017-18			71.42			
Add cap for Year 2018-19			5.81			
Add cap for Year 2014-15	Actual	Normative				
Debt		18.92				
Equity		0.00				
Total		18.92				

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Part-III Form-6
Financial Package upto COD

Add cap for Year 2015-16	Actual	Normative				
Debt	40.74					
Equity	0.00					
Total	40.74					
Add cap for Year 2016-17						
Debt	4.06					
Equity	0.00					
Total	4.06					
Add cap for Year 2017-18						
Debt	71.42					
Equity	0.00					
Total	71.42					
Add cap for Year 2018-19		Decap for Year 2018-19				
Debt	5.81	0.00				
Equity	0.00	0.00				
Total	5.81	0.00				
Total Capital Cost with add cap.	1580.56					

Note:

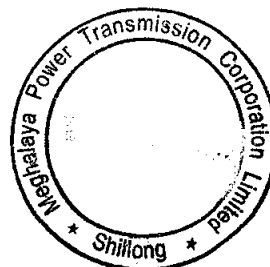
* Say Rs. 800 Lakh. + US\$ 5m=Rs. 3900 Lakh including US\$ 5 m at an exchange rate of US\$=Rs62

For example: US \$ 5m, etc.

\$ In case of foreign loans exchange rate considered on date of commercial operation.

(Petitioner)

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PART-III FORM-7

Statement of Additional Capitalisation after COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

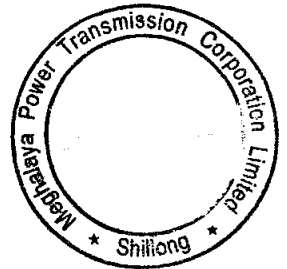
Sr.No.	Year	Work/Equipment proposed to be added after COD upto Cut off Date/beyond Cut-off Date	Amount capitalized /Proposed to be capitalized (Rs Lakh)	Justification	Regulations under which covered	Admitted Cost ¹ (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2014-15		18.92			0.00
2	2015-16		40.74			0.00
3	2016-17		4.06	0		0.00
4	2017-18		71.42			0.00
5	2018-19		5.81			0.00

1. In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order).

Note:

- Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
- In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately.
- In case of de-capitalisation of assets separate details to be furnished. Further, the original book value and year of capitalisation of such asset to be furnished. Where de-caps are on estimated basis the same to be shown separately.

(Petitioner)



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Part-III Form 8

Calculation of Return on Equity

Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

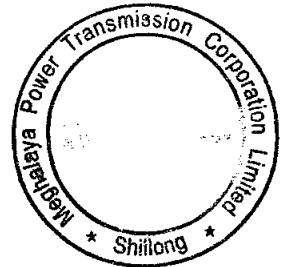
(Amount in Rs. Lakh)

S.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1.1	Equity as on COD/Admitted equity	0.00	0.00	0.00	0.00	0.00
1.2	Total Equity	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity*	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00

Note

1: *To be calculated on average equity during the year.

(Petitioner)



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Part-III Form 9C

Calculation of Weighted Average rate of Interest on Actual loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

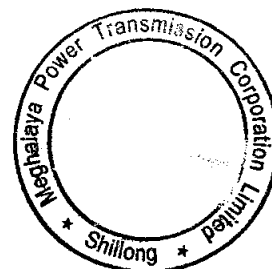
Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1						
Gross loan - Opening	1676.37	1676.37	1676.37	1898.15	1898.15	1898.15
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Opening	1676.37	1676.37	1676.37	1898.15	1898.15	1898.15
Add: Drawal(s) during the Year	0.00	0.00	221.78	0.00	0.00	4.61
Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Closing	1676.37	1676.37	1898.15	1898.15	1898.15	1902.76
Average Net Loan	1676.37	1676.37	1787.26	1898.15	1898.15	1900.46
Rate of Interest on Loan on annual basis	8.69%	8.69%	9.28%	8.71%	8.71%	8.72%
Interest on loan	145.68	145.68045	165.87	165.42	165.42	165.79
Loan repayment effective from (date to be indicated)	0.00	0.00	0.00	0.00	0.00	0.00
Total Loan	1676.37	1676.37	1898.15	1898.15	1898.15	1902.76

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.
4. The aforementioned loan is for whole project.

(Petitioner)



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Part-III Form 9E

Calculation of Interest on Normative Loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

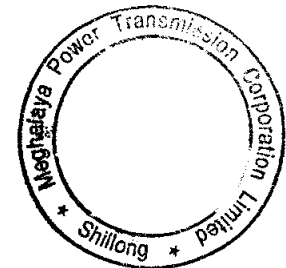
(Amount in Rs. Lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	3	4	5	6	7
Gross Normative loan - Opening	1439.62	1458.54	1499.28	1503.33	1574.75
Cumulative repayment of Normative Loan upto previous year	242.29	318.80	396.88	476.15	557.41
Net Normative loan - Opening	1197.33	1139.74	1102.39	1027.18	1017.34
Increase/Decrease due to ACE/de-capitalization during the Year	18.92	40.74	4.06	71.42	5.81
Repayments of Normative Loan during the year	76.51	78.09	79.27	81.26	83.30
Net Normative loan - Closing	1139.74	1102.39	1027.18	1017.34	939.85
Average Normative Loan	1168.54	1121.07	1064.79	1022.26	978.59
Weighted average Rate of Interest of actual Loans	8.69%	9.28%	8.71%	8.71%	8.72%
Interest on Normative loan	101.55	104.04	92.79	89.09	85.37
Interest on Normative loan	101.55	104.04	92.79	89.09	85.37

Note:

1. At the time of true-up net savings as a result of refinancing of loans may be provided along with adjustments of sharing.

Petitioner



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Part-III Form 10
Calculation of Depreciation Rate

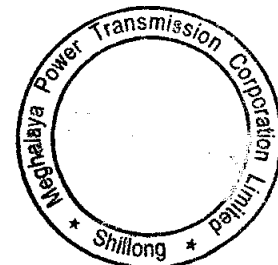
Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

							(Amount in Rs. Lakh)
Sl.no.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19 (Annualized)
2014-15							
1	Freehold land	0.00		0.00	0.00	0.00%	0.00
2	Building	292.42	0.00	292.42		3.34%	
3	Transmission Line	1147.20	18.92	1166.12	1156.66	5.28%	61.07
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	1439.62	18.92	1458.54	1156.66		61.07
	Weighted Average Rate of Depreciation						5.2800%
	Lapsed Life (Years)						5.0
2015-16							
1	Freehold land	0.00		0.00	0.00	0.00%	0.00
2	Building	292.42	40.74	333.16		3.34%	
3	Transmission Line	1166.12	0.00	1166.12	1166.12	5.28%	61.57
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	1458.54	40.74	1499.28	1166.12		61.57
	Weighted Average Rate of Depreciation						5.2800%
	Lapsed Life						6.0
2016-17							
1	Freehold land	0.00		0.00	0.00	0.00%	0.00
2	Building	333.16	4.06	337.22		3.34%	
3	Transmission Line	1166.12	0.00	1166.12	1166.12	5.28%	61.57
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	1499.28	4.06	1503.34	1166.12		61.57
	Weighted Average Rate of Depreciation						5.2800%
	Lapsed Life						7.0
2017-18							
1	Freehold land	0.00		0.00	0.00	0.00%	0.00
2	Building	337.22	10.56	347.78		3.34%	
3	Transmission Line	1166.12	60.86	1226.98	1196.55	5.28%	63.18
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	1503.34	71.42	1574.76	1196.55		63.18
	Weighted Average Rate of Depreciation						5.2800%
	Lapsed Life						8.0
2018-19							
1	Freehold land	0.00		0.00	0.00	0.00%	0.00
2	Building	347.78	0.00	347.78		3.34%	
3	Transmission Line	1226.98	5.81	1232.79	1229.88	5.28%	64.94
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	1574.76	5.81	1580.57	1229.88		64.94
	Weighted Average Rate of Depreciation						5.2800%
	Lapsed Life						9.0

Note:

- Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

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(Petitioner)

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Part-III Form 10A

Statement of Depreciation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

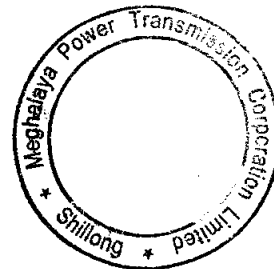
Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(4)	(5)	(6)	(7)	(8)
1	Opening Capital Cost	1439.62	1458.54	1499.28	1503.34	1574.76
2	Closing Capital Cost	1458.54	1499.28	1503.34	1574.76	1580.57
3	Average Capital Cost	1449.08	1478.91	1501.31	1539.05	1577.66
5	Rate of depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
6	Depreciable value	1304.17	1331.02	1351.18	1385.14	1419.90
7	Balance useful life at the beginning of the period (Years)	30	29	28	27	26
8	Remaining depreciable value	1304.17	1254.51	1273.09	1305.87	1338.63
9	Depreciation (for the period)	76.51	78.09	79.27	81.26	83.30
10	Depreciation (annualised)	76.51	78.09	79.27	81.26	83.30
11	Cumulative depreciation at the end of the period	318.80	396.88	476.15	557.41	640.72
12	Less: Cumulative depreciation adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00
13	Net Cumulative depreciation at the end of the period	318.80	396.88	476.15	557.41	640.72

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)



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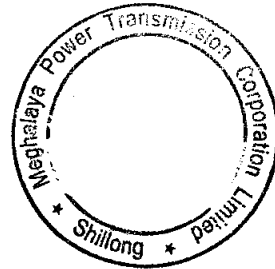
Part-III Form 10B
Statement of De-capitalisation

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

Sr. No.	Year of De-capitalisation	Work/Equipment proposed to be De-capitalised	Year of capitalisation of asset/equipment being decapitalised	Original Book Value of the asset being decapitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								

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(Petitioner)



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Part-III Form 11

Calculation of Interest on Working Capital

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

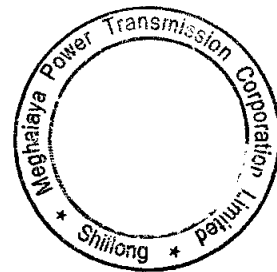
Name of the Project: MePTCL

Name of the Transmission Element: 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1	O & M Expenses	41.56	42.93	44.37	45.83	47.36
2	Maintenance Spares	74.80	77.28	79.86	82.49	85.25
3	Receivables	118.06	121.67	122.97	125.76	128.72
4	Total Working Capital	234.42	241.88	247.20	254.08	261.33
5	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
6	Interest on Working	31.65	32.65	33.37	34.30	35.28

(Petitioner)



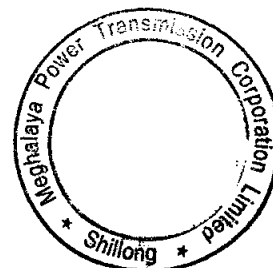
**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

Annexure-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	✓
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/ Element	
FORM-5	Element wise Break-up of Project/ Asset/ Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	
FORM- 7	Statement of Additional Capitalisation after COD	
FORM- 7A	Financing of Additional Capitalisation	
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	✓
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	
FORM-9	Details of Allocation of corporate loans to various transmission elements	
FORM-9A	Details of Project Specific Loans	✓
FORM-9B	Details of Foreign loans	✓
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	✓
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	
FORM- 12A	Incidental Expenditure during Construction	
FORM- 12B	Calculation of IDC & Financing Charges	
FORM- 13	Details of Initial spares	
FORM- 14	Non-Tariff Income	
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓



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**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

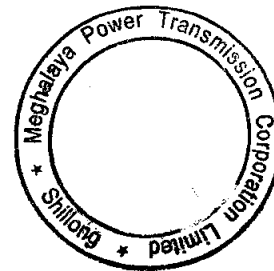
Annexure-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	
10.	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.



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PART-III FORM-1

Summary of Tariff

Name of Petitioner

Meghalaya Power Transmission Commission Limited (MePTCL)

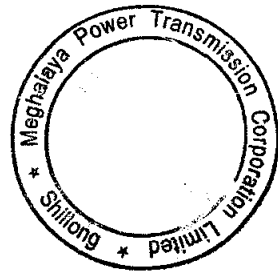
Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Depreciation	10A	83.40	86.41	91.18	94.86	94.86
2	Interest on Loan	9E	80.65	77.56	81.69	83.09	75.03
3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
4	Interest on Working Capital	11	18.54	19.13	19.85	20.53	21.01
5	O & M Expenses	2	368.77	381.93	395.30	409.12	423.59
	Total AFC		551.35	565.03	588.02	607.60	614.49

Note: This Form is a summary form and the Data to this from should flow from other base forms.

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(Petitioner)



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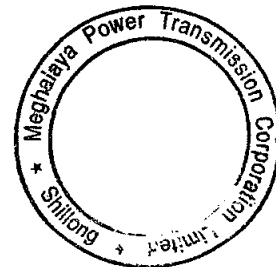
PART-III FORM-IA
Summary of Asset Level Cost

Name of the Transmission Assets:- 220 KV D/C Missa-Killing (Asset-IV)

Particular	ii) Summary of Actual / Projected Capital Cost											as on 31.03.2024
	i) Apportioned Approved Cost		As on CO/D/01-04- 2019	2019-20 (Actual/Projected)	2020-21 (Actual/Projected)	2021-22 (Actual/Projected)	2022-23 (Actual/Projected)	2023-24 (Actual/Projected)	2023-24		as on 31.03.2024	
	As per IA	Till 31-mar- 2019							2023-24 (Actual)	2023-24 (Projected)		
Land (Freehold Land)	99	79.23		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)												0.00
Building & Civil Works	1260	268.53	5.81	33.47	35.00	214.76	0.00	0.00	0.00	0.00	0.00	269.06
Transmission Line	13705.00	12165.21	1574.76	16.32	19.13	3.50	0.00	0.00	0.00	0.00	0.00	1613.701
Sub-Station												
PLCC												
Total Capital Cost as per Books	15064.00	12532.97	1580.57	48.79	54.13	218.27	0.00	0.00	0.00	0.00	0.00	1902.765
Less: Liability												
Add: Discharge of liability			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost	15064.00	12532.97	1580.57	48.79	54.13	218.27	0.00	0.00	0.00	0.00	0.00	1902.77
Equity/ Grant	12804.4	10952.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt	2259.8	1560.57	1580.57	48.79	54.13	218.27	0.00	0.00	0.00	0.00	0.00	1902.77

Note: This Form is a summary form and the Data to this form should flow from other base forms.

(Petitioner)



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PART-III FORM-2

Details of Transmission Lines, Substations and Communication System covered in the project scope and D&M for instant asset

Name of the Transmission Assets:- 220 KV D/C Missa-Killing (Asset-V)

1. Transmission Lines:

S.No.	Name of Line	Type of Line ACH/D/C	S/C or D/C	No. of Sub- Conductors	Voltage Level KV	Line Bays	Transformer (including Switchable Reactor)	Line length km	Date of Commercial Operation	Covered in the present Petition	
										Year/No	If No. Petition No.
1	Name of the Transmission Assets:- 220 KV D/C Missa-Killing (Asset-V)	AC	D/C	2	220	2	2	113.42	25-01-2011	Yes	

Summary:

O&M Expenses for the Transmission lines covered in the instant petition										
Normative rate of O&M as per Regulation. (Rupees In Lakh)										
Length in km	0.377	0.391	0.404	0.419	0.433					
O&M Claimed (Rupees in Lakh)	113.42	113.42	113.42	113.42	113.42					
	42.769	44.347	45.922	47.523	49.111					

2.

S.No.	Name of Sub- station	Type of Substation (Conventional/Groundfield/Overhead/GISH/D/C terminal/RVD)	Voltage level KV	No. of transformers/Reactors/VC etc. (with capacity)	No. of Bays	MVA Capacity				Covered in the							
						765 KV	400KV	220 KV	132 KV & Below	220 KV	400 KV	765 KV	132 KV & Below	Date of Commercial operation	Yes/No	If No. Petition No.	
1	INA				0	11											

O&M Expenses for the Substations covered in the instant petition

Normative rate of O&M/Bay as per Regulation. (Rupees In Lakh)-400KV										
No. of units	32.15	33.26	34.45	35.66	36.91					
O&M Claimed (Rupees in Lakh)	22.51	23.3	24.12	24.96	25.84					
	247.510	255.300	265.32	274.56	284.24					

Notes:

- Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.
- The MVA capacity shall include the capacity of reactor, FSE, Stat Com

3. Communication System:

S. No.	Name of Communication on System	Type of Communication	Length of CPG/Win ls	No. of RTU	No. of PMU	Date of Commercial operation	Capital Cost upto Cutoff date(Original)	Year/No	Covered in the present Petition	If No. Petition No.
1	NA									

Summary

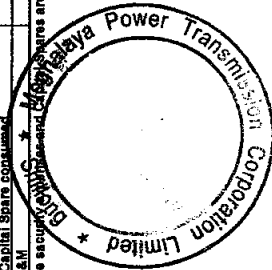
O&M Expenses for the Transformer covered in the instant petition										
O&M expenses as per regulations per MVA (in Lacs)										
Transformer Rating	0.245	0.254	0.263	0.272	0.282					
Actual O&M Expense (Rupees in Lakh)	160	160	160	160	160					
Original project cost/ Asset related to the communication system	2	2	2	2	2					
O&M Expense as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be	76.400	81.290	84.160	87.040	90.240					

4) Summary of O&M Expenses claim

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	A) Normative O&M		44.35	45.92	47.52	49.11
2	Transmission line	42.76				
3	Substation	247.510	255.300	265.320	274.560	284.240
4	Transformer	78.400	84.160	87.040	90.240	90.240
5	Total Normative O&M	366.77	391.93	395.30	409.12	423.59
6	B) O&M Claimed under Regulation 35 (3)(C)					
7	Security Expenses					
8	Actual Capital Spare consumed	366.77	381.93	395.30	409.12	423.59
9	Total O&M					

Note: The security expenses are to be submitted on estimated basis for the purpose of O&M

(Petitioner)



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PART-III FORM-3

Normative Parameters considered for Tariff Computation

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

Particulars	Unit	Year Ending March					
		Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date ¹	%	0.00%	8.74%	8.71%	8.71%	8.71%	8.74%
Tax Rate	%	21.55%	17.47%	17.47%	17.47%	17.47%	17.47%
Effective Tax Rate ²	%	19.76%	18.78%	18.78%	18.78%	18.78%	18.78%
Target Availability	%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
Normative O&M per km	Rs. Lakh	0.346	0.377	0.391	0.404	0.419	0.433
Normative O&M per Bay-400 kV	Rs. Lakh	34.36	32.15	33.28	34.45	35.66	36.91
Normative O&M per Bay- 220 kV	Rs. Lakh	34.36	22.51	23.3	24.12	24.96	25.84
Normative O&M per MVA	Rs. Lakh	0	0.245	0.254	0.263	0.272	0.282
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%	13.50%	12.05%	12.05%	12.05%	12.05%	12.05%
Lapsed life as on 01.04.2019 and beginning of every year(in completed years)	No. of years	8	9	10	11	12	13

1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.

2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

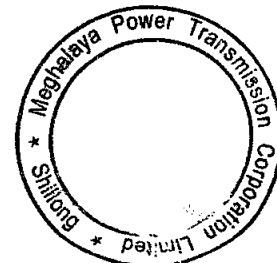
3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Project: 400 kv Pallatana-Bongaigaon Transmission System

(Petitioner)



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PART-II FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole
 Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)
 (Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project						
Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)	
Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)	25-01-2011	25-01-2011				8

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019

Particulars as on 31-03-2019 after true up of 2014- 19 period.	Asset i
a	b
Capital Cost as on 31.03.2019	1580.57
Cumulative Depreciation as on 31-03-2019	640.72
Debt Equity Ratio as on 31.03.2019	100.00%
Debt	100.00%
Equity/Grant	0.00%
Gross Equity for Normative RDE as on 31.03.2019	0.00
Gross Loan as on 31.03.2019	1580.57
Cumulative Re-payment of Loan as on 31.03.2019	640.72

C) Computation of Effective COD for	
Asset No.	Asset i
a	b
1) Actual COD of the Asset.	25-01-2011
2) COD considered for tariff purpose ⁽ⁱⁱ⁾	25-01-2011
3) No. of days between the COD of the asset considered for tariff and the COD of the Project ⁽ⁱⁱⁱ⁾	0.00
4) True up Capital Cost as on 31-03-2019 (in Lakh)	1580.57
5) Weight of the Cost of an asset (in %) ^(iv)	100.00%
6) Weighted days = (3x5)	0.00
7) Effective COD = (i.e. COD of the Project - Total Weighted	25-01-2011

- Note:
- COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed assets for tariff purpose has to be considered here (eg. Notional COD)
 - No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)
 - COD of the Project = The COD of the last asset of the Project.
 - Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (True up cost of concerned asset as on 31.03.2019 / Total of true up cost of all the assets) x100
 - Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

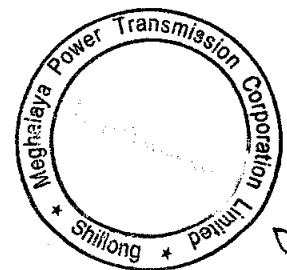
D) Weighted Average useful Life of the Project as whole			
Particulars	Capital Cost as on Asset i	Useful life/ Extended	Weighted Cost
a	b	h	i = (b)x(h)
Freehold Land		0	
Leasehold Land		25	
Building & Other Civil Works		25	
Transmission Line	1580.57	35	55319.95
Sub-Station Equipment		25	
PLCC		15	
and so on			
Total	1580.57		
Weighted Average life = Total Weighted		35	Years

E) Lapsed weighted average useful life of the project & Balance weighted average Useful life

This refers to the No. of completed years	
i) Effective COD	25-01-2011
ii) Last day of the previous tariff control	31-03-2019
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)	8.19
iv) Remaining useful life (in year) (WAL-lapsed)	26.81

Note: 1) The petitioner has to maintain the identity of the individual assets. In consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual COD, effective COD, cut-off date, admitted capital cost, O&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019). 3) The No. of completed year can be arrived by the excel function viz. YEARFRAC(31-03-2019, Effective COD) and ignore the fraction if any from the result.

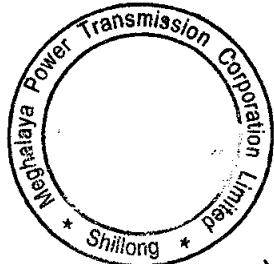
(Petitioner)



PART-III FORM-4A
Statement of Capital cost
(To be given for relevant dates and year wise)

Name of the Transmission Assets:- 220 KV DC Hiras-Billing (Asset-01)

A) Capital Cost	Particulars	Upto 31.03.2019				2019-20				2020-21				2021-22				2022-23				2023-24			
		Accrual Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Accrual Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Accrual Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Accrual Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Accrual Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Accrual Basis	Un-discharged Liabilities		
1	a) Opening Gross Block Amount as per books	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00	1600.57	0.00		
	b) Amount of (i) DC (ii) FV & (iv) Hedging cost included in A(a) above	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
2	b) Addition in Gross Block Amount during the period	0.00	0.00	0.00	0.00	49.79	0.00	49.79	0.00	49.79	0.00	49.79	0.00	49.79	0.00	49.79	0.00	49.79	0.00	49.79	0.00	49.79	0.00		
	B(a) above	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
	c) Amount of IEDC (including IDC, FC, FERV & Hedging cost) included in B(a) above	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
3	a) Closing Gross Block Amount as per books	1600.57	0.00	1600.57	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00	1600.56	0.00		
	b) Amount of (i) DC (ii) FV & (iv) Hedging cost included in C(a) above	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
	c) Amount of IEDC (including IDC, FC, FERV & Hedging cost) included in C(a) above	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
B) Flow of Liability for the Asset		As on 31.03.2019																							
1.	Opening balance of liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2.	Add: Liability from ACE ¹	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3.	Decrease of liability by payment and adjusted in ACE ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
4.	Change balance of adjusted liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
5.	Relevant date's means date of COD of transmission elements or communication system and financial year start date and end date	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
6.	In case of new asset it should flow from Form 5 and in case of existing asset it should flow from admitted liability as on 31.03.2019.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
7.	It refers to the liability included in the addition into gross block as on last day of the concerned year as mentioned in Form 7 of the concerned year.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
8.	It refers the actual payment of capital liability which was admitted by Commission as on 31.03.2019 and/or liability included in the COD cost and for the liability included in the ACE of previous years. (eg. If any payment is made during 2021-22 towards the un-discharged liability)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9.	It refers the liability included in the Gross Block but reversed or cancelled due to any reason. (eg. The liability no more payable due to non-fulfillment of any condition of the contractor, book adjustment etc.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
10.	It refers the opening balance of capital liability (i.e. as on 31 st March of the concerned year and it will be the opening balance as on 01 st April of the next year.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
11.	The balance mentioned in flow of liability in Table B above and the liability as on relevant date as mentioned in Table A above should match.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
12.	If any of the project assets does not required to be consolidated due to any reason, the reason has to be explained with the opening position of those assets has to be shown in the format mentioned Table B above.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			



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(Petitioner)

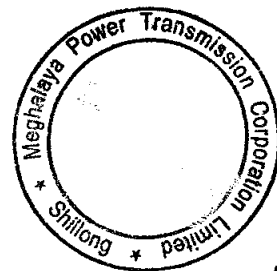
PART-III FORM-5B

Details of all the assets covered in the project

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

S.No.	Name of Asset	COD	Delay (in No. of in days)	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition	
							Yes/No	If No, Petition No.
1	Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)	25-01-2011	0	15064.00	15064.00	12855.16	Yes	
Total					15064.00	12855.16		

(Petitioner)



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PART-III FORM- 7B

Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

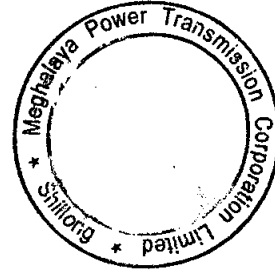
Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

S. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1		NA			
2					
3					
4					
5					

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

(Petitioner)



PART-III FORM- 8

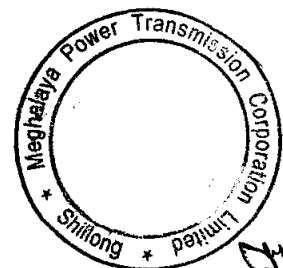
Calculation of Return on Equity at Normal Rate

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Opening Normative Equity		0.00	0.00	0.00	0.00	0.00
2	Less: Adjustment in Equity*						
3	Adjustment during the year						
4	Net Opening Equity (Normal)		0.00	0.00	0.00	0.00	0.00
5	Add: Increase in Equity due to addition during the year/period		0.00	0.00	0.00	0.00	0.00
6	Less: Decrease due to de-capitalisation during the year						
7	Add: Increase due to discharges during the year/period						
8	Closing Normative Equity		0.00	0.00	0.00	0.00	0.00
9	Average Normative Equity		0.00	0.00	0.00	0.00	0.00
11	Rate of Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.78%	18.78%	18.78%	18.78%	18.78%
15	Return on Equity of project cost till cut off date (Pre Tax)		0.00	0.00	0.00	0.00	0.00

(Petitioner)



PART-III FORM- 9A

Details of Project Specific Loans

Name of the Transmission Assets:- 220 KV D/C Missa-Killing (Asset-IV)

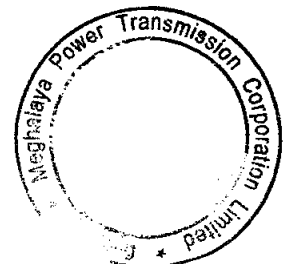
Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/COD 3,4,5,13,15						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
If above is yes, specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment instalment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges

(Petitioner)

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PART-III FORM-9B

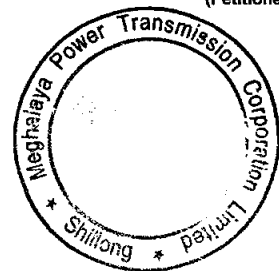
Details of Foreign loans

(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

S.No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4	5	6	7	8	9
	Particulars	Date	Amount(Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount(Foreign Currency)	Exchange Rate	Amount
	Currency¹								
A.1	At the date of Draw ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency²								
A.1	At the date of Draw ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of Interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency 3¹ & so on								
A.1									
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								

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PART-III FORM- 9C

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6
Loan-1					
Gross loan - Opening	1902.77	1902.77	1902.77	1902.77	1902.77
Cumulative repayments of Loans up to previous year	0	0	0	0	0
Net loan - Opening	1902.77	1902.77	1902.77	1902.77	1902.77
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0	0	0.00	0.00	0.00
Net loan - Closing	1902.77	1902.77	1902.77	1902.77	1902.77
Average Net Loan	1902.77	1902.77	1902.77	1902.77	1902.77
Rate of Interest on Loan on annual basis	8.74%	8.71%	8.71%	8.71%	8.74%
Interest on loan	166.25	165.79	165.79	165.79	166.25
Loan repayment effective from (date to be indicated)					

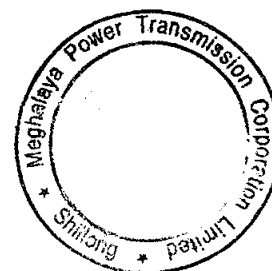
Note:1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.

2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.

3. Details of Financing Charges.

(Petitioner)

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PART-III FORM 9E

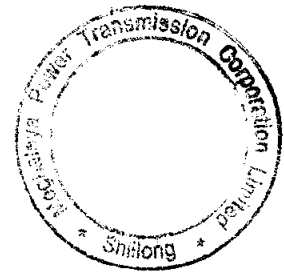
Calculation of Interest on Normative Loan

Name of the Transmission Assets:- 220 KV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

S.No.	Particulars	As on 01-04- 2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Gross Normative loan – Opening		1580.57	1630.36	1684.49	1902.77	1902.77
2	Cumulative repayment of Normative Loan upto previous year		640.72	724.12	810.53	901.71	996.56
3	Net normative loan – Opening		939.85	906.24	873.97	1001.06	906.20
4	Addition in Normative loan towards the ACE		49.79	54.13	218.27	0.00	0.00
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.						
6	Normative Repayments of Normative Loan during the year		83.40	86.41	91.18	94.86	94.86
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.						
8	Net Normative loan – Closing		906.24	873.97	1001.06	906.20	811.34
9	Average Normative Loan		923.05	890.11	937.51	953.63	858.77
10	Weighted average Rate of Interest of actual Loans		8.74%	8.71%	8.71%	8.71%	8.74%
11	Interest on Normative loan		80.65	77.56	81.69	83.09	75.03

(Petitioner)



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PART-III FORM 10

Calculation of Depreciation Rate on original project cost.

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

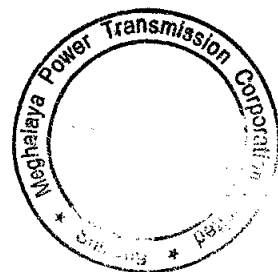
S. No.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.24 (Annualized)
	1	2	3				
2019-20							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	5.81	33.47	39.28	72.75	3.34%	2.43
3	Transmission Line	1574.76	16.32	1591.08	1582.92	5.28%	83.58
4	Substation			0.00		5.28%	
5	PLCC			0.00		6.33%	
6	Leasehold Land			0.00		3.34%	
	Total	1580.57	49.79	1630.36	1655.67		86.01
	Weighted Average Rate of Depreciation						5.19%
	Lapsed Life (Years)						8
2020-21							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	39.28	35.00	74.29	56.78	3.34%	1.90
3	Transmission Line	1591.08	19.13	1610.21	1600.84	5.28%	84.51
4	Substation	0.00				5.28%	
5	PLCC	0.00				6.33%	
6	Leasehold Land	0.00				3.34%	
	Total	1630.36	54.13	1684.49	1657.43		86.41
	Depreciation						5.21%
	Lapsed Life (Years)						9
2021-22							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	74.29	214.78	289.06	181.68	3.34%	6.07
3	Transmission Line	1610.21	3.50	1613.70	1611.95	5.28%	85.11
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	1684.49	218.27	1902.77	1793.63		91.18
	Depreciation						5.08%
	Lapsed Life (Years)						10
2022-23							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	289.06	0.00	289.06	289.06	3.34%	9.65
3	Transmission Line	1613.70	0.00	1613.70	1613.70	5.28%	85.20
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	1902.77	0.00	1902.77	1902.77		94.86
	Depreciation						4.99%
	Lapsed Life (Years)						11
2023-24							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	289.06	0.00	289.06	289.06	3.34%	9.65
3	Transmission Line	1613.70	0.00	1613.70	1613.70	5.28%	85.20
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	1902.77	0.00	1902.77	1902.77		94.86
	Depreciation						4.99%
	Lapsed Life (Years)						12

Note:

- Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

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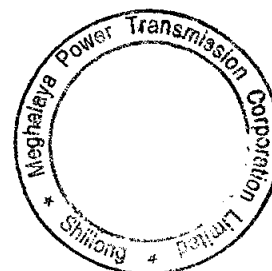
PART-III FORM- 10 A

Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

Statement of Depreciation							
S. No.	Particulars	As on 01-04 2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year	365	366	365	365	365	366
II	No. of days for which tariff claimed	365	366	365	365	365	366
Life at the beginning of year							
1.1	Weighted Average useful Life of the Asset/Project.		35	35	35	35	35
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		8	9	10	11	12
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		27	26	25	24	23
Capital Base							
1.4	Opening Capital Cost		1580.57	1630.36	1684.49	1902.77	1902.77
1.5	Additional Capital Expenditure dr. the year		49.79	54.13	218.27	0.00	0.00
1.6	De-Capitalisation during the year						
1.7	Closing Capital Cost		1630.36	1684.49	1902.77	1902.77	1902.77
1.8	Average Capital Cost		1605.47	1657.43	1793.63	1902.77	1902.77
1.9	Freehold land included in 1.8		0.00	0.00	0.00	0.00	0.00
1.10	Asset having NIL Salvage value included in 1.8						
1.11	Asset having 10% Salvage value included in 1.8		1605.47	1657.43	1793.63	1902.77	1902.77
1.12	Depreciable value (1.10+ 90% of 1.11)		1444.92	1491.68	1614.27	1712.49	1712.49
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		5.19%	5.21%	5.08%	4.99%	4.99%
1.14	Depreciation (for the period)		83.40	86.41	91.18	94.86	94.86
1.15	Depreciation (annualised)		83.40	86.41	91.18	94.86	94.86
1.16	Cumulative depreciation at the beginning of the period		640.72	727.13	818.30	913.16	1008.02
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.						
1.18	Cumulative depreciation at the end of the period		724.12	810.53	901.70	996.56	1091.42

(Petitioner)



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PART-III FORM-11

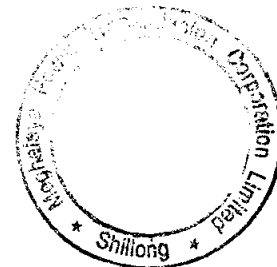
Calculation of Interest on Working Capital

Name of the Transmission Assets:- 220 KV D/C Missa-Killing (Asset-IV)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
1	O & M Expenses - one month		30.73	31.83	32.94	34.09	35.30
2	Maintenance Spares 15% of O&M Expenses		55.32	57.29	59.30	61.37	63.54
3	Receivables equivalent to 45 days of AFC		67.79	69.66	72.50	74.91	75.55
4	Total Working Capital		153.84	158.78	164.73	170.37	174.39
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		12.05%	12.05%	12.05%	12.05%	12.05%
6	Interest on Working Capital		18.54	19.13	19.85	20.53	21.01

(Petitioner)



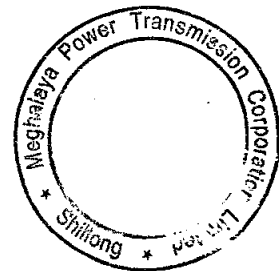
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PART-III FORM- 15**Summary of issue involved in the petition**

1. Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
2. Petition Category	Transmission Tariff
3. Tariff Period	2019-24
4. Name of the Project	Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)
5. Investment Approval date	
6. SCOD of the Project	25-01-2011
7. Actual COD of the project	25-01-2011
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	1
10. No. of Assets having time over run	NA
11. Estimated Project Cost as per IA	15064.00
12. Is there any RCE? if so, provide the date	NA
13. Revised Estimated Project Cost (if any)	15064.00
14. Completion cost for all the assets covered in the instant petition.	12855.16
15. No. of Assets covered in instant petition and having cost overrun.	
16	Prayer in brief
17	Key details and any Specific issue involved
18	Respondents
	Name of Respondents
1	CTUIL, SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).
2.	Assam Electricity Grid Corporation Limited, (Formerly Assam State Electricity Board) Bijulee Bhawan, Paltan Bazar,
3	Government of Arunachal Pradesh, Itanagar, Arunachal Pradesh.
4.	Power and Electricity Department, Government of Mizoram, Aizawl, Mizoram
5	Manipur State Electricity Distribution Company Limited, (Formerly Electricity Department, Government of Manipur),
6.	Department of Power, Government of Nagaland, Kohima, Nagaland.
7	Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W)-799001, Tripura.
8.	Meghalaya Energy Corporation Limited, Lumjingshai, Short Round Road, Shillong -1
9	ONGC Tripura Power Company Ltd., Udaipur, Karkraban road, Palatana P.O Distt-Gomati, Tripura – 799105
10.	NERLDC, Executive Director, Power House, Kahilipara, Guwahati-781019 (Assam)
11	North Eastern Regional Power Committee, Member Secretary, Lapalong Nongrim Hills, Shillong- 793003

(Petitioner)



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PART-III FORM A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.

Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
Tariff Period	2019-24
Name of the Transmission Project	Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)
COD of the Project(if entire scope of project is completed)	25-03-2011

Rupees in lakh

A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.

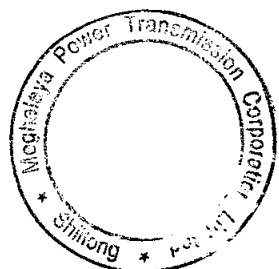
S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date	
				As per investment approval	As per RCE	As on COD	2019-20	2020-2021	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024		
				1	2	3	4	5	6	7	8	9		10
1		25-01-2011	31-03-2018	15064.00	12532.97	1580.57	49.79	54.13	218.27	0.00	0.00	0.00	1902.77	
Total Capital Cost Claimed				15064.00	12532.97	1580.57	49.79	54.13	218.27	0.00	0.00	0.00	1902.77	

B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.

S. No.	Asset No.	Asset Name and its location	2019-20	2020-21	2021-22	2022-23	2023-24		
1		Name of the Transmission Assets:- 220 kV D/C Missa-Killing (Asset-IV)			551.35	565.03	588.02	607.60	614.49
Total AFC for all the Assets					551.35	565.03	588.02	ss	614.49

Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.

(Petitioner)



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AGREEMENT

THIS AGREEMENT is made on this ^{6th} day of August 2010 between Meghalaya Energy Corporation Limited, having its Head Office at Lum Jingshai, Short Round Road, Shillong-793001, Meghalaya(hereinafter referred to as "MeECL" or "Owner" which expression shall unless repugnant to the context or meaning thereof include its Administrators, Successors, Executors and Permitted assigns) of the First part

and

Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956, having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016(hereinafter referred to as "POWERGRID" or "Consultant" which expression shall unless repugnant to the context or meaning thereof include its Administrators, Successors, Executors and Permitted assigns) of the Second part.

(POWERGRID and MeECL are hereinafter individually referred to as the 'Party' and collectively as 'Parties'.)

WHEREAS, MeECL desires to obtain consultancy services from POWERGRID for turnkey execution of LJO of one circuit of 400 kV D/C Silchar- Bongaigaon line at Killing Byrnihat alongwith 400/220 kV, 2x315 MVA substation at Killing Byrnihat.

And whereas POWERGRID has consented to provide consultancy services to MeECL for turnkey execution of above mentioned works on behalf of MeECL on cost plus basis on the terms and conditions stipulated herein.

NOW, THEREFORE, THIS AGREEMENT WITNESSETH AS UNDER:

For the purpose of this Agreement, the terms used herein shall, unless repugnant to the context thereof, have the meaning assigned to them as under:

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Hazanka
PCC



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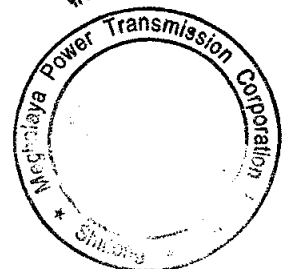
1.0 DEFINITIONS :

- 1.1 "Agreement" shall mean the agreement herein containing the Terms & Conditions set forth & agreed therein, including all other documents expressly annexed thereto or incorporated therein.
- 1.2 "Project "
- 1.2.1 "Transmission line" shall mean L.I.L.O of one circuit of 400 kV D/C Silchar-Bongaigaon line at Byrnihat(4.6 km.)
- 1.2.2 "Sub-station" shall mean 400/220 kV substation at Killing Byrnihat consisting of :
- 2x315 MVA, 400/220 kV Transformers with associated bays.
- 50 MVAR, 400 kV Line Reactor at Killing Byrnihat end of Silchar-Byrnihat 400 kV line.
- 63 MVAR, 400 kV Bus Reactor at Killing Byrnihat.
- Due to space constraint at Byrnihat, the above 400/220 kV substation would be constructed at existing 220/132kV Byrnihat substation(presently under construction) as an extension using GIS technology on 400 kV side.
- 1.3 "Bid Documents" shall mean the tender documents prepared by POWERGRID consisting of technical specifications, notice inviting tenders and other terms & conditions of contract pursuant to which POWERGRID shall invite proposals for procurement of goods and services for the Project.
- 1.4 "Contractor" shall mean the Bidder whose bid is accepted by POWERGRID on behalf of the Owner for award of contract for the total work or any part of the work of the Project resulting in a contract and shall include such contractor's legal representatives, successors and permitted assigns.
- 1.5 "Sub-Contractor" shall mean any person (other than the contractor) named in the contract for execution of any part of the works or any person to whom any part of the contract has been entrusted with the consent of POWERGRID and include such sub-contractor and the Sub-contractor's legal successors in title but not any assignee of the contractor.
- 1.6 "Nodal officer/Engineer" shall mean the officer nominated by the Owner in writing to act as co-ordinator for the purpose of this work.
- 1.7 "Project Manager" shall mean the official nominated by POWERGRID in writing who shall be responsible for co-ordination with the Owner and for all activities concerning the execution of the Project.
- 1.8 "Equipment/Material" shall mean the equipment/materials procured by POWERGRID on behalf of the Owner for this Project.
- 1.9 "Site" shall mean and include the land & other places free from all encumbrances & disputes at which the Project and related facilities are to be constructed and any adjacent land, path etc., which may be allocated or used by the Owner/POWERGRID/Contractor in performance of work under this Agreement.

[Handwritten signature]
Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshai, Shillong.

[Handwritten signature]
Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshai, Shillong.

[Handwritten signature] / M. Hazarika
Chief Engineer (Proj)
Transmission, Meghalaya Energy Corporation Ltd.
Lumjingshai / Shillong



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1.10 "Cost Plus" shall mean actual executed cost of the Project including Taxes & Duties plus Consultancy Fee payable to POWERGRID @ 12% of the actual executed cost of the Project alongwith applicable Taxes & Duties on Consultancy Fee.

1.11 Words singular shall include the plural and vice versa, where the contexts so desire.

2.0 SCOPE OF SERVICES :

2.1 SCOPE OF SERVICES TO BE PERFORMED BY POWERGRID

The scope of services to be rendered by POWERGRID for execution of the Project on behalf of MeECL under the Agreement will be as under subject to specific exclusions as brought out in clause 2.2 hereinafter:

i) The scope of work shall include Design, Engineering, NIT, Tender Evaluation, Finalisation of contract, Procurement, Erection, Project Management, Testing & Commissioning and other works incidental thereto for turnkey execution of the followings :

(a) **Transmission lines:** LILO of one circuit of 400 kV D/C Silchar- Bongaigaon line at Byrnihat(4.6 km.)

(b) **Sub-stations:** 400/220 kV substation at Killing Byrnihat consisting of :


- 2x315 MVA, 400/220 kV Transformers with associated bays.
- 50 MVAR, 400 kV Line Reactor at Killing Byrnihat end of Silchar-Byrnihat 400 kV line.
- 63 MVAR, 400 kV Bus Reactor at Killing Byrnihat.

Due to space constraint at Byrnihat, the above 400/220 kV substation would be constructed at existing 220/132kV Byrnihat substation(presently under construction) as an extension using GIS technology on 400 kV side.

ii) Preparation of all Bid documents including technical specifications and tender drawings. Draft Bid documents including Technical Specifications shall be sent to MeECL for comments. MeECL shall send their comments within 10 days.

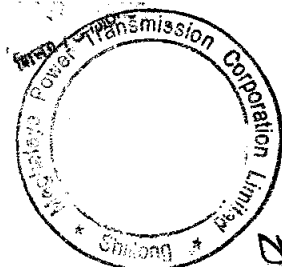
iii) Invitation of Bids, evaluation of bids, pre-award discussions with the selected vendors and finalization of awards on behalf of MeECL. POWERGRID shall inform MeECL the date of pre-award discussion at least 10 days in advance. MeECL may depute its representative for participation in pre-award discussion at the cost of MeECL. In case MeECL prefers not to attend pre-award discussion, the same shall be finalized by POWERGRID on behalf of MeECL.

iv) Placement of orders/finalization of contract and issue of contract, all post contract co-ordination, approval of contractor's drawings/documents, inspection of materials at the manufacture's work or at site and witnessing of testing of equipment/materials etc., and implementation of the agreed quality assurance programme of the various manufacturer/contractors on behalf of MeECL. For inspection of materials, the inspection call for major items shall be intimated to MeECL by POWERGRID Project Manager after getting the inspection call from the concerned Contractor(s) generally 15 days in advance. MeECL may depute their representative within the stipulated time schedule at the cost of MeECL. In case MeECL prefers not to attend inspection, the same shall be carried out by POWERGRID on behalf of MeECL.


Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshat, Shillong.

Page 3 of 11

Mt. Hazarika
Project Manager (Proj)
POWERGRID
Shillong



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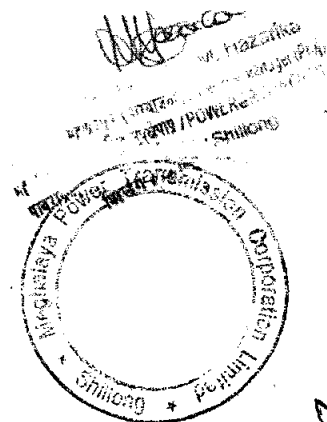
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- v) Project Management including expediting to ensure supply of all materials and equipment in line with the agreed contract programme and supervision of all activities such as storage, handling of materials/equipment at site, erection, testing and commissioning by the concerned contractors and making of progressive payment to the contractors on behalf of MeECL subject to adequate funds being made available to POWERGRID by MeECL from time to time.
- vi) The scope of work shall also include preparatory work, collection/compilation of details/data and preparation of the draft proposal for Forest clearance, Tree Compensation, Power & Telecom Co-ordination Committee(PTCC) clearance, Wireless clearance, River crossing clearance, Right of Way, etc. as per requirement. Being the owner of the project, MeECL shall obtain all these clearances from the concerned authorities. However, POWERGRID shall assist for obtaining these clearances by way of documentation, representing to concerned agencies. The assessment and disbursement of compensation, if any, on behalf of MeECL on account of above clearances shall be done by POWERGRID as per norms of State Government and the corresponding cost shall form part of the project cost.
- vii) Site leveling, boundary wall & fencing, roads & drainage, GIS building, survey & soil investigation, etc.
- viii) Submission of as built drawings and documents at the time of handing over of the project.
- ix) POWERGRID reserves the right to appoint any contractor for any specific job to ensure timely commissioning of the project.

2.2 SCOPE OF SERVICES TO BE PERFORMED BY THE OWNER :
(Exclusion from POWERGRID's scope of services)

- i) Providing land for substation free from all encumbrances to POWERGRID by the Owner at the earliest in order to match the completion schedule.
- ii) Being the owner of the project, the responsibility for obtaining the Project clearance, Forest clearance, Right of Way clearance, Tree compensation, Power & Telecom Co-ordination Committee(PTCC) clearance, Wireless clearance, River crossing clearance, etc. as per requirement, shall be that of MeECL. However, POWERGRID shall assist for obtaining these clearances by way of documentation.
- iii) MeECL shall also obtain Electrical Inspector's clearances for Transmission line & Substation from concerned authorities. However, POWERGRID shall assist in obtaining the clearances by way of documentation.
- iv) For carrying out the survey and collection of necessary data for preparation of documentation for obtaining clearances(if any), permission may be required from the concerned authorities. MeECL shall ensure that such permissions, as may be required, are made available to POWERGRID.
- v) All other statutory clearances from Central Electricity Authority(if any) and other agencies as per requirement including issue of necessary Notifications shall be the responsibility of MeECL.

[Signature]
Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshai, Shillong.



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- vi) Liaison and follow up with Government bodies shall lie with MeECL.
- vii) Settlement of any disputes with public / statutory bodies / local authorities / state authorities etc. shall rest with MeECL.

3.0 WORKING PROCEDURE :

3.1 POWERGRID shall execute the work as defined in clause 2.1 above. To enable POWERGRID to discharge its obligations in a smooth and efficient manner, MeECL shall issue necessary authorization in favour of POWERGRID to act on behalf of Owner for the scope of services under this Agreement. The Owner shall also provide all other necessary documents required for this purpose including concessional sales-tax declaration forms or any other applicable forms duly filled in and signed. In case, concessional sales-tax form is not provided by the Owner, then the Owner shall pay full taxes as may be applicable from time to time under laws.

The recovery of TDS under CST/VAT/WCT/ Income Tax Act and any other acts as per Govt. regulation related to this work shall be done by POWERGRID on behalf of MeECL. TDS so deducted by POWERGRID on behalf of the MeECL shall be deposited with the relevant tax authorities and TDS certificates shall be issued on behalf of MeECL using PAN,TIN,TAN of MeECL. Relevant challans and copies of the TDS certificates shall be forwarded to MeECL for filling necessary returns. In case, wherever E-filing system is applicable, the relevant information would be given to the Owner for issuing TDS certificate, filling returns, etc.

3.2 MeECL shall also ensure prompt release of funds to POWERGRID to enable unhindered progress of work. It is clearly understood by the parties that POWERGRID shall not finance any portion of the work from its own funds at any time during the execution of the Project.

3.3 To ensure proper co-ordination between POWERGRID and MeECL for carrying out the works under the scope of this Agreement, both MeECL and POWERGRID shall nominate their respective Nodal Officer/Project Manager who shall be the focal point for all matters relating to this Agreement.

4.0 RELEASE OF FUNDS :

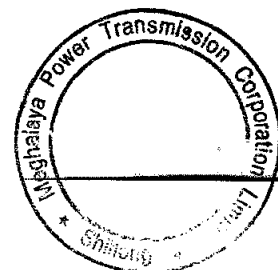
4.1 To facilitate smooth execution of work and to complete the work within the stipulated time schedule, MeECL shall ensure that the required fund is released as per clause No. 9.0 of this Agreement. MeECL shall be responsible for any liability arising out of delay in release of funds required for execution of the project.

4.2 POWERGRID shall commence the work under this Agreement after the receipt of first installment payment as indicated in Clause9.0(a) below.

4.3 It is clearly understood by the parties that funding of the Project cost and Consultancy Fee is the responsibility of MeECL and POWERGRID shall not finance any portion of the work from its own funds at any time during the execution of the Project.

[Handwritten Signature]
 Chief Engineer
 Transmission,
 Meghalaya Energy Corporation Ltd.
 Lumjingshai, Shillong.

[Handwritten Signature]
 Chief Engineer
 Transmission,
 Meghalaya Energy Corporation Ltd.
 Lumjingshai, Shillong.



5.0 AWARD OF CONTRACT (METHODOLOGY):

- 5.1 For the purpose of execution of work under this agreement, the entire work of the project may be in one package or divided into more contract packages to be executed by various contractors.
- 5.2 The contracts shall be awarded by POWERGRID on behalf of MeECL in line with the Policy and Procedure of POWERGRID for timely execution of the project.

6.0 PROJECT COST:

- 6.1 The work shall be executed by POWERGRID on behalf of MeECL on cost plus basis.
- 6.2 The Project cost shall include :
 - a) The cost of all equipment and services as paid to the contractor(s) or any other agency as required under the various contracts to be placed by POWERGRID for executing the Project.
 - b) Cost towards Survey & Soil investigation, Right of Way, Forest clearance, Tree compensation, PTCC clearance, River crossing clearance, litigation with Bidders/ Contractors etc.(if any).
- 6.3 The estimated cost of the project is **Rs.110.93 Crores**(as per revised DPR of this project) excluding IDC and Consultancy Fee payable to POWERGRID & corresponding applicable Taxes & Duties on Consultancy Fee. The above estimated cost includes land cost and R & R cost for substation.
- 6.4 The above estimated cost is for estimation purpose only. However, depending upon site conditions or for any other reason, the cost of the project may undergo change during the implementation of the project. As such the final executed cost of the project will be certified by POWERGRID based on the actual works executed. The actual project cost and consultancy fee thereof to be paid by MeECL shall be arrived at by POWERGRID only after the completion of the project.

7.0 CONSULTANCY FEE :

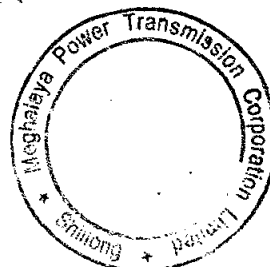
The Consultancy Fee payable to POWERGRID for the services as brought out in clause No.2.1 above shall be **12.0%** of the final actual executed cost of the project. Based on presently estimated cost of the project as mentioned at clause No.6.3 above, the Consultancy Fee payable to POWERGRID works out to **Rs.13.31 Crores**.

8.0 TAXES AND DUTIES :

All present and future applicable statutory Taxes, Duties and Levies(including any variation thereof) as applicable by any Act/Notification of Government(Central/State) or any other local bodies/authorities shall be to the Owner's account.

The Consultancy Fee indicated above does not include any Taxes & Duties. At present Service Tax @**10.30 %**(including Education Cess @ 3%) is applicable on Consultancy Fee which shall be paid by MeECL to POWERGRID in addition to the Consultancy Fee indicated above.

[Handwritten Signature]
Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshal, Shillong.




9.0 TERMS OF PAYMENT :

MeECL shall arrange to release payments for this project directly to POWERGRID. The terms of payment shall be as follows :


- a) 10% of the estimated project cost alongwith corresponding Consultancy Fee and applicable Service Tax on Consultancy Fee shall be paid within 15 days of signing of the Agreement.
- b) 10 % of the estimated project cost alongwith corresponding Consultancy Fee and applicable Service Tax on Consultancy Fee shall be paid on placement of award by POWERGRID on contractor.
- c) Balance payment alongwith corresponding Consultancy Fee and applicable Service Tax shall be linked to the progress of work payable quarterly in advance. The required funds shall be deposited by MeECL with POWERGRID within 15 days of submission of requirement.
- d) Payment arising due to adjustment on account of variation between the presently estimated cost and the cost on award shall be made known to MeECL by POWERGRID when the later is determined. MeECL shall regulate the quarterly advance payments to POWERGRID accordingly.
- e) Payment arising due to adjustment on account of variation between the cost on award and final executed cost of the project alongwith corresponding Consultancy Fee and applicable Service Tax shall be made immediately as per invoice raised by POWERGRID.
- f) No Bank Guarantee shall be furnished by POWERGRID for receiving payments from MeECL .
- g) At no stage POWERGRID shall use its own funds for execution of the project.
- h) Any delay in implementation of project on account of non-availability of funds and services to be provided by MeECL shall not be attributable to POWERGRID and the period of implementation shall be deemed to have been extended to such delays.
- i) Immediately on receipt of entire expenditure incurred by POWERGRID including its consultancy fee towards construction/implementation of the above Project, the possession of the Project would be given to MeECL. However after commissioning of the Project, the operation and maintenance of the same shall be the responsibility of MeECL .
- j) For facilitating release of fund for succeeding quarter, POWERGRID will furnish utilisation certificate indicating the utilisation of fund allotted for the preceding quarter covering at least 75% of the allotted fund.

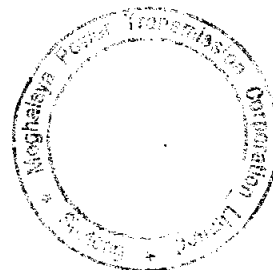
10.0 TIME SCHEDULE :

- 10.1 The completion schedule of the project shall be 36 months from the date of signing of the Agreement or receipt of first initial advance payment whichever is later. However, best efforts shall be made by POWERGRID to complete the work in 30 months time.


Chief Engineer,
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshai, Shillong.

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Chief Engineer,
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshai, Shillong.



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This is however, subject to MeECL fulfilling all its obligations in time as under :

- i) Timely release of payments by MeECL as mentioned at para 9.0 above.
 - ii) Fulfilling of all obligations as mentioned at clause no. 2.2 above by MeECL.
 - iii) Timely availability of substation's land.
- 10.2 Any delay on account of above will affect the completion schedule and therefore, the period of implementation of this Agreement shall be deemed to have been extended to cover such delay as may occur.
- 10.3 If by reason of extra or additional work or any industrial dispute or any cause or causes outside of and beyond the reasonable control of POWERGRID and its contractor(s) including delay in release of funds by MeECL, the work is delayed or impeded, the delayed period shall be construed as automatic time extension.
- 10.4 The completion period is indicated in good faith and is subject to fulfillment of obligation on part of the Owner and POWERGRID.

11.0 PROGRESS REVIEW MEETINGS :


To review progress of work, a quarterly review meeting shall be held at the level of the Project Manager/Nodal Officer of both the parties at mutually agreed places. Project Manager, POWERGRID shall submit a monthly progress report to the Owner.

12.0 FACILITIES/INFORMATION TO BE PROVIDED BY OWNER :


- 12.1 All necessary information/data and facilities as may be required by POWERGRID in connection with services shall be promptly rendered by MeECL under this Agreement.
- 12.2 MeECL shall give their views on all matters pertaining to this Project as may be referred to by POWERGRID from time to time within a reasonable time which would normally not exceed 15(fifteen) days and shall discharge faithfully all its obligations.

13.0 FORCE MAJEURE :

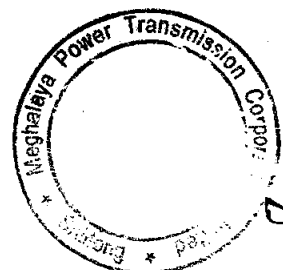
- 13.1 Force Majeure is hereby defined as any cause, which is beyond the control of POWERGRID or its Contractor(s) or MeECL as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the said work including, but not limited to the followings:
- a) Act of God and forces of nature including but not limited to floods, droughts, earthquakes, epidemics etc.
 - b) Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, quarantines, embargoes etc.,


Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumjingshar, Shillong.

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POWERGRID
Transmission

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c) Fire, rebellion, mutiny, riots, strike, civil commotions, lock out, accident, hostilities, terrorism including in the premises of the Contractors.

13.2 During the period of inability to perform the services as a result of any event of Force Majeure, POWERGRID shall be entitled to continue to be paid under the terms of this contract as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the services and in reactivating the services after the end of such period, provided that such cases are notified in writing within 30(thirty) days from the occurrence of such cause.

13.3 POWERGRID or MeECL shall not be liable for any delays in performing its obligation resulting from Force Majeure causes as referred to and/or defined herein above. The date of completion will be extended by corresponding period equal to the period of Force Majeure if the situation so warrants and by such period to be mutually agreed to by POWERGRID and MeECL. Should one or both Parties be prevented from fulfilling their obligations by state of Force Majeure lasting for a period of two months, the two (2) Parties shall consult each other and decide as to further course of action.

13.4 The services covered under this Agreement shall be commenced as soon as practicable by the parties concerned after such eventuality of force majeure has come to an end or ceased to exist.

14.0 TAKING OVER :

POWERGRID shall intimate MeECL as soon as the works have been completed (except in minor respects that do not affect their use and/or cause any serious risks) and MeECL shall issue a certificate to POWERGRID Site-in-Charge (herein called the Taking Over Certificate) in which they shall certify the date on which the works have been completed and passed commissioning tests, if any. The issue of taking over certificate shall not be unreasonably withheld by MeECL. In case Taking Over certificate is not issued on satisfactory completion & commissioning of the Project, it shall be deemed to have been taken over on expiry of 30 days from the date of intimation by POWERGRID and MeECL shall immediately commence Operation & Maintenance of the Project.

15.0 TERMINATION OF AGREEMENT :

15.1 In the event when both the parties mutually agree to terminate the Agreement, on account of force majeure or any other reason, termination shall take effect from the date and time to be agreed upon mutually.

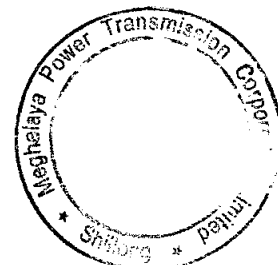
15.2 In the event of termination of this Agreement, POWERGRID shall be paid proportionately for such scope of work, which have been completed/partially completed & mutually agreed upto the date of termination.

16.0 SETTLEMENT OF DISPUTE & ARBITRATION:

16.1 This agreement shall be governed by and construed in accordance with the laws of India. Any dispute or difference arising out of this agreement shall be amicably settled between the Parties.

Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumlingahat, Shillong.

[Handwritten signature]
Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Lumlingahat, Shillong.



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[Handwritten mark]

16.2 In case of non-settlement of dispute or difference within sixty days as per the clause no 16.1 above, the matter shall be settled in accordance with the provision of the Arbitration and conciliation Act 1996 and any amendment thereof.

The venue of Arbitration shall be at Shillong

This Agreement shall be subject to the jurisdiction of the court at Shillong.

16.3 Notwithstanding the existence of any disputes and differences referred to Arbitration, the Parties hereto shall continue to perform their respective obligations under this Agreement.

17.0 THIRD PARTY DISPUTE :

If any litigation/arbitration cases crop up during the process of placement of various contract orders or thereafter by POWERGRID on behalf of MeECL, POWERGRID shall resolve the same on behalf of MeECL. MeECL shall provide necessary details, if required. The cost of such litigation/arbitration and liability arising out of the award thereof, if any, shall be borne by MeECL.

18.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION :

POWERGRID shall suitably incorporate the provisions towards levy of Liquidated Damages in their Agreements with Contractor(s) for delay in completion of the work. All amount towards Liquidated Damages, if any, as may be received by POWERGRID under this provision, shall be suitably adjusted in the Project Cost.

19.0 PERFORMANCE GUARANTEE :

POWERGRID shall suitably incorporate the provision of Guarantee Clause in their Contract Agreements with Contractor(s) valid for a period of 12 calendar months commencing immediately after commissioning of the Project, which will be enforceable by the Owner.

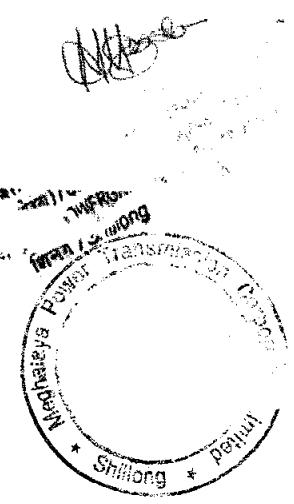
20.0 AMENDMENT :

This Agreement may be amended or modified if necessary by a written instrument signed by the Parties and the same shall be considered as an integral part of this Agreement.

21.0 EFFECTIVE DATE :

This Agreement shall be deemed to have come into force with effect from the date of signing of Agreement or receipt of first initial advance payment whichever is later. All rights, obligations and responsibilities of Owner and POWERGRID shall be deemed to have commenced and accrued from the above date.

[Handwritten Signature]
Chief Engineer
Transmission,
Meghalaya Energy Corporation Ltd.
Shillong



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22.0 NOTICE OF DEFAULT :

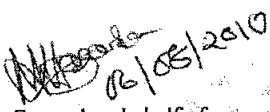
Notice of default given by either Party to the other Party under this Agreement shall be in writing and shall be deemed to have been duly and properly served upon the Parties hereto if delivered by Registered mail against acknowledgement due and addressed to the signatories to this Agreement.

23.0 CORRESPONDENCE :


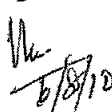
- 23.1 All communications from MeECL to POWERGRID shall be addressed to the Project Manager nominated by POWERGRID in writing for the purpose of this work.
- 23.2 All communication from POWERGRID to MeECL shall be addressed to the Nodal Officer/Engineer nominated by MeECL in writing for the purpose of this work.

IN WITNESS WHEREOF the Parties hereto have fully executed these present through their duly authorized representatives on the Day, Month and Year mentioned above.

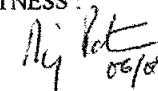
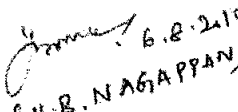

For and on behalf of
Meghalaya Energy Corporation Limited
Lumlagahat, Shillong.

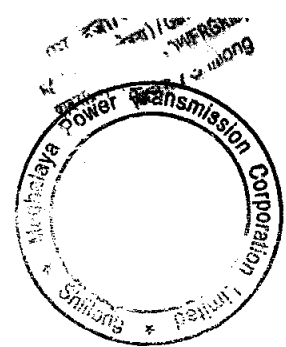

For and on behalf of
Power Grid Corporation of India Limited

WITNESS :

- 1. 
(E. Slong).
- 2. 
(C. Rani)

WITNESS :

- 1. 
(AJAY PATIL)
- 2. 
(V.B. NAGAPPAN)





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REVISED DETAILED PROJECT REPORT for

TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeECL)

*(CONSULTANCY SERVICES TO MeECL -
DEPOSIT WORK ON COST PLUS BASIS)*

SCOPE:

TRANSMISSION LINES

1.0 LILO of one circuit of 400 KV D/C Silchar-
Bongaigaon Line at Byrnihat


Length (K'm)
4.6

STATION

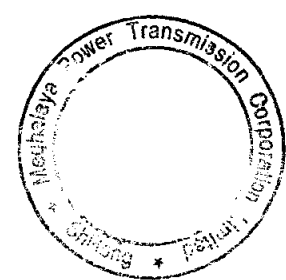
1.1 Augmentation of existing 220/132 KV Byrnihat S/S to 400KV (GIS)

May'2011

Client
M/s MeECL

DPR prepared by:
 POWER GRID CORPORATION OF INDIA LTD.
(A. Govt. of India Enterprise)
Gurgaon

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REVISED DETAILED PROJECT REPORT *for*

TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeECL)

(CONSULTANCY SERVICES TO MeECL -
DEPOSIT WORK ON COST PLUS BASIS)

SCOPE:

TRANSMISSION LINES

1.0 LILO of one circuit of 400 KV D/C Silchar-
Bongaigaon Line at Byrnihat

Length (Km)

4.6

SUB STATIONS

1.0 Augmentation of existing 220/132 KV Byrnihat S/S to 400KV (GIS)

May'2011

Client
M/s MeECL

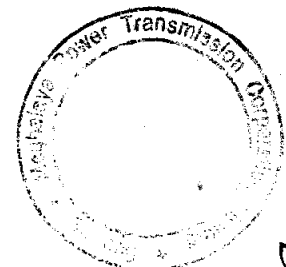
DPR prepared by:



POWER GRID CORPORATION OF INDIA LTD.

(A. Govt. of India Enterprise)

Gurgaon.



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**SCOPE OF WORKS FOR
TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND
BONGAIGAON TPS (under the scope of MeECL)**

(CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL)

A. Transmission Lines

Length (Km)

1 LILO OF ONE CKT OF 400KV D/C SILCHAR -
BONGAIGAON LINE AT BYRNihat

4.60

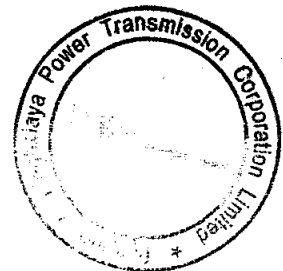
A. Substation Works

1 Augmentation of existing 220/132 KV Byrnihat. 400KV
S/S to 400KV (GIS)

- ⇒ 2x315 MVA, 400/220 kV ICT
- ⇒ Line Bays : 2
- ⇒ Transformer Bays : 2
- ⇒ Bus Coupler Bay : 1
- ⇒ Line reactor : 50 MVAR - 1 no
- ⇒ Bus reactor : 63MVAR - 1 no
- ⇒ Bus Reactor bays : 1

220KV

- ⇒ Transformer Bays : 2



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PREAMBLE

This proposal covers the Detailed Project Report for
**TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND
BONGAIGAON TPS (under the scope of MeECL)**

(CONSULTANCY SERVICES - DEPOSIT WORK ON COST PLUS BASIS TO MeECL)

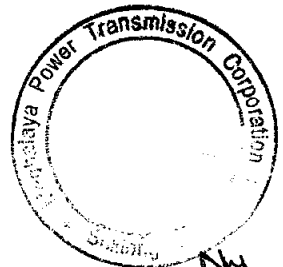
The total estimated cost of the project based on 1st Quarter 2011 price level is as follows :

(Rs. in crores)

	Total cost*
1. Transmission System	113.61*
2. Interest during Construction	1.21**
TOTAL	114.82*

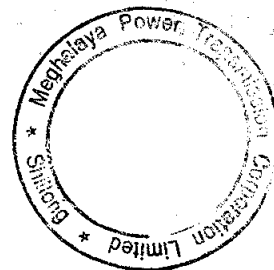
* Note 1 : Above estimate is inclusive of POWERGRID consultancy fees @ 12% and Service Tax thereon .

** Note 2 : The scheme is proposed to be covered under 90 % grant to be released by DONER & 10% loan from domestic sources.



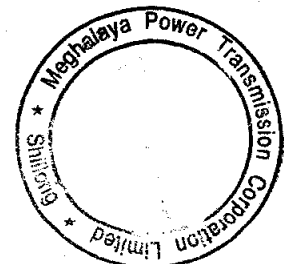
CONTENTS

<i>Sl. No.</i>	<i>Description</i>	<i>Page No</i>
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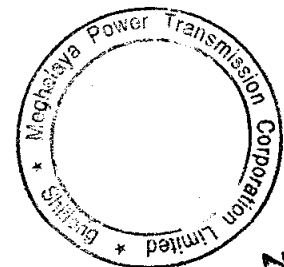
ANNEXURES

<u>Annex. No.</u>	<u>Description</u>
1.0	Abstract Cost Estimate - Summary
1.1	Abstract Cost Estimate - Preliminary & General Civil Works
1.2	Abstract Cost Estimate - Transmission Lines
1.3	Abstract Cost Estimate - Substations
2.0	Phased Fund Requirement (for Base cost)
3.0	Calculation of Interest during Construction (for Base cost)
4.0	Letter dated 26.03.2010 from MeECL to POWERGRID Reg preparation of revised DPR



EXHIBITS

<i>Exhibit No.</i>	<i>Description</i>
1.0	<i>Transmission system associated with Pallatana GBPP and Bongaigaon TPS (under the scope of MeECL)</i>
2.0	<i>Single Line Diagrams - Substations</i>



DETAILED PROJECT REPORT FOR
TRANSMISSION SYSTEM ASSOCIATED WITH
PALLATANA GBPP AND BONGAIGAON TPS (under
the scope of MeECL)

(CONSULTANCY SERVICES - DEPOSIT WORK ON COST PLUS BASIS
TO MeECL)

1.0 CONTEXT / BACKGROUND

The transmission system of Pallatana GBPP and Bongaigaon TPS was finalised in the 6th TCC/NERPC meeting held on Aug 08, 2008 at Gurgaon and subsequent discussion with CEA and concerned States. The proposed system is being executed by different utilities like POWERGRID, AEGCL (of Assam), MeECL (of Meghalaya), TSECL (of Tripura), OTPC, NTPC and NEPTC (a JV of ILFS, Govt of Tripura, POWERGRID and other NER states). Following portion of the transmission system is under the scope of Meghalaya (MeECL).

- LILO of one ckt of Silchar-Bongaigaon 400kV D/c line at Byrnihat
- 2x315MVA, 400/220kV New Substation at Byrnihat
- 50MVAR line reactor in Silchar-Byrnihat 400kV line at Byrnihat end
- 63MVAR bus reactor at Byrnihat.

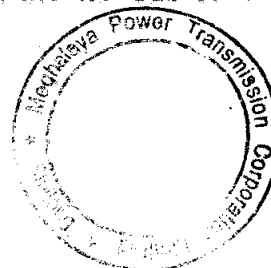
The present Detailed Project Report has been prepared as a consultancy work for MeECL.

2.0 JUSTIFICATION OF THE SYSTEM

The present (unrestricted) power demand of Meghalaya is of the order of 400MW while its own generation is only about 170MW which is mainly hydro-based. The state draws power from the regional grid through 132kV lines. Due to seasonal variation in its mainly hydro-based generation, the state faces an acute shortage of power up to about 160 MW.

Further, power demand of Meghalaya is growing at fast pace of about 8-9%. New generation projects like Lower Subansiri HEP, Kameng HEP, Pallatana GBPP and Bongaigaon TPS have been planned to supply additional power to the states of North-Eastern region. The state of Meghalaya has allocation of power from these new generating resources also. In view of the above, it is desirable to provide a strong connectivity between the state grid of Meghalaya and the regional grid at 400 kV level so as to enable the state to draw its share of power. It is therefore proposed to establish a 2x315 MVA, 400/220 kV sub-station at

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Byrnihat in Meghalaya, by loop-in and loop-out of one circuit of Silchar Bongaigaon 400 kV D/c line (being constructed under by NETCL)

The present DPR is for transmission system associated with PALLATANA GBPP and BONGAIGAON TPS (under the scope of MeECL).

The schematic of the proposed Tr. system is shown at *Exhibit-1.0*.

3.0 PROJECT OBJECTIVES

The objective of the project is to provide a reliable and strong connectivity between the state grid of Meghalaya and the regional grid at 400 kV level so as enable the state to draw its share of power.

3.1 Project Highlights

- a) Project : Transmission system associated with PALLATANA GBPP and BONGAIGAON TPS (under the scope of MeECL)
- b) Location of the Project : North Eastern Region – Meghalaya State
- c) Project Cost : Rs. 114.82 Crores (including IDC Rs. 1.21 Crs.) at 1st Quarter 2011 Price Level
- d) Commissioning schedule : The Transmission System is scheduled to be commissioned within 30 months, which is to be reckoned from the date of agreement / release of advance whichever is later.

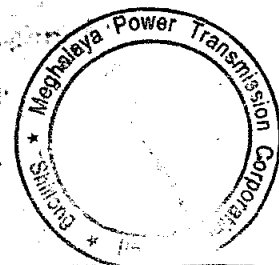
3.2 Scope of work

Transmission Line

- i) LILO of one circuit of 400KV D/C Silchar - Bongaigaon line at Byrnihat km.

Sub-Station

- i) Establishment of new 400/220 kV Substation at Byrnihat *
 - 2X315MVA , 400/220 kV transformers with associated bays
 - 50 MVAR line reactor at Byrnihat end of Silchar-Byrnihat 400 kV line
 - 63MVAR, 420 kV bus reactor at Byrnihat



* Because of space constraint at Byrnihat as informed by MeECL, 400/220 kV New Substation at Byrnihat pertaining to 400KV LILO arrangement would be constructed at existing 220/132 KV Byrnihat S/S (presently under construction) as an extension) using GIS Technology on 400KV side.

4.0 PROJECT STRATEGY

Transmission system associated with Pallatana GBPP and Bongaigaon TPS (under the scope of MeECL) has been evolved to provide a reliable and strong connectivity between the state grid of Meghalaya and the regional grid at 400 kV level so as to enable the state to draw its share of power.

Since the subject project is considered to be implemented by POWERGRID as Deposit Work on cost plus basis for MeECL the commissioning schedule of the project is kept in line with latest CERC norms as per the normal practice of POWERGRID.

5.0 LEGAL FRAMEWORK

It is proposed to execute the above entire transmission scheme as per provisions contained in the Indian Electricity Act, 2003 and the rules made there-under and the Electricity (Supply) Act, 1910 and 1948, in so far as these are applicable.

6.0 ENVIRONMENTAL IMPACT ASSESSMENT

6.1 Forest involvement / Clearance

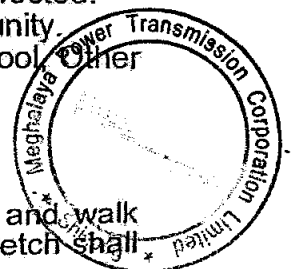
As per the practice, preliminary route selection is done based on such documents as the Forest Atlas and the Survey of India maps using "bee" line method, followed by field verification through walk over survey. All possible steps are taken to avoid the route alignment through forests. In cases where it becomes unavoidable due to the geography of terrain, the alignment is made in such a way that the route through the forests is the barest minimum.

For selection of optimum route, following points are taken into consideration :

- (i) The route of the proposed transmission line does not involve any human rehabilitation.
- (ii) Any monument of cultural or historical importance is not getting affected.
- (iii) The route does not create any threat to the survival of any community.
- (iv) It does not affect any Public-Utility Services like Playground, School establishments, etc.
- (v) It does not pass through any sanctuaries, National Park, etc.
- (vi) It does not infringe with areas of natural resources.

As per the preliminary assessment based on Forest Atlas, toposheet and walk over survey of the area, a total of approximately (21.16 Ha) of forest stretch shall be encountered enroute the transmission line.

However, exact extent of forest shall be known only after detailed survey.



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6.2 Social Issues/R&R measures

As per the prevailing law, land below transmission line is not required to be acquired and only land for sub station is acquired. Measures are to be followed for land management to minimize the land requirement to the barest minimum.

In the instant project, approximately 5.7 acres of additional land is required for augmentation of existing 220/132 KV Byrnihat S/S to 400KV (GIS). A provision of Rs. 70 Lakhs and Rs. 80 Lakhs has been kept for R&R Compensation and Tree & Crop Compensation respectively (based on site information).

7.0 ON-GOING INITIATIVES

The Transmission System has been designed in the most optimal manner based on various studies. The system and equipment parameters are chosen keeping in view the present trend in technology. The conductors are selected such that the losses in them due to internal resistance as well as due to external effects are at a bare minimum. The bus bar materials and the clamps and connectors are chosen meeting the stringent international requirements so that there is least loss of energy in them. The transformers and other switchgears are also suitably selected and evaluated before award itself for most efficient operation from thermal and loss efficiency point of view. The energy thus saved is energy transmitted to the beneficiaries. This is a major step in energy conservation. The energy saved on account of losses is construed as energy generated.

8.0 TECHNOLOGY FEATURES

Salient features of 420 KV & 245 KV Sub station Equipment and facilities

The design and specification of substation equipment are to be governed by the following factors:

8.1.1 Insulation Coordination

420 KV System would be designed to limit the Switching overvoltage to 2.5 p.u. and is expected to decay to 1.5 p.u. in 5 to 6 cycles. Consistent with these values and protective levels provided by lightning arrestors, the following insulation levels are proposed to be adopted for 420 KV & 245 KV systems:

		420 KV	245 KV
a.	Impulse withstand voltage for		
	- Transformer and reactors	1300 kVP	950 kVP
	- for Other Equipment	1425 kVP	1050 kVP

b.	Switching surge withstand voltage	1050 kVP	
c.	Minimum creepage distance	10500 mm	6125 mm
d.	Max. fault current	40 kA	40 KA
e.	Duration of fault	1 Sec	1 Sec
f.	Corona extinction voltage	320 kV rms	

To control the steady state, transient and dynamic overvoltage to specified levels, compensation equipment shall be provided.

8.1.2 Steady State Stability

The Steady State Stability is the ability of a system, to return/remain in the state of equilibrium when subjected to a small or gradual changes of disturbances. The steady state stability limit is the maximum power that can flow through some lines in the system when the entire or part of the system to which the stability limit refers is subjected to a small disturbance without loss of its stability.

The steady state stability is usually quantified by measuring the relative angular displacement (also called as swing curve) between the two buses (nodes) in a network when a small disturbance is applied somewhere into the system.

In an integrated power system consisting of large number of generator, load and line etc., a maximum relative angular separation of about 30 deg. between the two buses may be assumed to be acceptable (safest) limit for maintaining the steady state stability of the system. Angular separation for different alternatives have been studied and found to be in order.

Switching Schemes

The following switching schemes have been considered in various substations:

400 / 220KV

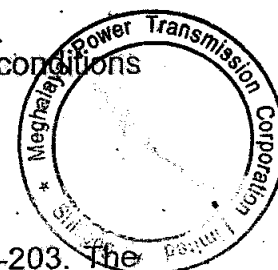
Substation	400 KV Side	220 KV Side
400/220KV Byrnihat S/S	Double Bus (GIS)	Double main & Transfer bus

8.1.4 Substation Equipment:

The switchgear shall be designed and specified to withstand operating conditions and duty requirements.

GIS Substation Equipment:

GIS (Gas Insulated Switchgear) shall be in accordance to IEC : 62271-203. The switchgear shall be designed and specified to withstand operating conditions and duty requirements. specified to withstand operating conditions and duty requirements.



8.1.4.1 Power Transformer

Power transformers shall conform to IEC : 60076 / IS : 2026 in general. The transformers shall generally have OLTC, the range and requirement of which shall be finalized based on the system requirement. The air core reactance shall be the order of 20%. Tertiary windings shall be provided for large auto transformer which shall be capable of being loaded to one third of transformer load. Insulation level of tertiary winding shall not be less than maximum transfer surge from HV/MV winding to tertiary winding.

8.1.4.2 Circuit Breakers

Circuit breakers shall in general comply to IEC-62271-1 and shall be of SF6 Type. The rated break time shall not exceed 40 ms for 420 KV and 60 ms 245 kV. kV Circuit breakers shall be provided with single phase and three phase auto reclosing. The Circuit breakers controlling 420 KV lines wherever required shall be provided with pre insertion closing resistor of about 400 ohms with 8 ms insertion time. The short line fault capacity shall be same as the rated capacity and this is proposed to be achieved without use of opening resistors.

8.1.4.3 Isolators

The isolators shall comply to IEC 62271-102 in general. Isolators shall be motor operated. Earth switches are provided at various locations to facilitate maintenance. Main blades and earth blades shall be interlocked and interlocks shall be fail safe type. All earth switches shall be motor operated type.

8.1.4.4 Current Transformers

Current Transformers shall comply with IEC 60044-1 in general. All ratios shall be obtained by secondary taps. Current transformers shall have five secondary windings, four for protection and one for metering. The burden and knee point voltage shall be in accordance with the requirements of the system including possible feed back telemetry.

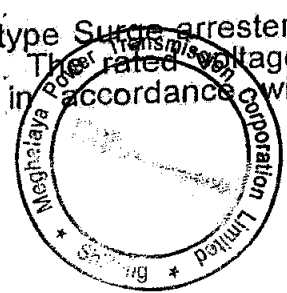
8.1.4.5 Capacitor Voltage Transformers/ Voltage Transformers

Voltage transformers shall comply to IEC 60044-2 & IEC-6044-5 in general. These shall have three secondaries out of which two shall be used for protection and one for metering. Accuracy class for protection core shall be 3 P and for metering core shall be 0.2. The voltage transformers on lines shall be suitable for Carrier Coupling. The Capacitance of CVT shall be 4400/6600/8800 pF depending on PLCC requirements.

8.1.4.6 Surge Arresters

Station class current limiting, heavy duty gapless type Surge arresters conforming to IEC 60099-4 in general shall be provided. The rated voltage of surge arrester and other characteristics are chosen in accordance with system requirements.

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requirements. Surge arresters shall be provided near line entrances, transformers so as to achieve proper insulation coordination. These shall be fitted with pressure relief devices and diverting ports suitable for preventing shattering of porcelain housing providing path for the flow of rated currents in the event of arrestors failure.

8.1.4.7 Shunt Reactors

Shunt Reactors, wherever provided, shall comply to IEC:289/IS:5553 in general. 420 kV Shunt reactors shall have linear characteristics upto 1.5 p.u. voltage. These should be ONAN Cooled. The neutral of line reactors shall be grounded through adequately rated neutral grounding reactors to facilitate single phase reclosure against trapped charges. The neutral of 420 kV class shunt reactors shall be insulated to 550 kV peak for lightning impulse and shall be protected by means of 145 KV Class surge arresters.

8.1.5 Substation Support facilities

Certain facilities required for operation & maintenance of substations as described below shall be provided in new substation and in existing substation they have already been provided and would be extended, wherever required.

8.1.5.1 AC & DC power supplies

For catering to the requirements of three phase & single phase AC supply and DC supply for various substation equipment the following arrangement is envisaged :-

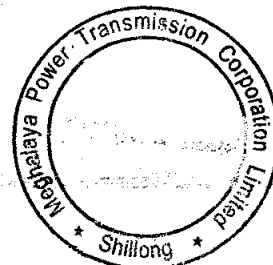
- i) For Substation Extensions, existing facilities shall be augmented as required.

8.1.5.2 Fire Fighting System

Fire fighting system in general conforms to fire insurance regulations of India. The fire fighting system is proposed with both AC motor & diesel engine driven pumps. Automatic heat actuated emulsifying system is proposed for transformers & reactors. In addition for alarm system based on heat/smoke detectors are proposed to be installed at sensitive points in a substation e.g. Cable Vault, Main Control Room, MCC Room etc. Further, adequate water hydrants and portable fire extinguishers shall be provided in the substations. At existing substations the fire fighting systems if already available, would be extended for meeting the additional requirements.

8.1.5.3 Oil evacuating, filtering, testing & filling apparatus

To monitor the quality of oil for satisfactory performance of transformers, shunt reactors and for periodical maintenance necessary oil evacuating, filtering, testing and filling apparatus would be provided at new substations. Oil tanks of adequate capacities for storage of pure and impure transformer oil would be provided.



8.1.5.4 Lighting & communication

Adequate normal & emergency AC & DC lighting shall be provided in the control room, GIS Building of the substation. The switchyards shall also be provided with adequate lighting. Existing telephone exchange shall be used as means of effective communication between various buildings of the substation.

8.1.5.5 Control Room

Existing Control Room building shall be utilized for 400KV Substation.

8.1.6 Protection & Control

Protective Relaying System

The protective relaying system proposed to be provided for transmission line auto-transformers and bus bars to minimize the damage to the equipments in the events of faults and abnormal conditions, is dealt in this section.

Transmission Lines

400 kV and 220 kV lines shall have MAIN-I numerical distance protection scheme as three zone distance type with carrier aided inter-tripping feature. 400 kV and 220 kV lines shall also have MAIN-II protection which shall have numerical distance protection scheme like Main-I but from different make than MAIN-I. In case of loop in loop out of transmission lines, the protection scheme shall be studied and suitable up-gradation if required shall be carried out.

All 400 kV lines shall also be provided with two stages over voltage protection. Further, all 400/220 kV lines shall be provided with single and three phase auto reclosing facility to allow reclosing of circuit breakers in case of transient fault. These lines shall also be provided with distance to fault locators to identify location of fault on transmission lines.

Auto Transformer

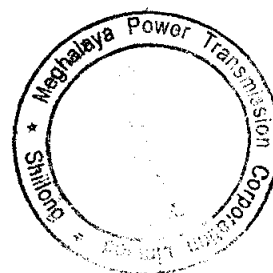
These shall have the following protections :

- i) Differential protection
- ii) Restricted earth fault protection
- iii) Over-current and earth fault protection on HV/MV side
- iv) Over fluxing protection
- v) Overload alarm.

Besides these, power transformers shall have BUCHOLZ relay, protection against high oil and winding temperature and pressure relief device.

420 kV Reactors

Reactor shall be provided with the following protections :-



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- i) Differential protection.
- ii) Restricted earth fault protection
- iii) Back-up impedance protection.

Besides, these reactors shall also be provided with Bucholz relay, protection against oil and winding temperatures & pressure relief device.

Bus bar Protection

The high speed bus bar differential protection which is essential to minimize the damage and maintain system stability at the time of bus bar faults shall be provided for 400 KV and 220 KV buses. Bus bar protection scheme shall be such that it operates selectively for each bus and incorporate necessary features required for ensuring security. The scheme shall have the provision for future expansion. For existing substations, the existing bus bar protection shall be augmented wherever required.

Local Breaker Back up Protection

This shall be provided for each 420 kV and 245KV breaker and will be connected to de-energize the affected stuck breaker from both sides.

Time synchronisation equipment

Existing time synchronisation equipment shall be extended to facilitate 400KV system.

Substation Automation System

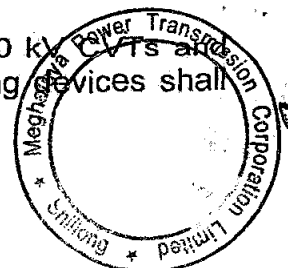
The functions of control, annunciation, disturbance recording, event logging and measurement of electrical parameters shall be integrated in existing Substation Automation System.

8.1.7 PLCC

Power line carrier communication (PLCC) equipment complete for speech transmission, line protections, and data channels shall be provided on each 420 KV & 220kV transmission line. The protections for transmission line and the line compensating equipment shall have hundred percent back up communication channels. The PLCC equipment shall in brief include the following:-

Coupling device, line traps, carrier terminals, protection couplers, HF cables, trunk selectors, automatic exchange, and maintenance and testing instruments.

Coupling devices shall be suitable for 4400/6600/8800 pF for 420 kV CVTs and 4400 pF for phase to phase coupling. The pass band of coupling devices shall



have sufficient margin for adding communication channel in future if required. Necessary protection devices for the safety of personnel and low voltage against power frequency voltages and transient over voltage shall also be provided. The line traps shall be broad band tuned suitable for blocking complete range of carrier frequencies.

Line Trap shall have the necessary protective devices such as lightning arrester for the protection of tuning device and shall be equipped with corona rings. carrier terminals shall be of single side - band (SSB) amplitude modulation type and shall have 4 KHz band width. Decoupling network consisting of line traps and coupling capacitors may also be required at certain substation in case of extreme frequency congestion.

8.1.8 Control Concept

All the EHV breakers in substation/switching stations shall be controlled and synchronized from the switchyard control room / remote control centre. Each breaker would have two sets of trip circuits which would be connected to separately fused DC supplies for greater reliability. All the isolators shall be controlled from remote/local whereas the earth switches shall have local control only.

8.1.9 Township

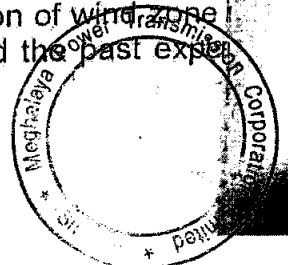
In a substation, township Quarters of different categories like B, C & D type shall be provided. The different type of buildings like administrative building, shop complex, primary school, recreation center, guest house, etc. are also provided. The township is generally provided within the substation area. Some temporary stores/warehousing are proposed to be constructed for storing substation materials, it is also proposed to construct some houses to accommodate engineering personnel, operation and maintenance staff. Detail engineering and construction drawing shall be as per MNW of the project. Other facilities of substation township like roads, water supply, sewer line, telephone lines, electricity supply, etc. shall be provided as per the requirement of the project. The provision of Quarters & future expansion shall be considered by MeECL.

8.2 Salient features of Transmission Lines

The primary consideration for design and estimation of transmission line shall be based upon walkover survey based upon topographical map/forest map of India. Also the type of terrain, i.e. plain, hilly, forest stretch, etc. likely to be encountered shall be taken into consideration while estimating the quantities.

The Wind Zone

The weight of tower will vary in an ascending order from wind zone 1 to zone 6 as the transverse load on the tower considered owing to the wind pressure increases in the same pattern. The identification of wind zone shall be based on the wind zone map given in IS:876 (part-I) 1987 and the past experience of the region.



8.2.1 Salient features of 400 KV Transmission Lines with Twin bundle conductor

8.2.1.1 Design Criteria

The design parameters are generally based on the report of standardization committee of CEA. The details of equipment have been given in subsequent clauses. The transmission lines would be designed with maximum conductor temperature of 85 Degree C so that its loadability can be increased in future.

8.2.1.2 Line Configuration

Double Circuit (D/C) 400 KV line shall have vertical configuration of conductors whereas Single Circuit (S/C) 400 KV line shall have horizontal configuration of conductors. The configuration of Suspension Insulator String shall be 'III' for 400 kV S/C line and 'II' for 400 kV D/C line.

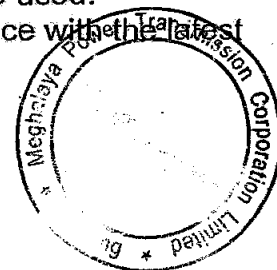
8.2.1.3 Towers

Self supporting latticed bolted steel towers, fabricated from structural steel angle section shall be used. Tower components and bolts & nuts shall be hot dip galvanised. Normally the following four types of double/single circuit tower shall be used in these lines.

- i) DA/A type suspension towers for 0 degree angle of deviation.
- ii) DB/B type tension towers upto 15 degree angle of deviation. These may also be used as section towers.
- iii) DC/C type tension towers upto 30 degree angle of deviation. These may be used as section towers and also as transposition towers.
- iv) DD/D type tension towers upto 60 degree angle of deviation and suitable for dead end condition. These may also be used for terminal locations.

In addition to the above, special towers, for major river crossing, power line crossing and the places where the terrain is particularly different, such as approach to the sub-station, forest stretches etc. shall also be used.

All standard and special towers shall be designed in accordance with the latest edition of IS-802 (part-I).



8.2.1.4 Revetment and benching

As the major portion of the lines is traversing in tough hilly terrain/ undulated stretch revetment & benching shall be provided as per site conditions.

8.2.1.5 Conductors

For 400 KV (Twin Bundle) line, twin ACSR 'MOOSE' conductor (54/3.5 Aluminium and 7/3.53 mm steel) overall diameter 31.77 mm shall be used per phase. The horizontal sub-conductor spacing will be 450 mm.

8.2.1.6 Earthwire

Two 7/3.66 mm galvanized steel earthwire shall be used on the line so that can withstand two successive lightning stroke of 150 kA. Shielding angles of 2 deg is considered for transmission lines.

8.2.1.7 Grounding

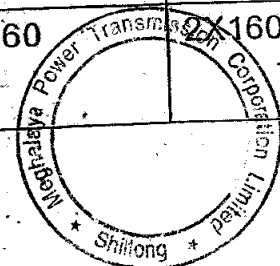
The tower footing resistance shall be kept below 10 ohms. Normally pipe type grounding shall be used. In case of rocky ground where the ground resistance is high, counterpoise earthing shall be used to bring the tower footing resistance down to acceptable level.

8.2.1.8 Insulator and Hardware Fittings

High strength glazed electro porcelain / toughened glass disc insulators standard type shall be used. The following types of insulator strings along with hardware fittings shall be used :

1) 400 KV TRANSMISSION LINE WITH TWIN ACSR MOOSE CONDUCTOR

Sl. No.	Type of string	Size of disc insulators (mm)	Minimum creepage distance of each disc (mm)	No. of disc*	Electro-mechanical strength of insulator disc(KN)	Mechanical strength of insulator string along with hardware fittings (KN)
a)	Single 'I' suspension	255x145 or 280x145	370	23	120	120
b)	Double Tension	255x145 or 280x145	370	2X23	160	160



Note : i) Equivalent porcelain long rod insulators and/or composite long rod insulators may also be used.

Item 1(a) and 1(b) are mostly used for suspension and tension towers respectively. Suitable hardware fittings shall be used for attachment of the insulators with the tower at one end and also for supporting the conductors at the other end. Corona control rings or grading rings will be used for improving corona and RIV performance as well, as to improve the voltage distribution across the insulators discs. The voltage across any disc shall not exceed 9 % in case of suspension type and 10 % in case of tension type of the line to earth voltage.

8.2.1.9 Line Accessories

i) Mid span compression joint for conductor/ earthwire

Mid span compression joint suitable for conductor/ earthwire shall be used for joining two lengths of conductor / earthwire. The minimum slipping strength of the joint after compression shall not be less than 95 % of the UTS of conductor / earthwire.

ii) Repair sleeve for conductor

Repair sleeve shall be used only for repairing not more than two strands broken in the outer layer of conductor. It shall be of compression type in two parts with provision of seat sliding of keeper piece.

iii) Flexible copper bond for earthwire

Flexible copper bonds shall be used for good electrical continuity between the earthwire and the tower. Two bonds per suspension tower and four bonds per tension tower shall be used.

iv) Vibration dampers for conductor/earthwire

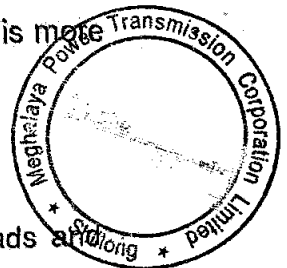
Stockbridge vibration dampers shall be used to reduce the maximum dynamic strain caused by aeolian vibrations to a value of 150 micro-strain.

8.2.1.10 River Crossings

Special towers shall be used for major river crossings where the span is more than 600 mtrs with anchor towers on either end of river crossing span.

8.2.1.11 Power line, Railway line, Road and P&T line crossing

The transmission lines shall be crossing power lines, railway lines roads and P&T lines for which suitable extensions of towers shall be used. The standard extension normally used for various types of towers are as follows:



A/DA & D/DD : 3m, 6m, 9m, 18m, 25m
 B/DB & C/DC : 3m, 6m, 9m

In addition to the above body extension, suitable leg extension/ Chimney extension shall also be provided in the hilly terrain, wherever required, to reduce the benching.

9.0 MODE OF FINANCE AND PROJECT BUDGET

9.1 Project Cost Estimate

9.1.1 The estimated cost of the project based on 4th Quarter 2009 price level is as follows :

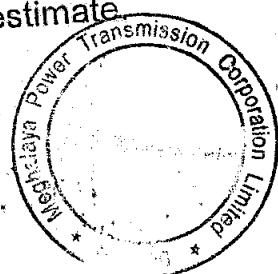
	(Rs. in crores)
	Total* cost
1. Transmission System	113.61*
2. Interest during Construction	1.21
TOTAL	114.82

* Note : Above estimate is inclusive of POWERGRID consultancy fees @ 12% Service Tax thereon .

The abstract cost estimate for Transmission Line and Substation poles separately are given at ANNEXURE - 1.0. The break-up of the cost estimate for civil works, transmission lines and substations are given at ANNEXURES - 1.2 and 1.3 respectively.

9.2 Basis of Cost Estimate

The cost estimates for all equipment for 400 kV transmission lines & 400/220 kV Substation Equipments have been considered from **Schedule of Rates** (which was prepared based on the average of unit rates of latest three LOAs) for 1st Quarter 2011 Price level. The above cost estimate is inclusive of Excise @10.3% and CST @2% as funding for supply of equipment is assumed to be done through Domestic Sources. Customs Duty @20.941% along with handling charges @ 2% there on has been considered for GIS Equipment in the estimate. Also, F&I @ 6% has been considered in the estimate.



9.3 Project Overheads

The following overheads have been charged on to the cost of the transmission system as a percentage of the total cost:

i)	Administrative Expenses	2.00%
ii)	Misc. Tools & Plants	1.00%
iii)	Losses on stock	0.25%
iv)	Contingencies	3.00%

10.4 Funding arrangement

10.4.1 Phased Fund Requirement

The anticipated year wise fund requirement for the project including interest during construction are given below:

(Rs in Crores)

YEAR	TOTAL
2011 - 2012	22.81
2012 - 2013	47.04
2013 - 2014	37.02
2014 - 2015	7.95
Total	114.82

10.4.2 Mode of Financing

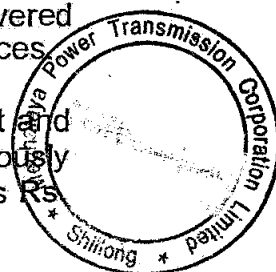
The project is proposed to be funded by DONER in the model of 90% grant and balance 10% through loan. For the total project, equity component (90%) is proposed to be met through grant from DONER and loan component (10%) through Domestic sources.

10.5 Interest during Construction

The scope of work envisaged in the present scheme is proposed to be covered under 90% grant to be released by DONER & 10% loan from domestic sources.

Based on the assumption that the project being financed from equity/Grant and loan in the ratio of 10:90 and the equity component being released simultaneously along with the loan component, the interest during construction works out as Rs 1.21 Crs.

The rate of interest for the Domestic loan component has been considered @10.5% p.a. The details of calculation are furnished in ANNEXURE - 3.0.



The interest during construction would however be based on the actual financial structure of the project and applicable terms of interest on loan(s), etc.

11.0 TIME FRAME

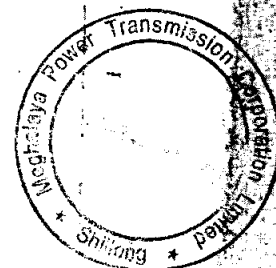
Transmission system associated with PALLATANA GBPP and BONGAIGAON TPS (under the scope of MeECL) is scheduled to be commissioned within 30 months, which is to be reckoned from the date of agreement / release of advance whichever is later.

12.0 TRAINING OF PERSONNEL

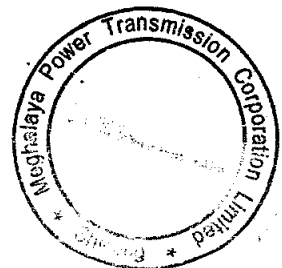
The expertise available with the country is adequate to cover maintenance of Transmission Line and sub station EHV equipments, GIS Equipment etc. Also available technical expertise within POWERGRID is adequate to cover operation and maintenance requirements of equipments. Hence, training in these areas for MeECL Personnel can be arranged by POWERGRID's training facility with the help of training officers, equipment suppliers and consultants, site commissioning personnel as well as POWERGRID's own specialists.

DISCLAIMER NOTE TO DPR:

1. This work of preparation of DPR has been carried out as a consultancy work for M/s MeECL and it should not be considered as approved scheme of CTU (POWERGRID).
2. As per the regulation of CERC for Long Term Open Access, if the Inter State Transmission (ISTS) is to be used for any power transfer, the general company/long term customer would need to apply to CTU (POWERGRID) for grant of Long Term Open Access. Upon approval of open access, applicant or the beneficiaries of generation projects shall execute the BPTA payment of transmission charges according to CERC norms for utilization of ISTS network.



ANNEXURES



**ABSTRACT COST ESTIMATE
(BASE COST)**

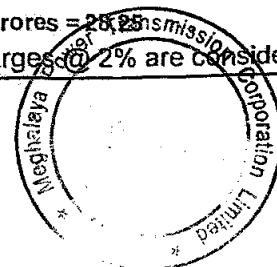
**TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP
AND BONGAIGAON TPS (under the scope of MeECL)
(CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL)**

1ST QUARTER : 2011 PRICE LEVEL

Sr. No.	DESCRIPTION	AMOUNT (Rs. in Crs.)
A	Preliminary Survey & Soil Investigation (Annex.- 1.1)	0.05
B	Land acquisition for S/Stn, R&R & other Compensation (Annex. - 1.1)	3.00
C	Cost of compensation for Trans. Lines (Annex.- 1.1)	
	i) Compensation towards Crop & PTCC	0.02
	ii) Compensation towards forest	2.40
D	Civil Works (Annex. 1.1)	
	i) Infrastructure for substations	2.50
	ii) Non Residential Buildings	1.31
	iii) Colony for Trans. Lines and S/stn	0.00
E	<u>Equipment (Supply & Erection) Cost</u>	
	a) Trans. Lines (Annex.-1.2)	8.09
	b) Sub-Stations (Annex.-1.3)	71.37
F	Sub Total A to E	88.75
G	Administrative Expenses @ 2% of F	1.78
H	Misc. Tools & Plants @ 1% of F	0.89
I	Losses on Stock @ 0.25% of F	0.22
J	Contingencies @ 3% of F	2.66
K	Customs duty (plus handling charges)	6.03
L	TOTAL COST EXCL. CONSULTANCY FEES	100.33
M	POWERGRID CONSULTANCY FEES @12% & SERVICE TAX THEREON	13.28
N	TOTAL PROJECT COST INCL CONSULTANCY FEES	113.61
O	Interest During Construction(IDC)	1.21
	GRAND TOTAL	114.82

1. The project is proposed to be funded by 90 % DoNER / GOI Grant & 10% Loan. Loan has been assumed to be available from Domestic sources.
2. Interest rate on Debt has been considered @10.5% p.a. for Domestic loan. Equity component is through grant.
3. Debt:Equity/Grant ratio has been considered as 10:90
4. The project is scheduled to be commissioned within 30 months, which is to be reckoned from the date of agreement / release of advance whichever is later.

Foreign Exchange component in above in equivalent Rs.Crores = 26.25
 Imported GIS equipment Customs duty @ 20.941% and handling charges @ 2% are considered.

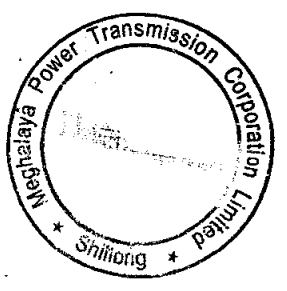


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ANNEXURE - 1A									
ABSTRACT COST ESTIMATE									
PRELIMINARY & GENERAL CIVIL WORKS									
PROJ: TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeECL)									
Sr. No.	Transmission Line	Survey & Soil Invest Works	Crop & PTCC Compen.	Forest Compen. (incl. NPV)	(Rs. in Lakhs)	Colony	Total	Cost	Total
1.0	L.I.L.O OF ONE CKT OF 400KV D/C SILCHAR - BONGAIGAON LINE AT BYRINIHAAT	0.46	2.30	238.74			242.50		242.50
	Sub total	0.46	2.30	238.74	0.00	0.00	242.50		242.50
Sr. No.	Sub station	Prelim. Survey & Soil Invest	Land Cost & Development cost	R & R and other compensation*	Infra-Structure	Non Residential Buildings	Colony	Total	Cost
1.0	Augmentation of existing 220/132 KV Byrnihat S/S to 400KV (GIS)	5.00	150.00	150.00	250.00	131.00		586.00	586.00
	Sub total	5.00	150.00	150.00	250.00	131.00	0.00	586.00	586.00

*Note: As per site information additional land of about 5.7 acres is being acquired for 400KV Byrnihat S/S.
 NOTE : Infrastructure : Levelling/Site surfacing, Boundary wall & fencing, Approach roads & Internal roads, Internal & peripheral drainage, Bridges & Culverts, etc.
 Non- Residential Buildings: Control Room Building, Administrative /office building/ Fire fighting pump house, DG Set building, etc.
 Forest Compensation : Cost of compensatory afforestation on doubly degraded forest & NPV of forest area diverted



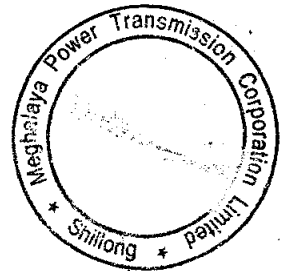
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ANNEXURE - 1.1.1

**DETAILS OF PRELIMINARY WORKS
FOR TRANSMISSION LINES**

	LINE LENGTH (Km.)	RATE PER KM. (Rupees)	TOTAL AMOUNT (Rs. Lakhs)
<u>Preliminary survey & soil investigation for:</u>			
1 LILO OF ONE CKT OF 400KV D/C SILCHAR - BONGAIGAON LINE AT BYRNIHAT	4.60	10,000	0.46



LAND & COMPENSATION

	LINE LENGTH (Km.)	RATE PER KM. (Rupees)	AMOUNT (Rs. Lakhs)
1 LILO OF ONE CKT OF 400KV D/C SILCHAR - BONGAIGAON LINE AT BYRNIHAT			
A. Cost of Crop & PTCC compensation			
i) Cost of Crop compensation excl. forest stretch	0.00	100,000	
ii) Cost of PTCC compensation	4.60	50,000	
Total Cost of Crop & PTCC compensation			
B. Cost of forest compensatin			
i) Cost of compensatory afforestation on doubly degraded forest	Forest area in Ha	Rate per Ha	
	42.32	45,000	
ii) NPV for forest area diverted	21.16	1,043,000	
Cost of Compensation towards Forest	4.60 Km		

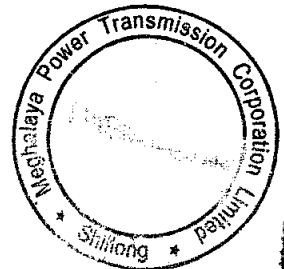
Total Cost of Compensation towards Crop & PTCC

Total cost of Compensatory Afforestation

*Note: 1. A total of 21.16Ha (4.6Km) forest stretch (Including Reserve, Social, Vegetable and Protected Forest & Road and canal covered under Supreme Court ruling of 1996(Forest like area irrespective of ownership) is likely to be encountered in the proposed trans project. As per the recent Supreme Court Ruling dated 28.03.2008 & 09.05.2008, User agency in addition to cost of Compensatory Affor (CA) has to pay now cost of Forest land based on Net Present Value (NPV) ranging from Rs. 4.38 Lakhs to Rs.10.43 Lakhs per Ha, dep upon the type of forest land diverted. However, most of the state govt.(Forest dept.)are charging the maximum amount of Rs.10.43 Lak Ha, therefore the same has been considered as cost of NPV.

NOTE:

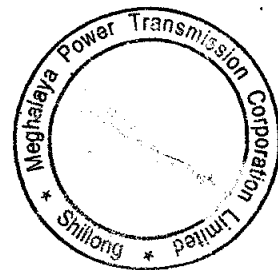
Crop & PTCC compensation is considered for line length excluding forest stretch.



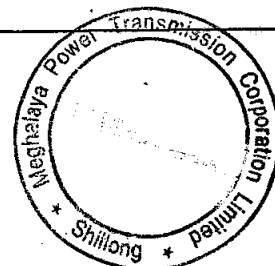
ANNEXURE - 1.1.3

DETAILS OF CIVIL WORKS PROPOSED AT 400/220 KV SUBSTATION (GIS) AT BYRNIHAT

SL. NO.	DESCRIPTION	NOS.	AREA (SQ.M.)	RATE PER SQ.M.(Rs.)	AMOUNT (RS.LAKHS) (Rounded off)
<u>PRELIMINARY WORKS</u>					
1.	Survey & Soil investigation PRELIMINARY WORKS	LS.			5.00 5.00
<u>INFRASTRUCTURE FOR SUBSTATION</u>					
1.	Levelling / Site Surfacing *	LS.			150.00
2.	Boundary wall & fencing *	LS.	}		100.00
3.	Approach roads, internal roads & drainage and Misc civil works*	LS.			
* Note: As per information from site					
TOTAL - INFRASTRUCTURE					250.00
TOTAL					250.00
<u>NON - RESIDENTIAL BUILDINGS</u>					
1.0	Transformer foundation & Rail track		incl. In S/S Civil Works		
2.0	GIS Building including EOT Crane For 400 KV For 220 KV	1 0	525.00	16000	105.87 0.00
3.0	Fire fighting pump house & Water Tank	LS.			25.00
TOTAL - NON-RESIDENTIAL BUILDINGS					130.87
TOTAL					131.00



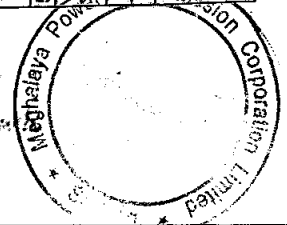
ABSTRACT COST ESTIMATE TRANSMISSION LINES		
PROJ:	TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeECL)	
	(CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL)	
		LINE 1
S.NO.	DESCRIPTION	TRANSMISSION LINE : LILO OF ONE CKT OF 400KV D/C SILCHAR - BONGAIGAON TL AT BYRNIHAT (WZ-5)
		4.6 KM
1.0	Tower Steel	226.03
2.0	Conductor	176.78
3.0	Earthwire	5.33
4.0	Insulator	76.49
5.0	Hardware Fittings	32.32
6.0	Conductor & E'wire Accessories	18.47
	Sub-Total - Supply Cost	535.42
7.0	Freight, Insurance & Taxes	37.23
8.0	Erection	27.81
9.0	Stringing	19.21
10.0	Civil Works	189.58
	Total Equipment Cost	809.25
	Cost per Km (Equipment Cost)	175.92
	Forest, Crop & PTCC Compensation & Preliminary Survey	242.50
	Total Cost	1051.75
	Cost per Km including Compensation for Forest etc.	228.64



COST BREAK UP OF TRANSMISSION LINE

ANNEXURE - 1.2.1											
PRO TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAOIN TPS (under the scope of MeECL)											
(Rs. in Lakhs)											
TRANSMISSION LINE : LILO OF ONE CKT OF 400KV D/C SILCHAR - BONGAIGAOIN T.L. AT BYRNIHAT (WZ-5)											
Line Length : 5 Km. Wind Zone 5: 50 m/s											
S P A R E S											
Sr. No.	Description	Unit	Quantity	Rate (Rs.)	Expt Exworks incl. Excise Duty		TOTAL		F & I @ 6% CST @ 2%	Ere/Civil Works	TOTAL
					6=4x5	7	9=6+8	10			
1.0	TOWER STEEL										
1.1	High Tensile Steel	MT	197	62,891	123,89	4	2,52	126.41	9.40		135.81
1.2	Mild Steel	MT	136	56,951	77.45	3	1.71	79.16	5.89		85.05
1.3	Hexagonal bolts & Nuts	MT	14	83,995	11.76	0.28	0.24	12.00	0.89		12.89
1.4	Anti theft bolts & Nuts	MT	2.0	123,596	2.47	0.04	0.05	2.52	0.19		2.71
1.5	Tower Accessories & Earthing	LS			2.18		0.05	2.21	0.16		2.37
1.6	Proto Assembly charges for tower	LS			3.73		0.00	3.73			3.73
2.0	Conductor										
2.1	ACSR "MOOSE"	K.M.	57	302,628	172.50	1	3.03	175.53	13.06		188.59
	Type test charges for conductor	LS			1.25		0.00	1.25			1.25
3.0	Earthwire										
3.1	Earthwire (G.S. 7/3.66 mm)	K.M.	10	42,955	4.30	1	0.43	4.73	0.35		5.08
3.2	Earthwire (AACSR)	K.M.			0.00	0	0.00	0.00	0.00		0.00
	Type test charges for earthwire	LS			0.60		0.00	0.60			0.60
4.0	Insulator										
4.1	Insulator (120 KN Standard)	Nos.	1,127	582	6.56	12	0.07	6.63	0.49		7.12
4.2	Insulator (160 KN Standard)	Nos.	6,716	685	46.00	68	0.47	46.47	3.46		49.93
	Type test charges for insulator	LS			23.39		0.00	23.39			23.39
	Sub Total				75.95		0.94	76.89	3.95		80.84
5.0	Hardware Fitting										
5.1	Single Suspension 'I' Fittings	Set		8,652	0.00	0	0.00	0.00	0.00		0.00
5.2	Single Suspension pilot Fittings	Set	49	7,209	3.53	1	0.07	3.60	0.27		3.87
5.3	Single Tension Fittings	Set		11,158	0.00	0	0.00	0.00	0.00		0.00
5.4	Double Tension Fittings	Set	146	18,745	27.37	2	0.37	27.74	2.06		29.80
	Type test charges for hardware fittings	LS			0.98		0.00	0.98			0.98
	Sub Total				33.88		0.37	34.25	2.33		36.58
6.1	Conductor & E'wire Accessories										

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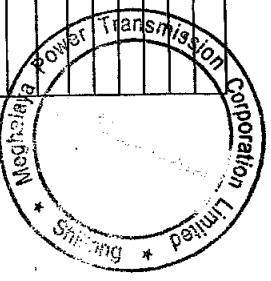
COST BREAK UP OF TRANSMISSION LINE

PROTRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MEECL)

TRANSMISSION LINE : L I L O OF ONE CKT OF 400KV D I C SILCHAR - BONGAIGAON TL AT BYRNHAT (WZ-5)

Line Length : 51km. Wind Zone 5: 50 m/s

Sr. No.	Description	Unit	Quantity	Rate (Rs.)	S P A R E S			TOTAL	Exw & Spares	F & I @ 6% CST @ 2%	Ere/Civil Works	TOTAL
					6=4x5	7	8=7x5					
1												
6.1.1	MSCJ For Conductor	Nos.	36	1,319	0.47	1	0.01	0.48	0.04	0.00	11	0.52
6.1.2	MSCJ For Earthwire	Nos.	6	334	0.02	1	0.00	0.02	0.00	0.00		0.02
6.1.3	Repair Sleeve for Conductor	Nos.	11	432	0.05	1	0.00	0.29	0.02	0.00		0.31
6.1.4	Flexible Copper Bond for earthwire	Nos.	51	558	0.28	1	0.01	5.83	0.43	0.00		6.26
6.1.5	Vibration Damper For Conductor	Nos.	582	992	5.77	6	0.06	0.45	0.03	0.00		0.48
6.1.6	Vibration Damper for Earthwire	Nos.	101	433	0.44	2	0.01	5.16	0.38	0.00		5.54
6.1.7	Bundle Spacer for Conductor	Nos.	510	999	5.10	6	0.06	1.01	0.08	0.00		1.09
6.1.8	Rigid Spacer for Conductor	Nos.	200	501	1.00	2	0.01	5.16	0.03	0.00		0.46
6.1.9	Earthwire Tension Clamps	Nos.	51	815	0.42	1	0.01	0.43	0.00	0.00		0.00
6.1.10	Earthwire Suspension Clamps	Nos.	51	829	0.00	0	0.00	0.00	0.00	0.00		0.00
6.1.11	Connector	Nos.	0	1,385	0.00	0	0.00	0.00	0.00	0.00		0.00
	Type test charges for C & E accessories	LS			4.75		0.00	4.75		1.01		19.48
	Sub Total :		6		18.30		0.17	18.47				
7.0	Tower Erection	MT	349	7,969							27.81	27.81
	Normal towers	MT		11,157						0.00	0.00	0.00
	(ii) River crossing towers	MT								0.00	27.81	27.81
	Sub Total :		7		0.00	0.00	0.00	0.00				
8.0	Foundations											
8.1	Excavations	Cu.M.	2,229	267							5.95	5.95
	Normal Dry soil	Cu.M.		316							0.00	0.00
	Normal Wet soil	Cu.M.		830							15.70	15.70
	Dry Fissured Rock	Cu.M.	1,892	871							0.00	0.00
	Wet Fissured Rock	Cu.M.		871							0.00	0.00
	Hard Rock	Cu.M.		1,835							86.59	86.59
8.2	Concreting	Du.M.	643	13,467							7.82	7.82
	Concreting 1:1.5:3(M20)	Du.M.	70	11,171							48.14	48.14
	Concreting 1:3:6	Du.M.		78,915							164.20	164.20
8.3	Reinforcement	MT	61	78,915							164.20	164.20
	Sub Total :		8		0.00	0.00	0.00	0.00				
	Grand Total :										16.84	16.84



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COST BREAK UP OF TRANSMISSION LINE

ANNEXURE - 1.2.1

PROJ TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeecL

(Rs. In Lakhs)

TRANSMISSION LINE : LILO OF ONE CKT OF 400KV D/C SILCHAR : BONGAIGAON TL AT BYRNHAT (WZ-5)

Line Length : 51 Km. Wind Zone 5: 50 m/s

Egpt Exworks Incl. Excise Duty S P A R E S

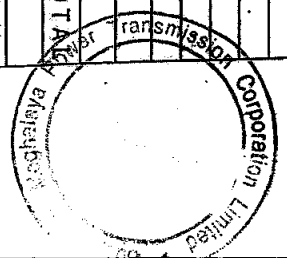
TOTAL

F & I @ 8%

Ere/Civil

TOTAL

Sr. No.	Description	Unit	Quantity	Rate (Rs.)	Total Quantity	Total	Exw & Spares	CST @ 2%	Works	TOTAL	
1	Fissured Rock	Cu.M.	4	5	6-4x5	7	8-7x5	9-6+8	10	11	12-9+10+11
	Hard Rock	Cu.M.	-	930	-	-	-	-	0.00	0.00	0.00
	Sub Total : 9	Cu.M.	-	1,800	-	-	-	-	0.00	0.00	0.00
10.0	Revetment										
i)	Random Rubble Stone	Cu.M.	45	6,439					2.90	2.90	
	Masonry including excavation:										
ii)	Stone bound in galvanised wire netting including excavation	Cu.M.	-	6,862					0.00	0.00	
iii)	Backfilling and leveling of	Cu.M.	700	364					2.55	2.55	
iv)	Volumes enclosed in revetment M-15(1:2:4) Concrete for top seal	Cu.M.	1	14,578					0.15	0.15	
	cover of revetment										
	Sub Total : 10								5.60	5.60	
11.0	Stringing Quad D/C (normal)	K.M.	-	511,673					0.00	0.00	
	Stringing D/C (normal)	K.M.	4.6	417,569					19.21	19.21	
15.0	Detail Survey using modern survey techniques	K.M.									
	Detailed survey	KM	5	28,609					1.32	1.32	
	Check survey	KM	5	16,494					0.82	0.82	
16.0	Soil investigation in										
	All kinds of soil except HR & FR	Loc.	1	26,481					0.26	0.26	
	Fissured rock	Loc.	1	37,093					0.37	0.37	
	Hard rock	Loc.	1	37,385					0.37	0.37	
	Transmission Line Total			5,26,924		9,18,118	5,35,422	37,23,236.60	809.25	809.25	
	PROJECT TOTAL TRANSMISSION LINES			5,26,924		9,18,118	5,35,422	37,23,236.60	809.25	809.25	



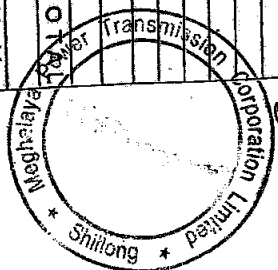
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COST BREAK UP OF TRANSMISSION LINE

ANNEXURE - 1.2.1

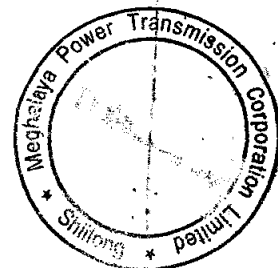
(Rs. in Lakhs)

PROJECT TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GRPP AND BONGAIGAON TPS (under the scope of MeeCL)											
TRANSMISSION LINE : LILO OF ONE CKT OF 400KV D/C SILCHAR - BONGAIGAON TL AT BYRNHAT (WZ-5)											
Line Length : 5 Km. Wind Zone 5: 50 m/s											
Sr. No.	Description	Unit	Quantity	Rate (Rs.)	S P A R E S			TOTAL	F & I @ 6% CST @ 2%	Ere/Civil Works	TOTAL
					6=4x5	7	8=7x5				
1	Fissured Rock	Cu.M.	-	930						0.00	0.00
	Hard Rock	Cu.M.	-	1,800						0.00	0.00
	Sub Total : 3			2,730						0.00	0.00
10.0	Revetment	Cu.M.	45	6,439						2.90	2.90
i)	Random Rubble Stone									0.00	0.00
	Masonry Including excavation	Cu.M.	-	6,862						2.55	2.55
ii)	Stone bound in galvanised wire netting including excavation	Cu.M.	700	364						0.15	0.15
iii)	Backfilling and leveling of										
	Volumes enclosed in revetment	Cu.M.	1	14,578						5.60	5.60
iv)	M-1.5(1:2:4) Concrete for top seal	Cu.M.	-	-						0.00	0.00
	cover of revetment									0.00	0.00
	Sub Total : 10			22,273						8.65	8.65
11.0	Stringing Quad D/C (normal)	K.M.	-	511,873						0.00	0.00
	Stringing D/C (normal)	K.M.	4.5	417,569						19.21	19.21
15.0	Detail Survey using modern survey techniques	K.M.	5	28,609						1.32	1.32
	Detailed survey	K.M.	5	16,494						0.82	0.82
	Check survey										
16.0	Soil investigation in	Loc.	1	26,461						0.26	0.26
	All kinds of soil except HR & FR	Loc.	1	37,093						0.37	0.37
	Fissured rock	Loc.	1	37,385						0.37	0.37
	Hard rock										
Transmission Line Total				526,224						37,231	236,60
PROJECT TOTAL TRANSMISSION LINES				526,224						37,231	236,60
											809.25

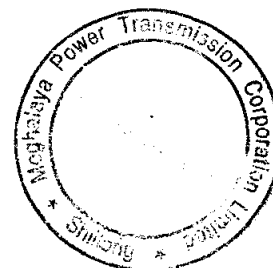


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ABSTRACT COST ESTIMATE		
SUBSTATIONS		
PROJ:	TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeECL)	
	(CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL)	
SUBSTATION SUMMARY		
SL. NO.	DESCRIPTION	SUBSTATION: Augmentation of existing 220/132 KV Byrnhat S/S to 400KV (GIS)
1.1	315 MVA, 400/220 KV 3PH Trfmr.	2151.84
1.2	50MVAR, 400 KV Line Reactor	318.10
1.3	63MVAR, 400 KV Bus Reactor	387.28
	Sub-Total 1.0	2857.22
2	400 KV GIS EQUIPMENT	3221.02
2.1	400 KV EQUIPMENT	
	Circuit Breaker	0.00
	Isolator	15.69
	Current Transformer	0.00
	Capacitive Voltage Transformer	31.30
	Lightning Arrestor	31.61
	Sub-Total 2.1	78.60
3	220 KV GIS EQUIPMENT	0.00
3.1	220 KV EQUIPMENT	
	Circuit Breaker	33.01
	Isolator	27.97
	Current Transformer	21.21
	Capacitive Voltage Transformer	0.00
	Lightning Arrestor	3.54
	Sub-Total 3.1	85.74
4	72.5 KV EQUIPMENT	20.15
5	Control & Relay Panels	278.11
6	PLCC Equipment	49.38



ABSTRACT COST ESTIMATE		
SUBSTATIONS		
PROJ:	TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAON TPS (under the scope of MeECL)	
	(CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL)	
	SUBSTATION SUMMARY	
SL. NO.	DESCRIPTION	SUBSTATION: Augmentation of existing 220/132 KV Byrnihat S/S to 400KV (GIS)
7	SWITCHYARD ERECTION	
	Equipment Structure	60.00
	Other Equipment (Busbar matls.)	88.00
	Equipment Civil Works	167.00
	Erection	8.85
	Sub-Total 7	323.85
8	SUBSTATION AUXILIARIES	223.25
	Total Equipment Cost	7137.30
	Customs Duty plus Handling Charges	603.42
	Preliminary & Gen. Civil Works	686.00
	Total Cost	7823.30



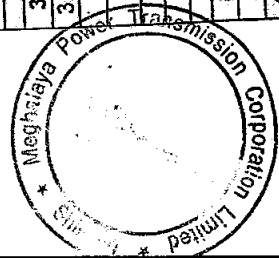
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COST BREAK UP OF SUB STATION EQUIPMENT											
PROJ TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GEPP AND BONGAIGON TPS (under the scope of MeECL)											
CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL											
SUBSTATION: Augmentation of existing 220/132 KV Bymbat S/S to 400KV (GIS)											
1.3890											
Sr. No.	Description	Unit	Qty.	Incl. E.D.	Rate	Total	Spares	Exw. & Spares	F & I @ 6% CST @ 2%	Ere/Civil Works	Total
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11=8-9+10	
1.1	315 MVA, 400/220KV, 3PH Auto Transformer	Nos.	2	778.61	1557.23	77.86	1635.09	121.65	28.10	1784.84	
	Type test charges incl short ckt. Test	LS	1	367.00	367.00		367.00			367.00	
1.2	50MVAR, 420KV Line Reactor	Nos.	1	266.23	266.23	13.31	279.54	20.80	11.78	312.12	
	Type Test Charges	LS	1	5.99	5.99	5.99	5.99			5.99	
1.3	63MVAR, 420KV Bus Reactor	Nos.	1	327.15	327.15	16.36	343.51	25.56	13.21	382.28	
	Type Test Charges	LS	1	5.00	5.00	5.00	5.00			5.00	
2.1	420 KV GIS Equipment	Set	2	499.59	999.18	49.96	1049.14	62.95	55.90	1167.99	
2.1.1	420KV, 2000A, SF6 gas insulated Line feeder bay module each comprising of SF6 gas insulated circuit breaker, current transformer, bus-bar disconnectors with common grounding switch, safety grounding switches, high speed fault making grounding switches, local control cubicle, SF6 gas monitoring system for complete bay, gas insulated terminal connection for connecting overhead line (Air/SF6) with GIS through gas insulated interconnection bus (2000A rating etc.) to complete	Set	2	362.78	725.55	36.28	761.83	45.71	66.20	873.74	
2.1.2	420 KV, 2000A, SF-6 Gas Insulated ICT feeder Bay Module each comprising of SF-6 gas insulated circuit breaker, current transformer, bus-bar disconnectors with common grounding switch, safety grounding switches, local control cubicles, SF 6 gas monitoring system for complete bay, gas insulated terminal connection for connecting ICT (air/SF6) bushing with GIS through gas insulated interconnection bus (2000 A rating) etc. including Surge Arrester to complete Transformer bay module.	Set	1	362.78	362.78	18.14	380.92	22.86	33.10	436.87	
2.1.3	420 KV, 2000A, SF-6 Gas Insulated Bus Reactor Bay Module each comprising of SF-6 gas insulated circuit breaker, current transformer, bus-bar disconnectors with common grounding switch, safety grounding switches, local control cubicles, SF 6 gas monitoring system for complete bay, gas insulated terminal connection for connecting Reactor (air/SF6) with GIS through gas insulated interconnection bus (2000 A rating) etc. including surge arrester to complete Reactor bay module.	Set	1	362.78	362.78	18.14	380.92	22.86	33.10	436.87	



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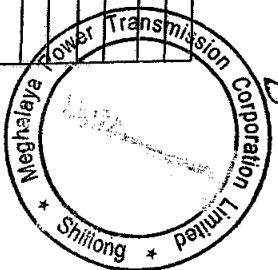
COST BREAKUP OF SUB STATION - EQUIPMENT										
ANNEXURE - 1.3.1										
(Rs. in Lakhs)										
PROJ TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAO TPS (under the scope of MeECL)										
CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL										
SUBSTATION: Augmentation of existing 220/132 KV Bymihat S/S to 400KV (GIS)										
14030										
Sr. No.	Description	Unit	Qty.	Rate	Total	Spares	Total Exw. & Spares	F & I @ 6% CST @ 2%	Ere/Civil Works	Total
				Incl. E.D.						
1	2	3	4	5	6=4x5	7	8=6+7	9	10	11=8+9+10
2.4	72.5KV Equipment	Nos.	1	11.26	11.26	0.00	11.26	0.84	0.10	12.20
2.4.1	72.5 KV Circuit Breaker, 3-ph	Nos.	1	1.99	1.99	0.00	1.99	0.15	0.10	2.24
2.4.2	72.5 KV Isolator, 3-ph	Nos.	3	0.80	2.40	0.00	2.40	0.18	0.08	2.66
2.4.3	72.5 KV Current Transformer 1-ph	Nos.	3	0.91	2.74	0.00	2.74	0.20	0.10	3.04
2.4.4	72.5 KV Potential Transformer 1-ph	Nos.	3	0.91	2.74	0.00	2.74	0.20	0.10	3.04
	Sub - Total 2.4				18.39	0.00	18.39	1.37	0.39	20.15
3.0 Control & Relay Panels										
3.1	Control & Relay Panels (400 KV)	Nos.	4	5.02	20.10	2.01	22.11	1.64	0.12	23.87
3.1.1	CB Relay panel without A/R	Nos.	2	5.05	10.10	1.01	11.11	0.83	0.06	12.00
3.1.2	CB Relay panel with A/R	Sets	2	9.14	18.27	1.83	20.10	1.50	0.07	21.67
3.1.3	Line protection panel	Sets	2	11.57	23.14	2.31	25.45	1.89	0.06	27.40
3.1.4	Transformer protection panel (HV & MV sides)	Sets	2	8.47	16.95	1.70	18.65	1.39	0.07	20.11
3.1.5	Reactor protection panel	Sets	1	63.20	63.20	6.32	69.52	5.17	0.03	74.72
3.1.6	Bus bar protection panel (duplicate)	Nos.	1	4.27	4.27	0.43	4.70	0.35	0.00	5.05
3.1.7	Relay test kit	Nos.	1	156.03	156.03	15.61	171.64	12.77	0.41	184.82
	Sub - Total 3.1		1	67.31	67.31	6.73	74.04	5.51	1.80	81.35
3.2 SUBSTATION AUTOMATION AUGMENTATION FOR 400 KV (7NOS) & 220 KV (2 NOS) Bays										
3.3	Control & Relay Panels (220KV)	Nos.	2	5.02	10.05	1.01	11.06	0.82	0.06	11.94
3.3.1	CB Relay panel without A/R	Nos.	2	5.02	10.05	1.01	11.06	0.82	0.06	11.94
	Sub - Total 3.3				233.39	23.35	256.74	19.10	2.27	278.11
	Sub - Total 3									
4.0	PLCC Equipment	Nos.	4	3.14	12.57	1.26	13.83	1.03	0.32	15.18
4.1	PLCC Equipment (400 KV) *	Nos.	2	0.88	1.77	0.18	1.95	0.15	0.08	2.18
4.1.1	2000A, 0.5 (1.0 mH Line Traps	Nos.	1	1.35	1.35	0.14	1.49	0.11	0.34	1.94
4.1.2	Ph. To Ph. Coupling Device	Km.	6	3.02	18.10	1.81	19.91	1.48	0.20	21.59
4.1.3	H.F. Cable	Nos.	4	1.43	5.72	0.57	6.29	0.47	0.12	6.88
4.1.4	Carrier Equipment	Nos.	4	1.43	5.72	0.57	6.29	0.47	0.12	6.88
4.1.5	Prot. Coupler	Nos.	4	1.43	5.72	0.57	6.29	0.47	0.12	6.88

COST BREAK UP OF SUB STATION -EQUIPMENT

PROJ TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAOIN TPS (under the scope of M&ECL)
CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to M&ECL
SUBSTATION: Augmentation of existing Z20/132 KV Bymhat SIS to 400KV (GIS)

ANNEXURE - 1.3.1
 (Rs. in Lakhs)

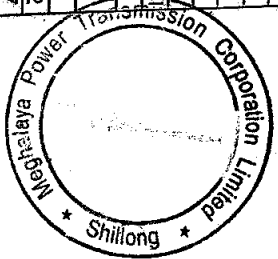
Sr. No.	Description	Unit	Qty.	Incl. E.D.	Rate	Total	Spare	Total Exw. & Spares	F & I @ 6%	CST @ 2%	Ere/Civil Works	Total
14030												
2.1.3	420KV, 3 single phase (isolated), SF6 gas insulated, metal enclosed 3000A bus bars each enclosed in three individual bus enclosures running along the length of the switchgear to interconnect each of circuit breaker bay module. Each bus bar set shall be complete with Voltage transformer, disconnectors with grounding switch, local control cubicle, SF 6 gas monitoring system for the complete bus etc.	Set	2	5	74.53	149.07	7.45	156.52	9.39	76.01	11=8+9+10	241.92
2.1.4	420KV, 3000A, SF6 gas insulated bus coupler bay module comprising of SF6 gas insulated circuit breaker, current transformer, disconnectors switches, safety grounding switches Local control cubicle, SF6 gas monitoring system for the complete bay etc.	Set	1	5	238.45	238.45	11.92	250.37	15.02	3.66		269.50
2.1.5	Testing & Maintenance equipments for GIS	Set	1	5	36.49	36.49	0.00	36.49	2.19	0.00		38.68
	Partial Discharge monitoring system	Set	1	5	42.67	42.67	0.00	42.67	2.56	0.00		45.23
	TYPE TEST & TRAINING CHARGES							147.09				147.09
	Sub Total 2.1					2554.19	123.75	2825.03	160.68		234.86	3221.02
2.2	420 KV Equipment											
2.2.1	420 KV Isolator 1-ph	Nos.	2	5	6.06	12.12	2.00	14.12	1.05	0.52		15.69
2.2.2	420 KV CVT 1Ph	Nos.	6	5	4.13	24.81	4.13	28.94	2.15	0.20		31.30
2.2.3	390 KV Surge Arrester 1Ph	Nos.	18	5	1.37	24.67	4.11	28.78	2.14	0.69		31.61
	Sub Total 2.2					61.60	10.25	71.85	5.34	1.41		78.60
2.3	220KV Equipment											
2.3.1	220 KV Circuit Breaker 3Ph	Nos.	2	5	13.01	26.01	4.29	30.30	2.25	0.45		33.01
2.3.2	220KV Isolator 3-ph	Nos.	8	5	2.83	22.66	1.90	24.56	1.83	1.58		27.97
2.3.3	220KV Current Transformer 1Ph	Nos.	6	5	2.78	16.68	2.78	19.46	1.45	0.30		21.21
2.3.4	218 KV Surge Arrester 1Ph	Nos.	6	5	0.45	2.70	0.45	3.15	0.23	0.16		3.54
	Sub - Total 2.3					68.05	9.42	77.47	5.76	2.50		85.74



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COST BREAK UP OF SUB STATION EQUIPMENT.

PROJECT TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GRRP AND BONGAIGAOIN TPS (under the scope of MeeCL)										ANNEXURE - 1.3.1	
CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeeCL										(Rs. in Lakhs)	
SUBSTATION: Augmentation of existing 230/132 KV Bymhat SIS to 400KV (GIS)											
Sr. No.	Description	Unit	Qty.	Rate	Total	Spares	Total Exw. & Spares	F & I @ 6% CST @ 2%	Ere/Civil Works	Total	
1.4030											
1	1	3	4	5	6=4x5	7	8=6*7	9	10	11=8+9+10	
4.16	Telephone Instruments (4 wire)	Nos.	2	0.04	0.08	0.01	0.09	0.01	0.02	0.12	
4.17	Telephone Instruments (2 wire)	Nos.	10	0.01	0.07	0.01	0.08	0.01	0.08	0.17	
4.17	Testing and maintenance Equipment	Nos.	1	1.14	1.14	0.11	1.25	0.09	0.00	1.34	
Sub - Total 4.0					40.80	4.09	44.89	3.35	1.14	49.38	
SMITHYARD ERECTION											
5.0	Equipment Structure	L.S.	1		60.00		60.00			60.00	
6.0	Other Equipment (Bus Bar materials)	L.S.	1		88.00		88.00			88.00	
7.0	Equipment Civil works	L.S.	1						167.00	167.00	
8.0	Electric	L.S.	1						8.85	8.85	
Sub - Total					148.00	0.00	148.00	0.00	175.85	323.85	
SUBSTATION AUXILIARIES											
9.0	Fire Fighting System	L.S.	1		56.00		56.00			56.00	
10.0	Ventilation System for 400KV GIS HALL	L.S.	1		25.00		25.00			25.00	
11.0	Lighting system	L.S.	1		49.00		49.00			49.00	
12.0	Power & Control Cables	L.S.	1		80.00		80.00			80.00	
13.0	LT Transformer 33KV/0.433KV 630 KVA.	Nos.	1	12.21	12.21		12.21	0.91	0.13	13.25	
Sub Total					222.21	0.00	222.21	0.91	0.13	223.25	
Sub station Total					5,875.23	278.39	6,300.70	364.52	471.64	7,137.30	
PROJECT TOTAL - SUBSTATIONS					5,875.23	278.39	6,300.70	364.52	471.64	7,137.30	
- CUSTOMS DUTY PLUS HANDLING CHARGES										603.42	



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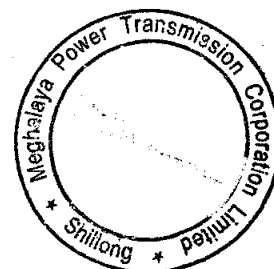
PHASED FUND REQUIREMENT
(BASE COST)

TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND
BONGAIGAON TPS (under the scope of MeECL)

(CONSULTANCY SERVICES - Deposit Work on Cost Plus Basis to MeECL)

FIGS. IN RS. CRORES

YEAR	EXP. EXCL. IDC	IDC	TOTAL
2011 - 2012	22.73	0.09	22.81
2012 - 2013	46.58	0.46	47.04
2013 - 2014	36.36	0.66	37.02
2014 - 2015	7.95	0.00	7.95
TOTAL	113.61	1.21	114.82



JK

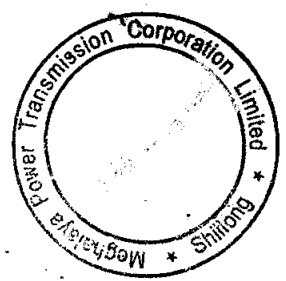
CALCULATION OF INTEREST DURING CONSTRUCTION FOR TRANSMISSION SYSTEM ASSOCIATED WITH PALLATANA GBPP AND BONGAIGAO N TPS (under the scope of MoECL)
 (CONSULTANCY SERVICES - Deposit Work on Capex Plus Data to MoECL)

Rate of Interest	2011 - 2012 (July 2011 - Mar 2012)		2012 - 2013		2013 - 2014 (April 2013 - Dec 2013)		2013 - 2014 (Jan 2014 - Mar 2014)		2014 - 2015		GRAND TOTAL
	Original Phasing	TOTAL for the year	Original Phasing	TOTAL for the year	Original Phasing	TOTAL for the year	Original Phasing	TOTAL for the year	Original Phasing	TOTAL for the year	
10.5%	2.20	2.28	4.24	4.71	2.70	3.36	0.34	10.66	0.79	11.48	11.48
Equity (IR)+ GRANT (80%)	20.53	20.53	42.33	42.33	30.25	30.25	3.07	96.18	7.10	103.34	103.34
TOTAL	22.73	22.81	46.58	47.04	32.95	33.01	3.41	106.87	7.95	114.82	114.82
Equity as % of Total cost		90.00%		90.00%		90.00%		90.00%		90.00%	90.00%

NOTE:
 1. Scheduled commissioning date of the project has been considered after 30 months, which is to be reckoned from the date of agreement / release of advance whichever is later. However for calculation of IDC the same is taken as 30 months.
 2. The project is proposed to be funded by 90% Debit (GO) Grant & 10% Loan. Loan has been assumed to be available from Domestic sources. Rate of Interest on Domestic Loan as 10.5% payable at the end of the year.
 3. The Transmission System has been considered to be executed by the POWERGRID with a Debt : Equity ratio of 10:90.

GRAND TOTAL (2011 - 2015)

(FOR BASE COST)		
Financing Details	Rate of Interest	Total Incl. IDC
Domestic Loan (10%)	10.28	1.21
Equity (IR)+ GRANT (80%)	103.34	103.34
TOTAL	113.61	114.82



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MEGHALAYA STATE ELECTRICITY BOARD
OFFICE OF THE MEMBER (TECHNICAL)
LUMJINGTAL SHOR1 ROUND ROAD, SHILLONG-1.

P1/2

ANNEXURE-4-0

Phone (0364) 2590289 Fax (0364) 2591174

No. MTN/2007/224/64

Dated, Shillong, the 26th March, 2010

To

The General Manager (Projects),
Power Grid Corporation of India Limited,
Dongtich, Lower Nongruh,
Lapaleng, Shillong-793006.
(Fax No. 0364-2536387)

Sub.

DPR for Transmission System associated with Pallatana GBPP-
Bongaigaon TPS under the scope of MeSEB.

Ref:

Your letter No. NESH/PESM/446/458 dt 19.03.2010.

Dear Sir,

With reference to the above, I am to inform you that additional land measuring about 5.7 acres is being acquired for the 400KV sub-station through the Deputy Commissioner of Ri-Bhoi District, Nongpoh. In this connection, it is requested that the DPR received from you for the Transmission System associated with Pallatana GBPP-Bongaigaon TPS under the scope of MeSEB be revised and the following items included:

1. Land Cost & development	=	Rs. 1.50 Crores
2. Trees & crops compensation	=	Rs. 0.80 Crores
3. R & R cost	=	Rs. 0.70 Crores
4. Roads & boundary walls	=	Rs. 1.00 Crore

You are requested to submit the revised DPR, so that Board's approval may be obtained at the earliest.

Yours faithfully

(Signature)
26/3/10
(C.D. Saio)
Member Technical

SAVE ENERGY FOR THE BENEFIT OF SELF AND NATION

0124-2571861

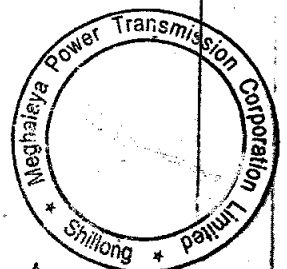
SA. S. MITTAL

GZM, BDD, CC

As discussed kindly arrange to forward the Revised DPR as desired by MeSEB above (with copy to RHO, Shillong) for further needful.

Kindly incorporate the items as indicated by MeSEB in the DPR & re-submit the DPR accordingly.

(Signature)
30/3/2010
GZM, NER



2010 12 20 FAX 884050

POWER GRID GM

02

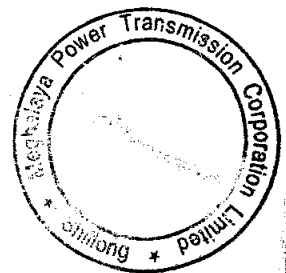
P 2/2

Memo No. MIN/2007/224/64(a)

Dated, Shillong, the March, 2010.

Copy to: The Chief Engineer (Transmission), MeSEB, Shillong. This has reference to his letter No. MeSEB/CE(T/T)-49/2009-10/61 dt. 24.03.2010, and according to the discussion with him on 26.03.2010.

[Signature]
26/3/10
Member Technical



SAVE ENERGY FOR THE BENEFIT OF SELF AND NATION

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[Handwritten mark]

Power Grid Corporation of India Limited
North Eastern Region Transmission System
Regional Head Quarter, Shillong



Inter Office Memo

From: GM (Projects)
Shillong

To: Shri S. Mittal
GM (BDD), CC

Handwritten notes:
21/12/10
C/S
D/S
30/3/10

Ref: NESH/PESM/446/471
Date: 30-03-2010

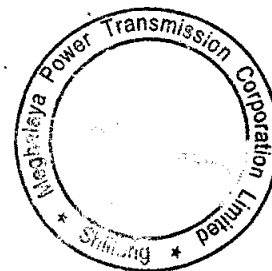
Sub: DPR for transmission system associated with Pallatana GBPP and Bongaigaon TPS under scope of MeSEB

This is in continuation to our earlier fax sent to you today indicating the additional costs such as Land cost and development, Tree & crop compensation, R&R cost and Road & Boundary wall to be considered in the Revised DPR.

Further to the above, we have tentatively assessed the cost of site leveling which is estimated to be about 1.5 crore. Therefore land cost & development may be considered as 3.0 crore instead of 1.5 crore as communicated to you earlier

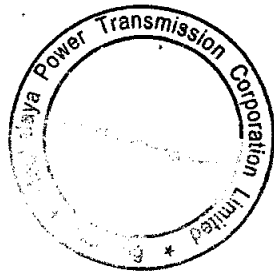
Regards ()

Handwritten signature: M. Hazarika
30/03/2010



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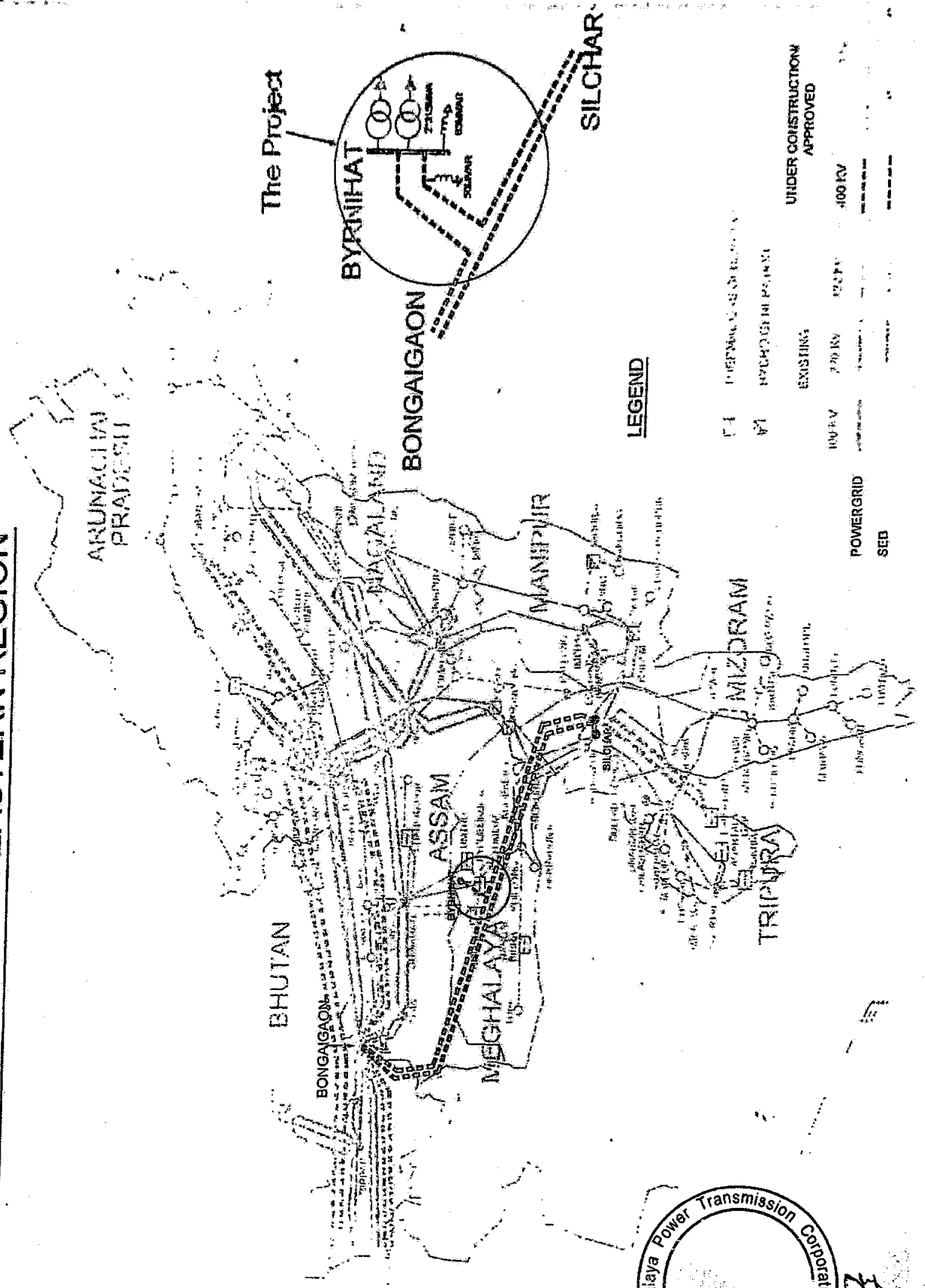
EXHIBITS



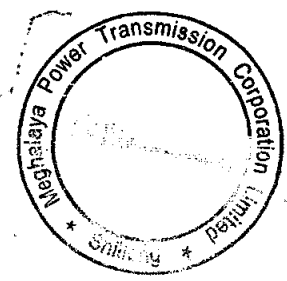
387

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POWER MAP OF NORTH EASTERN REGION



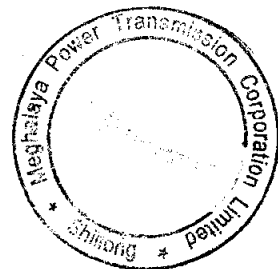
388



SA

EXHIBIT - 2.0

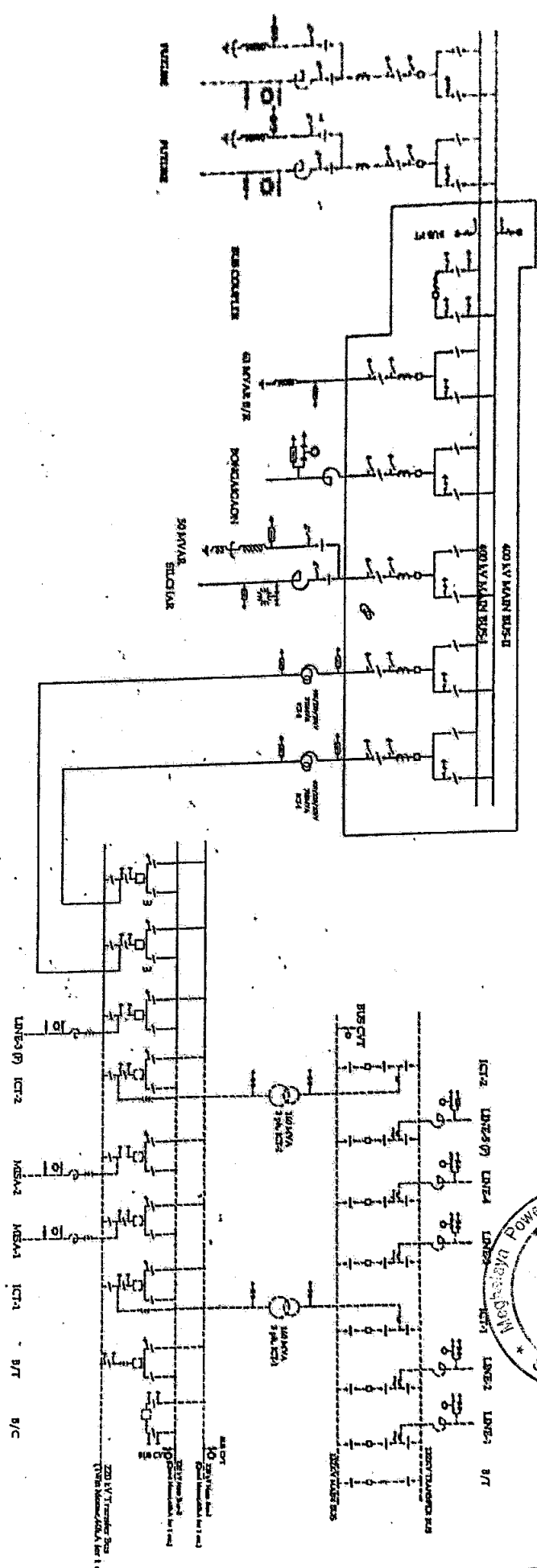
**SINGLE LINE DIAGRAM
- SUBSTATIONS**



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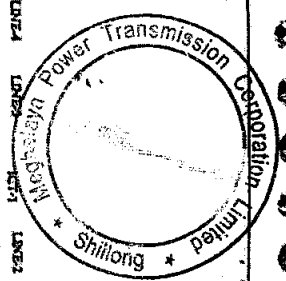
97

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



LEGEND:-

- _____ PRESENT SCHEME
- _____ EXISTING
- _____ FUTURE



POWER GRID CORPORATION OF INDIA LIMITED	
(A GOVERNMENT OF INDIA ENTERPRISE)	
CLEARED BY	PROJECT
CIVIL	PALANAYAN C/P & B/S
SIZE	TRANSMISSION SYSTEM
SUBSTATION:	
400/220/132 KV BERSHILAT (UPGRADATION)	
TITLE	
SINGLE LINE DIAGRAM	

COMPLETION CERTIFICATE

1. Name of the Project : LILO of one circuit of Palatana-Bongaigaon 400kV line at Killing with 400/220 kV, 2 x 315 MVA GIS substation in Meghalaya.
2. Location : Bynihat
3. Date of approval of the project : 06th July, 2011
4. Approved Cost : ₹ 9966.65 Lakhs (under NLCPR funding)
5. Date of completion of the project / scheme : The transmission line and sub-station was commissioned & charged on the 22nd February, 2015.
6. Executing Agency : Meghalaya Power Transmission Corporation Limited (State Govt./PSU/ Other Agency) (MePTCL).

Certified that a total sum of ₹ 9966.65 Lakhs was made available as assistance under the NLCPR scheme against the sanctioned project i.e. for the 'LILO of one circuit of Palatana-Bongaigaon 400 kV line at Killing with 400/220 kV, 2 x 315 MVA GIS substation in Meghalaya and a sum of ₹ 9966.65 Lakhs had been fully utilized for the works for which it was sanctioned.

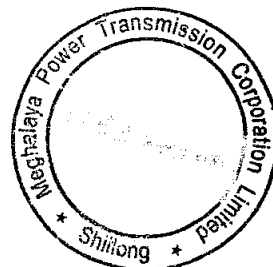
It is also certified that the following components of the Project in accordance with the Detailed Project Report, have been physically completed out of the above fund:

The work for construction of the LILO of one circuit of Palatana-Bongaigaon 400 kV line at Killing with 400/220 kV, 2 x 315 MVA GIS substation in Meghalaya.

Therefore the cost of the project which was made available as assistance under the NLCPR Schemes as per approved cost of ₹ 9966.65 Lakhs had been fully utilized.

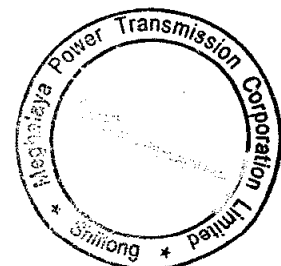
(E. W. Nongrum)

Chief Engineer(Transmission)



Asset - II

Funding - Asset V			
Sanction No. & date	10% State Share (Loan) 6801 @8.65%	REC loan	Total
NO.POWER .44/2009/144 Dt.29.7.2011	373.89		373.89
NO.POWER .44/2009/215 Dt.20.3.2013	398.67		398.67
POWER .44/2009/264 Dt.18.7.2013	207.01		207.01
POWER .44/2009/379 Dt.31.3.2017	17.10		17.10
Vide Agreement No. REC/POS/Tech-261/158(ii). Dated 06.07.2015		1,268.10	1268.1
Total amount sanctioned	996.67	1,268.10	2264.77



GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

172 c

No. POWER-44/2009/144,

Dated Shillong, the 29th July, 2011.

From :- Shri C.M. Syiem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To The Senior Electrical Inspector,
Inspectorate of Electricity, Govt. of Meghalaya, Shillong.

Subject :- Sanction of the NLCPR Scheme for construction of LILO of one Circuit of
Pallatana Bongaigaon at Killing along with 400/220 KV, 2x315 MVA GIS
substation at Killing.

Sir,

I am directed to convey the administrative approval of the Governor of Meghalaya for the scheme referred to above for an amount of Rs 9348.00 lakhs and to sanction the release of Rs 33,65,00,000/- (Rupees thirty three crores sixty five lakhs) only being the first installment of Grant as sanctioned by Ministry of Development of North Eastern Region and Rs. 3,73,89,000/- (Rupees three crores seventy three lakhs eighty nine thousand) only being the Loan component to be released to Meghalaya Energy Corporation Limited, for "Construction of LILO of one Circuit of Pallatana Bongaigaon at Killing along with 400/220 KV, 2x315 MVA GIS substation at Killing" during the annual plan 2011-2012.

The amount is released subject to the following terms and conditions :-

- (1). The Loan will carry an interest rate at 8.65% per annum with a rebate of 0.25% for timely payment. Payment of Interest is half-yearly.
- (2). In case of default, a penal interest of 2.5% over the normal rate is chargeable.
- (3). The Loan is repayable in 10(ten) equal annual installments commencing from the second anniversary of the date of drawal of the Loan.

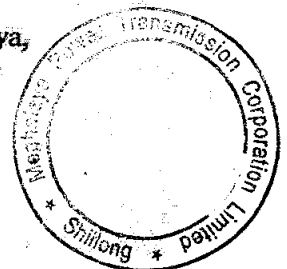
The expenditure for Grant portion is debitable to the Head of Account "2801-Power-80-General-101-Assistance to EBs-(08)-NLCPR-05-LILO of one circuit of Palatana-Bongaigaon 400 KV Line at Killing with 400/220 KV, 2x315 MVA GIS sub-station-53- Major works-General Plan" during 2011-2012.

For the Loan portion the expenditure is debitable to the Head "6801-Loans for Power Projects - 800 Other Loans to Electricity Board - (04) - NLCPR - 55 - Loans and Advances - General Plan" during 2011-2012.

The sanction is issued with the concurrence of Finance Control-I Department vide their I/D No.FC(I)220/11-12, dated 28-07-2011.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department.



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Handwritten notes and signatures: "AO, I" with a signature, "25/7/11" and another signature.

GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

Dated Shillong, the 20th March, 2013.

POWER.44/09/215.

From: Shri C.M. Syiem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To: The Senior Electrical Inspector,
Inspectorate of Electricity, Govt. of Meghalaya,
Shillong.

Subject :- Sanction for the construction of LILO of one circuit of Palatana-Bongaigaon
at Killing with 400/220 KV, 2x315 MVA GIS Sub-Station at Killing under NLCPR.

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for an amount of
Rs. 3,98,67,000/- (Rupees three crores ninety eight lakhs sixty seven thousand) only being the 10% State's share of the 2nd
Installment towards the construction of LILO of one circuit of Palatana-Bongaigaon at Killing with 400/220 KV, 2x315 MVA GIS
Sub-Station at Killing under NLCPR to the Meghalaya Energy Corporation Limited during 2012-13.

The expenditure is debitable to the Head of Account "2801-Power-80-General-101 Assistance to Electricity
Boards -(08) NLCPR- 05- LILO of one circuit of Palatana-Bongaigaon 400 KV Line at Killing with 400/220 KV, 2x315 MVA GIS
Sub-station-53-Major works- Sixth Schedule Part-II Areas Plan" during 2012-13.

However, the amount of Rs. 398.67 lakhs is released as "Loan Component" subject to the following terms
and conditions :-

- (1) The Loan will carry an interest rate at 8.65 % per annum with a rebate of 0.25% for timely payment. Payment
of interest is half-yearly.
- (2) In case of default, a penal interest of 2.5% over the normal rate is chargeable.
- (3) The Loan is repayable in 10(ten) equal annual installments commencing from the second anniversary of the
date of drawal of the Loan.

This sanction issues with the concurrence of Finance (EC-I) Department vide I/D No. FC(I)969/2012-13, dated
19-03-2013.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department

Memo No. POWER.44/09/215 -A.

Dated Shillong, the 20th March, 2013.

Copy to :-

1. Finance (EC-I) Department
2. Planning Department
3. Finance (EA) Department.
4. Finance (B) Department with request for issue L.O.A.
5. The Director (Finance), MeECL.
6. The Director (Distribution), MeECL.
7. The Director (Generation), MeECL.
8. The Director (Transmission), MeECL.
9. The Chief Accounts Officer, MeECL.
10. Treasury Officer, Shillong.
11. Guard file.

By Order, etc.

Under Secretary to the Govt. of Meghalaya,
Power Department

Dated Shillong, the 20th March, 2013.

Memo No. POWER.44/09/215 -B.

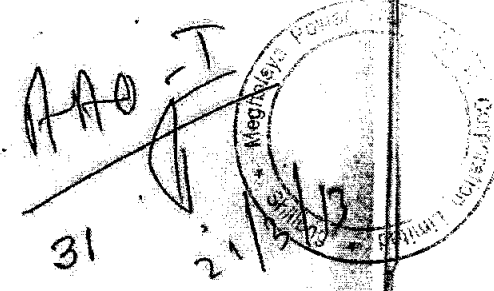
Copy forwarded to :-

1. The Principal Accountant General (Audit), Meghalaya (Attention CASS Section), Shillong - 793 001.
2. The Accountant General (A & E), Meghalaya, Shillong - 793 001.

By Order, etc.,

Senior Financial Adviser,
Power Department

NLCPR



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GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

Dated Shillong, the 19th July, 2013.

ER. 44/2009/264.

From :- Shri C.M. Sylem,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To
The Senior Electrical Inspector,
Inspectorate of Electricity, Govt. of Meghalaya,
Shillong.

Subject :- Sanction for construction of LILO of one circuit of Palatana-Bongalgaon at Killing with 400/220 KV, 2 x 315 MVA GIS Sub-station.

Sir,
I am directed to convey the sanction of the Governor of Meghalaya for an amount of Rs. 1863.10 lakhs [Rupees eighteen crores sixty three lakhs ten thousand] only being the 3rd instalment of the Grant released by the Ministry of DONER under NLCPR and Rs.207.01 lakhs (Rupees two crores seven lakhs one thousand) only as Loan to Meghalaya Energy Corporation Limited for construction of LILO of one circuit of Palatana-Bongalgaon 400 KV Line at Killing with 400/220 KV, 2 x 315 MVA GIS Sub-station during 2013-2014.

The expenditure of Rs 1863.10 lakhs under Grant is debitable to the Head of Account "2801-Power-80-General-101 Assistance to Ebs - (08) NLCPR 05. LILO of one circuit of Palatana-Bongalgaon at Killing with 400/220 KV, 2 x 315 MVA GIS Sub-station -53. Major Works sixth Schedule Pt.II Areas Plan during 2013 - 2014."

The amount has been made available by Re-appropriation sanctioned by Finance Department vide Memo No. FC(1) NL/13-14/6(R), dt. 16/7/13.

The expenditure of Rs. 207.01 lakhs under Loan is debitable to the Head of Account "6801-Loans for power projects -800 -other loans to Ebs- (04) - NLCPR - 55. Loans and advances -Sixth Schedule part -II Areas Plan" which has also been made available by Re-appropriation sanctioned vide Finance(EC-I) Department's Memo No.FC(1) NL/13-14/7 (R) dated 16/7/13.

The sanction for the above loan however is subject to the following terms and conditions :-

1. The loan will carry an interest rate at 8.65 % per annum with a rebate of 0.25% for timely payment. Payment of interest is half-yearly.
2. In case of default, a penal interest of 2.5% over the normal rate is chargeable.
3. The loan is repayable in 10(ten) equal annual instalments commencing from the second anniversary of the date of drawal of the loan.

This sanction issues with the concurrence of Finance (EC-I) Department vide I/D No. FC(I)211/2013-14, dated 16-07-2013.

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department
Dated Shillong, the 18th July, 2013.

Memo No. POWER.44/2009/264-A.

Copy to :-

1. Finance (EC-I) Department
2. Planning Department.
3. Finance (EA) Department.
4. Finance (B) Department with request for issue of L.O.A.
5. The Director (Finance), MeECL.
6. The Director (Distribution) MeECL.
7. The Director (Generation), MeECL.
8. The Director (Transmission), MeECL.
9. The Chief Accounts Officer, MeECL.
10. Treasury Officer, Shillong.
11. Guard file.

By Order, etc.,

Under Secretary to the Govt. of Meghalaya,
Power Department
Dated Shillong, the 18th July, 2013.

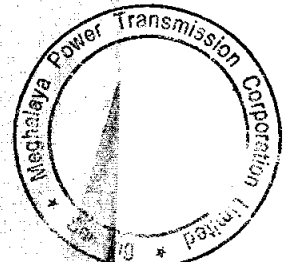
Memo No. POWER.44/2009/264-B.

Copy forwarded to :-

1. The Principal Accountant General (Audit), Meghalaya (Attention: CAS Section), Shillong - 793 501.
2. The Accountant General (A & E), Meghalaya, Shillong - 793 001.

By Order, etc.,

Senior Financial Adviser,
Power Department



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GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

No. POWER.44/2009/374.

Dated Shillong, the 31st March, 2017.

From :- Smti. E. Rapthap,
Under Secretary to the Govt. of Meghalaya,
Power Department.

To The Senior Electrical Inspector,
Inspectorate of Electricity,
Meghalaya, Shillong.

Subject :- Sanction for 'Construction of LILO of one Circuit of Palatana-Bangaigaon
400 kV line at Killing with 400/220kV, 2x315 MVA GIS Sub-station'.

Sir,

I am directed to convey the sanction of the Governor of Meghalaya for the balance amount of Rs. 1,53,90,000/- (Rupees one crore fifty three lakhs ninety thousand) only as Grant approved by the Ministry of DONER under NLGPR and Rs. 17,10,000/- (Rupees seventeen lakhs ten thousand) only as the 10% state share (Loan) for 'Construction of LILO of one Circuit of Palatana-Bangaigaon 400 kV line at Killing with 400/220kV 2x315 MVA GIS Sub-station', to MeECL, during 2016-17 subject to the condition that the expenditure should be within the ceiling of the Revised outlay.

The above amount of Rs. Rs.1,53,90,000/- lakhs under Grant is debitabale to the Head of Account "2801-Power-80-General-101. Assistance to EEs-(08) NLGPR-05. LILO of one Circuit of Palatana-Bangaigaon 400 kV line at Killing with 400/220 kV, 2x315 MVA GIS Sub-station-50.Other Charges-General Plan" and the amount of Rs. 17,10,000/- under state share is debitabale to the Head of Account '6801-Loans for Power Projects-800-Other Loans to EEs-(05) State Plan Loans-55.Loans and advances-General Plan' sanctioned by R.A. vide Memo No.FC(I)NL/16-17/40(R), dated 31-03-2017, subject to the following terms and conditions :-

1. The Loan will bear a rate of interest at 8.10% per annum with a rebate of 0.25% for timely payment. Payment of interest is half-yearly.
2. In case of default, a penal interest of 2.5% over and above the normal rate will be charged.
3. The loan is repayable in 10(ten) equal installments commencing from the Second Anniversary of the date of drawal of the Loan.

This sanction issues with the approval of the Empowered Sanctioning Committee communicated by Planning Department vide Memo No.PLR.143/2011/Pt-1/112-A, dated 31-03-2017 and the concurrence of Finance Department vide I/D No.FC(I)1348/2016-17, dated 31-03-2017.

G = 153.90 } credits on
L = 17.10 } 26/5/17

Yours faithfully,

Under Secretary to the Govt. of Meghalaya,
Power Department

Memo No.POWER-44/2009/374-A .

Dated Shillong, the 31st March, 2017.

Copy to :-

1. Planning Department with reference to I/D No.2108 dated 31-03-2017.
2. Finance (EA) Department.
3. Finance (EC-I) Department, with reference to ID No.FC(I)1348/2016-17 dated 31-03-2017.
4. Finance (B) Department, with a request for issue of L.O.A.
5. The Chairman-cum-Managing Director, MeECL.
6. The Director (Finance), MeECL.
7. Director (Transmission), MePTCL.
8. The Chief Accounts Officer, MeECL
9. The Treasury Officer, Shillong District Treasury.
10. Guard File

Memo No.POWER.44/2009/374-B

Copy forwarded to :-

- 1.The Principal Accountant General (Audit),Meghalaya (Attention CASS Section),Shillong-793 001
- 2.The Accountant General (A & E), Meghalaya, Shillong - 793 001.

AAO-I
26/5/17

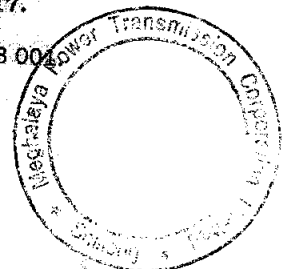
By Order, etc.,

Under Secretary to the Govt. of Meghalaya,
Power Department

Dated Shillong, the 31st March, 2017.

By Order, etc.,

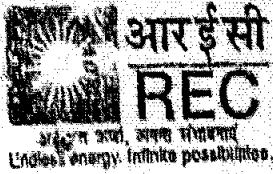
Senior Financial Adviser,
Power Department



Scanned with CamScanner

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RURAL ELECTRIFICATION CORPORATION LIMITED
 (A Government of India Enterprise)
 (CIN: L40101DL1069GOI005095)
 Project Office- "Rinadee", Lachumiere, Shillong-793 001
 Telephone: 0364- 2210190, Fax: 0364-2225687
 Email: poshillong@recl.nic.in, Web: www.recindia.nic.in

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No: REC/POS/Tech-261/15B (ii)

Dated: 06/07/2015

The
 Chairman and Managing Director
 Meghalaya Power Transmission Corp Ltd
 Lumjingshal, Short Round Road
 Shillong, Meghalaya - 793001

Recd on
 8/7/15

SEI
 As discussed
 7/19/15

Sanction Letter

Sub.: Financial assistance of Rs. 1268.10 lakh for construction of 400/220 KV Byrnihat GIS Substation and Associated Transmission Line in Ri-bhoi district of Meghalaya under the jurisdiction of MePTCL (Scheme Code No. ML-TD-SPU-498-2015-9411) under P:SI (Transmission) category.

Ref: Application for Financial Assistance submitted vide Letter No. MePTCL/DT/T-193/2015/1 dated 14/04/2015 of the Director (Transmission) of MePTCL.

Dear Sir,

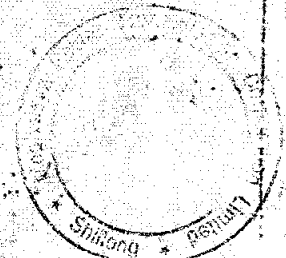
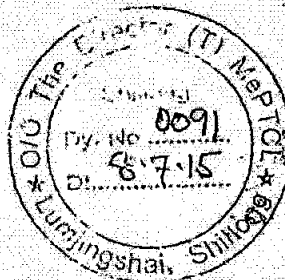
Please refer to the above cited Loan Application for financial assistance from Rural Electrification Corporation Limited to finance the proposed Electrification works of Construction of 400/220 KV Byrnihat GIS Substation and Associated Transmission line in Ri-bhoi district of Meghalaya under the jurisdiction of MePTCL at a total project-cost of Rs. 11234.75 lakh.

The proposal has been considered and REC is agreeable to finance Rupee Term Loan Assistance (the "RTL assistance") to the extent of Rs. 1268.10 lakh (Rupee one thousand two hundred sixty eight lakh and ten thousand only). Details of the scheme(s) are as follows.

File
 7-193

Name of the scheme	Construction of 400/220 KV Byrnihat GIS Substation & Associated Transmission Line
District	Ri-bhoi
Scheme Code No.	ML-TD-SPU-498-2015-9411
Cost of the project	Rs. 11234.75 lakh
IDC if any	Nil
Cost Escalation if any	Nil
Total Cost including IDC & Escalation (if any)	Rs. 11234.75 lakh
Promoter's contribution (Equity component %)	Rs. 9966.66 lakh
Loan amount sanctioned	Rs. 1268.10 lakh
Extent of financing (% of loan to Project Cost)	11.29 %

- The aforesaid term loan is subject to the general terms and conditions set out in Annexure-I. Details of project sanction are enclosed at Annexure A, B and C. The loan would be further subject to the conditions as set out in the Rupee Term Loan Agreement to be executed between the MePTCL and REC.



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The sanction letter is sent to you in duplicate and in case the above terms and conditions are acceptable to MePTCL, it is requested to return one copy of the same duly signed as token of acceptance of the terms and conditions of sanction within a period of thirty days from the date of receipt of this letter.

3. MePTCL shall communicate to REC within 30 days from the date of receipt of this letter that the terms and conditions set out herein are acceptable to it. Unless the loan agreement and other documents relating to the above assistance are executed by MePTCL in such form as may be required by REC within six months from the date of this letter, or within such further time as may be allowed by REC in its absolute discretion, this communication should not in any way be construed as giving rise to any binding obligation on the part of REC.
4. All the Annexures are deemed to be part of this letter.

It is requested to please acknowledge receipt of this letter.

Yours faithfully,


(Subhendu Roy)
Chief Project Manager

Enclosed: As above.

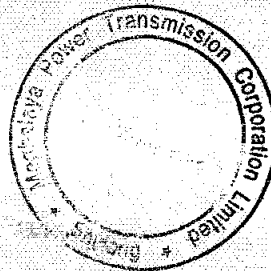
Copy Communicated for kind information to:

MePTCL:

1. The Director (Finance), MePTCL, Shillong
2. The Director (Transmission), MePTCL, Shillong
3. The Company Secretary, MePTCL, Shillong
4. The Chief Accounts Officer, MeECL Shillong

RECL:

1. The Director (Technical), REC Ltd, New Delhi - 110 003
2. The Director (Finance), REC Ltd, New Delhi - 110 003
3. The ED (T&D), REC Ltd, New Delhi - 110 003
4. Sri L M Varma, AGM (Loans), REC Ltd, New Delhi - 110 003
5. Smt. Malti Sunderajan, AGM (Loans), REC Ltd, New Delhi - 110 003
6. The Zonal Manager (EZ), Kolkata
7. The Sr Executive (F&A) PO Shillong
8. Document/ Scheme File



General Terms & Conditions for sanction of Rupee Term Loan to MePTCL (Scheme Code No. ML-TD-SPU-498-2015-9411) under P:SI (Transmission) category

1. Details of sanctioned Loan Amount:

Name of the scheme	Construction of 400/220 KV Bymihar GIS Substation & Associated Transmission Line
District	Ri-bhoi
Scheme Code No.	ML-TD-SPU-498-2015-9411
Cost of the project	Rs. 11234.75 lakh
IDC if any	Nil
Cost Escalation if any	Nil
Total Cost including IDC & Escalation (if any)	Rs. 11234.75 lakh
Promoter's contribution (Equity component %)	Rs. 9966.66 lakh
Loan amount sanctioned	Rs. 1268.10 lakh
Extent of financing (% of loan to Project Cost)	11.29

2. **Validity of Sanction:** The sanction shall be valid for a period of six months from the date of issue of sanction letter, unless all the loan documents are executed to the satisfaction of the REC (referred hereinafter as "the Lender" or "REC") within six months after complying with the Terms & Conditions as mentioned hereunder. However, the lender can extend validity period at its sole discretion on being satisfied for the reasons of delay furnished by the MePTCL.

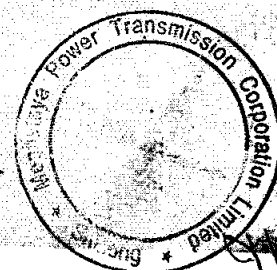
3. Loan Agreement:

- The MePTCL shall execute within six months time or such extended period, as the case may be, the Loan Agreement or "Rupee Term Loan Agreement" (referred hereinafter as "RTLA"), in the form prescribed by the REC for this purpose.
- All the Terms and Conditions herein and of the RTLA shall have full force and effect till all amounts due from the MePTCL under the RTLA are paid off in full to the Lender.
- The sequence of appearing of the conditions herein is not desired to have any preferential order of implementation and hence should not be construed accordingly. All conditions listed herein shall be applicable either concurrently or as the merit of the case may require without any preference of implementation order.
- Loan documentation of the scheme shall be executed by REC Project Office, Shillong only after ensuring that there is no default on the date of documentation.

4. **Other Agreement:** The MePTCL shall also execute such other agreements and documents as may be prescribed for the purpose by the Corporation and as may be necessary in terms of security provided by them, namely, Hypothecation Deed, Default escrow agreement etc., Documents have to be registered and charge created with the ROC affixing on appropriate value of stamp paper, as applicable.

5. Scheme Implementation and Loan Disbursement Period:

- The MePTCL shall complete the work relating to the scheme(s) within the scheme period of 6 months from the date of release of 1st installment. Unless the Lender agrees otherwise, the MePTCL's right to make draws from the Rupee Term Loan shall cease at end of scheme



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period by default. However, claims submitted within a period of one month after the completion of scheme period will be considered for release.

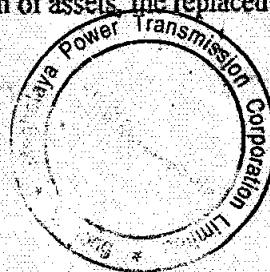
b) The Lender may agree to the request of the MePTCL to extend the period of disbursement of loan and implementation of the project beyond the scheduled completion date. This date would be the revised completion date after the extension is approved by REC. However the period of moratorium and repayment of loan will continue to remain the same as per the original terms of sanction and will not be affected by the extension in the period of disbursement of loans and implementation of the project.

c) Works completed within one year prior to issue of sanction letter is also admissible for disbursement under the scheme.

6. Pre Commitment Conditions:

The MePTCL shall furnish the following certificates to facilitate disbursement of loan from the Lender:

- a) "That the loan applied for and being granted by the Lender to the MePTCL is within the borrowing powers of the MePTCL in accordance with the laws, by-laws and rules applicable to it and all formalities required by the laws/by laws regulating the work and conduct of the MePTCL in respect of such borrowing have been fully complied with and shall be used exclusively for the purpose of project stated above for which this Rupee Loan has been sanctioned by the Lender".
- b) That all the works covered under this scheme are being financed by REC and certificate from the authorized Officer of the MePTCL that the works for which the claim is being lodged, have not been or are not being proposed to be financed from any other loan from REC or from any other funding agencies, including State Government.
- c) That the assets created under the scheme, shall remain hypothecated to REC as per terms of agreement (wherever applicable).
- d) That MePTCL is not a defaulter on its loan to REC.
- e) That the MePTCL shall raise and proportionately invest equity portion (where applicable) along with REC loan and that they shall not utilize it for repayment/settlement of outstanding liabilities.
- f) That the MePTCL will submit implementation schedule and draw down schedule, when asked for.
- g) That the MePTCL shall obtain all statutory and non-statutory clearance as applicable for implementation of the project.
- h) That the MePTCL will create security as acceptable to REC.
- i) That only new and unused equipment will be used for the projects.
- j) That in case of works involving replacement/augmentation of assets, the replaced assets are not already hypothecated to REC or any other lenders.



7. Pre Disbursement and Disbursement conditions: Appendix to this Annexure enclosed.

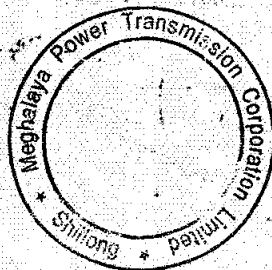
8. Draw down schedule, Upfront fees and Commitment Charges: Not required

9. Interest Rates and Interest Reset Period:

- a) The interest shall be charged on the Loan as per the prevailing category of the Utility/Borrowers, at the rate prevailing on the date of each disbursement, subject to interest reset as per REC's latest loan policy circular (Copy enclosed).
- b) The interest shall be payable quarterly by the Borrower on 20th March, 20th June, 20th September and 20th December every year till the full Loan amount along with all other dues are paid to the Lender. There is no moratorium for payment of interest.
- c) Interest on amounts outstanding (including overdue and penal interest) under the facility shall accrue from day to day and be calculated on the basis of the actual number of days elapsed on a year of 365 (three hundred sixty five) days.
- d) Notwithstanding anything stated hereinbefore, it will be open to the Lender to periodically reduce or enhance the rate of interest in respect of loan installments not disbursed up to the date of such revision. The revision in the rate of interest shall take effect from such date as may be notified by the Lender in this behalf.
- e) The MePTCL shall exercise the option of the reset of Interest Rate in respect of the Rupee Term Loan before seeking first disbursement of loan and the option once exercised shall be final and binding and can not be modified at a later stage during the subsistence of loan tenure.

10. Loan Repayment / Moratorium Period

- a) The period of moratorium for repayment of principal shall be 6 month from the date of disbursement of first installment of loan but the entire loan shall be repaid by the MePTCL within a period of 10 years 6 months (6 months moratorium + 10 years repayment period) from the date of disbursement of the first installment of loan. The principal installment is payable in equal annual installments on 15th of the month in which the 1st disbursement was made.
- b) The MePTCL shall pay interest as indicated in clause (9) above during the period of moratorium. The repayment of principal thereafter will be effected on the basis of equal Annual installments and interest shall be calculated at the rates prescribed in clause (9) above on the amount outstanding.
- c) It shall be endeavour of the MePTCL to ensure the realization of all payments due from them at the designated bank branch at New Delhi or other places as may be directed by the Lender on the dates on which the same falls due or immediately preceding working day if such due date is a bank holiday at the recipient branch.



11. Interest and Liquidated damages on default amount

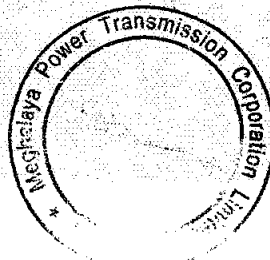
- a) In case of default in payment of any repayment installment or payment of interest, fee or other monies on their respective due dates (the defaulted amount), the borrower shall pay to the lender (for the period of default) interest on the defaulted amount at the applicable rates and liquidated damages on the default amount prescribed under the REC policy (which is presently 2% per annum), both compounded on quarterly basis.
- b) Further in the event of default in payment of interest and/or repayment of principal by the MePTCL, unless otherwise agreed, subsequent receipts shall be appropriated as per the Accounting Policy of the Lender.
- c) Further, in case of such defaults, Lender shall have absolute rights to either enforce the entire or any part of securities created under the RTLA and/or to take possession of charged assets including entire or any part of plant/project and sell, transfer or dispose otherwise as the Lender may deem fit beside of taking necessary legal recourse as may be available to the Lender.
- d) The occurrence of default shall be judged during any stage of subsistence of RTLA by the lender at its sole discretion which shall be final.
- e) The Lender shall have right to call for premature repayment of entire or any part of outstanding Loan amount at any time during the subsistence of this RTLA without assigning any reason, if Lender is satisfied that any of terms and conditions of this RTLA has been deviated/violated materially, or the loan amount has been used for the purpose other than the specified purpose, or no work is taken up in the project within one year after drawal of first installment (unless otherwise approved for revival), or viability of the Project, financial strength of Promoters or the Security created herein has deteriorated substantially, or the scheme is intended for closure with less than 50% financial achievement. And in such an event, the entire outstanding loan shall be immediately payable by the MePTCL to the Lender along with outstanding interest and applicable penal interest shall also be payable from the original date of disbursement of the loan.
- f) Notwithstanding anything stated above, the lender reserve the right to cancel the commitments i.e sanction loan amount or stand by facilities and credit lines, either fully or partially, unconditionally without prior notice at any time.

12. Prepayment

The MePTCL shall not prepay the outstanding amount of the Rupee Term Loan in full or in part unless the Lender gives its explicit consent for such repayment. Prepayment of the Rupee Term Loan shall be at the sole discretion and on the terms and conditions (including prepayment premium) as may be stated by the Lender on such request. During the period of consideration of the Borrowers request/application for prepayment, the borrower shall continue to service the loan/pay interest at the applicable rate.

13. Service Tax, levies & duties and other Costs and Expenses

All rates of interest / fees and other charges mentioned in this agreement are exclusive of service tax and /or any such other levies/ duties. Such service tax/ other levies/ duties, if any applicable, including stamp duties, court fee, professional fees, cost and charges for counsel/



advocate's fees for drafting, vetting of loan documents, and rendering opinions, advice, creation of security, investigation of title, protection of the Lender's interests and expenses and fees incurred/ borne by the Lender for the monitoring and inspection of the project implementation/ operation by its representative and any other charges or surcharges as levied by the Government or any other statutory authorities on any Rupee Term payment under the loan or any other activity directly applicable to the Term Loan shall be payable by the MePTCL to the Lender in addition to and in the manner of the Loan Repayment / Interest Payments.

It shall also be endeavor of the MePTCL to keep indemnified the Lender, at all times during the subsistence of this RTLA, of any loss/ costs/ expenses suffered due to the conduct of MePTCL or out of execution of intent RTLA or collection, preservation, disposing or otherwise dealing the offered Securities as per provisions herein.

14. Security

The loan along with interest and other charges shall be secured by providing any of the following options/combination of securities:

Option-I:

- i) Bank Guarantee for a minimum of 25% of the value of loan amount sanctioned.
- ii) Creation of charge by Hypothecation of future assets to be created (out of the project loan sanctioned by REC) up to 100% of the value of loan amount sanctioned; and
- iii) Creation of Charge of Hypothecation of existing assets for the balance 5% of the value of loan amount sanctioned.

OR

Option-II

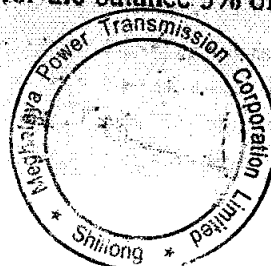
- i) Creation of charge by Hypothecation of existing fixed assets related to plant and machinery/equipment in Thermal & Hydro – Electric Power Generation Stations and 400/230/220/132/110/66/33 KV power substations and 11/0.415 KV Distribution Sub Stations and all lines from 11 KV up to 400 KV level, for a minimum of 30% of the value of loan amount sanctioned.
- ii) Creation of charge of Hypothecation of future assets to be created (out of the project cost sanctioned by REC).

OR

Option-III.

- i) English/Equitable/Simple Mortgage with or without pari-passu charge on existing Immoveable properties i.e. land together with buildings and other civil works attached thereto for a minimum 25% of the value of loan amount sanctioned and
- ii) Creation of charge by hypothecation of future assets to be created (out of the project cost sanctioned by REC) and
- iii) Creation of charge by Hypothecation of existing assets for the balance 5% of the value of loan amount sanctioned.

OR



Option-IV

- i) State Government Guarantee for a minimum of 30% of the value of loan amount sanctioned.
- ii) Creation of charge by Hypothecation of future assets to be created (out of the project cost sanctioned by REC).

OR

Option V:

State Govt. Guarantee (Individual/Bulk/Revolving) to the extent of 100% of the loan amount which shall also cover the interest, penal interest and other charges thereon. The loan shall be guaranteed by the State Government fully and unconditionally in respect of repayment of principal and payment of interest and other charges thereon, either by being secured by an individual guarantee or a Bulk/Revolving Guarantee executed between the said government and the Lender and/or between lender and WBSETCL, as may be prescribed by the Lender before draws of loans are permitted.

OR

Option VI:

English/Equitable/Simple Mortgage without pari-passu charge on other existing immovable properties i.e. Land together with buildings and other civil works attached thereto, subject to compliance of requirement as to clear title as prescribed by REC in this behalf. The value of Securities shall be 130% of the loan amount to cover the interest thereon and depreciation.

OR

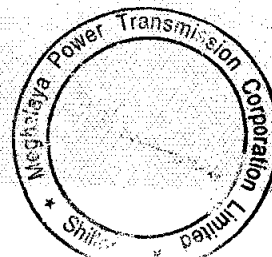
Option VII:

In case of State Sector Projects, Mortgage/Hypothecation of future assets so created out of loan amount sanctioned for the project subject to the value being 110% of the loan amount so sanctioned. The security by way of creation of charge on FUTURE ASSETS ONLY shall be accepted subject to the loan amount being restricted to 90% of the project cost.

Any of the above options/combinations of securities shall be acceptable to REC subject to the following conditions:-

- a) It shall be ensured that the total value of securities shall be 130% (except in case of option V&VII) of the loan amount sanctioned, to cover the loan amount sanctioned, interest thereon and depreciation in the value of assets charged.
- b) In the case of prior charge on assets to be mortgaged/hypothecated, it shall be ensured that first pari-passu charge will have to be to the extent of security coverage available in relation to the value to be charged.
- c) Borrower will also have the option, after moratorium period as provided in the sanction letter, to replenish Bank Guarantee with Mortgage/Hypothecation of existing unencumbered fixed assets in proportion to the amount of loan repaid. Such replenishment may be allowed on annual basis at the discretion of REC, subject to the condition that at any given point of time the aggregate value of securities shall not be less than 130% of the loan amount sanctioned.

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- d) If at any time during the currency of RTL the lender is of the opinion that the security provided by the borrower has become inadequate to cover the balance of the loan then outstanding the borrower shall provide and furnish to the lender additional security as may be acceptable to the lender to cover such deficiency.
- e) In case of privatization of the borrower the entire dues of REC to be repaid in full or secured to the satisfaction of REC in the manner that REC would require.
- f) In case of charge on movable and immovable assets of the borrower:
- (i) First Charge/ pari-passu charge on all movable and immovable assets (both present and future) of the project shall be created in favour of REC wherever reimbursement against land is taken from REC it is subject to equitable mortgage Irrespective of the option available in REC guidelines. To make such charge meaningful appropriate provision will be made to the satisfaction of REC to allow REC the right to inspect, take position thereof and sell the same in accordance with the provisions of the Securitization Act.
 - (ii) Project Assets to be created shall be mortgaged/ hypothecated /assigned in favour of REC, and further, BORROWER during the pendency of REC loan, shall not mortgage/hypothecate this assets in favour of any institution other than REC without prior written permission from REC.
 - (iii) It shall be endeavour for the Borrower to ensure registration of charge with the Registrar of Companies (ROC), and /or, with any other statutory authority in this regard, as the case may be, and shall furnish the necessary details and testimonials in this regards, before as well as after creation of securities, as required herein, and any further registration of charges with ROC/other statutory authorities shall be done only with prior approval of the lender.

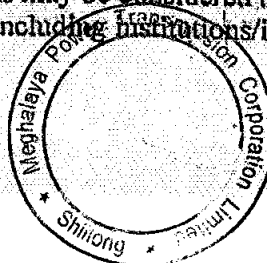
15. Other Conditions:

- (i) Payment security:
 - a) As payment security during the construction stage and during the loan repayment period, MePTCL shall make operational a default Escrow arrangement for payment to the satisfaction of REC.
 - b) The escrow account to be opened will be exclusively in favour of the lender for the due amount.

16. Project Progress Reports and Inspections:

- a) The MePTCL should furnish quarterly progress report and provide other information on the progress of work, including photographs if any, of the project in the prescribed stages of project implementation/ financial progress.
- b) It will be open to the Lender to arrange for inspection/monitoring of the implementation of the project at all stages in respect of such matters as may be considered necessary and expedient either by itself or by monitoring agencies including institutions/individuals as

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may be appointed by the Lender. In particular, the inspection/monitoring envisaged will include the following:

- i) Arrangements for organization, materials/equipment purchased, according to specifications and verification of quality of materials/equipment.
- ii) Proper modification / improvements of the Transmission / Distribution network, inventory of the material utilized, submission of reports on pre and post efficiency measurements.
- c) The officers/staff/consultants deputed by the Lender for the inspection/monitoring of matters relating to the project shall have access to such books and records of the MePTCL as may be deemed necessary by them. The MePTCL shall also furnish such reports on its working either in general or in specific relating to the Project financed by the Lender in the manner prescribed by the Lender from time to time.
- d) The MePTCL will carry out and comply with such further changes, modifications, improvements and/or guidelines as may be given by the Lender in the course of or on the basis of inspections so undertaken for the purpose of more effective and proper implementation of the project.
- e) The MePTCL will furnish to the Lender such reports, returns, information, statements etc. at such intervals and in such manner as may be prescribed by the Lender from time to time in regard to implementation of the Project.
- f) The MePTCL will permit and depute its officers and other employees as may be considered necessary by the Lender for the purpose of providing training from time to time in the procedures to be followed for making modifications/improvements in the project as may be considered relevant by the Lender

17. Loan Assignment:

The MePTCL agrees that the Lender shall be fully empowered to assign the debt and the benefit of this loan, guarantees and the securities to be created for the loans to the Government of India, RBI or any other institution as security of any refinance/arrangement which may be worked out by the Lender with such organization in respect of the loan and the MePTCL shall, as and when required by the Lender, join in doing and executing all such acts, deeds, documents and assurances as the Lender may require for effectuation of such assignment.

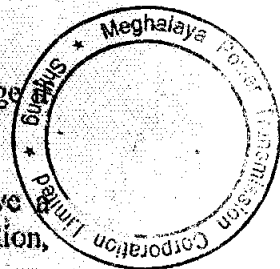
18. Project Clearance:

The MePTCL shall obtain all applicable statutory and other clearances from the Central/State Govt. and all other agencies required for implementation of the Project and installation of plant and systems.

19. Other Terms and Conditions:

The MePTCL shall always ensure that:

- a) REC reserves the right to specify additional requirement by REC, in security package any, in terms & conditions and loan documents.
- b) MePTCL shall keep REC informed about any happening/events which shall have a substantial effect on the business of the MePTCL & shall provide necessary information.



in case of any new project/expansion of existing project taken up during the currency of REC loan. REC shall have the right to cancel/recall the entire loan in case of misrepresentation/ suppression of information, if any noticed at any stage.

- c) In case the project is abandoned/stuck-up by any of the reason, MePTCL shall be bound to repay its entire outstanding loan amount immediately.
- d) MePTCL not to transfer or abandon the project at any stage or in any manner whatsoever without prior written consent of REC.
- e) MePTCL will be required to display board at the site showing that the project is financed by REC.
- f) No dividend would be declared by MePTCL if there is any default to the REC's loan.

20. Maintenance of Books of Accounts and Audit thereof

The MePTCL shall maintain all the time during subsistence of RTLA, proper accounts and other records and prepare annual financial statements and get them audited as are required by Indian Companies Act or other relevant law and shall furnish to the lender the Unaudited Financial Statements within 3 months and Audited Financial Statements within 7 months from the close of relevant accounting years.

21. Demand Notice

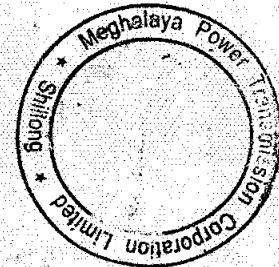
The Lender shall send demand notice of the amount falling due to be paid by the MePTCL to the Lender at least 7 business days in advance to the Due Dates of such payments solely for the convenience of the MePTCL. However, any delay or absence of such demand notices shall not absolve the MePTCL of their obligations under RTLA.

22. REC's liability Rested

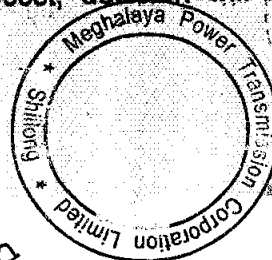
Notwithstanding to above and hereafter, the REC shall not be liable for any direct or indirect loss/ damage/ injury to the property, manpower or business of the MePTCL or their affiliates caused due to the act, negligence, misconduct or omission of the Lender or its representative(s) except as defined herein or by virtue of any prevalent law.

23. Interpretations

The decision of Chairman & Managing Director of REC Ltd. in all matters including interpretation of any clause relating to the RTLA shall be final and binding on the MePTCL.



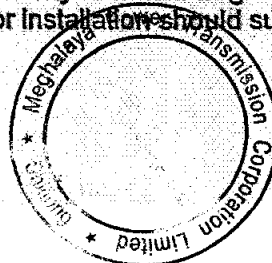
1. **Conditions to be fulfilled before start of disbursement**
 - (i) Creation of security as per REC policy and execution of the prescribed loan and security documents.
 - (ii) fulfilment/compliance of all terms and conditions for such disbursement as per the clauses of the sanction letter
 - (iii) Acquisition of land for sub stations for which disbursement of loan against the sub station is requested (wherever applicable).
2. **General Conditions for disbursement**
 - (i) Mobilisation advance to the utility/borrower and advance to be paid to turnkey contractor will be disbursed by REC only in case of availability of adequate upfront security (existing assets, Govt Guarantee (GG), Bank Guarantee (BG) etc) and on submission of audited invoice for such payment of advance.
 - (ii) In case of advance payment, the extent of advance would be limited to:
 - a) Loan amount more than Rs. 100 cr - upto 10% of loan amount
 - b) Loan amount more than Rs. 50 cr but is upto Rs. 100 cr - Upto 15% of the loan amount
 - c) Loan amount upto Rs. 50 cr - Upto 20% of loan amount.
 - (iii) Any disbursements by REC against the project shall be on pro rata reimbursement basis for completed works/material supplied/erection work completed (as applicable) based on the progress report duly approved and signed by the borrower or based on bills paid to contractor or invoice value for equipment/material, as applicable.
 - (iv) In case of reimbursement based on progress report submitted by the utility (i.e reimbursement based on cost data approved at sanction), claims can also be admitted against receipt of material at site, only for those items where separate cost of material is identifiable and if the Claim is supported by a certificate from the utility for a) receipt of the material at site, (b) quantum of supply of material, c) rate and d) that no other finance has been obtained for the item from other Banks/FIs. Claim admitted and released on this basis shall be deducted from the actual claim after total works of each item is completed and becomes payable as per reimbursement norms of REC.
 - (v) Direct payment to contractors/suppliers is permissible, if desired by the utility, as per prevailing policy of REC from time to time.
 - (vi) In case the award cost of the project, together with any establishment/administration/other costs as permitted by the regulator for capitalization against the project, is less than the sanctioned project cost, REC's reimbursement would be limited to such actual award cost plus establishment/administration/other costs as permitted by the regulator for capitalization against the project (needs to be substantiated by suitable approval for extent of such overheads by Director/Board of utility/Borrower). In case of awarded cost is more than the sanction cost, if the utility requests for reimbursement on the higher cost, decision will be taken at the time



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- depending on the merits of the case. In case of reduced award cost, the milestones in monitoring guidelines will be applicable with respect to the final award cost.
- (vii) In case the specific scheme cost is subsequently reduced by the regulator, the utility shall inform REC and the loan by REC would be accordingly modified/reduced. In case the scheme cost approved by the regulator is more than the scheme cost sanctioned, and if the utility requests for additional loan, decision will be taken at that time depending on the merits of the case.
- (viii) Physical progress made against the scheme within one year prior to actual sanction, could be considered as permissible expenditure for reimbursement. Claims submitted within a period of one month after the completion of scheme period, for works done within the scheme period will be considered for release. In this case, scheme completion period is the scheme implementation period sanctioned, reckoned from the date of first disbursement.
- (ix) In case of SPA schemes, the 1st installment of loan will be released on closure of operations under ongoing scheme in that area.
- (x) The RAPDRP projects will not be eligible for first instalment as advance as GoI loan of 15% is provided upfront to the utility. REC shall release the funds against the 75% of the counterpart funding, based on the progress submitted by the utility, only after the expenditure against the project has exceeded 15% of the cost of the project. The utility shall certify that the 15% advance disbursed by GOI has been utilized only for that project for which it was given, at the time of submission of the first claim.
- (xi) For R-APDRP Projects, The period for completion of the project, loan closing date and date for admissibility of claims for expenditure shall be as per PFC/GoI sanction.
- (xii) For APDRP schemes, In case the scheme cost is revised subsequently by the Steering Committee, the utility would furnish the details thereof. In case of reduction in scheme cost approved by the Steering Committee vis-à-vis the original cost, the loan would be accordingly reduced to 75% of the revised cost. In case of increase in the scheme cost approved by the Steering Committee, and if the utility requests for additional loan, decision will be taken at that time depending on the merits of the case.
- (xiii) For Bulk Loan Schemes, the release would be up to 90% of the invoice value of the equipment/material supplied, after pro-rata adjustment of initial advance if any. Each claim shall also be supported by the following documents:
- a. The original invoice, along with a copy of the invoice for each consignment, should be attached with the claim duly approved and signed by the authorised officer of the Division/Circle of the Board/utility. The original invoice will be returned to the borrower after the following certificate is recorded prominently on each page of the same by the concerned CPM/ZM:
"All the material /equipment, under this invoice are being financed by the REC under scheme code no. _____."
- b. A certificate from the authorised officer of the Division/ Circle of the Utility/Board that the equipment/material have been duly received in good order and have been issued or under issue to the field officer for installation should support this.



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A certificate from the authorised officer of the borrower that the equipment/material, for which the claim is being lodged, have not been or are not proposed to be financed from any other loan from REC or any other funding agency, including the State Govt.

d. 10% of the retained individual invoice value, would be released after the borrower certifies that equipment/material has actually been installed in the field.

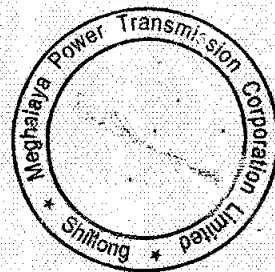
3. Special conditions (to be inserted only in cases of Integrated-SBBs and single DISCOM states where exposure beyond 100% of REC's networth is permitted)

- a. Where the existing AT&C losses are more than 30%, the borrowing entity shall undertake to bring down losses by a minimum 2% per annum for that entity till it reaches the level of 30%; and
- b. Where the existing AT&C losses are less than 30% but more than 20%, the borrowing entity shall undertake to bring down losses by a minimum 1% per annum for that entity till it reaches the level of 20%.
- c. The base data for AT&C losses referred to in (a) & (b) above would be 31st March of the financial year in which the project is sanctioned.

Accordingly, utility would undertake to bring down the losses as per above stipulations, by way of a certificate to be furnished each FY.

4. Monitoring

Monitoring of all projects shall be as per the applicable monitoring guidelines of REC. Bulk Loan schemes are exempt from monitoring.



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RURAL ELECTRIFICATION CORPORATION LIMITED
Lending Rates effective from July 1, 2015

ANNEXURE "A"
(LPC No. 0322015 Dated June 30, 2015)

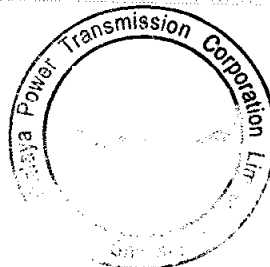
I - TERM LOANS - (With reset after every 3 years)								
Sl. No.	Category of Loans / Schemes	State Sector Borrowers (Category "A+" and Identified CPSUs and AAA Rated Companies)	State Sector Borrowers (Category "A" & "B"), Central Sector Borrowers (other than Identified CPSUs & AAA Companies)	Private Sector Borrowers				
				With Integrated Rating of IR-1	(a) With Integrated Rating of IR-2 (b) Entity Grade: I & II	(a) With Integrated Rating of IR-3 (b) Entity Grade: III & IV (c) DISCOM Grade- A	With Integrated Rating of IR-4	(a) With Integrated Rating of IR-5 (b) Entity Grade: V (c) DISCOM Grade- B (d) Non Graded
A) Term Loan/Schemes (% p.a.)								
1	Conventional Generation	12.00	12.25	12.60	13.00	13.25	13.50	13.75
2	Non-Conventional Generation - a) Renewable Energy Projects except Biomass Projects (within purview of MNRE) b) Biomass Projects	11.50	11.75	11.50	12.25	12.50	12.75	13.00
3	R&M, R&U, Distribution and other Schemes	11.75	12.00	12.25	12.50	12.75	13.25	13.50
4	Transmission Schemes	11.60	11.85	12.10	12.35	12.60	13.10	13.35
5	Computerization	12.25	12.50					
B) Loan to Equipment Manufacturers								
1	Upto 1 year	12.25	12.50	12.75	13.00	13.25	13.50	13.75
2	More than 1 year and up to 3 years	12.75	13.00	13.25	13.50	13.75	14.00	14.80

II - TRANSITIONAL FINANCING LOANS - (With reset after every 3 years)				
Particulars	Category A+	Category A	Category B	Category C
1 If interest is paid Quarterly	12.00	12.25	12.50	12.75
2 If interest is paid Monthly	11.88	12.13	12.37	12.62
3 In case of Newly incorporated GENCOs/TRANSCO/ DISCOMs formed out of Bifurcation/Re-organisation of state (On Monthly rests)	12.50	12.75	13.00	13.25

III - SHORT TERM LOANS (STL) / MEDIUM TERM LOANS (MTL)				
Sl. No.	Category of Borrower	Interest Rates for STL for more than 3 months and upto 6 months, with monthly rests (%)	STL	MTL (only for State Sector Borrowers)
			Interest Rates for STL for more than 6 months and upto 1 year, with monthly rests (%)	Interest Rates for MTL for more than 1 year and upto 3 years, with monthly rests (%)
1	Central Sector Borrowers/ Identified CPSUs/ State Sector Borrowers Category "A+"	12.00	12.25	12.75
2	State Sector Borrowers Category "A" and other CPSUs	12.25	12.50	13.00
3	State Sector Borrowers Category "B" / Private Sector Borrowers ("AAA")	12.50	12.75	13.25
4	State Sector Borrowers Category "C" / Private Sector Borrowers other than "AAA"	12.75	13.00	13.50

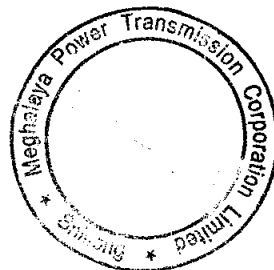
PS : For "Notes" please see next page.

P.T.O.



Notes:

1	The above rates are effective rates on quarterly rest basis except for STL/Transitional Financing Loans/MTL (if interest is paid monthly) where rates are with monthly rest.
2	25 bps discount shall be allowed for Financial Assistance under schemes of (i) Short Term Loans (ii) Medium Term Loans and (iii) Transitional Financing to Discoms, where such Financial Assistance is secured by the State Government Guarantee.
3	Interest rate for Term Loans with "Reset after every 10 Years", shall be 15 bps lower than the rates of Term Loans with "Reset after every 3 years".
4	Identified CPSUs are NTPC, NLC, DVC, NHPC, NPCIL, PGCIL, SJVNL, THDC, RITES, BHEL, IFCI, EESL or any other entity as identified by the Corporation from time to time.
5	The rates mentioned as above for Computerisation are not applicable for AAA private sector borrowers.
6	The revised interest rates as above will be applicable in respect of all disbursements made on or after July 1, 2015.
7	In respect of Private Sector Borrowers, Grades-I, II, III, IV & V and Borrowers with Integrated Rating of IR-1 to IR-5 as stated above are based on REC's internal categorization methodology.
8	In respect of State Sector Borrowers, the rating "A+", "A", "B", "C" are based on the REC's internal grading methodology.
9	For State Sector category "C" borrowers, the applicable rates would be 0.50% higher than the applicable rates for State Sector category "A" Borrowers.
10	A volume discount of 25 bps on applicable interest rates can be offered in case of loans for distribution & transmission schemes on future sanctions, if disbursements under these schemes reach target amount within specified period. The minimum disbursement amount to be considered for offering this discount is Rs.700 crore in case of Discoms & Transco and Rs.1000 crore for an integrated SEB for the combined disbursement for its Distribution and Transmission schemes. For this purpose, borrowers shall be required to sign a MoU with REC, committing to draw the required amount within a period of two and half years from the date of signing of MoU. The Transmission and Distribution loans sanctioned after signing of MoU with REC would be eligible for the benefit under this policy. The discount under the policy shall be passed on to the borrowers only on the interest due on or after drawal of Rs.700 crore/Rs.1000 crore as applicable. The total disbursement made during the specified period shall be eligible for a discount of 25 bps from the applicable rate till it is repaid.
11	A general rebate of 25 bps on the prevailing interest rates for T&D projects / schemes and additional rebate of 25 bps for compliance with reform conditionalities as stipulated by Ministry of Power from time to time, is applicable to North Eastern States only in line with our existing Loan Policy Circulars No.SEC-1/8(1)/2006/342 dated November 27, 2006 and No.SEC-1/8(1)/2008/1165 dated June 9, 2008.
12	In case of Joint Venture being formed by Identified CPSUs / State Sector Borrowers / Central Sector Borrowers among themselves, the applicable rate of interest for such JV entity shall be same as applicable to the entity holding 51% or more equity in the said JV.
13	In case of Generation projects, if there is a Government Sector entity (Other than identified CPSUs / rated State entities and AAA rated companies) which has presently not been rated, interest rates as applicable to the GENCO of the respective State would apply to such entities, till it is rated.
14	For corresponding effective annualized interest rates Annexure-B attached to this Loan Policy Circular may please be referred to.
	Not Applicable



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REC Limited | अरईसी लिमिटेड
(Formerly Rural Electrification Corporation Limited)
(भारत सरकार का उद्योग) / (A Government of India Enterprise)
Regd. Office: Con-4, SCOPE Complex, 7, Lodhi Road, New Delhi 110 003
Tel: +91-11-4309 1600 | Fax: +91-11-2436 0644 | Website: www.recindia.com
CIN : L46101DL1969GOI005695 | GST No.: 07AAACR4612R123

13-Apr-23
Page 1 of 2



REC Limited World Headquarters, Sector-29, Gurugram, Haryana - 122007
Phone : 43091580, Fax : 011-24368553
E-mail : loans.rec1@gmail.com
CIN : L40010DL1969GOI005095

To,

GOVT. OF MEGHALYA-DDUGJY
Accounts Department, "Lum-Jingshai" Short Round Road

Shillong
Meghalaya

Subject : Confirmation of Loan Balances as on 31-MAR-23

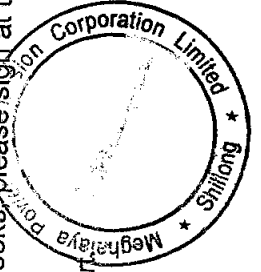
Dear Sir,

As per our records, the balance of Term loan outstanding in respect of your organization as on 31-MAR-23 is as under:

	(Rupees)
Opening Loan Balances as on 01-APR-22	
Add: Loan disbursed from 01-APR-22 to 31-MAR-23	1,292,748,233.51
Less: Loan repaid from 01-APR-22 to 31-MAR-23	0.00
Closing Loan Balances as on 31-MAR-23	6,769,750.00
	1,285,978,483.51

Kindly confirm the above loan balance as per your books of accounts immediately.
If the amount shown is in agreement with your books, please sign at the place provided below and return to our Statutory Auditors along with

Disclaimer : This is an ERP System generated Report.



[Handwritten signature]

Date : 13-APR-23

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REC Limited | आर ई सी लिमिटेड
(Formerly Rural Electrification Corporation Limited)
(भारत सरकार की उद्यम) / (A Government of India Enterprise)
Regd. Office: Core-A, SCOPE Complex, 7, Lodhi Road, New Delhi 110 003
Tel: +91-11-4308 1500 | Fax: +91-11-2436 0844 | Website: www.recindia.com
CIN : L40101DL1969G0005995 | GST No.: 07AAACR4612R1Z3

13-Apr-23
Page 2 of 2



a copy to us.

ADDRESS OF AUDITORS

1. Address -
2. Email -

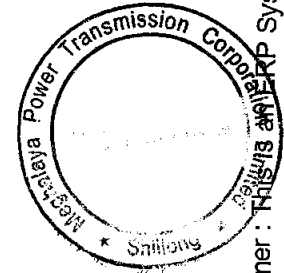
This may please be treated as URGENT. In case of non-receipt of your reply within 10 days, the loan balance as shown above shall be deemed as confirmed.

Yours faithfully,
AM/DM/Mgr/CM/DGM (F&A-Loans)
Copy to: Concerned ZM/CPM

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CONFIRMATION BY CUSTOMER

We hereby confirm that Loan of Rs. _____ from REC Ltd. is standing in our Books of Accounts, as on 31-MAR-23.



Authorised Signatory
(Name & Designation)
(with Stamp)

Disclaimer : This is an ERP System generated Report.


Statement of Capital Cost/ Additional Capital Expenditure (Annexure A)

On the basis of verification of Books of Accounts of Meghalaya Power Transmission Corporation Limited (i.e MePTCL) and the Statement of Accounts of Power Grid Corporation of India Limited - i.e. PGCIL (as produced before us by MePTCL) , the Capital cost of 400 kV D/C (Transmission line) Line Platana- Bongaigaon at 400/220 kV, Killing substation (Asset-V), which has been put into commercial operation w.e.f 22.02.2015 and which has been executed by M/s. PGCIL , is detailed as under :

Rs. in Lakhs

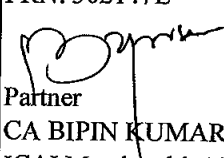
S.No		Land and building	Transmission line Cost	IEDC	IDC	Total cost (2+3+4+5)
	1	2	3	4	5	6
1	Expenditure up to DOCO on 22.02.2015	300.00	10180.67	190.46	0.00	10671.13
2	Expenditure from 22.02.2015 to 31.03.2015	0.00	61.39	0.00	0.00	61.39
3	Expenditure for the period 01.04.2015 to 31.03.2016	0.00	301.67	0.00	0.00	301.67
4	Expenditure for the period 01.04.2016 to 31.03.2017	0.00	102.63	0.00	0.00	102.63
5	Expenditure for the period 01.04.2017 to 31.03.2018	0.00	45.70	0.00	0.00	45.70
6	Expenditure for the period 01.04.2018 to 31.03.2019	0.00	50.84	0.00	0.00	50.84
7	Expenditure for the period 01.04.2019 to 31.03.2020	0.00	1.97	0.00	0.00	1.97
	TOTAL	300.00	10744.87	190.46	0.00	11235.33

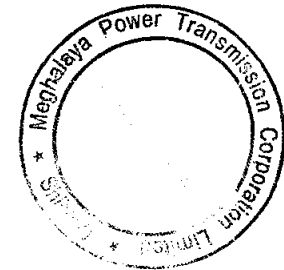
For Meghalaya Power Transmission Corporation Limited


29/9
Name of Person: R CHITTURI, IAS
Director Finance
DIN: 09712409

Date:

For PARIK & CO
Chartered Accountants
FRN: 302147E


Partner
CA BIPIN KUMAR
ICAI Membership No. 059805
UDIN: 23059805BGWEDQ4788
Date: 29/09/2023



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Statement of Capital Cost/ Additional Capital Expenditure (Annexure B)

On the basis of verification of Books of Accounts of Meghalaya Power Transmission Corporation Limited (i.e MePTCL) and the Statement of Accounts of Power Grid Corporation of India Limited - i.e. PGCIL (as produced before us by MePTCL), the Capital cost of 400 kV D/C (Transmission line) Line Platana- Bongaigaon at 400/220 kV, Killing substation (Asset-V), which has been put into commercial operation w.e.f 22.02.2015 and which has been executed by M/s. PGCIL, is detailed as under :

Rs. in Lakhs

Sl.No	Particulars	Capital cost	IEDC	IDC	Total cost (2+3+4)
	1	2	3	4	5
1	Expenditure up to DOCO on 22.02.2015	10480.67	190.46	0.00	10671.13
2	Expenditure from 22.02.2015 to 31.03.2015	61.39	0.00	0.00	61.39
3	Expenditure for the period 01.04.2015 to 31.03.2016	301.67	0.00	0.00	301.67
4	Expenditure for the period 01.04.2016 to 31.03.2017	102.63	0.00	0.00	102.63
5	Expenditure for the period 01.04.2017 to 31.03.2018	45.70	0.00	0.00	45.70
6	Expenditure for the period 01.04.2018 to 31.03.2019	50.84	0.00	0.00	50.84
7	Expenditure for the period 01.04.2019 to 31.03.2020	1.97	0.00	0.00	1.97
	TOTAL	11044.87	190.46	0.00	11235.33

For Meghalaya Power Transmission Corporation Limited

OR
29/9

Name of Person: R CHITTURI, IAS
Director Finance
DIN: 09712409

Date:

For PARIK & CO

Chartered Accountants

FRN: 302147E

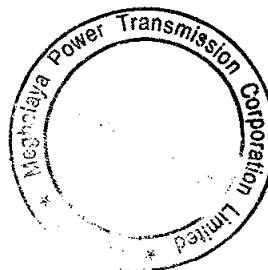
Partner

CA BIPIN KUMAR

ICAI Membership No. 059805

UDIN: 23059805BGWEDQ4788

Date: 29/09/2023



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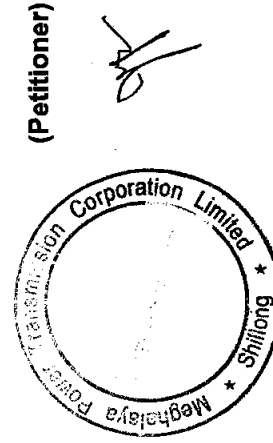
Part III Form-1
Summary Sheet

Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

S.No.	Particulars	Form No.	(Amount in Rs. Lakhs)				
			2014-15	2015-16	2016-17	2017-18	2018-19
1	2		4	5	6	7	8
1.1	Depreciation	10A	5.38	68.46	85.20	100.99	118.13
1.2	Interest on Loan	9E	8.80	109.02	162.93	149.67	175.12
1.3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
1.4	Interest on Working Capital	11	0.28	28.23	30.66	31.55	33.38
1.5	O & M Expenses*		44.04	437.07	451.59	466.61	482.04
	Total		58.51	642.79	730.38	748.82	808.68

Note

*:O&M charges as per CERC Tariff Regulations dated 21 Feb 2014



(Petitioner)

[Handwritten Signature]

Part III Form-2
Details of Transmission Lines and Substations and Communication Systems

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigaon at 400/220 kV Killing S/s (Asset V)

S. No.	Name of line	Type of line AC/HV DC	S/C or D/C	No. of Sub-Conducters	Voltage level KV	Line length Ckt.- km.	Line length km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1	LILO of 400 KV D/C Palatana-Bongaigaon at 400/220 KV Killing S/s (Asset V)	AC	D/C	2	400	4.648	2.324	22.02.2015	Yes	
2										
3										
4										
-										
-										

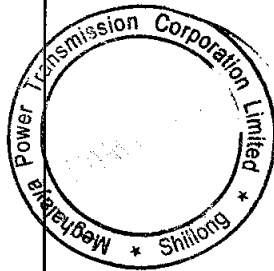
Substations:

S.NO.	Name of Sub-station	Type of Substation Conventional/Grassfield/Brownfield/aidv	Voltage level KV	No. of transformers / Reactors/SVC etc. (with capacity)	No. of Bays			Covered in the present petition	
					765 KV	400 KV	220 KV	Date of Commercial operation	Yes/No
1					7				
2									
-									

Communication System:

S. No.	Name of Communication System	Type of Communication System - SCADA/WAMS/Fibre Optic Communication System/RTU/PABX etc	Technical Particulars	Number/length	Covered in the present	
					Date of Commercial operation	Yes/No
1						
2						
-						

NA



(Petitioner)

Part III Form-3

Normative parameters considered for tariff computations

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

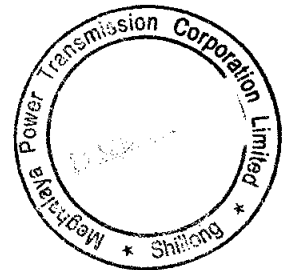
Year Ending March

Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	20.96%	20.96%	21.34%	21.34%	21.34%	21.55%
Effective tax rate ¹	%	19.61%	19.61%	19.71%	19.71%	19.71%	19.76%
Target Availability	%	98.00%	98.50%	98.50%	98.50%	98.50%	98.50%
Normative O&M per km	Rs. Lakh		0.404	0.418	0.432	0.446	0.461
Normative O&M per bay	Rs. Lakh		60.3	62.3	64.37	66.51	68.71
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Months for WC	Months	2	2	2	2	2	2
Bank Rate as on 01.04.2014 ²	%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

1. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

2. Mention relevant date

(Petitioner)



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Part III Form-4

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: L.L.O of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

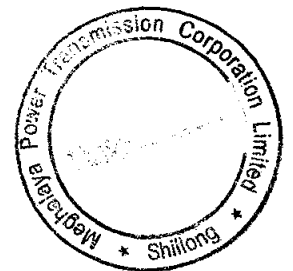
(Amount in Rs.Lakhs)

	Asset 1	
Name of the Assets	MePTCL	Total Gross Block as on 31.03.2015
DOCO	22.02.2015	
Petition Number		
Tariff order date		
Particulars	Capital Expenditure admitted as on 31.03.2015	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)	0.00	0.00
Freehold Land		
Leasehold Land		
Building & Other Civil Works		
Transmission Line	979.57	979.57
Sub-Station Equipments		
PLCC		
Total	979.57	979.57
Notional Loan		
Notional Equity		
Total	979.57	979.57
Debt-Equity Ratio	100%-0%	100%-0%
Debt	979.57	979.57
Equity	0.00	0.00
Total		
Cumulative amount of Depreciation	0	0
Cumulative Repayment of Loan	0	0
Initial Spares*		

1 * Initial spares claimed for existing whose cut off date falls in current tariff period.

Details of remaining assets of the project yet to be commissioned needs to be included in Form - 5B

(Petitioner)



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Part III Form-4A

Statement of Capital Cost (To be given for relevant dates and year wise)

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

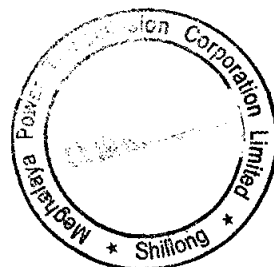
Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

	2014-15	2015-16	2016-17	2017-18	2018-19
A a) Opening Gross Block Amount as per books	10878.30	10939.69	11241.36	11343.98	11389.69
b) Amount of capital liabilities in A(a) above	1144.03	571.42	873.09	207.17	207.17
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	207.17	207.17	207.17	207.17	207.17
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	190.46	190.46	190.46	190.46	190.46
B a) Addition in Gross Block Amount during the period	61.39	301.67	102.63	45.70	50.84
b) Amount of capital liabilities in B(a) above	61.39	301.67	102.63	0.00	0.00
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00	0.00	0.00
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00	0.00	0.00
C a) Closing Gross Block Amount as per books	10939.69	11241.36	11343.98	11389.69	11440.53
b) Amount of capital liabilities in C(a) above	1205.42	873.09	975.72	207.17	207.17
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	207.17	207.17	207.17	207.17	207.17
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	190.46	190.46	190.46	190.46	190.46

Note:

1. Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date

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(Petitioner)

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Part III Form-4C

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

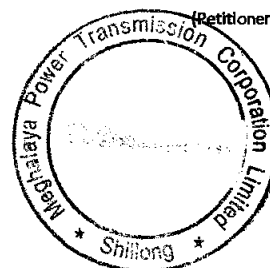
New Projects LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

Capital Cost Estimates (In lacs)	11481.0	
Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:	May-11	
	Present Day Cost	Completed Cost
Price level of approved estimates	As of End of Of the year 2019	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC& FC		
Foreign Component, if any (in Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)	11233.36	
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Cr)	11233.36	
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (in Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)	207.17	
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)	207.17	
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (in Million US \$ or the relevant Currency)	0.00	
Domestic Component (Rs Lakh)	11440.53	
Capital cost Including IDC, IEDC& FC (Rs Lakh)	11440.53	
Schedule of Commissioning		
COD of transmission system 1 /transmission element 1/Communication System 1	22.02.2015	

Note:

1. Copy of approval letter by the Board duly certified by the Company secretary should be enclosed
2. Details of Capital Cost are to be furnished as per FORM-5 or 5A as applicable
3. Details of IDC & Financing Charges are to be furnished as per FORM-12(B).

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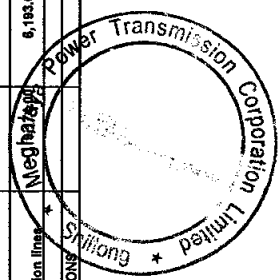


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Part III Form-3
Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System

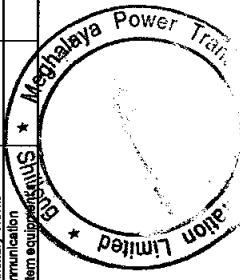
Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MPTCL
 Name of the Transmission Element: L.I.O. of 400 KV/D/C Palana-Bongalgaan at 400/220 KV Killing Site (Asset V)

Sl. No. (1)	Particulars (2)	As per Original Estimates (3)		Cost in Rs. Lakh						Liabilities/Provisions (4-5)		Reasons for Variation (7)	Total Cost till 31-Mar-2019 (8)	
		As per DPR June 2010	As per Revised DPR May 2011	Actual Capital expenditure up to 22.05.2015 (as per Audited Accounts)	Actual Capital expenditure from 22.05.2015 to 31.03.2015	Total Actual Cost till 31.03.2015	Liabilities/Provisions	Actual Capital expenditure from 01.04.2015 to 31.03.2015	Liabilities/Provisions	Actual Capital expenditure from 01.04.2017 to 31.03.2018	Actual Capital expenditure from 01.04.2018 to 31.03.2019			
A	TRANSMISSION LINE													
1.0	Preliminary works	5.99	6.90	5.00		5.00						0.00		5.00
1.1	Design & Engineering											0.00		0.00
1.2	Preliminary Investigation, Right of way, forest clearance, PTCC, general civil works etc.	242.09	242.00	380		380.00						0.00		380.00
1.3	Total Preliminary works	247.09	247.00	385.00		385.00						0.00		385.00
2.9	Transmission Lines material													
2.1	Towers Steel													
2.2	Conductor													
2.3	Earth Wire													
2.4	Insulators													
2.5	Hardware/Fittings													
2.6	Conductor & Earth wire accessories													
2.7	Spares													
2.8	Erection, Stringing & Civil works including foundation	6,927.00	7,946.00	7,539.89	61,399.66	7661.07	899,247,320.7	301,696.7	102,627.97	45,704.64	50,844,134.7	102.63	455.91	6401.91
2.9	ERS													
2.10	OPGW													
2.11	Towship/Office/Store for TL													
	Total Transmission Lines material	8,927.00	7,946.00	7,539.89	61,399.66	7,901.97	899,250,000.00	301,697	102,630	45,700	50,840	102.63	455.91	6401.91
3.9	Taxes and Duties													
3.1	Custom Duty													
3.2	Other Taxes & Duties													
	Total Taxes & Duties	9	0	0	0	0	0	0	0	0	0	0	0.00	0.00
	Total Transmission Lines	8,936.00	7,946.00	7,539.89	61,399.66	7,901.97	899,250,000.00	301,697	102,630	45,700	50,840	102.63	455.91	6401.91
B.	SUBSTATIONS													



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Sl. No. (1)	Particulars (2)	As per Original Estimates (3)		Cost in Rs. Lakh										Total Cost till 31-Mar-2019 (9)	
		As per DPR June 2010	As per Revised DPR May 2011	Actual Capital Expenditure as on											
				Actual Capital expenditure up to 22.02.2015 (as per Audited Accounts)	Actual Capital expenditure from 22.02.2015 to 31.03.2015	Total Actual Cost till 31.03.2015	Liabilities/Provisions	Actual Capital expenditure from 01.04.2015 to 31.03.2017	Liabilities/Provisions	Actual Capital expenditure from 01.04.2017 to 31.03.2018	Liabilities/Provisions	Actual Capital expenditure from 01.04.2018 to 31.03.2019	Liabilities/Provisions	Reasons for Variation (7)	
4.8	Preliminary works & land	300.00	300.00	300.00										-300.00	8.80
4.1	Design & Engineering														8.88
4.2	Land														8.00
4.3	Site preparation														8.80
	Total Preliminary works & land	388	300	300	303	0	8	8	0	0	0	0	0	0.00	308.00
5.0	Civil Works	258	258	258		258								10.00	268.00
5.1	Control Room & Office Building including HVAC	131	131	175										-131.00	0.00
5.2	Township & Colony													0.00	8.08
5.3	Roads and Drainage													0.00	8.00
5.4	Foundation for structures													0.00	0.88
5.5	Misc. civil works													0.00	8.88
	Total Civil Works	381	381	435	0	435	0	8	8	8	8	8	8	54.00	435.88
6.0	Substation Equipments													0.00	8.80
6.1	Switchgear (CT, PT, Circuit Breaker, Isolator etc)													0.00	0.08
6.2	Transformers													0.00	0.00
6.3	Compensating Equipment (Reactor, SVCs etc)													0.00	8.08
6.4	Control, Relay & Protection Panel													0.00	8.00
6.5	PLCC													0.00	8.00
6.6	HVDC package													0.00	0.08
6.7	Bus Bars/ conductors/insulators													0.00	8.08
6.8	Outdoor lighting													0.00	8.08
6.9	Emergency D.G. Set													0.00	0.88
8.18	Grounding System													0.00	0.00
8.11	Structure for switchyard													0.00	8.80
	Total Substation Equipments	0	0	8	8	0	8	8	8	8	8	8	8	0.00	8.88
7.88	Spare	0	8	0	0	8	8	8	8	8	8	8	8	0.00	8.00
8.0	Taxes and Duties													0.00	8.88
8.1	Custom Duty													0.00	8.80
6.2	Other Taxes & Duties													0.00	8.00
8.3	Total Taxes & Duties	8	8	0	8	0	8	8	8	8	8	8	8	0.00	0.00
	Total (Sub-station)	861	681	735	0	735	0	8	8	8	8	8	8	54.00	735.88
C	Communication System													0.00	0.00
8.1	Preliminary Works													0.00	0.00
8.2	Communication System equipments													0.00	8.00
	Total													0.00	8.00

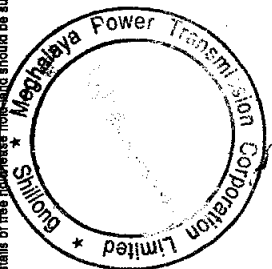


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Sl. No. (1)	Particulars (2)	As per Original Estimate (3)		Cost in Rs. Lakh										Reasons for Variation (7)	Total Cost till 31-Mar-2019 (8)		
		As per DPR June 2010	As per Revised DPR May 2011	Actual Capital expenditure up to 22.02.2015 (as per Audited Accounts)	Actual Capital expenditure from 22.02.2015 to 31.03.2015	Liabilities/Provisions	Actual Capital expenditure from 01.04.2015 to 31.03.2016	Liabilities/Provisions	Actual Capital expenditure from 01.04.2016 to 31.03.2017	Liabilities/Provisions	Actual Capital expenditure from 01.04.2017 to 31.03.2018	Liabilities/Provisions	Actual Capital expenditure from 01.04.2018 to 31.03.2019				
9.3	Taxes and Duties	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
	Total (Communication System)															0.00	0.00
10.0	Construction and pre-commissioning expenses															0.00	0.00
10.1	Site supervision & site administration etc.	187	170	190.46	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
10.2	Tools and Plants															0.00	0.00
10.3	Other Assets															0.00	0.00
	Total Construction and pre-commissioning expenses	187	170	190.46	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
11.0	Overheads															0.00	0.00
11.1	Establishment	1042	900	225.0375	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
11.2	Audit & Accounts															0.00	0.00
11.3	Contingency															0.00	0.00
	Total Overheads	1042	900	225.0375	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
12.0	Cost of Plant & Machinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
13.0	Capital Cost including Plant & Machinery															0.00	0.00
13.1	Interest During Construction (IDC)	133	121	207.170	207.17	207.17	0	0	0	0	0	0	0	0	0	0.00	0.00
13.2	Financing Charges (FC)															0.00	0.00
13.3	Foreign Exchange Rate Variation (FERV)															0.00	0.00
13.4	Hedging Cost															0.00	0.00
13.5	Losses on Stock															0.00	0.00
13.6	Margin Money for Working Capital															0.00	0.00
13.7	Project management consultancy	1486	1328	1285.866												0.00	0.00
	Total of IDC, FC, FERV & Hedging Cost	2840	2607	1818.82	0.06	207.17	0	0	0	0	0	0	0	0	0	0.00	0.00
14.0	Capital cost including IDC, FC, FERV & Hedging Cost	12896.00	11481.00	10878.30	61.39	10938.6897	1205.42	301.67	301.67	102.63	102.63	45.70	50.84	287.17	-40.47	11440.53	

Note: 1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the transmission licensee.
2. Separate details of these budgetary items should be submitted.

(Petitioner)



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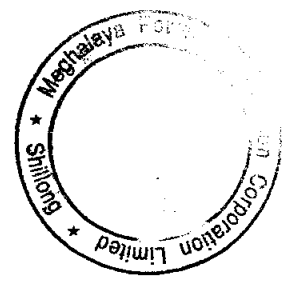
Part III Form-5A
Break-up of Construction/Supply/Service Packages

Name of the Petitioner: Maghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: LIL0 of 400 KV D/C Palatana-Bongaigaon at 400/220 KV Killing SIs (Asset V)

Sr. No.	Name/No. of Construction/Supply/Service package	Scope of works ¹ (in line with head of cost break-ups as applicable)	Whether awarded through IC/BCB/Departmental/Deposit Work, etc.	No. of bids received	Date of Award	Date of start of work	Date of Completion of Work	Value of Award ² in (Rs. Lakh).	Firm or Escalation prices	Actual expenditure till the completion or up to whichever is earlier (Rs. Lakh)	Taxes & Duties and IEPC (Rs. Lakh)	IDC, FC, FERV & Hedging cost (Rs. Lakh)	Sub-Total (Rs. Lakh)
1	LIL0 of 400 KV D/C Palatana-Bongaigaon at 400/220 KV Killing SIs (Asset V)	Turn key	Deposit work		20-09-2007			11481.00		10871.13		207.17	10878.30

Note:
 1 The scope of work in any package should be indicated in conformity of cost break-up in Form-5B to the extent possible.
 2 If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separately along with the currency, the exchange rate and the date e.g. Rs. 600 Lakh + US\$ 5m=Rs. 3900 Lakh, at US\$=Rs62 as on say 01.04.14.

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(Petitioner)

Part-III Form-5B

Details of elementwise cost of the project

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

Transmission Lines:

S. No.	Name of line	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in	
					Yes/No	If No, petition No.
1	LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)	12695.00	11481.00	11440.53	Yes	
2						
3						
4						
-						
-						
-						

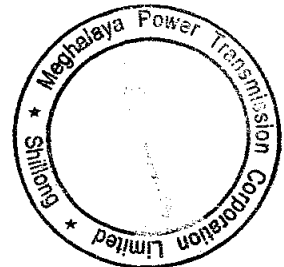
Substations:

S. NO.	Name of Sub-station	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the	
					Yes/No	If No, petition No.
1	NA					
2						
3						
4						
-						
-						

Communication System:

S. NO.	Name of Communication System	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the	
					Yes/No	If No, petition No.
1	NA					
2						
-						
-						

(Petitioner)



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Part-III Form-6
Financial Package upto COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited

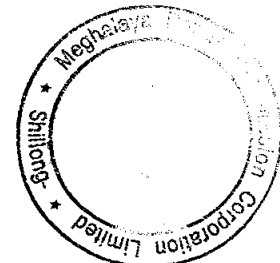
Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

1	Financial Package as Approved		Financial Package as on COD		Financial Package as on (31.03.2015)	
	2	3	4	5	6	7
Loan-I	INR (IN Lacs)	996.67	INR	979.57		
Loan-II		1268				
Loan-III						
and so on						
Total Loans					INR	979.57
Grant	INR (IN Lacs)	8969.99	INR	8969.99		
Foreign						
Domestic						
Total Equity				0	INR	0
Debt : Equity Ratio						
Total Cost				9949.56	INR	979.57
	Debt	Equity/Grant	Total			
Add cap for Year from 22.02.2015 to 31-Mar-15			61.39			
Add cap for Year 2015-16			301.67			
Add cap for Year 2016-17	0	0	102.63			
Add cap for Year 2017-18			45.70			
Add cap for Year 2018-19			50.84			
Add cap for Year 2014-15	Actual					
Debt		0.00				
Equity		0.00				
Total		0.00				

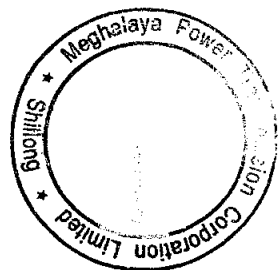
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1	Financial Package as Approved		Financial Package as on COD		Financial Package as on (31.03.2015)	
	2	3	4	5	6	7
Add cap for Year 2015-16	Actual					
Debt	634.00					
Equity	0.00					
Total	634.00					
Add cap for Year 2016-17						
Debt	0.00					
Equity	0.00					
Total	0.00					
Add cap for Year 2017-18						
Debt	598.39					
Equity	0.00					
Total	598.39					
Add cap for Year 2018-19						
Debt	50.84					
Equity	0.00					
Total	50.84					
Total Capital Cost with add cap.	2262.80					

(Petitioner)



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PART-III FORM-7

Statement of Additional Capitalisation after COD

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: LILO of 400 KV DIC Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

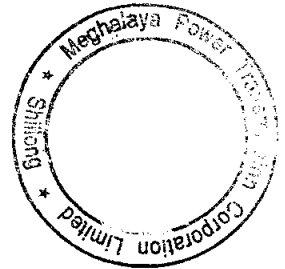
Sr.No.	Year	Work/Equipment proposed to be added after COD upto Cut off Date/beyond Cut-off Date	Amount capitalized /Proposed to be capitalized (Rs Lakh)	Justification	Regulations under which covered	Admitted Cost ¹ (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2014-15		61.39	As per form 5		0.00
2	2015-16		301.67			0.00
3	2016-17		102.63			0.00
4	2017-18		45.70			0.00
5	2018-19		50.84			0.00

1. In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order).

Note:

- Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
- In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately.
- In case of de-capitalisation of assets separate details to be furnished. Further, the original book value and year of capitalisation of such asset to be furnished. Where de-caps are on estimated basis the same to be shown separately.

(Petitioner)



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Part-III Form 7A

Financing of Additional Capitalisation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

Financial Year (Starting from COD)	Actual/Projected					Admitted				
	2014-15	2015-16	2016-17	2017-18	2018-19	Year1	Year2	Year3	Year4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1				17.10						
Loan-2		634.00	0.00	634.10						
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others										
Total		634	0	651.2	0	0				

Note:

1 Year 1 refers to Financial Year of COD in case of new elements. For existing elements it is from 2014-15 and Year 2, Year 3 etc. are the subsequent financial years respectively.

2 Loan details for meeting the additional capitalisation requirement should be given as per FORM-9 or 9(A) whichever is relevant.

(Petitioner)



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Part-III Form 8

Calculation of Return on Equity

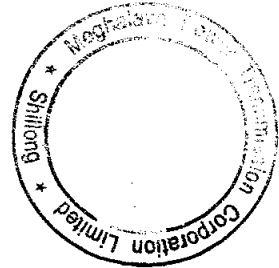
Name of the Petitioner: Meghalaya Power Transmission Company Limited
Name of the Region: North East
Name of the Project: MePTCL
Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

(Amount in Rs. Lakh)

S.No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1.1	Equity as on COD/Admitted equity	0.00	0.00	0.00	0.00	0.00
1.2	Total Equity	0.00	0.00	0.00	0.00	0.00
1.3	Return on Equity*	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00

Note

1: *To be calculated on average equity during the year.



(Petitioner)

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Part-III Form 9C

Calculation of Weighted Average rate of Interest on Actual loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

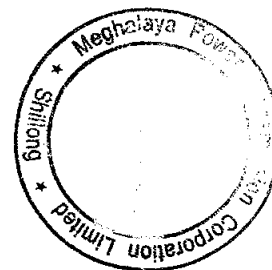
Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

Particulars	Existing 2013-14	Till 2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1						
Gross loan - Opening	0.00	979.57	979.57	979.57	1613.57	2264.77
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Opening	0.00	979.57	979.57	979.57	1613.57	2264.77
Add: Drawal(s) during the Year	0.00	0.00	0.00	634.00	651.20	0.00
Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00	0.00
Net loan - Closing	0.00	979.57	979.57	1613.57	2264.77	2264.77
Average Net Loan	0.00	979.57	979.57	1296.57	1939.17	2264.77
Rate of Interest on Loan on annual basis	0.00%	8.65%	8.67%	10.88%	8.79%	9.13%
Interest on loan	0.00	84.73	84.96	141.11	170.41	206.75
Loan repayment effective from (date to be indicated)	0.00	0.00	0.00	0.00	0.00	0.00
Total Loan	0.00	979.57	979.57	1613.57	2264.77	2264.77

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.
4. The aforementioned loan is for whole project.

(Petitioner)



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Part-III Form 9E

Calculation of Interest on Normative Loans

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	3	4	5	6	7
Gross Normative loan - Opening	979.57	979.57	1613.57	1613.57	2211.96
Cumulative repayment of Normative Loan upto previous year	0.00	5.38	73.84	159.04	260.03
Net Normative loan - Opening	979.57	974.19	1539.73	1454.53	1951.93
Increase/Decrease due to ACE/de-capitalization during the Year	0.00	634.00	0.00	598.39	50.84
Repayments of Normative Loan during the year	5.38	68.46	85.20	100.99	118.13
Net Normative loan - Closing	974.19	1539.73	1454.53	1951.93	1884.64
Average Normative Loan	976.88	1256.96	1497.13	1703.23	1918.28
Weighted average Rate of Interest of actual Loans	8.65%	8.67%	10.88%	8.79%	9.13%
Rates without refinancing	8.65%	8.67%	10.88%	8.79%	9.13%
Interest on Normative loan	8.80	109.02	162.93	149.67	175.12



Petitioner

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Part-III Form 10

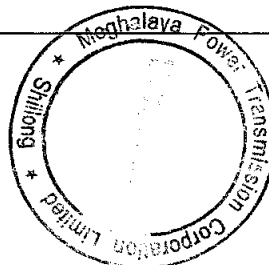
Calculation of Depreciation Rate

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

							(Amount in Rs. Lakh)	
Sl.no.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19 (Annualized)	
2014-15								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	979.57	0.00	979.57	979.57	5.28%	51.72	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	979.57	0.00	979.57	979.57		51.72	
	Weighted Average Rate of Depreciation						5.2800%	
	Lapsed Life (Years)						0.0	
2015-16								
1	Freehold land	0.00		0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	979.57	634.00	1613.57	1296.57	5.28%	68.46	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	979.57	634.00	1613.57	1296.57		68.46	
	Weighted Average Rate of Depreciation						5.2800%	
	Lapsed Life						1.0	
2016-17								
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	1613.57	0.00	1613.57	1613.57	5.28%	85.20	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	1613.57	0.00	1613.57	1613.57		85.20	
	Weighted Average Rate of Depreciation						5.2800%	
	Lapsed Life						2.0	
2017-18								
1	Freehold land	0.00		0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	1613.57	598.39	2211.96	1912.77	5.28%	100.99	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	1613.57	598.39	2211.96	1912.77		100.99	
	Weighted Average Rate of Depreciation						5.2800%	
	Lapsed Life						3.0	
2018-19								
1	Freehold land	0.00		0.00	0.00	0.00%	0.00	
2	Building	0.00				3.34%		
3	Transmission Line	2211.96	50.84	2262.80	2237.38	5.28%	118.13	
4	Substation	0.00				5.28%		
5	PLCC	0.00				6.33%		
6	Leasehold Land	0.00				3.34%		
	Total	2211.96	50.84	2262.80	2237.38		118.13	
	Weighted Average Rate of Depreciation						5.2800%	
	Lapsed Life						4.0	

Note:
 1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)



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Part-III Form 10A

Statement of Depreciation

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

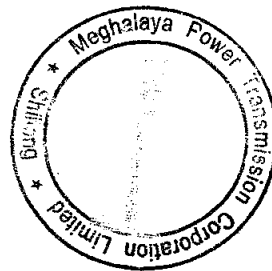
Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(4)	(5)	(6)	(7)	(8)
1	Opening Capital Cost	979.57	979.57	1613.57	1613.57	2211.96
2	Closing Capital Cost	979.57	1613.57	1613.57	2211.96	2262.80
3	Average Capital Cost	979.57	1296.57	1613.57	1912.77	2237.38
5	Rate of depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
6	Depreciable value	881.61	1166.91	1452.21	1721.49	2013.64
7	Balance useful life at the beginning of the period (Years)	35	34	33	32	31
8	Remaining depreciable value	881.61	1161.53	1383.75	1636.29	1912.65
9	Depreciation (for the period)	5.38	68.46	85.20	100.99	118.13
10	Depreciation (annualised)	5.38	68.46	85.20	100.99	118.13
11	Cumulative depreciation at the end of the period	5.38	73.84	159.04	260.03	378.17
12	Less: Cumulative depreciation adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00
13	Net Cumulative depreciation at the end of the period	5.38	73.84	159.04	260.03	378.17

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)



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Part-III Form 10B
Statement of De-capitalisation

Name of the Petitioner: Meghalaya Power Transmission Company Limited
 Name of the Region: North East
 Name of the Project: MePTCL
 Name of the Transmission Element: LIL0 of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

Sr. No.	Year of De-capitalisation	Work/Equipment proposed to be De-capitalised	Year of capitalisation of being decapitalised	Original Book Value of the asset being decapitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								

(Petitioner)



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Part-III Form 11

Calculation of Interest on Working Capital

Name of the Petitioner: Meghalaya Power Transmission Company Limited

Name of the Region: North East

Name of the Project: MePTCL

Name of the Transmission Element: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	4	5	6	7	8
1	O & M Expenses	3.67	36.42	37.63	38.88	40.17
2	Maintenance Spares	6.61	65.56	67.74	69.99	72.31
3	Receivables	9.75	107.13	121.73	124.80	134.78
4	Total Working Capital	20.03	209.11	227.10	233.68	247.26
5	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
6	Interest on Working	0.28	28.23	30.66	31.55	33.38

(Petitioner)



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**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III**

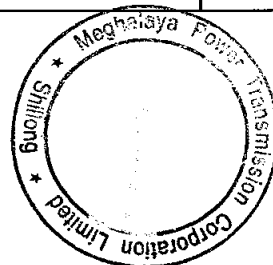
Annexure-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	✓
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	
FORM- 7	Statement of Additional Capitalisation after COD	
FORM- 7A	Financing of Additional Capitalisation	✓
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	✓
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	
FORM-9	Details of Allocation of corporate loans to various transmission elements	
FORM-9A	Details of Project Specific Loans	✓
FORM-9B	Details of Foreign loans	✓
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	
FORM- 12A	Incidental Expenditure during Construction	
FORM- 12B	Calculation of IDC & Financing Charges	
FORM- 13	Details of Initial spares	
FORM- 14	Non-Tariff Income	

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**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF PART-III
Annexure-I**

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Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	
10.	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

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PART-III FORM-1

Summary of Tariff

Name of Petitioner

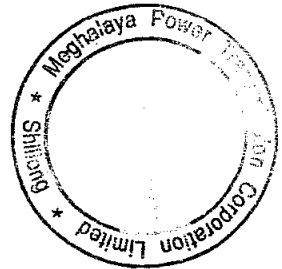
Meghalaya Power Transmission Commission Limited (MePTCL)

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Depreciation	10A	119.53	119.58	119.58	119.58	119.58
2	Interest on Loan	9E	141.52	106.70	144.66	107.87	84.34
3	Return on Equity	8	0.00	0.00	0.00	0.00	0.00
4	Interest on Working Capital	11	23.61	23.82	25.11	25.31	25.67
5	O & M Expenses	2	451.76	467.90	484.32	501.66	518.64
	Total AFC		736.42	718.01	773.67	754.41	748.24

Note: This Form is a summary form and the Data to this from should flow from other base forms.

(Petitioner)



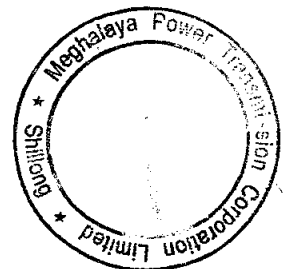
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PART-III FORM-1A
Summary of Asset Level Cost

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

Particular	A) Summary of Capital Cost, Means of Finance of the Asset										(Amount in Rs. Lakh)	
	i) Apportioned Approved Cost			ii) Summary of Actual / Projected Capital Cost								
	As per IA	As per RCE-3	As on COD/01-04-2019	2019-20 (Actual)	2020-21 (Actual)	2021-22 (Actual)	2022-23 (Actual/ Projected)	2023-24 (Actual/ Projected)	as on 31.03.2024			
Land (Freehold Land)	300	300	300.00	0.00	0.00	0.00	0.00	0.00	0.00	300.00		
Land (Leasehold)										0.00		
Building & Civil Works	381	381	495.00	0.00	0.00	0.00	0.00	0.00	0.00	495.00		
Transmission Line	12014.00	10800.00	10705.53	1.97	0.00	0.00	0.00	0.00	0.00	10707.504		
Sub-Station												
PLCC												
Total Capital Cost as per Books	12695.00	11481.00	11440.53	1.97	0.00	0.00	0.00	0.00	0.00	11442.5		
Less: Liability			207.17							207.17		
Add: Discharge of liability												
Total Capital Cost	12695.00	11481.00	11233.36	1.97	0.00	0.00	0.00	0.00	0.00	11235.33		
Equity/ Grant		8969.99	8969.99	0.00	0.00	0.00	0.00	0.00	0.00	8969.99		
Debt	0.0	2284.77	2282.80	1.97	0.00	0.00	0.00	0.00	0.00	2284.78		

(Petitioner)



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PART-III FORM-2

Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for Instant asset!

1. Transmission Lines:

S.No.	Name of Line	Type of Line ACH/VDC	S/C or D/C	No. of Sub- Conductors	Voltage Level KV	Line Bays	Transformer(Including Switchable Reactor)	Line length km	Date of Commercial Operation			Covered in the present Petition		
									2019-20	2020-21	2021-22	2022-23	2023-24	Yes/No
1	Name of the Transmission Assets- L.I.L.O of 400 KV D/C Palaiane-Bongelgoan at 400/220 KV Killing S/s (Asst V)	AC	D/C	2	400	7	2	2.324				22-02-2016	Yes	

Summary:

O&M Expenses for the Transmission lines covered in the instant petition													
Normative rate of O&M as per Regulation. (Rupees in Lakh)													
Length in km								0.503	0.521	0.539		0.558	0.576
O&M Claimed (Rupees in Lakh)								2.324	2.324	2.324		2.324	2.324
								1.109	1.211	1.263		1.297	1.343

2.

S.No.	Name of Sub-station	Type of Substation (Conventional/ Greenfield/BF or initially GISHVDC terminal/RVD)	Voltage level KV	No. of transformers/ Reactors/VC etc. (with capacity)	765 KV	400KV	220 KV	132 KV & Below	765 KV	400 KV	220 KV	132 KV & Below	Date of Commercial operation	Yes/No	If No, Petition No.	MVA Capacity		
																No. of Bays	2019-20	2020-21
1	INA					7		7										

Summary:

O&M Expenses for the Substations covered in the instant petition																		
Normative rate of O&M/Bay as per Regulation. (Rupees in Lakh)																		
No. of units																		
O&M Claimed (Rupees in Lakh)																		

Note:

1. Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.

2. The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Cam

3. Communication System:

S. No.	Name of Communication System	Type of Communication	Length of O&M in km	No. of RTU	No. of PHU	Date of Commercial operation	Capital Cost upto Cutoff date(Original)	Covered in the present Petition	
							Yes/No	If No, Petition No.	
1	INA								

Summary

O&M Expenses for the Transformer covered in the instant petition									
O&M expenses as per regulations per MVA (in Lacs)									
Transformer Rating									
Actual O&M Expenses (Rupees in Lakh)									
Original project cost/ Asset related to the communication system									

Note:

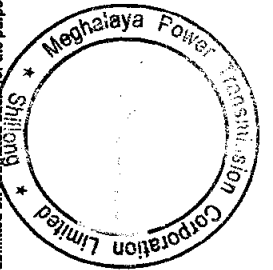
The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be

4) Summary of O&M Expenses claim

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	Normative O&M					
2	Transmission line	1.17	1.21	1.25	1.30	1.34
3	Substation	225.050	232.920	241.150	249.920	258.370
4	Transformer	225.540	233.730	241.920	250.740	258.930
	Total Normative O&M	451.78	467.80	468.32	481.68	510.64
	O&M Claimed under Regulation 35 (3)(G)					
1	Security Expenses					
2	Actual Capital Spares consumed	451.78	467.80	468.32	481.68	510.64
3	Total O&M					

Note: The security expenses and Capital Spares are to be submitted on estimation basis for the purpose of O&M

(Petitioner)



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PART-III FORM-3

Normative Parameters considered for Tariff Computation

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

Particulars	Unit	Year Ending March					
		Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date ¹	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tax Rate	%	21.55%	17.47%	17.47%	17.47%	17.47%	17.47%
Effective Tax Rate ²	%	19.76%	18.78%	18.78%	18.78%	18.78%	18.78%
Target Availability	%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
Normative O&M per km	Rs. Lakh	0.461	0.503	0.521	0.539	0.558	0.578
Normative O&M per Bay	Rs. Lakh	34.36	32.15	33.28	34.45	35.66	36.91
Normative O&M per MVA	Rs. Lakh	0	0.358	0.371	0.384	0.398	0.411
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables In Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%	13.50%	12.05%	12.05%	12.05%	12.05%	12.05%
Lapsed life as on 01.04.2019 and beginning of every year(In completed years)	No. of years	4	5	6	7	8	9

1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.

2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

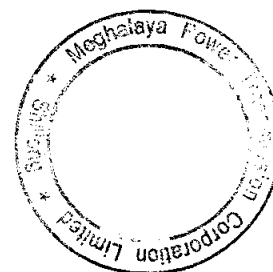
3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Project: LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Petitioner)



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PART-III FORM 4

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole
 Name of the Transmission Assets:- LILD of 400 KV D/C Palatana-Bongalgaon at 400/220 KV Killing S/s (Asset V)
 (Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project					
Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)
Name of the Transmission Assets:- LILD of 400 KV D/C Palatana-Bongalgaon at 400/220 KV Killing S/s (Asset V)	22-02-2015	22-02-2015			

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019

Particulars as on 31-03-2019 after true up of 2014-19 period.	Asset I
a	b
Capital Cost as on 31.03.2019	2262.80
Cumulative Depreciation as on 31-03-2019	378.17
Debt Equity Ratio as on 31.03.2019	100.00%
Debt	100.00%
Equity/Grant	0.00%
Gross Equity for Normative ROE as on 31.03.2019	0.00
Gross Loan as on 31.03.2019	2262.80
Cumulative Re-payment of Loan as on 31.03.2019	378.17

C) Computation of Effective COD for

Asset No.	Asset I
a	b
1) Actual COD of the Asset.	22-02-2015
2) COD considered for tariff purpose ⁽ⁱ⁾	22-02-2015
3) No. of days between the COD of the asset considered for tariff and the COD of the Project ^{(ii)&(iii)}	0.00
4) True up Capital Cost as on 31-03-2019 (in Lakh)	2262.80
5) Weight of the Cost of an asset (in %) ^(iv)	100.00%
6) Weighted days = (3x5)	0.00
7) Effective COD = (i.e. COD of the Project - Total Weighted	22-02-2015

Note:

- i) COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed assets for tariff purpose has to be considered here (eg. Notional COD)
- ii) No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)
- iii) COD of the Project = The COD of the last asset of the Project.
- iv) Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (True up cost of concerned asset as on 31.03.2019 / Total of true up cost of all the assets) x100
- v) Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

D) Weighted Average useful Life of the Project as whole

Particulars	Capital Cost as on Asset I	Useful life/ Extended	Weighted Cost
a	b	h	i = (b)x(h)
Freehold Land		0	
Leasehold Land		25	
Building & Other Civil Works		25	
Transmission Line	2262.80	35	79198.14
Sub-Station Equipment		25	
PLCC		15	
and so on			
Total	2262.80		79198.14
Weighted Average life = Total Weighted		35	Years

E) Lapsed weighted average useful life of the project & Balance weighted average Useful life

This refers to the No. of completed years

i) Effective COD	22-02-2015
ii) Last day of the previous tariff control	31-03-2019
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)	4.11
iv) Remaining useful life (in year) (WAL-lapsed)	30.89

Note: 1) The petitioner has to maintain the identity of the individual assets. In consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual COD, effective COD, cut-off date, admitted capital cost, D&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019. 3) The No. of completed year can be arrived by the excel function viz. YEARFRAC(31-03-2019, Effective COD) and ignore the fraction if any from the result.

(Petitioner)



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PART-III FORM-4A
Statement of Capital Cost

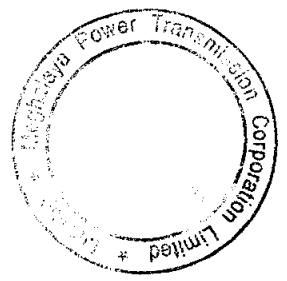
Name of the Transmission Asset: LILD of 600 KV DC Paldeana-Bongolgaon at 400220 KV Rolling Site (Asset V)

A) Capital Cost	2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24	
	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis	Un-discharged Liabilities	Cash Basis
1	8) Opening Gross Block Amount as per books 11440.53	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17
	9) Amount of (b) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17
	10) Amount of EDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	6.00		6.00		6.00		6.00		6.00		6.00		6.00		6.00
	11) Addition in Gross Block Amount during the period	6.00		6.00		6.00		6.00		6.00		6.00		6.00		6.00
	12) Amount of (b) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	6.00	1.97	6.00	1.97	6.00	1.97	6.00	1.97	6.00	1.97	6.00	1.97	6.00	1.97	6.00
	13) Amount of EDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	6.00		6.00		6.00		6.00		6.00		6.00		6.00		6.00
	14) Closing Gross Block Amount as per books	11440.53	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36	207.17	11236.36
	15) Amount of (b) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17	6.00	207.17
	16) Amount of EDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	6.00		6.00		6.00		6.00		6.00		6.00		6.00		6.00
B) Flow of liability for the Asset																
1. Opening balance of liability		207.17		207.17		207.17		207.17		207.17		207.17		207.17		207.17
2. Add: Liability from ACE		6.00		6.00		6.00		6.00		6.00		6.00		6.00		6.00
3. Discharge of liability by payment and claimed as ACE																
4. Reversal/liquidation (to be added)																
5. Closing Balance of Admitted Liability		207.17		207.17		207.17		207.17		207.17		207.17		207.17		207.17

As on 30/09/2024-2018

- Relevant date's mean date of COD of transmission elements or Communication system and financial year start date and date
- In case of new asset it should flow from Form 5 and in case of existing asset it should flow from admitted liability as on 31.03.2018.
- In case of liability included in the addition into gross block as on last day of the concerned year as mentioned in Form 7 of the concerned year.
- In case of actual payment of capital liability which was admitted by Commission as on 31.03.2019 and/or liability included in the COO seat and for the liability included in the ACE of previous years, (eg. If any payment is made during 2021-22 towards the un-discharged liability)
- In case of opening balance of capital liability (as on 31.03.2018) to the concerned year then it will be the opening balance as on 01. April of the next year.
- In case of closing balance of capital liability (as on 31.03.2019) to the concerned year then it will be the closing balance as on 01. April of the next year.
- If any of the project asset data not required to be consolidated due to any reason, the reason has to be explained and the opening position of those assets has to be shown in the format mentioned Table B above.

(Petitioner)



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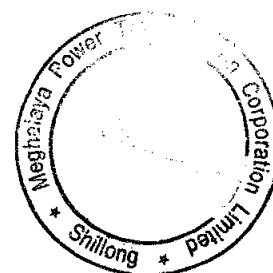
PART-III FORM- 5B

Details of all the assets covered in the project

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

S.No.	Name of Asset	COD	Delay (in No. of in days)	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition	
							Yes/No	If No, Petition No.
1	Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)	22-02-2015	0	12695.00	11481.00	11235.3	Yes	
Total					11481.00	11235.3		

(Petitioner)



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Part-III Form 7A
Financing of Additional Capitalisation

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)

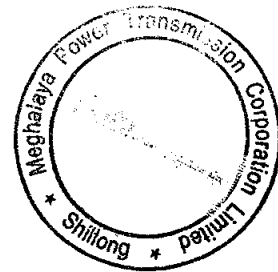
(Amount in Rs. Lakh)

Financial Year (Starting from COD)	Actual/Projected					Admitted				
	Year1	Year2	Year3	Year4	Year 5 & So on	Year1	Year 2	Year3	Year4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others										
Total										

Note:

1. Year 1 refers to Financial Year of COD in case of new elements. For existing elements it is from 2019-20 and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-9 or 9(A) whichever is relevant.

(Petitioner)



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PART-III FORM- 7B

Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

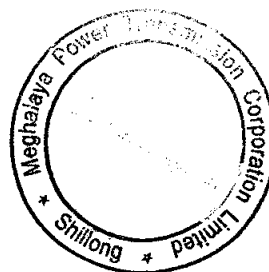
Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

S. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					
			NA		

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

(Petitioner)



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PART-III FORM- 9A

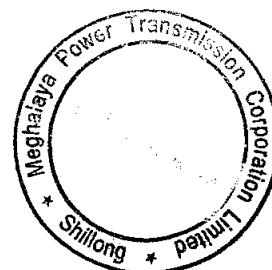
Details of Project Specific Loans

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/COD 3,4,5,13,15						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
If above is yes, specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment instalment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.



(Petitioner)

PART-II FORM- 9B

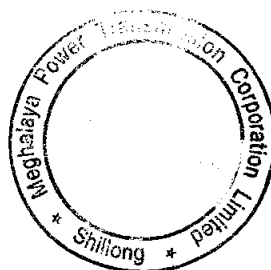
Details of Foreign loans

(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Assets:- L.ILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

S.No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4	5	6	7	8	9
	Particulars	Date	Amount(Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount(Foreign Currency)	Exchange Rate	Amount
	Currency1¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency2¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency 3¹ & so on								
A.1									
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								

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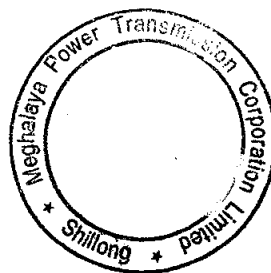
PART-III FORM- 8**Calculation of Return on Equity at Normal Rate**

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongalgaon at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
	No. of Days In the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Opening Normative Equity		0.00	0.00	0.00	0.00	0.00
2	Less: Adjustment in Equity*						
3	Adjustment during the year						
4	Net Opening Equity (Normal)		0.00	0.00	0.00	0.00	0.00
5	Add: Increase In Equity due to addition during the year/period		0.00	0.00	0.00	0.00	0.00
6	Less: Decrease due to de-capitalisation during the year						
7	Add: Increase due to discharges during the year/period						
8	Closing Normative Equity		0.00	0.00	0.00	0.00	0.00
9	Average Normative Equity		0.00	0.00	0.00	0.00	0.00
11	Rate of Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.78%	18.78%	18.78%	18.78%	18.78%
15	Return on Equity of project cost till cut off date (Pre Tax)		0.00	0.00	0.00	0.00	0.00

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PART-III FORM- 9C

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

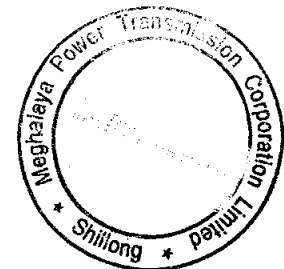
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6
Loan-1					
Gross loan - Opening	2264.77	2264.77	2264.77	2264.77	2264.77
Cumulative repayments of Loans up to previous year	0	0	0	0	0
Net loan - Opening	2264.77	2264.77	2264.77	2264.77	2264.77
Add: Drawl(s) during the Year	0	0	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	0	0	0.00	0.00	0.00
Net loan - Closing	2264.77	2264.77	2264.77	2264.77	2264.77
Average Net Loan	2264.77	2264.77	2264.77	2264.77	2264.77
Rate of Interest on Loan on annual basis	7.75%	6.25%	9.11%	7.35%	6.25%
Interest on loan	175.54	141.54	206.35	166.40	141.65
Loan repayment effective from (date to be indicated)					

Note:1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.

2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.

3. Details of Financing Charges.

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PART-III FORM 9E

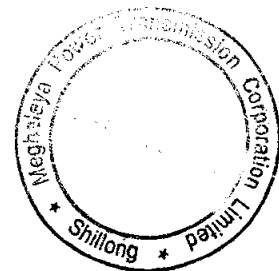
Calculation of Interest on Normative Loan

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongalgoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

S.No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed		366	365	365	365	366
1	Gross Normative loan – Opening		2262.80	2264.78	2264.78	2264.78	2264.78
2	Cumulative repayment of Normative Loan upto previous year		376.17	497.70	617.28	736.86	856.44
3	Net normative loan – Opening		1884.64	1767.08	1647.50	1527.92	1408.34
4	Addition in Normative loan towards the ACE		1.97	0.00	0.00	0.00	0.00
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.						
6	Normative Repayments of Normative Loan during the year		119.53	119.58	119.58	119.58	119.58
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.						
8	Net Normative loan – Closing		1767.08	1647.50	1527.92	1408.34	1286.76
9	Average Normative Loan		1825.86	1707.29	1567.71	1466.13	1348.55
10	Weighted average Rate of Interest of actual Loans		7.75%	6.25%	9.11%	7.35%	6.25%
11	Interest on Normative loan		141.52	106.70	144.66	107.87	84.34

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PART-III FORM 10

Calculation of Depreciation Rate on original project cost

Name of the Transmission Assets:- LILD of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

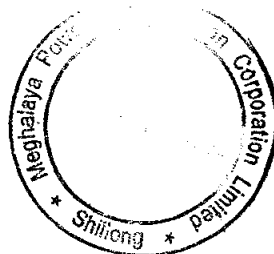
(Amount in Rs. Lakh)

S. No.	Name of the Assets ¹	Gross block at the beginning of the year	Add cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.24 (Annualized)
1	2	3					
2019-20							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	2262.80	1.97	2264.78	2263.79	5.28%	119.53
4	Substation			0.00		5.28%	
5	PLCC			0.00		6.33%	
6	Leasehold Land			0.00		3.34%	
	Total	2262.80	1.97	2264.78	2263.79		119.53
	Weighted Average Rate of Depreciation						5.28%
	Lapsed Life (Years)						5
2020-21							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	2264.78	0.00	2264.78	2264.78	5.28%	119.58
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	2264.78	0.00	2264.78	2264.78		119.58
	Depreciation						5.28%
	Lapsed Life (Years)						6
2021-22							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	2264.78	0.00	2264.78	2264.78	5.28%	119.58
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	2264.78	0.00	2264.78	2264.78		119.58
	Depreciation						5.28%
	Lapsed Life (Years)						7
2022-23							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	2264.78	0.00	2264.78	2264.78	5.28%	119.58
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	2264.78	0.00	2264.78	2264.78		119.58
	Depreciation						5.28%
	Lapsed Life (Years)						8
2023-24							
1	Freehold land	0.00	0.00	0.00	0.00	0.00%	0.00
2	Building	0.00	0.00	0.00	0.00	3.34%	0.00
3	Transmission Line	2264.78	0.00	2264.78	2264.78	5.28%	119.58
4	Substation					5.28%	
5	PLCC					6.33%	
6	Leasehold Land					3.34%	
	Total	2264.78	0.00	2264.78	2264.78		119.58
	Depreciation						5.28%
	Lapsed Life (Years)						9

Note:

- Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)



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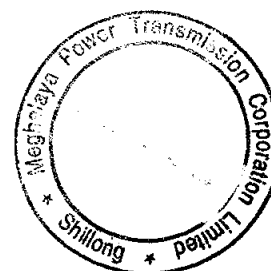
PART-III FORM- 10 A

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

Statement of Depreciation							
S. No.	Particulars	As on 01-04-2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year	365	366	365	365	365	366
II	No. of days for which tariff claimed	365	366	365	365	365	366
Life at the beginning of year							
1.1	Weighted Average useful Life of the Asset/Project.		35	35	35	35	35
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		5	6	7	8	9
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		30	29	28	27	26
Capital Base							
1.4	Opening Capital Cost		2262.80	2264.78	2264.78	2264.78	2264.78
1.5	Additional Capital Expenditure dr. the year		1.97	0.00	0.00	0.00	0.00
1.6	De-Capitalisation during the year						
1.7	Closing Capital Cost		2264.78	2264.78	2264.78	2264.78	2264.78
1.8	Average Capital Cost		2263.79	2264.78	2264.78	2264.78	2264.78
1.9	Freehold land included in 1.8		0.00	0.00	0.00	0.00	0.00
1.10	Asset having NIL Salvage value included in 1.8						
1.11	Asset having 10% Salvage value included in 1.8		2263.79	2264.78	2264.78	2264.78	2264.78
1.12	Depreciable value (1.10+ 90% of 1.11)		2037.41	2038.30	2038.30	2038.30	2038.30
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		5.28%	5.28%	5.28%	5.28%	5.28%
1.14	Depreciation (for the period)		119.53	119.58	119.58	119.58	119.58
1.15	Depreciation (annualised)		119.53	119.58	119.58	119.58	119.58
1.16	Cumulative depreciation at the beginning of the period		378.17	497.70	617.28	736.86	856.44
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.						
1.18	Cumulative depreciation at the end of the period		497.70	617.28	736.86	856.44	976.02

(Petitioner)



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PART-III FORM-11

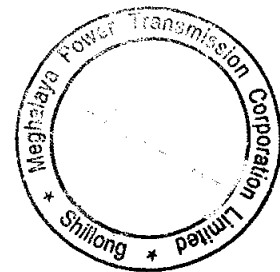
Calculation of Interest on Working Capital

Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 kV Killing S/s (Asset V)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
1	O & M Expenses - one month		37.65	38.99	40.36	41.80	43.22
2	Maintenance Spares 15% of O&M Expenses		67.76	70.19	72.65	75.25	77.80
3	Receivables equivalent to 45 days of AFC		90.54	88.52	95.38	93.01	92.00
4	Total Working Capital		195.95	197.70	208.39	210.06	213.01
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		12.05%	12.05%	12.05%	12.05%	12.05%
6	Interest on Working Capital		23.61	23.82	25.11	25.31	25.67

(Petitioner)



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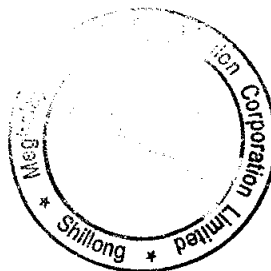
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PART-III FORM- 15

Summary of issue involved in the petition

1. Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
2. Petition Category	Transmission Tariff
3. Tariff Period	2019-24
4. Name of the Project	Name of the Transmission Assets:- LILO of 400 KV D/C Palatana Bonqaiqoan at 400/220 KV Killing S/s (Asset V)
5. Investment Approval date	
6. SCDD of the Project	22-02-2015
7. Actual COD of the project	22-02-2015
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	1
10. No. of Assets having time over run	NA
11. Estimated Project Cost as per IA	12695.00
12. Is there any RCE? if so, provide the date	NA
13. Revised Estimated Project Cost (if any)	11481.00
14. Completion cost for all the assets covered in the instant petition.	11235.33
15. No. of Assets covered in instant petition and having cost overrun.	
16	Prayer in brief
17	Key details and any Specific issue involved
18	Respondents
	Name of Respondents
1	CTUIL, Executive Director, Commercial Deptt., "Saudamini" Plot No-2, Sector – 29, Gurgaon- 122001
2.	Tripura State Electricity Corporation Ltd., Bidyut Bhawan, North Banamaliupr, Agartala- 799001
3	Assam Electricity Grid Corporation Ltd, Bijulee Bhawan, Paltan Bazar, Guwahati- 781001
4.	Meghalaya State Electricity Board, Lumjingshai, Short Round Road, Shillong -1
5	Department of Power, Government of Nagaland, Office at Kohima- 797001
6.	Power & Electricity Department, Government of Mizoram, Aizwal- 796001
7	Electricity Department, Government of Manipur, Keishampat, Imphal- 795001
8.	Department of Power, Government of Arunachal Pradesh, Itanagar-791111
9	ONGC Tripura Power Company Ltd., Udaiपुर, Karkraban road, Palatana P.O Distt-Gomati, Tripura – 799105
10.	NERLDC, Executive Director, Power House, Kahilipara, Guwahati-781019 (Assam)
11	North Eastern Regional Power Committee, Member Secretary, Lapalong Nongrim Hills, Shillong- 793003

(Petitioner)



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PART-III FORM A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.

Name of the Petitioner	Meghalaya Power Transmission Commission Limited (MePTCL)
Tariff Period	2019-24
Name of the Transmission Project	Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)
COD of the Project(if entire scope of project is completed)	22-02-2015

Rupees In lakh

A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the Instant petition.

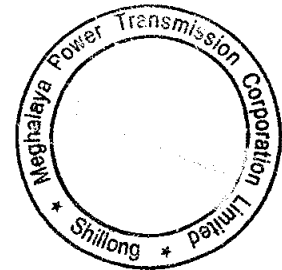
S. No.	Asset No.	COD	Cut-off Date	I) Apportioned Approved Cost		B) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date
				As per Investment approval	As per RCE	As on COD	2019-20	2020-2021	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024	
1		22-02-2015	31-03-2018	12695.00	11481.00	11440.53	1.97	0.00	0.00	0.00	0.00	0.00	11235.33
Total Capital Cost Claimed				12695.00	11481.00	11440.53	1.97	0.00	0.00	0.00	0.00	11235.33	

B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the Instant petition.

S. No.	Asset No.	Asset Name and its location	2019-20	2020-21	2021-22	2022-23	2023-24
1	V	Name of the Transmission Assets:- LILO of 400 KV D/C Palatana-Bongaigoan at 400/220 KV Killing S/s (Asset V)	736.42	718.01	773.67	754.41	748.24
Total AFC for all the Assets			736.42	718.01	773.67	754.41	748.24

Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the Instant petition.

(Petitioner)



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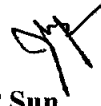
Form-I

Particulars

1	Name of the Petitioner/Applicant	Meghalaya Power Transmission Corporation Limited												
2	Address of the Petitioner/Applicant	Registered Office Lum Jingshai, Short Round Road, Shillong-793001												
3	Subject Matter	Fee for application for determination of tariff												
4	Petition No., if any	--												
5	Details of generation assets													
	(a) generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	Not Applicable												
6	Details of transmission assets	Transmission Line												
	(a) Transmission line and sub-stations	<table border="0"> <tr> <td>Asset</td> <td>COD</td> </tr> <tr> <td>i. 132 kV D/C Umtru- Sarusajai</td> <td>01.04.1990</td> </tr> <tr> <td>ii. 132 kV D/C Kahelipara-Umtru</td> <td>01.04.1960</td> </tr> <tr> <td>iii. 132 kV Panchgram-Lumshnong</td> <td>01.04.1960</td> </tr> <tr> <td>iv. 220 kV D/C Misa-Killing,</td> <td>25.01.2011</td> </tr> <tr> <td>v. LILO of 400 kV D/C Palatana-Bongaigaon</td> <td>25.02.2015</td> </tr> </table>	Asset	COD	i. 132 kV D/C Umtru- Sarusajai	01.04.1990	ii. 132 kV D/C Kahelipara-Umtru	01.04.1960	iii. 132 kV Panchgram-Lumshnong	01.04.1960	iv. 220 kV D/C Misa-Killing,	25.01.2011	v. LILO of 400 kV D/C Palatana-Bongaigaon	25.02.2015
Asset	COD													
i. 132 kV D/C Umtru- Sarusajai	01.04.1990													
ii. 132 kV D/C Kahelipara-Umtru	01.04.1960													
iii. 132 kV Panchgram-Lumshnong	01.04.1960													
iv. 220 kV D/C Misa-Killing,	25.01.2011													
v. LILO of 400 kV D/C Palatana-Bongaigaon	25.02.2015													
	(b) Date of commercial operation	As above												
	(c) Period for which fee paid	FY 2014-19 & FY 2019-24												
	(d) Amount of fee paid	1737400 (0.11% of ATC)												
	(e) Surcharge, if any	-												
7	Fee paid for Adoption of tariff for													
	(a) Generation asset	--												
	(b) Transmission asset	YES, Application fee for Determination of Tariff for FY 2014-19 & FY 2019-24 Regulations												
8	Application fee for licence													
	(a) Trading licence	--												
	(b) Transmission licence	--												
	(c) Period for which paid	--												
	(d) Amount of fee paid	--												
9	Fees paid for Miscellaneous Application	--												
10	Fees paid for Interlocutory Application	--												
11	Fee paid for Regulatory Compliance petition	--												
12	Fee paid for Review Application	--												
13	Licence fee for inter-State Trading	--												
	(a) Category	--												
	(b) Period	--												
	(c) Amount of fee paid	--												
	(d) Surcharge, if any	--												
14	Licence fee for inter-State Transmission	--												

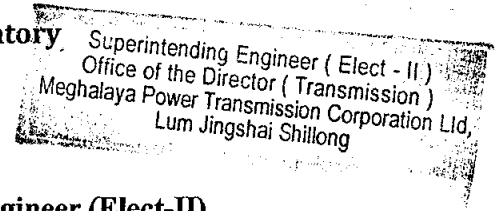
	(a) Expected/Actual transmission charge	--
	(b) Period	--
	(c) Amount of fee calculated as a percentage of transmission charge.	
	(d) Surcharge, if any	--
15	Annual Registration Charge for Power Exchange	--
	(a) Period	--
	(b) Amount of turnover	--
	(c) Fee paid	--
	(d) Surcharge, if any	--
16	Details of fee remitted	--
	(a) UTR No.	SBINR52024011195453636
	(b) Date of remittance	11/01/2024
	(c) Amount remitted	17,37,400

Authorized Signatory



P Sun

Superintending Engineer (Elect-II)



Date: 11/01/2024

Particulars

1	Name of the Petitioner/Applicant	Meghalaya Power Transmission Corporation Limited												
2	Address of the Petitioner/Applicant	Registered Office Lum Jingshai, Short Round Road, Shillong-793001												
3	Subject Matter	Fee for application for determination of tariff												
4	Petition No., if any	--												
5	Details of generation assets													
	(a) generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	Not Applicable												
6	Details of transmission assets	Transmission Line												
	(a) Transmission line and sub-stations	<table border="0"> <tr> <td>Asset</td> <td>COD</td> </tr> <tr> <td>i. 132 kV D/C Umtru- Sarusajai</td> <td>01.04.1990</td> </tr> <tr> <td>ii. 132 kV D/C Kahelipara-Umtru</td> <td>01.04.1960</td> </tr> <tr> <td>iii. 132 kV Panchgram-Lumshnong</td> <td>01.04.1960</td> </tr> <tr> <td>iv. 220 kV D/C Misa-Killing,</td> <td>25.01.2011</td> </tr> <tr> <td>v. LILO of 400 kV D/C Palatana-Bongaigaon</td> <td>25.02.2015</td> </tr> </table>	Asset	COD	i. 132 kV D/C Umtru- Sarusajai	01.04.1990	ii. 132 kV D/C Kahelipara-Umtru	01.04.1960	iii. 132 kV Panchgram-Lumshnong	01.04.1960	iv. 220 kV D/C Misa-Killing,	25.01.2011	v. LILO of 400 kV D/C Palatana-Bongaigaon	25.02.2015
Asset	COD													
i. 132 kV D/C Umtru- Sarusajai	01.04.1990													
ii. 132 kV D/C Kahelipara-Umtru	01.04.1960													
iii. 132 kV Panchgram-Lumshnong	01.04.1960													
iv. 220 kV D/C Misa-Killing,	25.01.2011													
v. LILO of 400 kV D/C Palatana-Bongaigaon	25.02.2015													
	(b) Date of commercial operation	As above												
	(c) Period for which fee paid	FY 2010-14												
	(d) Amount of fee paid	3,00,000												
	(e) Surcharge, if any	-												
7	Fee paid for Adoption of tariff for													
	(a) Generation asset	--												
	(b) Transmission asset	YES, Application fee for Determination of Tariff for FY 2010-14 regulations												
8	Application fee for licence													
	(a) Trading licence	--												
	(b) Transmission licence	--												
	(c) Period for which paid	--												
	(d) Amount of fee paid	--												
9	Fees paid for Miscellaneous Application	--												
10	Fees paid for Interlocutory Application	--												
11	Fee paid for Regulatory Compliance petition	--												
12	Fee paid for Review Application	--												
13	Licence fee for inter-State Trading	--												
	(a) Category	--												
	(b) Period	--												
	(c) Amount of fee paid	--												
	(d) Surcharge, if any	--												
14	Licence fee for inter-State Transmission	--												

	(a) Expected/Actual transmission charge	--
	(b) Period	--
	(c) Amount of fee calculated as a percentage of transmission charge.	
	(d) Surcharge, if any	--
15	Annual Registration Charge for Power Exchange	--
	(a) Period	--
	(b) Amount of turnover	--
	(c) Fee paid	--
	(d) Surcharge, if any	--
16	Details of fee remitted	--
	(a) UTR No.	SBINR52017060900029404
	(b) Date of remittance	09.06.2017
	(c) Amount remitted	3,00,000

Authorized Signatory



P Sun

Superintending Engineer (Elect-II)

Superintending Engineer (Elect - II)
Office of the Director (Transmission)
Meghalaya Power Transmission Corporation Ltd.
Lum Jingshai Shillong

Date: 10/01/2024