



MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

Aggregate Revenue Requirement for FY 2014-15

For

MEGHALAYA POWER GENERATION CORPORATION LIMITED

10.04.2014

New Administrative Building, 1ST Floor, Lower Lachumiere, Shillong-793001,
East Khasi Hills District, Meghalaya. Tel No. (0364) 2500069, 2500062 (Fax)
Email : mmserc@gmail.com

BEFORE THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

In the matter of:

Approval of Annual Revenue Requirement and Tariff of the Meghalaya Power Generation Corporation Limited (MePGCL) within the State of Meghalaya for the FY 2014-15.

And

In the matter of:

Meghalaya Power Generation Corporation Limited, Lumjingshai, Shillong, Meghalaya.

CORAM

Shri Anand Kumar, Chairman

Date of Order: 10.04.2014

ORDER

This order relates to the Petition on Annual Revenue Requirement and Tariff for Financial Year 2014-15 filed by Meghalaya Power Generation Corporation Limited (hereinafter referred to as the "Petitioner") on 16.12.2012. This petition was filed under the MSERC (Terms and Conditions for Determination of Tariff) Regulations 2011 and under section 62 read with section 86 of the Electricity Act 2003.

Section 64(1) read with Section 61 and 62 of the Electricity Act, 2003 (hereinafter referred to as "Act") requires Generation Company to file an application for determination of tariff before the Appropriate Commission in such manner and along with such fee as may be specified by the Appropriate Commission through Regulations. In compliance with Electricity Act 2003 the Commission had notified MSERC (Conduct of Business) Regulations 2007 and MSERC (Terms and Conditions for Determination of Tariff) Regulations 2011. These regulations cover the procedure for filing the tariff application, methodology for determining the tariff and recovery of charges as approved by the Commission from the beneficiaries.

The Government of Meghalaya vide its power sector reforms transfer scheme 2010 transferred the assets, properties, rights, liabilities, obligations and personal of the erstwhile MeSEB into four corporations namely (i) Meghalaya Energy Corporation Limited (MeECL), the holding company, (ii) Meghalaya Power Generation Corporation Limited (MePGCL), the generation utility,

(iii) Meghalaya Power Distribution Corporation Limited (MePDCL), the distribution licensee and (iv) Meghalaya Power Transmission Corporation Limited (MePTCL), the transmission licensee. This transfer scheme is effective from 01.04.2012 and from that date all companies/licensee had to start independent functioning. However, it is experienced that these Companies have not yet commenced commercial operation as independent entities and still is in the process of preparing their statement of accounts in accordance with the transfer scheme. The petitioner has informed that the Government of Meghalaya issued further notification on 16.09.2013 notifying the revised statement of assets and liabilities as on 01.04.2010 to be vested in MePGCL.

This petition has been filed by MePGCL on 16.12.2013 for determining the tariff of their 5 old power stations and 1 new power station for FY 2014-15. Keeping in view the desirability for timely completion of the tariff process for the next year 2014-15, the Commission provisionally admitted the petition for further processing subject to the condition that the petitioner shall furnish any further information/clarification as deemed necessary by the Commission during the processing of the petition. The Commission further directed the petitioner to publish public notice in accordance with Tariff Regulations detailing their salient features of the ARR petition and proposals filed by it for financial year 2014-15 for comments by all stakeholders and public at large. The petitioner was also directed to place the petition on its website and its Headquarter/other offices for inspection or making relevant extracts by the members of the public.

After conducting technical sessions with the utilities staff, advisory committee meeting and public hearing, the Commission on the basis of records submitted by the licensee passes this order for determining annual fixed charges for FY 2014-15 for 6 generating stations of MePGCL.

For the sake of convenience and clarity, this Order has further been divided into following Chapters:

Chapter 1 – Introduction and brief history

Chapter 2 – Petitioner’s Submissions and Proposals

Chapter 3 – Stakeholders’ Responses & Petitioner’s Comments

Chapter 4 – Commission’s Approach

Chapter 5 – Commission’s Analysis, Scrutiny and Conclusion.

Chapter 6 – Directives

This Tariff application has been filed by Meghalaya Power Generation Corporation Limited (MePGCL). The power supply industry in Meghalaya had been under the control of erstwhile MeSEB w.e.f. 21.01.1975. On 31.03.2010, the Government of Meghalaya issued a Notification for the power sector reform and transferred the assets, liabilities, rights and obligations to four companies namely, Meghalaya Energy Corporation Limited (MeECL) the holding company to Meghalaya Power Distribution Corporation Limited (MePDCL), the Distribution Utility, Meghalaya Power Generation Corporation Limited (MePGCL), the Generation Utility and Meghalaya Power Transmission Corporation Limited (MePTCL), the Transmission Utility. In a subsequent amendment to the transfer scheme notified on 31.03.2012 has set the date of transfer w.e.f. 01.04.2012. Subsequently the Government issued further notification amending the structure of assets and liabilities as on 01.04.2010 to be vested in MePGCL. However, these Corporations have still not prepared their Statement of Accounts separately since its inception. This creates a major roadblock in assessing their need for cash for running the operations.

After, the first tariff order of MePGCL in 2013-14, it had to start functioning independently but surprisingly it could not, and all financial transactions are being looked after by its holding company. However a power purchase agreement for supply of power to MePDCL has been signed. The financial statement and the balance sheet for 2012-13 are yet to be prepared and the details of the assets and liabilities are limited to the numbers given in the transfer scheme. MeECL has provided the audited accounts for 2009-10 and agreed to submit accounts for 2010-11 & 2011-12 shortly. However, the audit by the Comptroller of Audit and Accounts has not been done so far for 2010-11 onwards.

The MSERC has notified the terms and conditions for determination of tariff regulation on 10.02.2011 which gives the procedure and requirement of filing of the ARR for ensuing year. Regulation 17 provides that each generating company shall file a tariff petition on or before 30th November each year with the Commission which includes statement containing calculation of the expected aggregate revenue from charges under it currently approved tariff and expected cost of providing service. The information for the previous year (2012-13) should be based on audited accounts and in case audited accounts are not available audited accounts of the year immediately

preceding the previous year (2011-12) shall be filed along with an unaudited accounts for the previous year. The tariff application shall also contain tariff proposal so as to fully cover the gap if any between the expected revenue and the expected cost of service.

The proceedings of the tariff are governed under the section 61 and 62 of the Electricity Act 2003 and the regulations made under section 181 of the Act. MePGCL was required to submit the petition by 30.11.2013 for financial year 2014-15. The intent of the law is to issue the new tariff before the start of financial year i.e. 01.04.2014. Complying with the Commission's directive and Regulations, MePGCL has filed the ARR application and tariff proposal on 16.12.2013. After the preliminary examination the Commission has issued deficiency note to the licensee. The petition contains certain information gaps which are as follows:

1. Statement of Accounts

To submit Annual Accounts for 2012-13 duly audited by appropriate authority or provisional accounts as approved by the Board so as to validate the financial of the Corporation.

2. Fixed assets

To substantiate the opening balance of fixed assets by the statement of account for 2012-13. Addition of assets during 2013-14 (up to date) requires the completion certificate from the appropriate authority. Detailed project reports for different new stations may be submitted.

3. R M & U

To submit the details of capital expenditure as per the accounts for Umiam Stage II with details of funding arrangement. A copy of the agreement for the loan may be furnished.

4. Equity

The amount of equity should be substantiated by the Statement of Accounts and should match with the size of assets. As per the Regulation the equity amount appearing in the balance sheet will be considered for the purpose of ROE.

5. O & M cost

There is a substantial variation in the employees cost, R & M cost and A & G cost in the year 2012-13 actually spent and as approved by the Commission. To validate the claims regarding expenses, the Company should submit the actual expenses made in O & M in the period April 2013 to November 2013 separately for employees cost, A & G and R & M. Similarly actual cost incurred in O & M in 2012-13 as per accounts may be submitted. The copy of the trial balances may also be furnished. Justification for increase in employees cost inspite of reduction in employees in 2014-15 may be given.

6. Depreciation

As per the Regulation, the depreciation has to be done in accordance with the rates as specified in the regulation and should be charged on the asset values as admitted by the Commission. For new assets, depreciation shall be chargeable from the first year of operation.

7. Interest

Actual interest payment if any in 2012-13 and 2013-14 for the period April to November may be furnished source wise.

8. Computation of NAPAF

As directed in the Commission's order for 2013-14, MePGCL was required to conduct a study for determining the designed energy, availability, generation, water levels and determine NAPAF based on actual data. The status of report and justification for NAPAF shown in the ARR may be presented before the Commission.

9. Status of billing and payment

The Corporation should submit the status of billing and payment thereof by the distribution licensee for 2012-13 and 2013-14 till date.

10. Details of generation

MePGCL shall submit the month wise availability of each of its plant and generation in million units from each of its plant for the period 2012-13 and 2013-14 (April to November).

Keeping in view the desirability for timely completion of the tariff process for the next year 2014-15, the Commission has admitted the petition for further processing subject to the condition that the petitioner shall furnish any further information/clarification as deemed necessary by the Commission during the processing of the petition. In the admission order the Commission has directed the generating company to publish a notice in leading newspapers widely circulated in the State and seek comments from general public and other stakeholders. MePGCL has published the Notice in the following newspapers and sought comments within 30 days from the general public.

TABLE 1 – DETAILS OF PUBLIC NOTICE		
Name of the Newspapers	Date of Publication	Languages
The Shillong Times, Shillong and Tura	29.12.2013	English
U Mawphor	29.12.2013	Khasi
Salantini Janera	29.12.2013	Garo
Chitylli	29.12.2013	Jaintia

Subsequently, MePGCL has made a detailed presentation on 06.01.2014 before the Commission. The Commission after examination of the petition in detailed has found that there are numbers of issues which are important in nature and affect the tariff significantly. Accordingly, the Commission required MePDCL to file additional information vide its letter dated 10.01.2014. The required information is as follows:

1. Comments on the ARR of MePDCL for 2014-15

MePGCL should give their comments on the ARR proposal of MePDCL for 2014-15 on the power purchase cost from State generating stations.

2. Equity

MePGCL to clarify the issue of share certificates to the State Government in accordance with recent transfer scheme issued by Government of Meghalaya. The entitlement on the return on equity invested by the State Government should be clarified.

3. Receivables from Government against terminal benefit liabilities

In accordance with recent transfer scheme dated 16.09.2013, the status of receivable from Government against terminal benefit liabilities should be informed.

4. Generation

Details of generation from each plant as against the designed energy approved in the tariff order for 2013-14 may be given for 2013-14 up to December 2013. The reasons for estimating lower generation figures for 2014-15 may also be provided. In 2012-13 the generation excluding Leshka was shown at 514 MU, while in 2013-14 it is estimated at 431 MU. MePGCL should substantiate its proposal for 2014-15 with details.

5. R M & U

Details of Umiam Stage II renovation financed by JBIC Loan along with the increase in generation capacity should be provided.

6. Fixed assets

Details of completion certificate by appropriate agency for Umiam Stage II renovation for the investment of Rs.104.75 crores assets added in 2012-13 may be provided. The generation in MUs term before and after R M & U may also be given.

7. Employees cost

Report of Actuarial valuation for terminal benefits should be provided. Actual employees cost in 2013-14, segregation of employees cost and terminal benefit provisions in 2014-15 may also be provided.

8. Interest on working capital

Details of interest paid in 2013-14 for arranging working capital from bank should be provided.

Time up to 20.01.2014 was given to MePGCL to file the reply on the above issues so that the Commission may take a reasonable view on the tariff proposal. MePGCL vide their letter dated 20.01.2014 furnished replies to some of the queries relating to the petition for its old stations and Sonapani. Remaining queries were replied by MePGCL vide its letter dated 31.01.2014.

Accordingly, the Commission proceeded for determination of tariff for 2014-15 on the basis of available information, issues agreed upon in consultation with MePGCL and in accordance with Commission's regulation.

1 ARR for FY 2014-15 – Existing Generating Stations

MePGCL has proposed the following for determination of tariffs for its 6 generating stations.

1.1 Segregation of Financials

- Pursuant to Meghalaya Power Sector Reforms Transfer Scheme 2010 (as amended in 2012), the Assets and Liabilities including rights, obligations and contingencies is transferred to and vested in MePGCL from MeECL on and from 1.4.2012. Transfer of Assets and Liabilities to MePGCL is based on the provisional financials of MeECL for FY2011-12.
- The segregated annual accounts post restructuring and unbundling for FY 2012-13 are being finalized. The accounts for the holding company and its subsidiaries have been segregated by appropriating the Assets, Properties, Liabilities, Expenditures, and Obligations etc. as attributable to the respective companies. The Assets and liabilities of individual functions i.e Generation, Transmission and Distribution were maintained by erstwhile MeSEB and later MeECL, and appropriation of common items to respective companies is being done by taking relevant basis/ methodology

1.2 Existing Generation Capacity

- The initial installed capacity when the erstwhile Meghalaya State Electricity Board (MeSEB) was bifurcated from the Assam State Electricity Board (ASEB) in 1975 was 65.2 MW. With the commissioning of Stage-III HEP (1979), Stage IV HEP (1992) & Mini Hydel, the installed capacity increased by 121.5 MW. All the Generating Stations except Sonapani Micro Hydel Project, as indicated in Table below are hydel power stations with the main reservoir at Umiam for all the stages. Therefore, all these stages depend mainly on water availability at the Umiam reservoir. The total installed capacity of MePGCL projects are as under:

Details of Existing Generation Capacity

No	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
1.	Umiam Stage I	I	9	36	21.02.1965
		II	9		16.03.1965
		III	9		06.09.1965
		IV	9		09.11.1965
2.	Umiam Stage II	I	10	20	22.07.1970
		II	10		24.07.1970
3.	Umiam Stage III	I	30	60	6.01.1979
		II	30		30.03.1979
4.	Umiam Stage IV	I	30	60	16.09.1992
		II	30		11.08.1992
5.	Umtru Power Station	I	2.8	11.2	01.04.1957
		II	2.8		01.04.1957
		III	2.8		01.04.1957
		IV	2.8		12.07.1968
6.	Sonapani	I	1.5	1.5	27.10.2009
7.	Leshka	I	42	126	01.04.2012
		II	42		01.04.2012
		III	42		08.03.2013
Total				312.7	

1.3 Renovation, Modernisation and Upgradation (R M & U) of Umiam Stage-II

- MePGCL has concluded R M & U of Umiam Stage-II on 6th January, 2012. After completing R M & U of Umiam Stage-II, the capacity is upgraded from earlier 18MW to 20MW and the life of the project is increased by 35 years. The completion cost of the project was Rs. 104.75 Cr and it was financed by JBIC loan. The term of the loan is 30 years with a 10 year's grace period and at an annual rate of interest of 1.3%. MePGCL submitted before the Commission to approve R M & U of Stage-II.

1.4 New Generation Capacity

- MePGCL is currently executing works of hydro electric projects which are proposed for commissioning in near future as under:

Details of New Generating Stations

No.	Name & Location	Capacity (MW)	Year of Commencement	Schedule Date of Commissioning / COD
1	Lakroh SHP	1.5	2003	March 2014
2	New Umtru	40 (20*2)	2008	March 2015

- It is submitted that for Lakroh SHP provisional tariff has been approved in the Tariff Order dated 30th March, 2013. The final tariff petition for Lakroh SHP will be filed after commissioning of the same.

1.5 Computation of Generation Energy

The following sections outline details of operational norms for computation of energy generation for FY 2014-15 based on Tariff Regulations, 2011 or past trend as the case may be.

- Operation Norms**

The following sections provide the extract of the Tariff Regulations, 2011 with respect to computation of generation energy.

a) Normative Annual Plant Availability Factor

No.	Station Particular	Norm
1	<i>Storage and pondage type plants: where plant availability is not affected by silt and</i>	
a	<i>with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of upto 8 %</i>	90 %
b	<i>with head variation between FRL and MDDL of more than 8%</i>	$(\text{Head at MDDL}/\text{Rated Head}) \times 0.5 + 0.2$
2	<i>Pondage type plant</i>	<i>where plant availability is significantly affected by silt - 85%</i>
3	<i>Run -of- River type plants</i>	<i>NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available / relevant.</i>

Note:

(i) A further allowance may be made by the Commission under special circumstances, eg. Abnormal silt problem or other operating conditions, and known plant limitations.

(ii) A further allowance of 5 % may be allowed for difficulties in the North East Region.

(iii) In case of new hydro electric project the developer shall have the option of approaching the Commission in advance for further above norms.

b) Auxiliary Consumption

No	Station Particular	Norm
1	Surface hydro electric power generating stations with rotating exciters mounted on the generator shaft	0.7% of energy generated
2	Surface hydro electric power generating stations with static excitation system	1.0% of energy generated
3	Underground hydro electric power generating stations with rotating exciters mounted on the generator shaft	0.9% of energy generated
4	Underground hydro electric power generating stations with static excitation system	1.2% of energy generated

c) Transformation Losses

From generation voltage to transmission voltage0.5% of energy generated.

• **Design Energy – Existing Generating Stations**

The design energy for MePGCL power stations is approved in the Tariff Order dated 30th March 2013 is provided in the table below:

Table 1: Design Energy

Name of Power Station	Design Energy (MU)
Umiam Stage I	116.29
Umiam Stage II	45.51
Umiam Stage III	139.40
Umiam Stage IV	207.50
Umtru Power Station	39.01
Sonapani	5.50

It is submitted before the Commission that for the FY 2014-15 the approved design energy will be used for computation of energy charge. The month wise and station wise design energy is provided in the Formats in the petition.

• **Computation of Energy Generation - Existing Stations**

The computation of hydro power generation requires Design Energy, Capacity Index, Details of Reservoir levels, Head details, Past Availability details, features of the hydro power plants in terms of type of plant, type of excitation etc which are provided in the table below:

Features of Hydro Power Plants

Sr. No.	Particulars	Umtru	Umiam-I	Umiam-II	Umiam-III	Umiam-IV	Sonapani
1	Type of Station						
a	Surface/ Underground	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
b	Purely ROR/ Pondage/ Storage	PONDAGE	STORAGE	POWER CHANNEL (Pondage)	PONDAGE	PONDAGE	ROR
c	Peaking/Non Peaking	NON PEAKING	NON PEAKING	NON PEAKING	NON PEAKING	NON PEAKING	NON PEAKING
d	No. of hours Peaking	NA	NA	NA	NA	NA	NA
e	Overload Capacity (MW) & Period	NIL	NIL	NIL	NIL	NIL	NA
2	Type of Excitation						
a	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	NA	Rotating exciters on Generator
b	Static excitation	NA	NA	NA	NA	Static Excitation	NA

Computation of NAPAF for Storage and Pondage type plants:

Based on the above details and the norms specified by Regulation 60 (1) (a) of the Tariff Regulations, 2011, the computation of NAPAF for Storage and Pondage type hydro generating stations is carried out as under:

Computation of Head Variation for Storage & Pondage plants

Name of Power Station	FRL (mtrs)	MDDL (mtrs)	Maximum Head	Minimum Head	% Head Variation
Umiam Stage I	981.46	960.12	169.0	130.0	23.08%
Umiam Stage II	804.06	800.85	78.5	75.0	4.46%
Umiam Stage III	679.70	672.05	162.0	146.0	9.88%
Umiam Stage IV	503.00	496.00	162.0	131.0	19.14%

As submitted in the above table other than Umiam Stage-II, for all power stations, the head variation between FRL and MDDL is more than 8%. Hence, an allowance is to be provided in NAPAF as indicated in the table below:

Table 2: Computation of NAPAF for Storage & Pondage plants

Name of Power Station	% Head Variation	Rated Head	Head at MDDL (Min Head)	NAPAF (Head at MDDL / Rated head) x 0.5+0.2
Umiam Stage I	23.08%	145.0	130.0	64.83%
Umiam Stage II	4.46%	77.7	75.0	90.00%
Umiam Stage III	9.88%	150.0	146.0	68.67%
Umiam Stage IV	19.14%	140.0	131.0	66.79%

Computation of NAPAF for Pondage type plants: As per Regulation 60 (1) (b) of the Tariff Regulations, 2011 for pondage type plants where plant availability is significantly affected by silt is NAPAF is 85%. Umtru being the only plant under this category and accordingly, NAPAF for Umtru is **85.00%** as per regulations. Further as per Regulation 60 of the Tariff Regulations, 2011, after considering further allowance of 5% for difficulties in north east region, the NAPAF for Umtru is **80.00%**.

Computation of NAPAF for Run of River type plants: As per Regulation 60 (1) (c) of the Tariff Regulations, 2011, the NAPAF for Run of River type plants is to be determined based on 10-day design energy data, moderated by past experience wherever relevant. Therefore, based on the past records and as per norm given in regulation, the NAPAF for Sonapani works out to be **50.00%**. Further as per Regulation 60 of the Tariff Regulations, 2011, after considering further allowance of 5% for difficulties in north east region, the NAPAF for Sonapani is **45.00%**.

As per Regulation 60 of the Tariff Regulations, 2011, the computed NAPAF is shown below:

Table 3: NAPAF as per Operation norms for MePGCL Power Stations

Name of Power Station	NAPAF (%) as per workings	NAPAF (%) with 5% allowance
Umiam Stage I	64.83%	59.83%
Umiam Stage II	90.00%	85.00%
Umiam Stage III	68.67%	63.67%
Umiam Stage IV	66.79%	61.79%
Umtru Power Station	85.00%	80.00%
Sonapani	50.00%	45.00%

Computation of NAPAF based on last year's actual generation

It is further submitted that as per direction of MSERC in the tariff order dated 30th March, 2013, MePGCL has conducted study of last 3year's hourly generation to arrive at the existing level of availability. The computed PAFM based on last 3year's actual hourly generation is mentioned in the table below:

PAFM based on actual hourly generation

Particulars		Umiam Stage I	Umiam Stage II	Umiam Stage III	Umiam Stage IV	Umtru	Sonapani
PAFM	FY 2010-11	56%	45%	42%	68%	17%	47%
	FY 2011-12	57%	15%	49%	60%	41%	59%
	FY 2012-13	58%	53%	50%	65%	36%	67%
	Maximum	58%	53%	50%	68%	41%	67%

MePGCL submitted before the Commission to approve the maximum of last 3 year's actual PAFM as NAPAF for the FY 2014-15.

Proposed NAPAF for FY 2014-15

MePGCL submits before the Commission to approve the following as NAPAF for each station

NAPAF proposed for FY 2014-15

Name of Power Station	NAPAF for FY 2014-15 (%)
Umiam Stage I	58%
Umiam Stage II	53%
Umiam Stage III	50%
Umiam Stage IV	68%
Umtru	41%
Sonapani	67%

The station-wise Net Generation for FY 2012-13 (Actual) and FY 2013-14 (Estimated) are provided in the table below:

Station wise Net Generation FY 2012-13 (Actual)

Sr. No.	Name of Power Station	Gross Generation (MU)	Aux Cons (%)	Transformation Loss (%)	Aux Cons & Transformation Loss (MU)	Net Generation (MU)
1	Umiam Stage I	103.93	0.70%	0.50%	1.25	102.68
2	Umiam Stage II	50.93	0.70%	0.50%	0.61	50.32
3	Umiam Stage III	131.19	0.70%	0.50%	1.57	129.62
4	Umiam Stage IV	190.08	1.00%	0.50%	2.85	187.23
5	Umtru Power Station	30.64	0.70%	0.50%	0.37	30.27
6	Sonapani	7.28	0.70%	0.50%	0.09	7.19
	Total	514.05			6.74	507.31

Station wise Net Generation FY 2013-14 (Estimated)

Sr. No.	Name of Power Station	Gross Generation (MU)	Aux Cons (%)	Transformation Loss (%)	Aux Cons & Transformation Loss (MU)	Net Generation (MU)
1	Umiam Stage I	76.58	0.70%	0.50%	0.92	75.66
2	Umiam Stage II	40.17	0.70%	0.50%	0.48	39.69
3	Umiam Stage III	124.37	0.70%	0.50%	1.49	122.88
4	Umiam Stage IV	162.13	1.00%	0.50%	2.43	159.69
5	Umtru Power Station	21.88	0.70%	0.50%	0.26	21.62
6	Sonapani	6.60	0.70%	0.50%	0.08	6.52
	Total	431.73			5.67	426.07

It is submitted that for the FY 2014-15 the Net Generation from existing stations is estimated to be same as FY 2013-14. The station wise summary of generation for FY 2012-13, FY 2013-14 and FY 2014-15 is presented below:

Table 4: Station wise Summary of Generation FY 12 to FY 14

Sr. No.	Name of Power Station	FY 2012-13 (Actual)	FY 2013-14 (Estimated)	FY 2014-15 (Projected)
1	Umiam Stage I	103.93	76.58	76.58
2	Umiam Stage II	50.93	40.17	40.17
3	Umiam Stage III	131.19	124.37	124.37
4	Umiam Stage IV	190.08	162.13	162.13
5	Umtru Power Station	30.64	21.88	21.88
6	Sonapani	7.28	6.60	6.60
	Gross Generation (MU)	514.05	431.73	431.73
	Auxiliary consumption & Transformation Loss (MU)	6.74	5.67	5.67
	Net Generation (MU)	507.31	426.07	426.07

MePGCL submitted before the Commission to approve the total net generation as shown in table above for existing power stations of MePGCL.

1.6 Components of Tariff

The Regulation 52 provides for components of tariff which is extracted below for reference.

52. Components of tariff

(1) Tariff for supply of electricity from a hydro power generating station shall comprise of two parts, namely, annual capacity charges and energy charges to be in the manner provided hereinafter.

(2) The fixed cost of a generating station eligible for recovery through annual capacity charges shall consist of:

(a) Return on equity as may be allowed

(b) Interest on Loan Capital;

(c) Operation and maintenance expenses;

(d) Interest on Working Capital;

(e) Depreciation as may be allowed by the Commission.

(f) Taxes on Income

Accordingly, MePGCL computes and provides herewith various cost elements for determination of tariff.

1.7 Gross Fixed Assets

The provisional Gross Fixed Assets (GFA) of MePGCL as on 31.03.2012 is Rs **327.39** Crores (After allotting GFA of MeECL to MePGCL, MePTCL and MePDCL proportionately).

- **Determination of Station-wise Gross Fixed Assets**

It is submitted that MePGCL has attempted to bifurcate station wise GFA for existing &

new projects. The table below provides station wise GFA as on 31.03.2012.

Station wise Gross Fixed Assets – Old Stations

Particulars	GFA (Rs.Cr)
Value of Gross Fixed Assets as on 31.03.12	327.39
Less: GFA pertaining to Sonapani	10.86
Net GFA for Old Projects (Umiam Stage I to IV & Umtru)	316.53

- **Closing Gross Fixed Assets for FY 2014-15**

Based on the above computed GFA as on 1.04.2012, the closing GFA for FY 2014-15 are worked out considering additions / R&M for each station. It is submitted that while computing the closing Station-wise GFA for FY 2014-15 the Myntdu Leshka Project is not considered. The table below provides station wise closing GFA for FY 2014-15.

Station wise Closing Gross Fixed Assets – Old Stations

Particulars	Old Projects (Rs.Cr)	Sonapani (Rs.Cr)	Total (Rs.Cr)
Opening GFA as on 1.4.2012	316.53	10.86	327.39
Add: Additions to GFA during FY 2012-13 (R & M of Stage-II)	104.75	-	104.75
Less: Retirements to GFA during FY 2012-13	-	-	-
Closing GFA as on 31.3.2013	421.28	10.86	432.14
Opening GFA as on 1.4.2013	421.28	10.86	432.14
Add: Additions to GFA during FY 2013-14	-	-	-
Less: Retirements to GFA during FY 2013-14	-	-	-
Closing GFA as on 31.3.2014	421.28	10.86	432.14
Opening GFA as on 1.4.2014	421.28	10.86	432.14
Add: Additions to GFA during FY 2014-15	-	-	-
Less: Retirements to GFA during FY 2014-15	-	-	-
Closing GFA as on 31.3.2015	421.28	10.86	432.14

MePGCL submitted before the Commission to approve the computed Gross Fixed Assets of existing stations (excluding Myntdu Leshka) for FY 2014-15.

1.8 Determination of Return on Equity

The relevant regulations for determination of debt-equity ratio are extracted for reference as below:

51. Debt equity ratio

1) For the purpose of determination of tariff, debt-equity ratio in the case of a new generating station commencing commercial operations after the notification of these regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative

loan. Where actual equity employed is less than 30%, the actual equity employed shall be considered.

2) In the case of existing generating stations the debt equity ratio as per the Balance Sheet on the date of the Transfer notification will be the debt equity ratio for the first year of operation, subject to such modification as may be found necessary upon audit of the accounts if such Balance Sheet is not audited.

- As per the provisional segregated figures, the opening equity for MePGCL as on 1.4.2012 is Rs. **592.33** Cr and the same is considered as equity for calculation of RoE.
- The relevant regulations for computation of return on equity are extracted for reference as below:

53. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with regulation 51 and shall not exceed 14 %.

Provided that incase if projects commissioned after notification of these Regulations an additional return of 0.5 % shall be allowed if such projects are completed within the time line specified in CERC Tariff Regulations, 2009. (Refer Annuxure-1)

Provided that in case of projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any time or cost overrun, whatsoever.

Provided that equity invested in a foreign currency may be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

(2) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.

(3) Internal resources created out of free reserves and utilized for meeting the capital expenditure shall also be treated as a part of equity.

(4) Foreign equity will also attract the same rate of return.

- It is submitted that MePGCL has considered the Return on Equity (RoE) at the rate of 14%. The table below provides herewith the station wise computation of RoE for FY 2014-15. It is to be noted that equity added during FY 2012-13 does not include equity pertaining to Leshka.

Return on Equity for FY 2014-15 – Old Stations

Particulars	2012-13	2013-14	2014-15
Opening Equity	592.33	871.17	871.17
Additions during the year	278.84	-	-
Closing Equity	871.17	871.17	871.17
Equity Considered for RoE	126.38	126.38	126.38
RoE %	14%	14%	14%
RoE (Rs Crores)	17.69	17.69	17.69

Return on Equity for FY 2014-15 – Sonapani

Particulars	Rs Cr
Equity	4.11
Grant	6.75
Total	10.86
Equity Considered for RoE	3.26
RoE (%)	14%
Return on Equity (Rs Cr)	0.46

- MePGCL submitted before the Commission to approve the RoE of Rs. **18.15** Cr for FY 2014-15 for existing generating stations including Sonapani.

1.9 Long Term Loans and Interest on Long Term Loans

The relevant regulations for computation of long term loans and interest thereon are extracted for reference as below:

54. Interest and finance charges on loan capital

(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the lending rate prevailing therein.

Provided that the outstanding loan capital shall be adjusted to be consistent with the loan amount determined in accordance with Regulation 51.

(2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.

(3) The generating company shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.

(4) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the generating company in a ratio as may be specified by the Commission as envisaged in Regulation 13.2.

(5) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

- It is submitted that, the interest on long term loans is claimed only for projects which have actual loan outstanding. According to the records and information, there is no outstanding loan for Old Projects except for R & M of Umiam Stage I & II. However the loan for R & M of Stage I & II will be paid by Central Government and also Loan Agreement provides for moratorium period of 10 years on both Principal and Interest payment. Therefore no Interest on Loan is claimed for old projects.

1.10 Depreciation

The relevant regulations for computation of depreciation are extracted for reference as below:

Regulation 57 - Depreciation

(a) The asset value for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission where the opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited.

(f) Depreciation shall be calculated annually as per straight – line method at the rates specified in Appendix-III of CERC (Terms and Conditions of Tariff) of Regulations, 2009.

(g) The remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

(i) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.

- **Determination of Depreciation for old assets:** It is submitted that as shown in table the useful life for old Generating stations except for Sonapani, R & M of Umiam Stage-I, R & M of Umiam Stage-II and Umiam Stage-IV, is already completed. Therefore depreciation is proposed on below projects/ assets:
 - R & M of Stage I
 - R & M of Stage II
 - Stage IV
 - Sonapani
- **Determination of Depreciation for Sonapani:** It is submitted that the depreciation for Sonapani is computed considering available project cost and depreciation as per Tariff Regulations, 2011. The table below provides depreciation for Sonapani for FY 2014-15.

Depreciation for Sonapani for FY 2013-14

Particulars	Unit	Unit	Rs. Crs
Project Cost (After deducting temporary construction)	Rs.Crs	a	10.60
Depreciable Asset Value @ 90%	Rs.Crs	b =a * 90%	9.54
Depreciation Rate as per Appendix-III	%	c	5.28%
Depreciation value for FY 2014-15	Rs.Crs	d=c *a	0.50

- **Determination of Depreciation for R & M of Stage-I:** It is submitted that the depreciation for R & M of Stage-I is computed considering available project cost for R & M of Stage-I and depreciation as per Tariff Regulations, 2011. The table below provides depreciation for R & M of Stage-I for FY 2014-15.

Depreciation for R & M of Stage-I for FY 2014-15

Particulars	Unit	Unit	Rs. Crs
Project Cost of R & M of Stage-I	Rs.Cr	a	91.63
Depreciable Asset Value @ 90%	Rs.Cr	b =a * 90%	82.47
Depreciation Rate as per Appendix-III	%	c	5.28%
Depreciation value for FY 2014-15	Rs.Cr	d=c *a	4.35

- **Determination of Depreciation for R & M of Stage-II:** It is submitted that the depreciation for R & M of Stage-II is computed considering available project cost for R & M of Stage-II and depreciation as per Tariff Regulations, 2011. The table below provides depreciation for R & M of Stage-II for FY 2014-15.

Depreciation for R & M of Stage-II for FY 2014-15

Particulars	Unit	Unit	Rs. Crs
Project Cost of R & M of Stage-II	Rs.Cr	a	104.75
Depreciable Asset Value @ 90%	Rs.Cr	b =a * 90%	94.28
Depreciation Rate as per Appendix-III	%	c	5.28%
Depreciation value for FY 2014-15	Rs.Cr	d=c *a	4.98

- **Determination of Depreciation for Umiam Stage-IV:** It is submitted that the depreciation for Umiam Stage-IV is computed considering available project cost for Umiam Stage-IV and depreciation as per Tariff Regulations, 2011. The table below provides depreciation for Umiam Stage-IV for FY 2014-15.

Depreciation for Umiam Stage-IV for FY 2014-15

Particulars	Amount Rs. Crs	Depreciation Rate	Depreciation on 90% of Cost FY 2014-15 (Rs Crs)
Building & Civil Works	23.43	3.34%	0.70
Hydraulic Work	92.98	5.28%	4.42
Plant & Machinery	2.24	5.28%	0.11
Transformers	11.86	5.28%	0.56
Total	130.51		5.79

MePGCL submitted before the Commission to approve the total depreciation of Rs. **15.63** Cr for FY 2014-15 for Old stations as summarized in below table.

Total Depreciation for Old Stations for FY 2014-15

Station	Depreciation (Rs Cr)
Sonapani	0.50
R & M of Stage-I	4.35
R & M of Stage-II	4.98
Umiam Stage-IV	5.79
Total	15.63

1.11 Operation & Maintenance expenses (O & M expenses)

The relevant regulations for computation of O&M expenses are extracted for reference as below:

Regulation 55 - Operation & Maintenance expenses

(1) Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads: -

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses.

(2) O & M expenses shall include employee cost, repairs & maintenance and Administration & General expenses. O & M expenses for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.

(3) The normalized operation and maintenance expenses after prudent check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level and then averaged to arrive at normalized O&M expenses for 2003-04 to 2007-08 price level. The average normal O&M expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the O&M expenses for the year 2009-10.

(4) The O&M expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of employees to arrive at the permissible O&M expenses for the year 2009-10.

(5) The O&M expenses for 2009-10 shall be escalated further at the rate of 5.72% per annum as arrive at the operation and maintenance expenses for the subsequent years of the tariff period.

(6) In case of the hydro generating stations, which have not been in commercial operation for a period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation & resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @5.17% per annum up to the year 2007-08 and then averaged to arrive at the O&M expenses at 2007-08 price level. It shall be thereafter escalated @ 5.72% per annum to arrive at operation and maintenance expenses in respective year of the tariff period. (The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation).

(7) In case of hydro generating stations declared under commercial operation on or after 01/04/2009, O&M expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) and shall be subject to annual escalation at 5.72% for the subsequent years.

- The above regulations classify operation and maintenance expenses in three categories:
 - Hydro Generating Stations in operation for a period of **more than 5 years as on 1.4.2009; (say Category 'A')**
 - Hydro Generating Stations in operation for a period of **less than 5 years as on 1.4.2009; (say Category 'B')**
 - Hydro Generating Stations declared under commercial operation on or after 1.4.2009; **(say Category 'C')**
- Accordingly, MEGCL has categorized its power station for computation of O&M expenses.

Classification of Hydro Projects for O&M Purpose

No.	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	COD	Project Classification
1.	Umiam Stage I	I	9	36	21.02.1965	A
		II	9		16.03.1965	A
		III	9		06.09.1965	A
		IV	9		09.11.1965	A
2.	Umiam Stage II	I	10	20	22.07.1970	A
		II	10		24.07.1970	A
3.	Umiam Stage III	I	30	60	6.01.1979	A
		II	30		30.03.1979	A
4.	Umiam Stage IV	I	30	60	16.09.1992	A
		II	30		11.08.1992	

No.	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	COD	Project Classification
5.	Umtru Power Station	I	2.8	11.2	01.04.1957	A
		II	2.8		01.04.1957	A
		III	2.8		01.04.1957	A
		IV	2.8		12.07.1968	A
6.	Mini Hydel (Sonapani)	I	1.5	1.5	27.10.2009	C
	Total			186.7		

- As can be seen from the above table, MePGCL projects fall under category 'A' and 'C'. Accordingly, MePGCL has computed O&M expenses for FY 2013-14 for these projects.
- The O&M expenses for Category 'A' needs to be computed based on past data for FY 2003-04 to FY 2007-08. The O&M expenditure for Category 'A' is computed as per Regulation 55(2), 55(3), 55(4) and 55(5) of Tariff Regulations, 2011.
- It is submitted that as per Audited Accounts Statement-6, the data for elements of O&M is extracted and average base value figures are derived at for FY 2007-08. The Statement-6 provides function wise analysis of O&M elements into Generation, Transmission, Distribution and Others (Stores organization & Management & Administration). Hence the O&M expenses classified/ related to Others are further allocated/ apportioned to Generation, Transmission & Distribution (GTD) in the ratio of GTD expenses. The table below provides the extract of O&M expenses from FY 2003-04 to FY 2007-08 for GTD and computation of GTD Ratio.

Computation of GTD Ratio of O&M Expenses (FY04 to FY08)

O & M Expenditure - Generation (As per Audited Accounts - Statement 6)					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Repairs & Maintenance	3.43	3.74	4.07	6.98	6.52
Employee Costs	5.58	6.08	7.29	17.00	14.55
Administration and General Expenses	0.39	1.18	0.67	1.36	1.95
Total - Rs.Crores	9.40	11.00	12.03	25.34	23.02
O & M Expenditure - Transmission (As per Audited Accounts - Statement 6)					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Repairs & Maintenance	2.98	2.23	0.94	0.95	1.57
Employee Costs	4.98	6.08	5.39	6.33	7.39
Administration and General Expenses	0.40	1.18	0.52	0.55	0.99
Total - Rs.Crores	8.36	9.49	6.85	7.83	9.95
O & M Expenditure - Distribution (As per Audited Accounts - Statement 6)					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Repairs & Maintenance	0.06	3.93	6.85	4.33	9.04
Employee Costs	26.48	26.60	29.03	32.15	39.91
Administration and General Expenses	1.45	1.48	1.82	2.44	2.54
Total - Rs.Crores	27.99	32.01	37.70	38.92	51.49
Total O & M Expenditure - (GTD) and Computation of GTD Ratio					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Generation	9.40	11.00	12.03	25.34	23.02
Transmission	8.36	9.49	6.85	7.83	9.95
Distribution	27.99	32.01	37.70	38.92	51.49
Total - Rs.Crores	45.75	52.50	56.58	72.08	84.46
Generation - Ratio	21%	21%	21%	35%	27%
Transmission - Ratio	18%	18%	12%	11%	12%
Distribution - Ratio	61%	61%	67%	54%	61%
Total	100%	100%	100%	100%	100%

- The table below provides details of O&M expenses for Others i.e. Stores Organisation, Management & Administration.

O&M Expenses – Others (FY 04 to FY08)

O & M Expenditure - Others (As per Audited Accounts - Statement 6)					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Repairs & Maintenance	0.34	0.21	0.14	0.35	0.10
Employee Costs	24.13	25.63	29.97	27.11	34.07
Administration and General Expenses	1.42	1.35	1.67	2.13	1.83
Total - Rs.Crores	25.89	27.19	31.78	29.59	36.00

- The table below provides the allocation of Others O&M expenses to Generation function in the computed Generation, Transmission & Distribution (GTD) ratio.

Allocation of Other O&M Expenses to Generation (FY 04 to FY08)

Allocation of Others O & M Expenditure to Generation as per GTD Ratio					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Repairs & Maintenance	0.07	0.04	0.03	0.12	0.03
Employee Costs	4.96	5.37	6.37	9.53	9.29
Administration and General Expense	0.29	0.28	0.35	0.75	0.50
Total	5.32	5.70	6.76	10.40	9.81

- The total of O&M expenses for Generation function after allocation of others cost for FY 2003-04 to FY 2007-08 is presented in table below:

Total of O&M Expenses for Generation after Allocation (FY 04 to FY08)

Total of O & M Expenditure for Generation after Allocation					
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08
Repairs & Maintenance	3.50	3.78	4.10	7.10	6.55
Employee Costs	10.54	11.45	13.66	26.52	23.84
<i>Less: Employee Expenses Capitalised</i>	<i>0.54</i>	<i>0.87</i>	<i>1.18</i>	<i>2.04</i>	<i>1.86</i>
Net Employee Cost	9.99	10.58	12.48	24.49	21.97
Administration and General Expenses	0.68	1.46	1.02	2.11	2.45
<i>Less: A & G Expenses Capitalised</i>	<i>0.22</i>	<i>0.40</i>	<i>0.29</i>	<i>0.55</i>	<i>0.99</i>
Net A & G Expenses	0.46	1.06	0.74	1.56	1.46
Total	13.96	15.42	17.32	33.15	29.97

- The computation of base value after escalating O & M expense from FY 04 to FY 08 by 5.17% and taking average of escalated O & M expense from FY 04 to FY 08 to arrive at normalized price level of FY 2007-08 is presented in the table below:

Computation of O&M Expenses for Generation at Base Level FY 2007-08

O&M Expenses at at FY 2007-08 Base Level						
Particulars	FY'04	FY'05	FY'06	FY'07	FY'08	Average of 5 Years
R&M Expenses	4.28	4.40	4.54	7.47	6.55	5.45
Employee Costs	12.23	12.30	13.80	25.75	21.97	17.21
A&G Expenses	0.57	1.23	0.82	1.64	1.46	1.14
Total	17.08	17.94	19.16	34.86	29.97	23.80

- Further the computation of O&M expenses for FY 2013-14 after considering 50% increase in employee cost for FY 2009-10 and escalating by 5.72% every year is computed as per Regulation 55(4) and 55(5) of Tariff Regulations 2011. The table below provides details of O&M expenses for FY 2014-15.

O&M Expenses for Generation for FY 2014-15 (Category A)

Particulars	Base Value of FY 08	O&M for FY 09 after 5.72% escalation	50% Increase in Employee Cost for FY 10	Revised figures after increase	O&M for FY 10 after 5.72% escalation	O&M for FY 11 after 5.72% escalation	O&M for FY 12 after 5.72% escalation	O&M for FY 13 after 5.72% escalation	O&M for FY 14 after 5.72% escalation	O&M for FY 15 after 5.72% escalation
R&M Expenses	5.45	5.76	-	5.76	6.09	6.44	6.80	7.19	7.60	8.04
Employee Costs	17.21	18.20	9.10	27.29	28.85	30.51	32.25	34.10	36.05	38.11
A&G Expenses	1.14	1.21	-	1.21	1.28	1.35	1.43	1.51	1.60	1.69
Total	23.80	25.16	9.10	34.26	36.22	38.29	40.48	42.80	45.25	47.83

- The O&M expenses for **Category 'C'** of power station i.e. Sonapani (Micro Hydel) is to be computed as per Regulation 55 (7) of Tariff Regulations, 2011.

“55(7) In case of hydro generating stations declared under commercial operation on or after 01/04/2009, O&M expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) and shall be subject to annual escalation at 5.72% for the subsequent years.

- The table below provides the computation of O&M expenses for Sonapani for FY 2014-15 as per Regulation 55(7).

O&M Expenses for Generation for FY 2014-15 (Category C)

Particulars	Rs.Crs
Project Cost	10.86
O&M Expenses for FY 2009-10 (2% of PC)	0.22
O&M Expenses for FY 2010-11 (5.72% escalation over prev. year)	0.23
O&M Expenses for FY 2011-12 (5.72% escalation over prev. year)	0.24
O&M Expenses for FY 2012-13 (5.72% escalation over prev. year)	0.26
O&M Expenses for FY 2013-14 (5.72% escalation over prev. year)	0.27
O&M Expenses for FY 2014-15 (5.72% escalation over prev. year)	0.29

- The table below summarises O&M expenses computed as per Regulation 55 of the Tariff Regulations, 2011, for FY 2014-15.

Total O&M Expenses as per regulation for Existing Stations for FY 2014-15

Particulars	FY 2013-14	FY 2014-15
O&M Exp - Category A (Old Assets)	45.25	47.83
O&M Exp - Category C (Sonapani)	0.27	0.29
Total O&M Expenses	45.52	48.12

- **O & M Expense computation based on actual financials:**

MePGCL has studied the actual O & M expenses during FY 2011-12 & FY 2012-13 and estimated O & M cost for FY 2013-14 to understand the actual level of O & M expense. The following table summarises the O & M expenses for FY 2012-12 and FY 2013-14:

Total O & M Expenses of MePGCL (Excluding Cost pertaining to Leshka)

Particulars	FY2012-13 (Actuals)	FY 2013-14 (Estimated)
Employee Cost	50.69	60.92
R & M Cost	5.84	18.09
A & G Cost	5.32	6.58
Total	61.85	85.58

As submitted in the above table the actual O & M expense for FY 2012-13 as well as estimated O & M expense for FY 2013-14 both are higher than the O & M expense derived in table. Therefore it is submitted that MePGCL be allowed to project O & M expense for FY 2014-15 based on actual O & M expense.

Employee Cost Projection

The assumptions taken by MePGCL for projecting the employee expenses for ARR FY 2014-15 are listed as below:

- a) Basic Pay is expected to grow at a nominal rate of 3% from FY 2013-14.
- b) Dearness Allowance is expected to rise to 46% of the Basic Pay. For year FY13-14, the DA was 36% for first half and has risen to 40% in second half. Therefore an average 4% rise is expected in each half of FY 2014-15 leading to DA equal to 46% of Basic for FY 2014-15.
- c) Terminal benefit payable to retired/ retiring employees are based on the Actuarial Valuation done for arriving at employee's terminal liabilities as on 31st March'2012. The yearly contribution required to be made as per valuation study is expected to be met by MePDCL from its revenues.
- d) Other components are expected to increase in line with the inflation. Based on past trend till September'13, the estimated rise in Consumer Price Index for FY14 is 8.06%. Therefore, other components have been inflated @ 8.06% for FY 2014-15.

Based on above assumptions, the employee cost details are shown in the table.

Employee Cost of MePGCL (Excluding Cost pertaining to Leshka)

S.N	Particulars	FY2012-13 (Actuals)	FY 2013-14 (Estimated)	FY 2014-15 (Projected)
	SALARIES & ALLOWANCES			
1	Basic Pay	21.36	22.85	23.53
2	Arrear Pay	-	-	-
3	Dearness Allowance	5.47	8.43	10.83
4	House rent Allowance	-	-	-
5	Fixed Medical Allowance	4.93	5.08	5.49
6	Medical re-imburement charges	0.92	1.02	1.10
7	Over time payment	0.19	0.20	0.22
8	Other allowances	-	-	-
9	Generation & other incentive	-	-	-
10	Bonus	-	-	-
11	Sub-Total	32.88	37.57	41.16
	Terminal Benefits			
12	Leave encashment	1.04	0.78	0.84
13	Staff welfare	-	-	-
14	CPS	0.01	0.02	0.02
15	Workman compensation	0.23	0.25	0.27
16	Ex-gratia	0.53	0.57	0.61
17	Sub-Total	1.81	1.61	1.74
	Pension Payment			
18	Basic Pension	11.62	12.25	13.23
19	Dearness Pension	-	-	-
20	Dearness Allowance	0.62	0.64	0.69
21	Any other expenses	11.57	12.79	15.04
22	Sub-Total	23.81	25.67	28.96
23	Total (11+17+22)	58.50	64.85	71.86
24	Amount capitalised	8.09	3.93	4.25
25	Net amount	50.41	60.92	67.61
26	Add prior period expenses *	0.28	-	-
	Grand Total	50.69	60.92	67.61

MePGCL submitted before the Commission to approve Rs. **67.61** Cr as Employee Cost for the FY 2014-15.

Administrative & General (A & G) Expense Projection

The A & G expenses for FY 2014-15 is projected by considering 7 year CAGR of A & G expense from FY 2006-07 to FY 2013-14. Here, the long term CAGR for 7 years is expected to capture the normative increase in expenditure along with inflationary effect on prices. The details about A& G expense is also attached in the petition.

A & G Expense of MePGCL (Excluding Cost pertaining to Leshka)

S.N	Particulars	FY2012-13 (Actuals)	FY 2013-14 (Estimated)	FY 2014-15 (Projected)
1	Rent, Rates & Taxes	0.08	0.09	0.12
2	Insurance	1.01	1.17	1.46
3	Telephone, Postage & Telegrams	0.07	0.07	0.09
4	Consultancy fees	3.16	3.79	4.73
5	Technical fees	0.00	0.00	0.00
6	Other professional charges	0.25	0.30	0.37
7	Conveyance & travel expenses	1.00	1.19	1.48
8	Electricity & water charges	0.01	0.01	0.01
9	Others	0.36	0.42	0.53
10	Freight	-	-	-
11	Other material related expenses	0.02	0.02	0.02
	Total Expenses	5.95	7.07	8.82
	<i>Less Capitalized</i>	0.73	0.49	-
	Net Expenses	5.22	6.58	8.82
	<i>Add prior period</i>	0.10	-	-
	Total expenses charged to revenue	5.32	6.58	8.82

MePGCL submitted before the Commission to approve Rs. **8.82** Cr as A & G Expense for the FY 2014-15.

Repair and Maintenance (R & M) Expense Projection

Most of the stations of MePGCL being old, there is need to regularly take up R & M activities for the stations as well as reservoir. However due to revenue deficit faced by MeECL & its subsidiaries, MePGCL has not been able to take up R&M works in planned manner. Therefore, MePGCL has considered 7 year CAGR of R&M cost from FY 2006-07 to FY 2013-14 to project the R&M expenditure for FY2014-15. The long term CAGR for 7 years is expected to average out extreme variation in expenditure over the period. The details of R & M expense is also attached as Format-4.

R & M Expense of MePGCL (Excluding Cost pertaining to Leshka)

S.N	Particulars	FY2012-13 (Actuals)	FY 2013-14 (Estimated)	FY 2014-15 (Projected)
1	Plant & Machinery	2.73	8.51	9.73
2	Building	0.92	2.85	3.25
3	Hydraulic works	0.79	2.46	2.81
4	Lines & Cables	0.18	0.56	0.64
5	Vehicles	0.15	0.40	0.46
6	Furnitures & Fixtures	0.06	0.18	0.21
7	Office Equipments	0.03	0.07	0.08
8	Civil Works	0.98	3.05	3.49
	Total	5.84	18.09	20.68
	<i>Add/deduct share of other</i>	-	-	-
	Total expenses	5.84	18.09	20.68
	<i>Less capitalized</i>	-	-	-
	Net expenses	5.84	18.09	20.68
	<i>Add prior period</i>	-	-	-
	Total expenses charges to revenue as R&M expenses	5.84	18.09	20.68

MePGCL submitted before the Commission to approve Rs. **20.68** Cr as R & M Expense for the FY 2014-15.

- As submitted in the above sections, based on the actual records of O & M Expenditures, MePGCL submitted before the Commission to approve the total O&M expenses of Rs. **97.11** Cr for existing generating stations for FY 2014-15.

Interest on Working Capital

- The relevant regulations for computation of working capital and interest on working capital thereon are extracted for reference as below:

Regulation 56

(1) Working Capital shall cover:

1) Operation and Maintenance expenses for one month;

2) Maintenance spares at the rate of 15% of operation and maintenance expenses

specified in Regulation 55 above escalated at the rate of 6% per annum from the date of commercial operation and

3) Receivables equivalent to two months of fixed cost.

(2) Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1st April of the financial year for which the generating station files petition for annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

- The computation of working capital and interest on working capital for FY 2014-15 as per above regulation is provided in the table below. The computation of working capital is also attached as Format-11.

Interest on Working Capital for FY 2014-15

Particulars	Old Assets	Sonapani	Total (Rs.Cr)
O & M Expenses for 1 month	8.03	0.06	8.16
Maintenance Spares @15% of O&M plus escalated by 6%	0.87	0.01	0.88
Receivables @ 2 months of Fixed Cost	22.31	0.30	22.91
Total Working Capital requirement	31.20	0.370	31.94
SBI PLR as on 1.4.2013 (%)	14.45%	14.45%	
Interest on Working Capital	4.51	0.05	4.56

- MePGCL submitted before the Commission to approve Interest on working capital of Rs.

4.56 Cr for FY 2014-15.

Tax on Income

- The Regulation 58 of Tariff Regulations 2011 provide for claim of Income Tax as expenses. However MePGCL submits that income tax shall be claimed in subsequent filings in annual performance review/ true-up.

Connectivity and SLDC Charges

- The Regulation 61 of Tariff Regulations 2011 provides for claim of SLDC & Connectivity charges as expenses. MePGCL submits as per information received from SLDC the SLDC charge applicable to the Existing Generating Stations is as mentioned below:

SLDC Charges applicable to existing generating stations

Sl. No	Particular	Annual SLDC Charge (Rs Cr)
1	Umiam Stage I	0.16
2	Umiam Stage II	0.09
3	Umiam Stage III	0.27
4	Umiam Stage IV	0.27
5	Umtru Power Station	0.06
6	Sonapani	0.01

1.12 Summary of Annual Fixed Cost – Existing Generating Stations

- The summary of the Annual Fixed Cost for the existing generating stations is provided in the table below:

Annual Fixed Cost – Existing Stations FY 2014-15

Particulars	Old Assets	Sonapani	Total (Rs.Cr)
Interest on Loan capital	-	-	-
Depreciation	15.13	0.50	15.63
O&M Expenses *	96.34	0.77	97.11
Interest on working capital	4.51	0.05	4.56
Return on Equity	17.69	0.46	18.15
Income Tax	-	-	-
SLDC Charge	0.86	0.01	0.86
Total Annual Fixed Cost	134.52	1.79	136.31
Less: Non Tariff Income	0.67	-	0.67
Net Annual Fixed Cost	133.85	1.79	135.64

* O & M Expense arrived @ 3.11.15 is allotted to Sonapani proportionately based on capacity

- MePGCL submitted before the Commission to approve the Annual Fixed Cost of Rs. **135.64** Cr for FY 2014-15 for existing generating stations.
- MePGCL submitted that the Net Annual Fixed Cost of old assets may be allotted to the old

stations as per the capacity of each station. The station wise allotted Net Annual fixed cost is shown in the table below:

S N	Station	Capacity (MW)	AFC (Rs. Cr)
1	Umiam Stage I	36.00	25.74
2	Umiam Stage II	20.00	14.30
3	Umiam Stage III	60.00	42.90
4	Umiam Stage IV	60.00	42.90
5	Umtru Power Station	11.20	8.01
	Total	187.20	133.85

- It is further submitted, as submitted in this petition, for the Leshka Hydro Electric station, MePGCL is not filing final tariff petition at present. Therefore it is submitted that as mentioned in the Page 85 of the MePGCL Tariff Order dated 30th March, 2013, till the time final tariff petition for Leshka is filed, MePGCL be allowed to raise monthly bill of Leshka as per provisionally approved AFC of Rs. 135.54 Cr.
- The summarized station wise Net AFC for FY 2014-15 is mentioned in the table below:

S N	Station	AFC (Rs. Cr)
1	Umiam Stage I	25.74
2	Umiam Stage II	14.30
3	Umiam Stage III	42.90
4	Umiam Stage IV	42.90
5	Umtru Power Station	8.01
6	Sonapani	1.79
7	Leshka (<i>Provisional till final tariff petition is filed</i>)	135.54
	Total	271.18

STAKEHOLDERS' RESPONSES & PETITIONER'S COMMENTS

The Commission has received objections on the ARR and Tariff proposal of MePGCL for 2014-15. Further the Commission in its Advisory Committee meeting has received suggestions/objections from the members. The Commission has held a public hearing on 25.02.2014 where public were invited to get suggestions on the ARR of all the utilities. In the public hearing, a presentation was made by BIA giving its objections. The Commission has considered all responses received so far on the ARR and tried to make a balance between the interest of utility and consumers. In this chapter the Commission has given the details of the objections made by consumers and responses given by utility.

BIA's Objections on Petition filed by MePGCL for Tariff for FY 2014-15
I. Filing of Petition – Compliance to Regulations

1. Regulation 15(3) of the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2011 [MSERC Tariff Regulations] specifies as under:

“The generating company or the licensee, as the case may be, shall make an application before the Commission, for ‘truing up’ of ARR of the previous year by 30th September of the following year, on the basis of audited statement of accounts and the Audit Report, thereon. The generating company or the licensee shall get their accounts audited within a specified time frame, either by the Comptroller & Auditor General of India or by a Statutory Auditor drawn from the panel of Statutory Auditors approved by the Comptroller & Auditor General of India, from time to time, to enable them to file the application for ‘truing up’ within the specified date, that is 30th September of the following year”

Further, Regulation 17(1) of the MSERC Tariff Regulations specifies as under:

“Each generating company and the licensee shall file Tariff Petition on or before 30th November each year with the Commission which shall include statements containing calculation of the expected aggregate revenue from charges under it, currently approved tariff and the expected cost of providing services i.e., Aggregate Revenue Requirement (ARR) during the previous year, current year and ensuring year. The information for the previous year should be based on audited accounts and in case audited accounts are not available, audited accounts for the year immediately preceding the previous year should be filed along with un-audited accounts for the previous year.

The tariff application shall also contain tariff proposals so as to fully cover the gap if any, between the expected aggregate revenue at the prevalent tariff and the expected cost of services including schemes for reduction loss levels and other efficiency gains to be achieved.”

BIA objected that the Petitioner in its Petition has not submitted the truing up of past years and the performance review of FY 2013-14. Also, the Petition filed by the Petitioner is not accompanied either by the audited accounts or un-audited accounts for the past years. As a consequence, the numbers of expenses and revenue projected by MePGCL for FY 2014-15 have no sanctity, and cannot be relied upon. It is probable that once truing up of the past years is done based on audited accounts and prudence check by the Commission, MePGCL may have a revenue surplus rather than a revenue gap for the previous years, and the same can be passed on to the consumers through reduction in tariff, which is sorely needed and essential for the continued survival of the industry in the State of Meghalaya including the Members of BIA. Had there been a revenue gap for the previous years, MePGCL would have filed the truing up Petition along with the audited accounts, and would have taken steps to ensure that the audited accounts are available. Since, MePGCL has failed to submit its audited accounts and truing up Petition, it leads BIA to believe that MePGCL actually has a revenue surplus in previous years, which is not being passed on to the consumers, who are the rightful beneficiaries of such surplus.

BIA requested the Commission to reject the Petition filed by MePGCL for want of such critical and essential data, in the absence of which, it is not possible for the Commission as well as the consumers to validate any of the numbers in the Petition.

Notwithstanding the above request of BIA, if the Commission considers it fit and appropriate to determine the ARR and Tariff for FY 2014-15 in the absence of audited and un-audited expenses of the previous years, then BIA has several specific objections on the Petition filed by MePGCL and requests the Commission to consider the same on merit and grant the necessary relief to the long-suffering consumers in the State of Meghalaya.

2. Regulation 17(6) of the MSERC Tariff Regulations specifies as under:

“The petition shall be sent by registered post acknowledgement due or by hand delivery. In addition to the hard copies, the information shall necessarily be submitted in such electronic form, as the Commission may require”

The Petitioner has not submitted the Formats in MS Excel as specified in Regulation 17(6) of the MSERC Tariff Regulations. The Commission is requested to direct the Petitioner to submit the Formats in MS Excel with appropriate formulae and linkages, to enable the Commission and the stakeholders to analyse the Petition properly.

II. Compliance to Directives of the Commission vide Order dated March 30, 2013

3. In the Commission's Order for Annual Revenue Requirement for FY 2013-14 dated March 30, 2013, the Commission issued several directives to the Petitioner and had set timelines for the same. However, the Petitioner has not complied with most of the directives issued by the Commission in the said Order. BIA herein draws attention of the Commission towards the compliance /noncompliance of directions the Petitioner till date and prays that the Commission may please take strict action against the Petitioner for the directives not complied with.
4. The Petitioner has signed PPA with MePDCL and submitted the same before the Commission on September 25, 2013, i.e., six months after the date of issue of the Order as against three month's time given by the Commission.
5. The Commission had approved provisional tariffs of Leshka and Lakroh projects and directed the Petitioner to file a Tariff Petition for these two new projects after their COD is achieved. The Petitioner has not complied with this directive and has failed to file Tariff Petitions for Leshka and Lakroh Projects. According to the Petition, the project cost of Leshka Project is under the scrutiny of CEA and State level technical Committee. On the other hand, the Lakroh Project has not yet achieved COD. It is worth mentioning here that in the Petition for ARR for FY 2013-14, MePGCL had submitted the estimated COD for Lakroh Project as January 2013, but it is yet to achieve the COD of the project till date. In the present Tariff Petition the expected COD of Lakroh project is submitted as March 2014. BIA humbly prays before the Commission that the delay in the achievement of COD of the Lakroh Project may be severely dealt with by the Commission at the time of proceedings of tariff Petition of the plant by not approving the full capitalisation of interest and overhead expenses in accordance with Regulation 49(3) of the Tariff Regulations, 2011, as reproduced below:

"In case of any abnormal delay in execution of the project causing cost and time overruns attributable due to the failure of the utility, the Commission may not approve the full capitalization of interest and overhead expenses."

6. The Commission had directed MePGCL to conduct a bench marking study of its plants with other efficient utilities to explore further scope of improvement in operational efficiency, optimal utilisation of the sources, man-power rationalisation including incentive/disincentive schemes. The Commission had stated that this study should give benchmark for each plant in respect of key parameters including cost and directed the Petitioner to

submit a report within six months of issue of the Order dated March 30, 2013. The Petitioner has not complied with this direction of the Commission and merely submitted a report on steps taken by it on efficiency improvement. Hence, it is humbly requested to the Commission to not consider the energy generation proposed by the Petitioner and approve the tariff as per the Designed Energy approved by the Commission in the Tariff Order for FY 2013-14 dated March 30, 2013.

7. Considering the fact that the Petitioner has no loan repayment obligation, the Commission had directed the Petitioner to prepare a Depreciation Reserve account within 30 days of the Order dated March 30, 2013 wherein the depreciation amount against the existing plants shall be deposited. The Commission had observed that the same fund shall be used for renovation and modernisation and other investments. However, the Petitioner has not created a depreciation reserve account yet, and therefore, we request the Commission not to allow any depreciation for the existing plants to the Petitioner until such account is created.

III. Normative Annual Plant Availability Factor (NAPAF)

8. Regulation 60(1) of MSERC Tariff Regulations specifies computation of NAPAF as under:

“60. Norms of operation

The norms of operation shall be as under:

(1) Normative annual plant availability factor (NAPAF)

(a) Storage and pondage type plants where plant availability is not affected by silt and

(i) with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of upto 8 % 90 %

(ii) with head variation between FRL and MDDL of more than 8%

= (Head at MDDL/Rated Head) x 0.5+0.2

(b) Pondage type plant where plant availability is significantly affected by silt 85%

(c) Run –of- River type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available / relevant.

Note:

(i) A further allowance may be made by the Commission under special circumstances, eg. Abnormal silt problem or other operating conditions, and known plant limitations.

(ii) A further allowance of 5 % may be allowed for difficulties in the North East Region.

(iii) In case of new hydro electric project the developer shall have the option of approaching the Commission in advance for further above norms.

9. The Petitioner has proposed the following values of NAPAF in its Petition based on the actual PAFM for last three financial years:

Table 5: NAPAF Proposed by MePGCL

Name of the Power Station	NAPAF for FY 2014-15 (%)
Umiam Stage I	58%
Umiam Stage II	53%
Umiam Stage III	50%
Umiam Stage IV	68%
Umtru Power station	41%
Sonapani	67%

10. From the information furnished by the Petitioner, it is evident that the Petitioner is very inefficient in operating is Hydro Power Stations. Approving such low NAPAF based on past data would mean encouraging the inefficiency of the Petitioner, at the cost of the consumers. According to the Petitioner's own computations, the values of NAPAF computed as per MSERC Tariff Regulations, 2011 are much higher than the NAPAF proposed by the Petitioner, as shown below:

Table 6: NAPAF computed by MePGCL as per Tariff Regulations

Name of the Power Station	NAPAF as per workings	NAPAF with 5% allowance
Umiam Stage I	64.83%	59.83%
Umiam Stage II	90.00%	85.00%
Umiam Stage III	68.67%	63.67%
Umiam Stage IV	66.79%	61.79%
Umtru Power station	85.00%	80.00%
Sonapani	50.00%	45.00%

11. BIA requested the Commission to disallow the NAPAF proposed by the Petitioner, which are not in accordance with the MSERC Tariff Regulations. Further, in the computation of NAPAF shown in the Petition, the Petitioner has computed the NAPAF of Umiam stage I, III & IV based on Regulation 60(1)(a)(ii) of the MSERC Tariff Regulations by considering more than 8% head variations for the Plants. However, the Petitioner has not submitted the basis for the values taken for maximum and minimum heads for the plants. It is prayed to the Commission to consider the NAPAF of 90% for these plants as per Regulation 60(1)(a)(i) of the Tariff Regulations unless the Petitioner produces valid proof of maximum and minimum heads of the plant it has considered in computation of NAPAF. Also, for Umtru Plant, the Petitioner has proposed NAPAF based on Regulation 60(2), considering that it has been significantly affected by silt. However, the Petitioner has not submitted any evidence of the

plant being significantly affected by silt, and hence, the NAPAF for Umtru station may also be considered 90% as per the Regulation 60(1)(a)(i).

12. BIA also prayed to the Commission not to consider the 5% allowance in NAPAF claimed by the Petitioner by virtue of being located in the North East, since the Petitioner has not submitted any details of difficulties faced by it. The 5% allowance on NAPAF mentioned in the Tariff Regulations is to compensate the Hydro Generating Stations for difficulties faced by them in the North-Eastern States, and hence, the Petitioner must elaborate any genuine difficulties faced by it exclusively prevailing in the North-Eastern States for availing the benefit of 5% reduction in NAPAF. Merely being located in the North-East does not entitle the Petitioner to claim this allowance, as had that been the case, the Commission would have specified the base norms itself after factoring in the same, since, all the plants regulated by the Commission are located in the North-East. Since, the Petitioner has not submitted any such information in the Petition, the Petitioner is not eligible for availing such compensation.
13. The NAPAF approved by the Uttarakhand Electricity Regulatory Commission (UERC) for hydro projects of similar capacity is shown below. It can be seen that the NAPAF approved by UERC for these power Hydro Power Projects are much higher than those proposed by the Petitioner:

Table 7: Approved NAPAF for Hydro Power Stations in Uttarakhand

Hydro Power Station	MW Capacity	Approved NAPAF by UERC for FY 2013-14 to 2015-16
Khodri	120 MW	85%
Dhakrani	33.75 MW	77%
Dhalipur	51 MW	77%
Kulhal	30 MW	77%
Chilla	144 MW	76%
Khatima	41.4 MW	78%

14. Therefore, BIA prayed before the Commission to disallow the NAPAF proposed by the Petitioner based on the achieved PAFM for past three years for its stage I, III & IV of Umiam Power Station as well as for Umtru Power Station and 90% NAPAF should be considered in accordance with Regulation 60(1)(a)(i) of the MSERC Tariff Regulations.
15. According to Regulation 60(1)(c), in case of Sonapani Station, which is a run-of-river type plant, NAPAF is to be determined based on 10-day design energy data, moderated by past experience. Without submitting any relevant information in this regard, the Petitioner has submitted that based on the past records, NAPAF for Sonapani station works out to be 50%. BIA respectfully submits that unless the Petitioner furnishes evidence supporting such claim,

the Commission may please set 90% NAPAF for Sonapani Station aligned with the NAPAF for other stations.

16. Hence, BIA requested the Commission to set NAPAF of 90% for all the Stations according to Regulation 60(1)(a)(i). The NAPAF for Umtru and Sonapani Stations may be relaxed as per Regulation 60(1)(b) and 60(1)(c) as and when relevant information is produced by the Petitioner. The Commission is requested to consider the NAPAF proposed by BIA for FY 2014-15 as shown in the Table below:

NAPAF Proposed by BIA		
Name of the Power Station	Proposed by MePGCL	Proposed by BIA
Umiam Stage I	58%	90%
Umiam Stage II	53%	90%
Umiam Stage III	50%	90%
Umiam Stage IV	68%	90%
Umtru Power station	41%	90%
Sonapani	67%	90%

IV. Energy Generation

17. The Commission had approved generation of 553.21 MU for FY 2013-14 based on the approved Design Energy. However, the Petitioner has estimated generation of only 426.06 MU for FY 2013-14 and FY 2014-15. While proposing such values, the Petitioner has also not submitted the actual generation in the first half of the FY 2013-14. Further, no reason has been given by the Petitioner for proposing such low values of estimated generation in the present and upcoming years.

18. The Gross generation of past years is consistently much higher than the proposed estimated generation of FY 2013-14 and proposed generation of 2014-15 as well as Designed Energy approved by the Commission in the Tariff Order of FY 2013-14. The proposal in the current Petition shows clear intention of the Petitioner to avoid putting efforts in achieving generation in line with designed energy by achieving efficiency in operation of the Power stations and also to earn unreasonable profits from the consumers of the State. It is hence prayed to the Commission to disallow the proposed generation level for the Petitioner's plants and set the same target as set for FY 2013-14, i.e., 553.21 MU, based on the approved designed energy.

V. Gross Fixed Assets (GFA)

19. In the Tariff Order for FY 2013-14 dated March 30, 2013, in the absence of audited accounts the Commission had disapproved the GFA proposed by the Petitioner and

had considered the GFA of Rs 286.49 crore as per the Transfer Scheme dated March 31, 2010 for determination of Tariff for FY 2013-14. The Commission had directed MePGCL to submit the Tariff Petition for FY 2014-15 on the basis of plant-wise actual cost based on audited accounts. However, the Petitioner has neither submitted the audited accounts nor has filed plant wise cost in the Petition for determination of tariff. The Petitioner has proposed ad hoc value of combined GFA of all the old plants and has only submitted the separate GFA for Sonapani project.

20. MePGCL has submitted the Gross value of fixed assets as on 01.04.2012 for all the old power stations as Rs. 316.53 crore. However, the combined GFA for all the old plants was Rs. 286.49 crore as on 01.04.2008 as per the Transfer Scheme annexed as Annexure-I with the Petition. MePGCL has not given any clarification regarding addition in the GFA from 01.04.2008 to 31.03.2012. Hence, it is prayed before the Commission to consider the combined GFA of old plants as Rs. 286.49 crore as mentioned in the Transfer Scheme dated March 31, 2010 unless the Petitioner submits audited accounts showing actual GFA.

21. Further, MePGCL has proposed R&M cost of Umiam Stage-II as Rs. 104.75 crore to be added in the GFA as on 01.04.2012. The R&M cost of Rs 104.75 crore is too high for a 20 MW hydro power project and the Petitioner has also not submitted any supporting document to justify such high cost. According to Regulation 50(a) of the Tariff Regulations, 2011, a hydro generating station has to make an application before the Commission for approval of proposal with DPR for meeting the R&M expenditure of a plant. Such cost of R&M can form the basis for determination of tariff only after the Commission admits such expenditure after prudence check. The Petitioner has not given any information in the Petition regarding when such application was made for approval of the R&M expenditure and approval of the Commission for the same. The Petitioner has mentioned in the compliance to directives section of the Petition that it has submitted a DPR on R&M of existing plants on 25.09.2013. However, the Petition does not contain any information regarding approval of the R&M expenditure by the Commission. Hence, we humbly request the Commission that in absence of audited accounts and any supporting document, the Commission may kindly disallow such cost of R&M. We further submit that any such cost of Renovation and Modernisation of capital assets should be considered for determination of tariff only after approval of the same based on

thorough scrutiny by the Commission. The Commission may not approve any such cost of R&M based on DPR submitted by the Petitioner.

22. The Petitioner has also not provided any documentary evidence for the proposed cost of Rs 10.86 crore as the capital cost for micro hydel Sonapani power station. The same cost was also not considered by the Commission for determination of Tariff for FY 2013-14 on the same ground of absence of audited data. Therefore, it is humbly requested to Commission to also reject the capital cost Sonapani Station of Rs. 10.86 crore for the determination of Tariff for FY 2014-15.

23. Hence, the Commission may consider only the GFA of Rs 286.49 crore as approved in the Transfer Scheme and compute the tariff based on the same as it did in the Tariff Order for FY 2013-14.

GFA proposed by BIA (Rs. crore)

Particulars	Proposed by MePGCL	Proposed by BIA
Opening GFA as on 1.4.2012	327.39	286.49
Add: Additions to GFA during FY 2012-13 (R&M of Stage-II)	104.75	
Less: Retirements to GFA during FY 2012-13		
Closing GFA as on 31.3.2013	432.14	286.49
Opening GFA as on 1.4.2013	432.14	286.49
Add: Additions to GFA during FY 2013-14		
Less: Retirements to GFA during FY 2013-14		
Closing GFA as on 31.3.2014	432.14	286.49
Opening GFA as on 1.4.2014	432.14	286.49
Add: Additions to GFA during FY 2014-15		
Less: Retirements to GFA during FY 2014-15		
Closing GFA as on 31.3.2015	432.14	286.49

VI. Return on Equity

24. The Petitioner has submitted that the opening equity of MePGCL as on 01.04.2012 and 01.04.2013 is 592.33 crore and Rs. 871.17 crore, respectively, as per the provisional segregated figures. The equity of the Petitioner as on 01.04.2008 was Rs. 248.40 crore according to the Transfer scheme. The Petitioner has not given any clarification regarding this huge increase in its equity. Further, according to the Petitioner's submissions, its equity of Rs. 592.33 crore as on 01.04.2012 is higher than its Gross Fixed Asset of Rs. 327.29 crore as on the same date, which is an impossibility, as the equity investment is expected to be around 30% of the GFA and not higher than the GFA itself. Hence, it is suggested that in the

absence of audited accounts of past three years, any such claim of the Petitioner cannot be relied upon.

25. The Petitioner has considered 30% of proposed GFA of Rs 432.14 crore as the Equity for FY 2014-15, which comes out to be Rs 126.78 crore. However, based on the approved GFA of Rs 286.49 in the Transfer Scheme, the Equity for the purpose of Tariff shall be Rs. 85.95 crore (30% of Rs 286.49 crore) as approved by the Commission in the Tariff Order for FY 2013-14.
26. In the Tariff Order for FY 2013-14 dated March 30, 2013, the Commission had, in the absence of audited accounts, approved 1/3rd of RoE approved to MeECL in the Tariff for FY 2011-12 in the Order dated January 20, 2012. Accordingly, the Commission had approved RoE of Rs. 9.43 crore in the Tariff for FY 2013-14. Since, the audited accounts have still not been submitted by the Petitioner, BIA requests the Commission to apply the same approach that it had applied in the Tariff Order for FY 2013-14 dated March 30, 2013 and approve the same RoE of Rs. 9.43 crore for FY 2014-15 also.

RoE proposed by BIA

Proposed by MePGCL	Proposed by BIA
Rs. 18.15 crore	Rs. 9.43 crore

VII. Depreciation

27. Regulation 57 of the MSERC Tariff Regulations specifies that the asset value for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission as per the audited accounts. The Transfer Scheme also stipulates that all the values of fixed assets, equity and other details shall be taken from the audited balance sheet of MePGCL. The Petitioner has not submitted the audited accounts before the Commission, and therefore, we pray to the Commission to consider the opening asset value recorded in the Transfer Scheme dated March 31, 2010 as the basis for computing depreciation.
28. It is submitted that the purpose of depreciation is to repay the principal amount of the loan. However, since the Petitioner has no loan repayment obligation, the Commission had directed MePGCL in the Tariff Order for FY 2013-14 to create a depreciation reserve for future investment and R&M. It is worth mentioning here that the Petitioner has not created any depreciation reserve as directed by the Commission. Hence, BIA respectfully submits that no further depreciation should be allowed till such time the Petitioner creates the Depreciation Reserve.

VIII. Operation and Maintenance Expenses

29. According to Regulation 55 of MSERC Tariff Regulations, the O&M expenses for the generating stations which have been in operation for 5 years or more in the base year 2007-08 are to be derived on the basis of actual O&M expenses for the years 2003-04 to 2007-08, based on the audited accounts. Further, for the stations declared under commercial operation on or after April 1, 2009 (Sonapani Power Station), the O&M expenses are to be fixed as 2% of the original project cost (excluding cost of rehabilitation and resettlement works) and are to be subject to annual escalation of 5.72%.
30. The Petitioner has proposed O&M expenses of Rs. 97.11 crore to be allowed for FY 2014-15 for the purpose of Tariff. The Petitioner has admitted that the normative O&M expenses allowable as per the MSERC Tariff Regulations is Rs. 48.12 crore. BIA humbly requests the Commission should allow the O&M expenses strictly based on the MSERC Tariff Regulations.
31. Further, it can be observed that the expenses proposed by the Petitioner are way too high compared to the figures computed according to the Tariff Regulations. The Petitioner has also not submitted any reason for such a massive increase in the O&M expenses. Also, the audited accounts have not been submitted by the Petitioner to support the figures mentioned as actuals for FY 2012-13. This shows that either the Petitioner has submitted inflated figures for the O&M expenses or the Petitioner is too inefficient. When the audited accounts of past three years are not available, the figures estimated and proposed by the Petitioner cannot be relied upon. Therefore, we believe that Tariff Regulations should be strictly followed for the purpose of computation of tariff. Therefore, we pray to the Commission to kindly reject the O&M expenses proposed by the Petitioner and approve the expenses computed on the basis of audited accounts of the previous years after excluding any abnormal O&M expenses after proper scrutiny of the same as prescribed in the MSERC Tariff Regulations.

O&M Expenses proposed by BIA

Proposed by MePGCL	Proposed by BIA
Rs. 97.11 crore	Rs 48.13 crore

IX. Interest on Working Capital

32. MePGCL has projected Rs 4.56 crore as interest on working capital to meet their day to day cash requirement. In the Tariff Order for FY 2013-14 dated March 30, 2013, the Commission had scrutinised the data provided by MePGCL and concluded that that they had not spent any amount towards interest paid to Banks for working capital. However, the Commission allowed 50% of working capital to MePGCL for 2013-14 and directed MePGCL to submit the actual records of working capital taken from the Bank in the tariff filing of this

year for the purpose of finalisation of the cost. In the absence of such confirmation, it is presumed that actual records of working capital taken from the bank have not been submitted. Hence, BIA requests the Commission not to allow any interest on working capital to the Petitioner for determination of tariff for FY 2014-15.

33. However, if the Commission considers it fit to allow interest on working capital according to Regulation 56 of the MSERC Tariff Regulations, it may consider the computation of the same based on the O&M expenses proposed above. It is also submitted that the Petitioner has not clarified computation of budget of maintenance spares. The same is computed as per Tariff Regulations by BIA as given below:

Particular		Rs crore
O&M for base year (07-08) (A)		23.80
O&M for 1 month of Base year (B = A/12)		1.98
15% of (B)		0.30
Escalated @ 6% per annum	FY08-09	0.32
	FY 09-10	0.33
	FY 10-11	0.35
	FY 11-12	0.38
	FY 12-13	0.40
	FY 13-14 (As on 01.04.2014)	0.42

34. Computation of interest on Working Capital according to MSERC Tariff Regulations is given below:

Particulars	Proposed by MePGCL	Proposed by BIA
O&M Expenses for 1 month	8.16	4.01
Maintenance spares @ 15% of O&M plus escalated by 6%	0.88	0.42
Receivables @ 2 months of fixed cost	22.91	9.97
Total Working Capital Requirement	31.94	14.40
SBI PLR as on 01.04.2013	14.45%	14.45%
Interest on Working Capital	4.56	2.08

35. BIA requested the Commission that in case it decides to allow interest on working capital on normative basis, the same may be kindly approved as Rs. 2.08 crore as proposed by BIA according to MSERC Tariff Regulations.

X. Connectivity and SLDC charges

36. The Petitioner has proposed SLDC charges of Rs. 0.86 crore based on the information received from SLDC. BIA prays to the Commission to allow such charges as it considers appropriate after scrutiny of the ARR of SLDC.

XI. Summary of the Annual Fixed Cost

37. Based on the above justification, BIA requested the Commission to approve the following net Annual Fixed Cost for MePGCL for FY 2014-15:

Table 8: Summary of Annual Fixed Cost

Particular	MePGCL Petition (Rs. Crore)	Proposed by BIA (Rs. Crore)
Interest on Loan Capital	-	-
Depreciation	15.63	0.00
O&M Expenses	97.11	48.13
Interest on Working Capital	4.56	2.08
Return on Equity	18.15	9.43
Income Tax	-	-
SLDC charge	0.86	0.86
Annual Fixed cost	136.31	60.50
Less: Non tariff Income	0.67	0.67
Net AFC	135.64	59.83

RESPONSE FROM MEPGCL

1. ANNUAL ACCOUNTS

MePGCL submitted that true up petition for FY 2008-09 and 2009-10 have already been filed by MeECL as a single entity. However, due to restructuring and unbundling and MeSEB the preparations of accounts for 2010-11 and 2011-12 has got delayed. MePGCL submitted that these accounts have been prepared and are under statutory audit. Accordingly, the true up petition for these years shall be filed as soon as the audited statements are available. MePGCL submitted that as per tariff regulations there are no provisions for performance review. It was further added that review for the FY is done on the basis of pre-audited records after the financial year is over. Accordingly, for MePGCL the financial year FY 2013-14 shall only be due up till March 2014.

2. SOFT COPIES

MePGCL submitted that in addition to hard copies the soft copies were also uploaded on the MeECL's website.

3. COMPLIANCE OF COMMISSION DIRECTIVES

MePGCL submitted that compliance on directives is given in the petition itself. This report includes the status of compliance and hurdles faced by MePGCL as applicable.

4. FINAL TARIFF

MePGCL submitted that petition for Leshka have already been submitted. However, due to financial constraints MePGCL have not been able to commission Lakroh project therefore the question of failure to file final tariff petition does not arise.

5. EFFICIENCY

MePGCL submitted that efficiency of hydro generating station does not only depend on efficiency of machines but also on various other factors such as design of the plant, head, hydrology, etc which are unique for that power station. Due to dependence on these unique factors the generation and efficiency of any two plants having similar technology and rated output could be different. Though Stage I to IV are storage type of plants they fall a unique cascaded schemes and availability of one stage affects others. None availability of stage I directly affects the entire availability and generation of stage II and partial availability of stage III and IV. Therefore, it would not be practical to bench mark MePGCL stations with stations in any other region.

6. DEPRECIATION RESERVE

MePGCL replied that it intends to create depreciation reserve fund as directed by the Commission. However, it has not been able to do so because of reasons as the tariff for 2013-14 was not enough and there was a lower rainfall in 2013 which has reduced the generation and revenue of the corporation. Moreover 2013-14 was the first year of segregated operation of MePGCL and operations are yet to be established. Therefore, Corporation is financially weak and in unable to create the depreciation reserve account till finalisation is improved.

7. NAPAF

MePGCL submitted that the formula as per the regulations do not adequately consider the age and design of stations and the unique hydrological factors that affect the availability of stations. The following factors are highlighted before the Commission for kind consideration.

- a) Umiam I was commissioned in 1965 and has been service for 49 years and has undergone renovation in 2013.
- b) Umiam II commissioned in 1970 and has undergone R & M in January 2012. However it is cascaded with Umiam I and the water in flow is through the Umiam I only which affectively makes stage II a run of the river plant and not a storage plant. Moreover, non availability of Umiam I directly reduces the availability of Umiam II.
- c) Umiam III and Umiam IV were commission in 1979 and 1992 respectively. Umiam III has completed has completed its useful life and needs renovation and modernisation immediately to increase its life.
- d) Umtru plant was commission in 1957 as been in service 57 years without any R& M and at present only 2 units out of 4 units are functional. Keeping in view the above facts it can be understood that these are old plants and cannot be expected to have an availability of 90% as proposed by BIA. The age of plants, silk and unique configuration make a difficult to achieve a high availability through out the year. Therefore the Commission is requested to approve NAPAF as proposed by MePGCL in its ARR petition for 2014-15.

8. ALLOWANCE FOR NORTH EAST

North East allowance MePGCL submitted the basis for claiming of allowance of 5% for difficulties in North East region is primarily the delay of procurement of space and delay in services of experts for repair and maintenance within North East Region. Moreover, for these old plants, the availability of sphere as well as service personnel is not good in general. Due to these problems, the R & M takes more time in comparison to plants in other parts of the country. Accordingly, MePGCL should get 5% allowance for difficulty in North East Region. However, MePGCL submitted that in the tariff petition they have not claimed this allowance.

9. COMPARISON WITH OTHER STATES

Different hydrology's MePGCL submitted that Meghalaya cannot be compared with Uttarakhand because rivers in Uttarakhand are snow fed due to which water is available throughout the year in different quantities. On the other hand the rivers in Meghalaya

are only rain fat due to which there is hardly any water available in lean seasons i.e. November to May. Therefore, it is not logical to compare the NAPAF of stations in Meghalaya and Uttarakhand. MePGCL submitted to the Commission that due to reasons explained in the above replies of MePGCL, the NAPAF computed as per Tariff Regulations is found to be higher than the actual plant availability throughout the year. Therefore, it is requested before the Commission to approve the NAPAF as proposed by MePGCL. MePGCL submitted that the availability of Sonapani is drastically affected by the trash in the water stream, due to which this micro hydel station has to shut down frequently to undergo repairs. MePGCL is currently taking adequate measures to avoid such situation in future. Sonapani is located at the meeting point of Umkhrah Stream and Umshyrpi Stream. To avoid trash in the water stream, MePGCL has installed 3 trash racks in power channel from Umkhrah stream and 4 trash racks in power channel from Ushyrpi stream. MePGCL submitted that due to the reasons explained in the above replies of MePGCL, the NAPAF proposed by BIA is not realistic and will not be achieved by stations, leading to losses in recovery of capacity charges. Therefore MePGCL requested the Commission to approve the NAPAF as proposed. The details of actual generation for first 3 quarters of FY 2013-14 have been submitted vide letter No. MePGCL/DGEN/Misc-43/2008/Pt-III/93 dated 20th January, 2014.

10. DESIGNED ENERGY

MePGCL submitted that as mentioned in the clause 3.5.2 of the petition of the ARR and Generation Tariff for FY 2014-15 dated 16th December 2013, the proposed Design Energy for FY 2014-15 is same as approved by the Commission in the Tariff Order dated 30th March 2013.

11. GROSS FIXED ASSETS

MePGCL submitted to the Commission that as explained in the section 2.1.4 of the ARR and Tariff petition of MePGCL, dated 16.12.2013, only the gross value of assets as on 01.04.2012 is available. The plant wise value for old stations i.e. Umiam Stge I to IV and Umtru is not available. The methodology for projecting the value assets in FY 2014-15 is also provided in the section 3.7 of the ARR petition. It is to be noted that transfer scheme as on 01.04.12 shall be notified by the State Government once the opening balances for all companies are available after statutory audit of FY 2011-12 is complete. However, the available provisional segregated values of fixed assets have been utilized

for preparation of the ARR petition. Therefore, MePGCL requests the Commission to approve the values as proposed in the ARR and Tariff petition for MePGCL.

12. RENOVATION AND MODERNIZATION

MePGCL submitted that the DPR/Feasibility report for renovation and modernization of Umiam Stage II was prepared in the year 1996, and the works began on December, 2009. Similarly the DPR for capital expenditure on Sonapani power station was prepared in the year 1997, and the works began in the year 2004. However, the Tariff Regulations of MSERC were notified later in 2011 and therefore the proposal for carrying out these works did not fall the purview of Tariff Regulations and hence was not submitted for approval of MSERC. MePGCL further submitted to the Commission that the average annual generation (from 2001-02 to 2010-11) of Stage II power station prior to RM&U was 45.02% as a proportion of Umiam Stage I generation for the same period. After the RM&U, the generation of Stage II has gone up to 50.92% of Stage I generation (for period of February 2012 to December 2013). The generations details are submitted vide letter No. MePGCL/DGEN/Mis-43/2008/Pt-III/93 dated 20th January, 2014. Thus, there is an increase of about 5% in the generation of Stage II with respect to Stage I. MePGCL submitted that based on above submissions, they requested the Commission to approve the GFA for FY 2014-15.

13. EQUITY

MePGCL submitted that in view of the restructuring of erstwhile MeSEB, the outstanding State Government loans and grants of MeSEB, now MeECL as on 31.03.2010 were converted into equity for Rs.767.55 crore which has been approved by the State Government vide notification no. POWER-79/2009 dated Dec'13 and additional grant received from the State Government during the year 2010-11 and 2011-12 have been place before statutory auditor Shri A. Biswas & Co. chartered accountant and are now in process of statutory audit. The opening balances as on 01.04.12 are also required to be validated/notified by the Government. The accounts for 2012-13 are under process of trifurcation by the Corporation's consultant (PFCCCL) subject to validation of the opening balances as on 01.04.12. In view of the above, MePGCL is entitled to claim the RoE. It is requested that the Commission takes into cognizance the latest transfer scheme notification and the addition to equity from FY 2010-11 onwards and approve the RoE as proposed in ARR and Tariff petition of MePGCL for FY 2014-15. MePGCL requests the Commission to approve the GFA and Depreciation as proposed. The justification for

inability to create depreciation reserve account has been provided in the above submissions.

14. DEVIATION FROM REGULATION FOR O & M COSTS

MePGCL submitted and explained that the assumptions and methodology adopted for projecting the O & M cost in clause 3.11.14 of the petition for ARR and Tariff for FY 2014-15 dated 16th December 2013. The employee cost consists of expenditure towards present as well as past employees and MePGCL has made different assumptions for projecting various O & M components. As submitted in the petition, even the actual expenses for FY 2012-13 and estimated expenses for FY 2013-14 are higher than the expenses for FY 2014-15 calculated in accordance with Tariff Regulations. Therefore, MePGCL requested the Commission to approve the O & M expenses as proposed.

15. WORKING CAPITAL

MePGCL submitted that as per Regulation 56 (2) of Tariff Regulations, 2011 the interest on working capital shall be calculated on normative basis notwithstanding that the licensee has not taken working capital loan from any outside agency, the regulation reads as:

“(2) Rate of interest on working capital shall be equal to the short term Prime Lending Rate of State Bank of India as on 1st April of the relevant financial year for which the licensee files petition for ARR and tariff proposal. The interest on working capital shall be calculated on normative basis notwithstanding that the licensee has not taken working capital loan from any outside agency.”

Therefore MePGCL submitted before the Commission that MePGCL be allowed interest on working capital on a normative basis as proposed in the petition for ARR and Generation Tariff for FY 2014-15 dated 16.12.2013.

MePGCL requested the Commission to approve the ARR as proposed in the ARR and Tariff petition for FY 2014-15.

COMMISSION'S VIEW

The Commission has gone through all comments received by it during the process of examination of the ARR. The Commission has also considered the response of the generating company MePGCL. The Commission felt that without availability of audited accounts of 2012-13, validation of numbers given in the ARR was not easy. However, keeping in view the provisions of the law, directives issued by Hon'ble APTEL for initiating suo-moto action for issuing tariff in time, the Commission has tried to examine the information best available to it and validated the numbers given in the petition so as to allow revision in tariff for 2014-15. Keeping in view the financial health of the Corporation, the Commission tried to complete the tariff process without waiting for the audited results. While deciding the tariff, the Commission tried to protect the Corporation from any financial crunch and at the same time the consumers are also not over burdened. The Commission is of the view that any shortfall or surplus in the tariff can always be set right in future tariff. Accordingly the Commission has completed the tariff exercise for 2014-15 and determined the generation tariff.

The Commission has dealt with each and every issue in the chapter 5 and decided the matter keeping in the interest of the utility and consumers.

General

In the earlier orders, the Commission discussed the principles and provisions of the Regulations for determining tariff for generating company. The Commission has tried to adhere to the Regulations, National Tariff Policy and provisions of Electricity Act, 2003 to determine the Tariff of different companies working in the power sector. However, at the same time, the Commission has also tried to adopt such regulations in a pragmatic manner so as to consider the ground realities. In the public hearing, consumers objected to non availability of audited accounts of MeECL and its subsidiaries and apprehended that there are chances of surpluses. It was even difficult for the Commission to validate numbers without verifying audited accounts. In the absence of audited account of 2012-13, the Commission has therefore tried to validate expenditures of generating stations on the basis of actual accounting records for the period April 2013 – November 2013 and provisional records for previous years. By this approach the Commission has tried to fix the tariff for 2014-15 and maintain the continuity of improved cash flow in the sector. The Commission shall true up the numbers after the audit of financial statements of MePGCL is over.

The Commission has followed the tariff regulations for the purpose of determining of all generating stations on the basis of records available to it and prudence check subject to reasonability of the cost and financial viability of the generating company.

Statutory requirements:

Section 64 of the Electricity Act, 2003 requires the generating companies to file an application for determination of tariff under section 62 of the Act in such manner as specified through the regulations by the Regulatory Commission. Section 61 of the Act further requires the Commission to specify the terms and conditions for determination of tariff in accordance with the provision of the act. The act also provides that the Commission shall be guided by the principles and methodologies specified by Central Electricity Regulatory Commission, the National Tariff and Electricity Policies.

In the light of the above provisions of the act, the Commission has already notified MSERC (Terms and Conditions for determination of tariff) Regulations 2011. The regulations are applied in the State of Meghalaya till such time it is revised by the Commission. For the purpose of this Tariff

Order, the Commission shall therefore, be guided by the said regulations subject to the relaxation wherever necessary for various valid reasons recorded therein.

By and large, in line with the provisions of tariff regulation, the Commission is following at present the cost plus approach subject to prudence check and efficient norms.

Filing of Petition:

Regulation 47 specifies the process of filing a petition for determining the tariff of existing running power plants.

Power Purchase Agreement:

Regulation 48 prescribes that if there is any power purchase agreement approved by the Commission prior to notification of the tariff regulation that will prevail. This regulation also provides that all generating stations declared under commercial operation after the issue of this regulation shall be decided in accordance with this regulation. Accordingly, the Commission shall use the present regulation to determine the AFC for all generating stations MePGCL.

Capital Cost:

Regulation 49 provides the approval of actual capital cost subject to prudence check by the Commission for new investments. The Commission shall scrutinise the reasonableness of the capital cost, financial plants and interest during construction period, use of efficient technology and such other matters for determination of tariff. The regulation also prescribes that in case of any abnormal delay in execution of the project causing cost and time over run attributable due to the failure of the utility, the Commission may not approve the full capitalisation of interest and over head expenses. The regulation also prescribes that where power purchase agreement entered into between generating company and the distribution licensee provides for a ceiling of actual expenditure. The regulation has also prescribed that the Commission may issue guidelines for verifying the capital cost of hydro electric projects by an independent agency or expert and in such a case the capital cost as vetted by such agency may be considered by the Commission while determining the tariff of such hydro generating stations. For the purpose of this order the Commission has considered the GFA value as given in the transfer scheme notified by the Government of Meghalaya and added the assets after the commercial operation. The Commission has taken the same stand as taken in previous years that without audit of financial statements of Corporation, it will adhere to those numbers which are already approved by the Commission in its tariff order for 2013-14.

Additional Capitalisation

Regulation 50 provides that some of the capital expenditure (on account of un-discharge liabilities, on account of change in law, etc) actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission subject to the prudence check.

Renovation and Modernisation

Regulation 50 (a) provides that the generating company for the purpose of extension of life beyond the useful life of a generating station or a unit thereof may make expenditure on renovation and modernisation. However, it shall make an application before the Commission for approval of the proposal with a detail project report giving complete scope, justification, cost benefit analysis, estimated life extension, funding, phasing of expenditure, schedule of completion, reference price level, estimated completion cost. In case of Umiam Stage I & II there was no prior approval of the Commission. Therefore the Commission is allowing the MePGCL proposal to the extent it may meet out its obligations and consumers are also not unduly overburdened. However, after the audit is over, the Commission shall validate the numbers.

Debt Equity Ratio

Regulation 51 provides that for the purpose of determination of tariff of new generating stations commencing commercial operation after the notification of this regulation, the debt equity ratio shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative loan. Where actual equity employer is less than 30%, the actual equity employer shall be considered. It is important to note that issue of share capital shall only be treated as amount of equity invested for the purpose of determination of tariff.

In the case of existing generating station the debt equity ratio as per the balance sheet on the date of the transfer notification will be the debt equity ratio for the first year of operation subject to such modification as may be found necessary upon audit of the accounts if such balance sheet is not audited. The debt equity amount arrive shall be used for calculating interest on loan, return on equity, etc. In this tariff order, the Commission is not accepting the size of equity as proposed by the generation corporation without the proper audit is done and formalities with regard to shares distribution is completed as per Company Law. More over, until and unless these companies start functioning independently and improve their performance, it will allow the same return as allowed last year.

Components of Tariff

Regulation 52 provides that there will be tariff for supply of electricity from a hydro power generating station shall comprise of two parts, namely, annual capacity charges and energy charges.

The fixed cost of a generating station shall be recovered through annual capacity charges and shall consist of :

- a) Return on equity as may be allowed
- b) Interest on loan capital
- c) Operation and maintenance expenses
- d) Interest on working capital
- e) Depreciation as may be allowed by the Commission
- f) Income Tax.

The annual capacity charges shall be worked out by deducting any other income of the generating company from the total expenses.

Return on Equity

Return on equity shall be computed in accordance with regulation 53 on the equity base as determined in accordance with regulation 51 and shall not exceed 14%. However, in the absence of audited and separate accounts for each utility the Commission has decided to allow same return on equity as allowed in the previous year equally to generation, transmission and distribution utilities. The Commission shall take a view on return on equity which shall not exceed 14% for projects under MePGCL after the accounts are audited with CAG report on it. In this tariff order, the Commission has decided that until and unless the Corporation do not start functioning independently in letter and spirit, the Commission shall not change its position from the previous years and do not allow return on equity as proposed.

Interest and finance charges on loan capital

Regulation 54 provides that interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreement, bond or debentures and the lending rates prevailing therein. However, the loan capital should meet the requirement of regulation 51 providing debt equity ratio.

The regulation also prescribes that interest and finance charges attributable to capital work in progress (COD not achieved) shall not be allowed. There is a provision in the regulation that

generating company shall make every effort to swap loans as long as it results in net benefit to it. In case of any moratorium period is availed by the generating, the depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly. In the proposal since Corporation has not claimed any interest on loan, the Commission is not allowing any interest.

Operation and maintenance expenses

The operation and maintenance expenses shall comprise of the following:

- a) Employees cost
- b) Repair and maintenance
- c) Administration and general expenses

Operation and maintenance expenditures for the existing generating plants which have been in operation for five years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts excluding any abnormal O&M expenditures after prudence check by the Commission. The normalised operation and maintenance expenses after prudence check for the years 2003-04 to 2007-08 shall be escalated at the rate of 5.17% to arrive at the normalised O&M expenses at the 2007-08 price level. The average normal O&M expenses at 2007-08 price level shall be escalated at 5.72% to arrive at the O&M expenses for the year 2009-10. Further it shall be escalated from 2009-10 after taking care of increasing employees cost @5.72% per annum for determining cost for subsequent year.

The regulation prescribes that in case of hydro generating stations which have not been in commercial operation for a period of 5 years as on 01.04.2009, O&M expenses shall be fixed at 2% of the original project cost. Further, in such cases, it shall be escalated @5.72%.

In order to introduce efficient operation in the generation the Commission is considering allowing a ceiling on the O & M expenses so that at the time of truing up it may not allow any unreasonable expenses over and above the O & M ceiling. In the previous year, the Commission has allowed the O & M expenses as per Regulations which also met with the MePGCL proposal. This year the Corporation has demanded much more than what Regulation provides for. The approach for determining the O & M expenses this year shall not be different than the previous year. The Commission also feels that the expenses should be within the normative and should not exceed the

budgeted figures. However, the Commission has adjusted the extent of common expenses while determining the O&M cost.

Interest on working capital

Regulation 56 prescribes that working capital shall cover the following:

- a) Operation and maintenance expenses for one month
- b) Maintenance sphere at 15% of O&M
- c) Two months receivables of AFC

Rate of interest on the working capital shall be short term prime lending rate of SBI @14.45%. On the basis of the previous year record the Commission has allowed interest amount including loan capital and working capital.

Depreciation

Regulation 57 provides that depreciation shall be computed on the assets/capital costs of the assets as entered by the Commission where the opening asset value recorded in the balance sheet as per the transfer scheme notification shall be deemed to have been approved. However, after the audit of the accounts necessary modification may be made. For the new assets the approved cost for the asset value shall be taken into account. The depreciation shall be calculated annually as per straight line method at the rates as specified in CERC regulations. In case of the existing projects the balance depreciable value as on 01.04.2010 shall be worked out by deducting the cumulative depreciation as admitted by the Commission from the gross value of the assets. Depreciation shall only be chargeable from the first year of operation. The Commission has allowed the depreciation in order to meet the financial commitments of the Corporation for renovation and modernization. However, after meeting its obligation under the contract, the licensee shall create a separate reserve for meeting the replacement of assets or modernization of the unit in future.

Income Tax

Income tax shall be treated as expenses and shall be recoverable from the consumers through tariff. The income tax actually paid shall be included in the ARR. Any under recovery or over recovery shall be adjusted every year on the basis of income tax certificate issued by the authorities.

Computation of capacity charges and energy charges

Regulation 59 provides the methodology to calculate the capacity charges and energy charges to be payable by the beneficiary in the following manner:

- a) Capacity charges: The fix cost of a hydro generating station shall be computed on annual basis based on the norms specified under the regulations and shall be recovered on monthly basis under capacity charges and energy charges. The capacity charges shall be allocated in proportion to their respective allocation of saleable capacity of the plant. The capacity charges shall be payable in accordance with the following formula:

$$\text{Capacity charge in a month} = \text{AFC} \times 0.5 \times (\text{NDM/NDY}) \times (\text{PAFM/NAPAF})$$

Where:

AFC = Annual Fixed Cost

NAPAF = Normative Plant Availability Factor in Percentage,

NDM = Number of Days in a Month,

NDY = Number of Days in the Year

PAFM = Plant Availability Factor achieved During the Month in Percentage

- b) PAFM shall be computed in accordance with the following formula:

$$\text{PAFM} = 10000 \times \sum_{i=1}^N \text{DCI} / (\text{N} \times \text{IC} \times (100 - \text{AUX})) \text{ in percentage}$$

Where:

AUX = Normative Auxiliary Consumption in percentage

DCI = Declared Capacity at ex base for the ith day of the month which station can deliver for at least 3 hours.

IC = Installed capacity in megawatt of the complete generating station.

N = Number of Days in a Month.

Energy charges

- a) The Energy charges shall be payable for the total energy scheduled to be supplied to the beneficiary at the energy charges rate. The energy charges payable shall be calculated in the following manner:

$$\text{Total energy charges} = \text{energy rate in Rs. Per unit} \times \text{scheduled energy ex bus} \times \frac{(100 - \text{free energy if any})}{100}$$

- b) Energy charges rate shall be determined as per the following formula

$$\text{ECR} = \text{AFC} \times 0.5 \times 10 / (\text{DE} \times (100 - \text{AUX}) \times (100 - \text{FEHS}))$$

Where:

DE = Annual Designed Energy

FEHS = Free Energy for Home State

ECR = Energy Charges Rate in Rs. Per unit

AFC = Annual Fixed charges

AUX = Auxiliary Consumption

Compensation for shortfall in generation

The Regulation prescribes that in case actual energy generated during a year is less than designed energy for reasons beyond control of the company the adjustments shall be made in future tariff. Since 2014-15 being the second year of operation, the Commission has allowed shortfall in generation as a pass-through in the consumer's tariff.

NAPAF

In the last tariff order, the Commission directed the Corporation to conduct a study for determining the designed energy availability and determine NAPAF based on such study. The Corporation has submitted data of generation and proposed NAPAF. The Commission feels that without a proper study it would not be reasonable to fix the NAPAF at this stage and allowed disbursement of capacity charges on availability basis. Accordingly, the Commission is following the same principles as allowed last year. Accordingly, the Commission has not taken any view on the computation of normative annual plant availability factor (NAPAF) of all generating stations without knowing the technical details of each plant duly verified. For the purpose of capacity charges, the Commission has approved recovery of fixed charges on the basis of plant availability each month.

During the proceeding, the Commission has determined the tariff on the basis of the regulation as well as adopting a pragmatic approach in the interest of the all stakeholders.

COMMISSION'S ANALYSIS, SCRUTINY AND CONCLUSION

Existing Generation Capacity

MePGCL is the sole State owned generating company operating in the State of Meghalaya. The details of the 6 projects, which are under consideration in the petition, are given in the table below:

DETAILS OF THE PROJECTS						
Sl. No	Name of Project	No. Of units	Capacity (Unit wise in MW)	Total capacity (MW)	Designed energy (MU)	Year of commissioning
1	Umiam Stage I	4	9	36	116.29	1965
2	Umiam Stage II	2	10	20	45.51	1970
3	Umiam Stage III	2	30	60	139.40	1975/79
4	Umiam Stage IV	2	30	60	207.50	1992
5	Umtru	4	2.8	11.2	39.01	1957/68 (IV unit)
6	Sonapani	1	1.5	1.5	5.50	2009
	Total			188.7	553.21	

Computation of Generation Energy

Tariff regulations 2011 prescribes that computation of generation energy on the basis of normative annual plant availability factor depending upon the nature of the plant. There is a further allowance of 5% allowed for difficulties in North East Region. Similarly, regulation also prescribes auxiliary consumption and transformation losses in Hydro Electric Plant depending upon nature of the station. The Commission has already determined designed energy for all the plants in 2013-14 considering the provisions of the Regulations. MePGCL has generated less the designed energy in 2014-15 which are validated from the load flow data dated 1.4.2014. The actual generation was Umiam I-78.77 MU(116.29), Umiam II- 41.13 MU (45.51), Umiam III-133.01 (139.40),Umiam IV- 174.41 MU (207.50), Umtru -20.81 MU (39.01) and Sonapani- 5.38 MU (5.50). The total generation was 453.5 MU as against the target of 553.21 MU in 2013-14. The Commission at this stage is unable to accept lower generation in 2014-15 without having complete information about the availability of the machines and water availability in 2013-14.. In the State of Meghalaya all stations of MePGCL are producing energy and sending it to the sole distribution licensee of the State for sale to its consumers. The capacity charges are fixed to give minimum financial support to the generating company in case of short generation due to less supply of water and any shortfall in generation can be compensated for in next year. The Commission is also interested in giving efficient signal to the Company to generate the maximum to the best of their ability. As per regulation 50% of the AFC

(annual fixed charges) are to be paid depending upon the availability of the machine and water and remaining 50% shall be paid on the quantum of generation.

Past six year generation record

The Commission has tried to collate the generation figures made during last six years. The table given below is showing year wise generation record:

SIX YEAR GENERATION RECORDS									
Sl. No	Name of Plant	Installed capacity	Designed energy	Actual Generation (Source MePGCL)					
		(MW)	(MU)	FY – 08	FY – 09	FY -10	FY – 11	FY - 12	FY - 13
1	Umiam Stage I	36	60.7	150.633	107.8	110.32	103.8	108.89	103.93
2	Umiam Stage II	20	29.5	67.27	48.67	51.2	47.52	12.9	50.93
3	Umiam Stage III	60	115.3	149.2	159.7	128.32	132.24	127.5	131.19
4	Umiam Stage IV	60	129.5	247.7	193.7	187.1	205	204	190.08
5	Umtru	11.2	82.3	49.33	43.95	48.22	15.51	38.04	30.64
6	Sonapani	2	11.01				4.9	6.03	7.28

COMPUTATION OF AVERAGE GENERATION						
Sl. No	Name of Plant	Installed capacity	Designed energy	Option I	Option II	Option III
		(MW)	(MU)	Best gen In 6 yrs	Worst gen in 6 Yrs	Avg. of past 6 yrs
1	Umiam Stage I	36	60.7	150.6	103.8	114.2
2	Umiam Stage II	20	29.5	67.27	12.9	46.4
3	Umiam Stage III	60	115.3	149.2	127.5	138.0
4	Umiam Stage IV	60	129.5	247.7	187.1	204.6
5	Umtru	11.2	82.3	49.3	15.51	37.6
6	Sonapani	2	11.01	6.03	4.9	3.0
	Total			670.1	451.71	543.9

The Commission in its earlier orders has fixed 553.21 MU in 2013-14. However, as per the ARR, in 2013-14 the generation is estimated at 454 MU which was quite lower than what is estimated in the tariff order. However, MePGCL agreed to accept 538 MU projections for 2014-15 on the basis of actual generation, past 10 year data and improvement in Stage II after renovation. Even last year MePGCL vide its letter dated 25.02.2013 on oath submitted that the average annual generation for the last ten years for six existing generating station is 540.70 MU.

To validate the generation, the Commission has taken past six years generation data including 2012-13 which comes out to be 543 MU which is quite near to the designed energy of 553 MU. Therefore, the Commission is not changing its position for approving different number as designed energy for the existing six plants. The total designed energy from these six plants is again

approved as 553.21 MU for 2014-15. However under recovery on account of lower generation shall be considered provided availability of plants.

PROVISIONALLY APPROVED DESIGNED ENERGY (MU)			
Sl. No	Name of Plant	FY 2014-15(MePGCL proposal)	FY 2014-15 (MSERC approval)
1	Umiam Stage I	76.58	116.29
2	Umiam Stage II	40.17	45.51
3	Umiam Stage III	124.37	139.4
4	Umiam Stage IV	162.13	207.5
5	Umtru	21.88	39.01
6	Sonapani	6.60	5.5
	Total	431.73	553.21

Auxiliary consumption

MePGCL has given auxiliary consumption and transformation losses for each generating station as per the Regulation in the following table:

TABLE – 7 AUXILIARY/TRANSFORMATION CONSUMPTION (%)		
Name of the Plant	Auxiliary consumption (%)	Transformation losses (%)
Umiam Stage I	0.7	0.5
Umiam Stage II	0.7	0.5
Umiam Stage III	0.7	0.5
Umiam Stage IV	1.0	0.5
Umtru	0.7	0.5
Sonapani	0.7	0.5

The Commission has agreed on the above proposal.

Determination of Annual Fixed Charges

Component of Tariff

In accordance with the Regulation the Tariff for supply of electricity from Hydro Power Generating Station shall comprise of two parts namely, Annual Capacity Charges and Energy Charges. Fixed charges shall be comprised of following components:

- (1) Operation and Maintenance Expenses
- (2) Interest on Loan Capital
- (3) Interest on Working Capital
- (4) Depreciation as may be allowed by the Commission
- (5) Return on Equity as may be allowed by the Commission
- (6) Taxes on Income.

Gross fixed assets:

MePGCL has projected a provisional figure for gross fixed assets as on 31.03.2012 as Rs.327.39 crores for existing projects. For Sonapani project MePGCL has projected Rs.10.78 crores as GFA. During 2012-13 MePGCL has added Rs.104.75 crores fixed assets for Umiam Stage II R & M work and therefore the closing value for GFA as on 31.03.2014 shall become Rs.432.14 crores. The Commission has examined the report on renovation and modernization work for Stage II and allowed on provisional basis addition of assets. However, the Commission is not changing the GFA opening value for 2011-12 without verification of audited results. The GFA is approved as follows:

TABLE – 8 GFA (Rs. Cr.)		
Particulars	As proposed by MeECL	As approved by MSERC
Opening GFA (Rs. Cr) as on 01.04.2012	327.39	286.49
Add GFA during 2012-13	104.75	104.75
Less retirement	0	0
Closing GFA as on 31.03.2013	432.14	391.24
Opening GFA as on 01.04.2013	432.14	391.24
Add GFA during 2013-14	0	0
Less retirement	0	0
Closing GFA as on 31.03.2014	432.14	391.24

Return on Equity:

MePGCL has projected return on equity of Rs.17.69 crores on the equity value of Rs.126.38 crores. They have claimed that the assets size as on 01.04.2012 as per the provisional shall be Rs.592.33 crores. Similarly, for Sonapani they have proposed Rs.0.46 crores as return on equity for 2014-15. The Commission had directed the Corporation to complete their annual accounts for 2012-13 and get it audited as per the statutory requirement before the filing of tariff for 2014-15. However no progress has been made so far. Similarly, the Commission has determined the tariff for MePGCL separately in 2013-14 and required MePGCL to function independently. The position is no better than last year and the functioning of MePGCL is still not independent in letter and spirit. Accordingly, the Commission in this situation is not deviating from its earlier stand for allowing 1/3rd of return of equity allowed last year. The Commission shall take a final view on return on equity on the basis of audited accounts of MePGCL and equity shown in the statement of accounts. Accordingly, the Commission allows 9.43 crores as return on equity to MePGCL in 2014-15.

TABLE - ROE		
Particulars	As proposed by MeECL	As approved by MSERC
Opening GFA (Rs. Cr) as on 01.04.2014	432.14	391.24
Equity (30%)	129.6	117.4
ROE @14%	18.15	16.4
ROE allowed for 2014-15	18.15	9.43

Depreciation:

Regulation prescribes that for the purpose of depreciation the capital cost of the assets as admitted by the Commission that the opening value is recorded in the Balance Sheet. The transfer schemes also prescribes that all the value of fixed assets, equity and other details shall be taken from the audited balance sheet of MePGCL. The Commission at this stage has no record of Balance Sheet of MePGCL and therefore admitting the depreciation charges provisionally. Since MeECL has nothing to pay back against the existing plants, therefore, the Commission is allowing them depreciation so as to create a depreciation reserve out of this money for future investment and renovation and modernisation. The Commission is also not changing the status of Umiam Stage IV GFA as allowed last year. The cost of the project as per the original DPR is given as 38.79 crores. The Commission is allowing 5.28% as depreciation charges for 2014-15 tariffs. Strictly as per Regulation the amount of depreciation shall be around Rs.11.68 crores for 2014-15. However, in absence of audit and no financial commitments at present, the Commission is allowing Rs.5.61 crores as depreciation for 2014-15 to be kept separately as Reserve in case of no financial commitments.

DEPRECIATION (Rs. Cr.)				
Particulars	Project cost (Rs. Cr)	Depreciable assets value @ 90%	As proposed by MePGCL (Rs. Cr)	As approved by MSERC (Rs. Cr.)
R & M of Stage I	91.63	82.5	4.35	4.35
R& M of Stage II	104.75	94.3	4.98	4.98
Umiam Stage IV	38.79	34.9	5.79	1.8
Sonapani	10.6	9.5	0.50	0.50
Total depreciation as per Regulation			15.63	11.68
Depreciation allowed for 2014-15				5.61

Operation & Maintenance expenditure for old power stations

The operation and maintenance expenses include employee's cost, repair and maintenance and administration and general expenses. The Regulation prescribes that in order to determine O & M expenses for the plants which have been in operation for five years or more in the base year 2007-08 shall be derived on the basis of actual expenses for the period 2003-04 to 2007-08 based on the audited accounts. In order to determine rates for future years, Regulation prescribes that the base year value shall be escalated at the rate of 5.72% to arrive at the O & M expenses for the year 2009-10. From 2009-10 onwards, it shall be further rationalise considering 50% increase in employee cost on account of pay revision and thereafter it will be escalated at the rate of 5.72%.

MePGCL in its proposal has determined the O & M expenses on the basis of tariff regulations and determine Rs.48.12 crores as O & M expenses for 2014-15. However, in its calculation, the allocation of common costs of management is based on 21% of the total costs. However, MePDCL and MePTCL have added 1/3rd of the management costs while determining O & M expenses. At this stage the Commission is also unable to comment on this methodology until and unless the audited records are prepared for independent entities. The Commission has tried to rework the allocation of common costs by taking 33% instead of 21% as proposed. It will add to O & M costs as worked out in accordance with the Regulations. MePGCL has projected Rs. 48.12 crores as O & M expenses which will be Rs.52 crores if we allocate 1/3rd cost of the common expenses.

The Commission has also gone through the actual expenses made during April to November 2013 which are as follows:

FY 2013-14 Actual O & M expenses (April to Nov 2013) for MePGCL including Leshka and other new projects				
Particulars	MePGCL	Management	1/3 of Management	Total
R & M expenses	5.66	0.15	0.05	5.71
Employees cost	24.01	46.3	15.43	39.44
A & G cost	2.55	1.77	0.59	3.14
O & M cost for 8 months	32.22	48.22	16.07	48.29

The actual expenses towards O & M in 2013-14 are around 48.29 crores. However this expense is only for eight months which shall be around 72 crores for full year. But this expense is relating to Corporation which includes other projects like MLHEP, etc. If we excludes the expenses of Leshka, Umtru and work relating to it such as investigation and design the employee cost shall be reduced from Rs. 24.10 crores to Rs. 15.82 crores, R & M shall be reduced from Rs. 5.56 crores to Rs.

4 crores and A & G work will be reduced from Rs.2.55 crores to less than Rs.1 crores. Therefore, the expenses in O & M on actual basis shall be around Rs. 20.82 crores in eight months. Accordingly, the expenses on O & M shall not be more than Rs.44 crores in 2013-14. Last year the Commission has also allowed 44 crores for 2013-14 which matches with the actual expenses. If we apply escalation rate of 7% on it will be around Rs.47 crores for 2014-15. However, as per Regulation the O & M expenses allowed will be around 52 crores.

Accordingly the Commission is allowing the O&M cost at Rs.52 crores as the provisional O & M cost for six existing generating stations. However, the Commission shall review this cost at the time of submission of audited accounts.

O & M costs for 2014-15			
Particulars	As per Regulation	proposed by MePGCL	As approved by MSERC
O & M cost – category A old assets	47.83	97.11	51.71
O & M cost – category C (Sonapani)	0.29		0.29
Total	48.12	97.11	52.0

Interest on Working Capital:

The purpose of providing interest on working capital is to meet O & M expenses for one month and receivable equivalent to two months of fixed cost. MePGCL has projected total 4.56 crores as interest on working capital to meet their day to day cash requirement. The Commission is approving AFC to be charged every month from the distribution licensee after one month consumption. Accordingly the Commission is allowing working capital to MePGCL for 2014-15 in accordance with Commission's Regulation.

INTEREST ON WORKING CAPITAL (Rs. Cr.)		
Particulars	As proposed by MePGCL (Rs. Cr)	As approved by MSERC (Rs. Cr)
O & M expenses for 1 month	8.16	4.33
Maintenance spare	0.88	0.69
Receivables @ 2 months of fixed charges	22.91	11.49
Working capital required for 2014-15(Rs. CR)	31.94	16.51
Rate of interest (%)	14.45%	14.45%
Amount of interest on working capital (Rs. Cr) for 2014-15	4.56	2.39

Connectivity and SLDC charges:

Regulation prescribes a claim of SLDC and connectivity charges by generating company. MePGCL has submitted the following charges:

SLDC CHARGES (Rs.Cr.)		
Particulars	As proposed by MePGCL(Rs. Cr)	As approved by MSERC (Rs. Cr)
SLDC charges for Umiam Stage I	0.16	0.23
SLDC charges for Umiam Stage II	0.09	0.13
SLDC charges for Umiam Stage III	0.27	0.37
SLDC charges for Umiam Stage IV	0.27	0.37
SLDC charges for Umtru	0.06	0.06
SLDC charges for Sonapani	0.01	0.01

The Commission has approved SLDC charges as approved in the Tariff Petition for SLDC for 2014-15 at Rs.2.34 crores. The generation corporation shall pay Rs.1.17 crores to SLDC for 2014-15.

Annual fixed charges approved for existing generating stations except Leshka and Lakroh. On the basis of the actual records and tariff petition the Commission has allowed the following charges as Annual Fixed Charges to be charged from six old generating stations namely, Umiam Stage I to IV, Umtru and Sonapani. The summary is given below:

ANNUAL FIXED CHARGES FOR EXISTING PLANT (Rs. Cr.)				
Particulars	As proposed by MePGCL (Rs. Cr.)			As approved by MSERC (Rs. Cr.)
	Old assets	Sonapani	Total AFC	Total AFC
O & M expenses	96.34	0.77	97.11	52
Depreciation	15.13	0.5	15.63	5.61
Interest on Loan	0	0	0	0
Interest on working capital	4.51	0.05	4.56	2.39
Return on Equity	17.69	0.46	18.15	9.43
Income Tax	0	0	0	0
SLDC charges	0.86	0.01	0.87	1.17
Total AFC (Rs. Cr)	134.53	1.79	136.32	70.60
Less Non Tariff Income (Rs. Cr.)	0.67	0	0.67	0.67
Net AFC (Rs. Cr.)	133.85	1.79	135.64	69.93

Recovery of annual fixed charges:

As per the regulation the recovery of annual fixed charges has to be made in two parts namely, capacity charges and energy charges. The Commission has adopted the similar approach as adopted in the last tariff order to allow the payment of fixed charges and energy charges in a simpler form. 50% recovery of fixed charges of Rs.34.97 crores in 2014-15 shall be made in 12 equal monthly instalments by MePDCL which shall be Rs.2.914 crores per month to the generating company for its six existing plants. This amount shall be paid by MePDCL to MePGCL every month within seven days of invoice. Remaining terms and conditions shall be as per the Regulation. In addition to the fixed charges, generating company shall also recover 50% of annual fixed charges i.e. Rs.34.97 crores through energy charges on actual production of electricity by it. The energy charges shall be calculated in the following manner:

Saleable energy = 553.21 MU – Auxiliary Consumption and Transformation Losses = 542 MU = 64.5 paisa per unit.

Allocation of AFC Plant Wise:

Regulation prescribes that annual fixed charges should be determined for each generating station so that the availability of the machine is validated by the concerned Load Despatch Centre on the basis of the schedules provided by each generating station for optimal utilisation of all the energy declared to be available. MePGCL has proposed that net annual fixed cost should be allocated to the five old power stations as per the capacity of each station.

ALLOCATION OF AFC FOR 2014-15				
Sl. No.	Station	Capacity MW	AFC (Rs. Cr.) as proposed by MePGCL	AFC (Rs. Cr.) as approved by MSERC
1	Umiam Stage I	36	25.74	13.31
2	Umiam Stage II	20	14.3	7.39
3	Umiam Stage III	60	42.9	22.18
4	Umiam Stage IV	60	42.9	22.18
5	Umtru power stations	11.2	8.01	4.14
6	Sonapani	2	1.79	0.74
	Total	189.2	135.64	69.93

On the basis of the information provided by the MePGCL the Commission has determined the total AFC for 2014-15 for six plants namely: Umiam Stage I, Umiam Stage II, Umiam Stage III, Umiam Stage IV, Umtru and Sonapani. The total installed capacity of the plant is 189.2 MW and the generation available from these plants is 542 MU after allowing auxiliary consumptions. For the sake of clarity and efficiency, the Commission has tried to allocate the total annual fixed charges to be recovered from the beneficiary MePDCL in the Financial Year 2013-14 on these plants on the basis of their capacity. This will give a signal to each generating station to make their schedules to SLDC on the basis of their capacity to generate and availability. The station wise tariff shall give them a motivation to improve their current level of operation so as to make more generation and get revenue from each extra unit sold by them. This allocation is made only for the purpose of recovery of tariff from the distribution licensee on the basis of generation in 2014-15 from each plant. The table given below has shown the station wise capacity charges and energy charges in 2014-15.

CAPACITY AND ENERGY CHARGES PLANTWISE FOR 2014-15							
Sl. No.	Name of Plant	Capacity (MW)	Designed/Annual Energy(MU)	AFC Allocation (Rs. Cr)	Average Tariff (Rs/Unit)	50% as Capacity charges (Rs. Cr.)	50% as energy charges (Rs. /KWH)
1	Umiam Stage I	36	116.29	13.31	1.16	6.65	0.58
2	Umiam Stage II	20	45.51	7.39	1.64	3.70	0.82
3	Umiam Stage III	60	139.4	22.18	1.61	11.09	0.81
4	Umiam Stage IV	60	207.5	22.18	1.09	11.09	0.54
5	Umtru	11.2	39.01	4.14	1.07	2.07	0.54
6	Sonapani	2	5.5	0.74	1.36	0.37	0.68
	Total	189.2	553.21	69.93	1.28	34.97	0.64

MePGCL shall recover fixed charges on per month basis from MePDCL the beneficiary on the basis of availability of machines in accordance with the above table. Similarly, energy charges shall also be recovered in addition to fixed charges on the basis of energy generation from each plant separately. In case of short fall in AFC in 2014-15 due to less generation or less availability of the machine the Commission shall review the matter in next tariff filing and take the action in accordance with regulations.

As per recent information, the Commission observed that there is shortfall of 100 MU in generation from hydro plant in 2013-14. Therefore, therein a possibility that MePGCL could not get 50% of AFC through energy charges in case their machines were ready to generate in 2013-14. As per regulation the compensation may reach to Rs 5.83 Cr. on account of less generation provided

machines were available. Therefore at this stage without knowing the details of machines' availability in 2013-14, the Commission has decided to allow only 50% of the required amount i.e.Rs.2.91 crores to be allowed as compensation on account of less generation. This amount shall be paid by MePDCL in 12 equal monthly instalments in 2014-15 which shall be covered in their ARR for 2014-15. The Commission, at this stage allowing this amount on provisional basis subject to correction at the time of truing up petition for 2013-14 as and when filed. The details which are based on load flow issued by SLDC on 01.04.2014 are as follows:

Shortfall in generation in 2013-14 and compensation						
Sl. No.	Name of Plant	Designed/Annual Energy(MU)	Actual generation *(2013-14) (MU)	Difference (MU)	50% as energy charges (Rs. /KWH)	Compensation As Per Regulation (Rs. Cr.)
1	Umiam Stage I	116.29	78.77	37.52	0.58	2.18
2	Umiam Stage II	45.51	41.13	4.38	0.82	0.36
3	Umiam Stage III	139.4	133.01	6.39	0.81	0.52
4	Umiam Stage IV	207.5	174.41	33.09	0.54	1.79
5	Umtru	39.01	20.81	18.2	0.54	0.98
6	Sonapani	5.5	5.38	0.12	0.68	0.01
	Total	553.21	453.51	99.7	0.64	5.83

The Commission has determined annual fixed charges of Rs.69.93 crores for six generating stations separately for 2014-15. MePDCL the sole beneficiary of generated energy shall pay fixed charges monthly i.e. 1/12 of annual fixed charges + energy charges for the total energy generated from each plant monthly. With this methodology MePGCL shall get Rs.69.93 crores in 2014-15 as AFC. 50% of it shall be paid as capacity charges to MePGCL provided their machines are available and 50% shall be paid as energy charges provided they generate the total designed energy. This tariff shall be applied from 1st April, 2014 up to 31st March, 2015 or orders.

Compliance Report on the directives given in the tariff order of 2013-14

Direction 1:

Power purchase agreement: The regulation prescribes that there would be a power purchase agreement or commercial agreement between the company and beneficiary company. It will contain all the terms and conditions for purchase of energy and payment thereof. It would also cover the installed capacity and designed energy and the period of supply. The PPA should be in accordance with the tariff regulation notified by the Commission from time to time. Accordingly, the Commission directs the generating company and MePDCL to have a commercial agreement for purchase of energy from MePGCL plants within three months of issue of this order.

Compliance:

MePGCL submitted that a power purchase agreement has already been signed between MePDCL and MePGCL, copy of which has been sent vide their letter dated 25.09.2013.

Direction 2 :

MePGCL shall file a tariff petition for new projects like Leshka and Lakroh after their COD achieved for determination of final tariff.

Compliance:

MePGCL submitted that revise cost estimate of the MLHEP was sent to CEA for vetting the same. Further it is informed that Government of Meghalaya has also form a state level technical committee for scrutiny of Leshka power project, report of which is awaited. The tariff filing shall be made after getting the project cost approved by CEA and others. For Lakroh project MePGCL submitted that it is yet to achieve commercial operation. MePGCL will be filing the petition as soon as the project is completed.

Direction 3:

Regulation prescribes that norms of operation shall be determined for each plant separately by calculating normative annual plant availability factor (NAPAF), auxiliary consumption and transformation losses. This year the Commission is not satisfied with the assumptions taken by the generating company for working out their NAPAF for each plant without any validated supporting information. The Commission directs MePGCL to conduct a study for determining the designed energy, availability, generation, water levels and determine NAPAF based on actual data and submit a report to the Commission with supporting data within six months time.

Compliance:

MePGCL has submitted a detailed report on the computation of NAPAF and designed energy vide their letter dated 25.09.2013. MePGCL has also studied the station wise hourly generation for the last three financial years and the same is reflected in the ARR petition.

Direction 4:

Performance improvement: The Commission directs MePGCL to conduct a bench marking study of its plant with other efficient utilities to explore further scope of improvement in operational efficiency, optimal utilisation of the sources, man power rationalisation including incentive/disincentive schemes. This study should give bench mark for each plant in respect of key parameters including cost and submit a report within six months of this order.

Compliance:

MePGCL submitted a report on step taken on efficiency improvement vide its letter dated 25.09.2013. However, without segregated details of O & M cost for different station MePGCL is unable to conduct bench marking study by comparing the same with the other utilities.

Direction 5:

Renovation and modernisation of existing plant: The Commission directs MePGCL to make comprehensive RMU schemes for efficiency improvement and life extension of old and existing plants and submit the detailed project report to the Commission within a period of six months giving road map for completing these schemes.

Compliance:

MePGCL submitted that a detailed report on R & M on the existing plant for stage II is already submitted to the Commission vide letter dated 25.09.2013.

Direction 6:

Financial statement of accounts: The Commission directs MePGCL to complete their annual accounts for 2012-13 and get it audited as per the statutory requirement so that in the next year ARR determination the Commission is not handicapped for want of audited data.

Compliance:

MePGCL submitted that statements of account for FY 2010-11 for the combined business of MeECL have been placed before the statutory auditor for its audit. Similarly, the statement of accounts for FY 2011-12 for the MeECL is being placed before the audit committee. For MePGCL, the process of trifurcation is under process and the statement of account for FY 2012-13 shall be prepared after the process is over.

Direction 7:

MePGCL shall open a depreciation reserve fund within 30 days of this order wherein the depreciation amount allowed against the existing plant shall be deposited. This fund shall be used for renovation and modernization work.

Compliance:

MePGCL informed that in absence of sufficient fund it is yet to open a separate depreciation reserve fund.

New Directions**Improvement of Performance**

The Commission is concerned about the improvement in the performance of the Corporation so that the generation and the availability of the plants are improved. In order to conduct a bench mark study, the Commission has already directed the Corporation in its order for 2013-14. The Commission reiterate its position and direct the Corporation to conduct a benchmarking study of its plants with other efficient utilities like NHPC, to explore further scope of improvement. The Corporation is further directed to submit an action plan

for implementation of efficiency improvement and manpower rationalisation measures giving target dates for completion of each milestone of proposed plan within six months of issuance of this order.

Allocation of Common costs

It is further directed the Corporation to work out the probable alternatives for rationally allocating the common/indirect expenses in the present context as well as considering future scenarios within a period of three months. The Corporation may also examine the practices being followed in similar utilities in other States as well as Centre Sector utilities like NTPC, NHPC, etc. and submit it a report for the consideration of the Commission within 6 months from issuance of this Order.

Control on Expense

The Commission directs the Corporation to prepare an annual budget for FY 2014-15 for each and every plant and submit the same to the Commission within one month of the issuance of this Order so that expenses are made with in the provision of tariff order and regulations.

The Commission expects from MePGCL to ensure compliances on directives issued by the Commission in timely manner and the efficiency at each level shall improve from the current level and will be at par with the best standards in the sector. Finally the Commission would like to appreciate the response from MePGCL for submitting all required information to the Commission as and when required.

(ANAND KUMAR)
CHAIRMAN, MSERC

RECORD NOTE OF PUBLIC HEARING ON ARR AND TARIFF PETITION FILED BY MEPGCL FOR THE YEAR 2014-15 HELD BY MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION AT 11:00 AM ON 25th FEBRUARY 2014 IN THE MSERC CONFERENCE HALL, LOWER LACHUMIERE, SHILLONG.

Record Note of Public Hearing

01. Chairman, MSERC welcomed all the participants who had come to attend the Public Hearing on the ARR & Tariff Petition filed by MePGCL (Generation) for the FY 2014-15. The Chairman has explained the salient features of the ARR and provisions of the regulation in determining the tariff for ensuing year 2014-15. The Commission explained to the participants that the notices inviting the objections were given in the newspapers. The Commission shall consider the objections with regard to petitions up to 15.03.2014 for consideration in the tariff order. Important issues relating to the petition were explained to the participants. The Commission pointed out that the audit of accounts is not available beyond FY 2009-10. The Commission advised MePGCL and MeECL to get the audit of accounts for FY 2010-11 & 2011-12 immediately so that the proceeding of the current year is completed. Further the Commission advised MeECL to start independent functioning of its subsidiaries so that purpose of reform is completed.
02. Following participants, presented their suggestions which are discussed below:
03. The Byrnihat Industries Association represented by their consultant presented a detailed presentation in the public hearing. First objection they have raised about the non compliance of Company's Law with regard to preparation of statement of accounts for previous year. BIA strongly objected to allowing them expenditure without getting their accounts audited. BIA raised its objection towards the huge expenditure made on Umiam Stage II, RMU and suggested that MePGCL should have taken prior approval by the Commission before spending the huge amount on the renovation and modernization of the unit. BIA also objected to the size of the GFA, equity and return on equity. BIA objected to the proposal of the generating company giving NAPAF for its plant. They suggested that without a detailed study Commission should continue with its practice as done last year. It has also suggested to allow them ROE as done by the Commission for FY 2013-14. BIA made objections on rise in employees cost and suggested the Commission to examine the actual records. Similarly on each component of the ARR, BIA has given its observation and objections.
04. BIA has made an objection that O & M expenses should be decided on normative basis as directed by the Commission in its order for FY 2013-14. On the overall ARR, BIA suggested that the order of the Commission for FY 2013-14 is reasonable and should be continued for future.

05. On the objections raised by BIA, MePGCL responded on each and every issue separately. As regard to completion of the accounts, MePGCL submitted that their accounts for FY 2010-11 & 2011-12 are ready and are being audited by statutory auditor appointed by CAG. They submitted that this work is undertaken on war footing and they will try their best to submit the accounts as soon as possible.
06. MePGCL requested the Commission to consider the return on equity as proposed by them so as to allow GFA as given in the transfer schemes.
07. MePGCL submitted that the employees cost has been increased because of provision of funds for meeting the terminal liability of their employees to be retired in future.
08. The Commission directed BIA to give its feedback on the level of consumption of industries in 2014-15 so that a realistic assumption may be made by the Commission in the ARR. The Commission has also pointed out that the MePDCL's ARR for 2014-15 mentions about the truing up of 2008-09 & 2009-10. However, the treatment of the gap has not been reflected in the ARR for FY 2014-15.

The Hearing ended with a vote of thanks from the Chairman MSERC.

(J.B. Poon)
Secretary
Meghalaya State Electricity Regulatory Commission.

LIST OF PARTICIPANTS IN THE PUBLIC HEARING ON 25.02.2014

- 1.** Representing the Petitioner MePGCL
 1. Shri S.J. Laloo, CE (Gen)
 2. Shri K.N. War, Director HRD
 3. Shri G.S. Mukherjee, Company Secretary
 4. Shri A. Lyngdoh, SE (PM)
 5. Shri L. Shilla, SE (Gen)
 6. Shri P. Sahkhar, SE (RA & FD)
 7. Shri M.S.S. Rawat, Dy. CAO
 8. Shri S. Nongrum, SR. AO
 9. Shri M. Tiwari, (Consultant) Feedback Infra Ltd
 10. Shri M. Rymbai, SE (P & RM)

- 2.** Byrnihat Industries Association/Other industries.
 1. Shri M. Palaniappan
 2. Shri Anand Shankar Roy

**RECORD NOTE OF THE 16TH MEETING OF THE STATE ADVISORY COMMITTEE
HELD AT 11 AM ON 20TH FEBRUARY 2014 AT THE MSERC CONFERENCE HALL AT SHILLONG.**

Present:-

- 1) Shri Anand Kumar, Chairman, Meghalaya State Electricity Regulatory Commission, Shillong.
- 2) Shri. J.B. Poon, Secretary MSERC
- 3) Shri. D.S. Nongbri, Consultant (F & A), MSERC
- 4) Shri. W. Langstang, Director of Commerce and Industries.
- 5) Shri. K. Marbaniang, Chairman Institution of Engineers.
- 6) Shri. Ramesh Bawri, President Meghalaya Confederation of Industries.
- 7) Shri. E. N. Marak.
- 8) Shri. S. K. Lato, Jowai.
- 9) Shri. A. Goswamy, Regional Manager (North East) IEX.
- 10) Shri. K.D. Talukdar, Addl. CE. PHE
- 11) Shri. H.S. Nongkynrih, SE. PHE.
- 12) Shri. Y. K. B. Singh, EE, PHE.

Calling the 16th Meeting of the State Advisory Committee (SAC) to order, the Chairman welcomed the members of Advisory Committee and special invitees present. He gave a brief idea of the ARR for 2014-15 filed by Generating Corporation (MePGCL), Distribution Licensee (MePDCL) and Transmission Licensee (MePTCL). The Chairman has also explained the requirement of Electricity Act, 2003 and Regulations made there under. He has explained the process of tariff filing and the time schedule within which the process has to be completed. He has explained important issues relating with the ARR for FY 2014-15 which have its bearing on the consumer's tariff. Members of the Advisory Committee were briefed that the Commission has already admitted ARR petitions for all three utilities and are under process of finalization after completing the due process. The Chairman explained that the Commission welcome all suggestions with regard to present petition and try to incorporate all suggestions up to 15.03.2014. He explained that there will be a public hearing and the Commission may hold another round of meeting if required so. The Chairman has shown his concern on the present level of losses in the State which have bearing on the tariff of the consumers. It was deliberated in the meeting that the control on the losses is must and the

Commission should not allow the licensee over and above the targets fixed by the Commission in its earlier orders. In this meeting, the Commission has also pointed out that due to decrease in the demand of the industries and their consumption there is a revenue shortfall which is also affecting the amount of cross subsidy to be given to those consumers who are paying below the cost of service. The Director Industries has deliberated on the issue of less industrialization in spite of investor friendly policy of the State. In a detailed reply, the industry department has pointed out three reasons for poor industrialization in the State. (1) Scarcity of land, (2) Irregular power supply and (3) Tariff. Due to shortfall in revenue in the current year, the ARR of the licensees also affected. The shortfall in revenue has an impact on the retail tariff of consumers of the State. The Commission has also shown its concern that the licensees statement of accounts are still unaudited and the only audited accounts at the moment is for FY 2009-10. The Chairman has pointed out that MeECL has informed them that accounts for FY 2010-11 & 2011-12 are completed and are being audited. The Chairman invited suggestions from the participants on the ARR. Members of the SAC raised the following issues:

1. Shri. Ramesh Bawri

He objected to the licensee's proposal of increasing abnormally the fixed tariff of all consumers in the State. This will increase the inefficiency in the system and will affect those consumers who are being given short supply and are affected by load shedding. In this scenario, the licensee will not bother to take the meter reading and start getting a fixed income. Shri Bawri raised his objection on the high capital investment on the renovation and modernization of Umiam Stage II Plant. He requested the Commission to examine the matter and allow the reasonable cost only. He has also raised objections on the amount of generation forecasted for 2014-15 and suggested that the generation made during previous years for example 2012-13 may be considered by the Commission. He has objected to the size of the equity shown in the ARR and claiming unreasonable return on equity. He suggested that grant money cannot be converted into equity and be charged from the consumers of the State. He has made a detailed presentation on the high employees cost shown by all these corporations. He objected that per employees cost in all three corporations should match each other and which is unreasonably high. He requested the Commission to allow them the reasonable cost of employees and direct MeECL to use its existing manpower efficiently without wasting money for new employment.

2. Shri K. Marbaniang

Shri Marbaniang raised the issue of the present level of losses in the distribution system and required MeECL to take action immediately to reduce it. He also emphasized the need of improvement in the present metering system in the State.

3. Shri. Goswami, IEX

Representatives of IEX have raised the issue of non compliance of renewable purchase obligation (RPO) in the State by the licensee, open access consumers and captive power plants. He requested the Commission to look into it and direct them to comply with solar purchase obligation and purchase from other renewable sources.

4. Shri. S.K. Lato

Shri. S. K. Lato raised the objection to abnormal increase of fixed charges and suggested that it should be reasonable.

5. Shri. K.D. Talukdar, PHE

Shri Talukdar suggested that PHE greater shillong is a large consumer of the State and contributing good revenue to MePDCL. He suggested the Commission to allow them interest on advance payment to MePDCL. He has suggested that the tariff of PHE should be reasonable as their business is not commercial and they are getting no profit out of it.

6. Shri. W. Langstang

Shri Langstang explained briefly the hold ups in the process of setting up of new industries in the State and has suggested that the supply to industries must be improved. He explained that a detailed submission has already been made by the industry department in this regard.

Summing-up the discussions, the Chairman placed on record his profound gratitude to the Hon'ble Members and invitees present, for their valuable suggestions and submissions and assured that these would be kept in view, while finalizing the Tariff for the year 2014-15.

(J.B. Poon)
Secretary
MSERC