

STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES

(PART I)

NAME OF SCHEME:		Selim H.E Project - ROR, 2x29 MW
GENERAL INFORMATION		
1	State	Meghalaya
2	Location -	Damsite-Between East & West Jaintia Hills District, near Umsalang village (Right Bank)
(a)	Latitude of Dam	25° 21' 48.99" N
(b)	Longitude of Dam	92° 11' 38.52" E
General layout /Index map may please be furnished		
3	District	East Jaintia Hills District
4	Nearest G&D site	Damsite
5	Catchment Area near G&D site	170.80 Sq.Km
6	Status of availability of G&D site	Established since May 2006.
7	Basin/River	Myntdu
8	Catchment Area (Sq.km)	170.80 Sq.Km
9	Type of Scheme (ROR/Storage/PSS)	ROR scheme
10	Firm Power (MW)	3.17 MW
11	Annual Energy Benefits (GWh)	194.29 MU in 90 % Dependable year
12	Inter State Aspects	Does not arise
13	International Aspects	NIL
14	Defense aspects	No defense installations
15	R & R Aspects	Does not arise
16	Forests area involved	Detail Investigation to be taken up
17	Geological problems anticipated, if any	Sub-surface investigation will be carried out.
18	Accessibility-Nearest Rail head/ Road and distance from the project.	Nearest Rail Head: Guwahati - 193 Km. Nearest Road: 5 Km from Mupyut (PWD Road), West Jaintia Hills District.
19	Upstream scheme, if any -	Nil
20	Downstream scheme, if any. -	Commissioned Leshka-I (3X42 MW), Proposed Leshka-II (3X60 MW). As per the MoEF guidelines, the proposed Suchen HEP, just downstream of Selim HEP, may not be feasible.
II TENTATIVE PROJECT FEATURES		
RESERVOIR		
21	a) FRL	El 1103.50 m
	b) MWL	El 1105.50 m
	c) MDDL	El 1093.50 m
	d) Gross storage at FRL	1.51 M Cum
	e) Capacity at MDDL	0.55 M Cum
	c) Live storage	0.957 M Cum
Dam		
22	a) Type	Concrete gravity
	b) Top elevation of dam -	El 1105.50 m
	c) Height of dam from bed upto FRL	33.50 m
	d) Height of dam from deepest foundation level	35.50 m
	e) Deepest foundation level	El 1070 m
INTAKE		
23	a) Type	Semi Circular with trash Rack
	b) Invert Level	El 1089.50 m
Head Race Tunnel		
24	a) Type	Modified Horse Shoe
	b) Length	4784m
	c) Diameter	3.00 m Φ
	d) Design Discharge	21.74 Cumecs
	e)Max. Design Discharge	19.96 Cumecs
Pressure Shaft		
25	a) Shape	Circular
	b) Length	1233.00m
	c) Internal Diameter	2.00m

26	SURGE SHAFT	
	a) Type	Restricted Orifice
	b) Diameter	15.00 m
	c) Height upto Ground Level	53.00 m
27	POWER HOUSE	
	a) Type	Surface
	b) Size (L X B)	
	i) Machine Hall	40 m x 14 m
	ii) Service/Erection Bay	13 m x 14 m
	iii) Auxiliary Bay	27 m x 14 m
c) Installed Capacity	2 X 29MW	
d) NTWL	713.30 m	
28	Tail Race Tunnel	
	a) Length	50 m
	b) Height	2.50 m
	c) Width	5.70 m
29	TURBINE	
	a) Type of Turbine	FRANCIS
	b) Gross Head	390.20 m
	c) Rated net Head	369.13 m
	d) Maximum Design Head	381.40 m
	e) Minimum Design Head	344.60 m

Please give brief details about the HE Scheme and enclose a layout map.

Brief details on Selim H.E. Project:

The Selim Hydro Electric Project envisages construction of concrete gravity dam of about 33.50m high from the deepest river bed level across river Myntdu to provide a live storage of 0.957 M Cum with FRL at El 1103.50 m and MDDL at El 1093.50 m, 4.784 Km long and 3.00 m dia circular Head Race Tunnel terminating in a 53.00 m high 15.00 m dia surge shaft, 2.30 m dia orifice, a surface power house having an installation of 2(two) nos of Francis type generating units of 29 MW each operating under a rated head of 369.13 m.

It is the uppermost hydro electric project in a series of the proposed hydel projects on the Myntdu river. It envisages utilization of the water of the river Myntdu for power generation on a Run of the River (ROR) type development, harnessing a gross head of about 390.20 m. The project with a proposed installation of 58MW (2X29MW) will provide Annual Energy Benefit of 194.29 MU in a 90% dependable year.


(Signature)

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**STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES
(PART- II)**

Quarter Ending December, 2024

NAME OF SCHEME SURVEY & INVESTIGATION		Selim HE Project (2x29 MW)	
1	Date of commencement of S&I	2006-2007(Hydrological observation)	
2	Date of Sanction	NEC/IRGN/MEG/2K/3/821 Dt.25.03.2008	
3	Likely date of completion of S& I	2026	
4	Likely date of completion of DPR	2026	
5	Estimated cost of S&I/DPR and Phasing of Expenditure	Rs. 450.00 Lakh	
	Revised Estimate Cost	Rs. 792.00 Lakh	
6	Agency of Investigation (in case of Pvt. Agency, Name, Designation, Complete Address, telephone no. & Fax No. is to be indicated).	Meghalaya Power Generation Corporation Limited.	
7	Details of Progress @	Quantity Done	Quantity to be done
		71%	29%
a	Tracer Path & Approaches	50%	
b	Roads	80%	
c	Construction of Temp. Building	Completed	
d	Purchase of Special T & P	To be taken up	
e	Topographic Survey/Investigation	Completed	
f	Surface & Sub-surface Investigation	80%	
g	Const. Material (CA&FA)	100%	
h	Hydrological observations	Data collection since June 2006	
i	Meteorological	Data collected since June 2006	
j	Environmental Survey	10%	
k	Programme of works during the year	<p>Observation, compilation and computation of hydrometeorological data of the project are persistent activities.</p> <p>I. January - March, 2024 Preparing estimate for Repairing of Temporary Barrack and Calibration of rain gauge instruments at different rainfall stations.</p> <p>II. April - June, 2024 Monitoring the Repairing of the Temporary Barrack, Monitoring the Exploratory Drilling and Water Percolation Test and logging of Cores sample of BH - 6 (Along the WCS), BH - 8 (Surge Shaft), BH - 10, BH - 11 and BH - 12 (Right Bank of Dam Axis). Monitoring the Discharge and Rainfall data collection.</p> <p>III. July - September, 2024 Monitoring the Exploratory Drilling and Logging of cores sample of BH - 9 (Centre of Power House), BH - 13, 14, 15, 16, 17 (Corner and Back Slope of Power House). Collecting silt sample for laboratory test, collecting of water samples for laboratory test from G&D site, Monitoring Discharge and Rainfall observations.</p> <p>IV. October - December, 2024 Monitoring the Exploratory Drilling and Logging of cores sample of BH - 4 (Intake), BH - 5 (Bucket Area), Construction of Kutchra road to Dam axis, Exploratory Drift on both the left and right bank of Dam axis, in - situ test, logging of cores sample along the WCS and Power House, Dam module studies by CWPRS, Pune, Reservoir Seismic sensitivity test, Seismic refraction survey, Electro-resistivity test at Power House and Switchyard, Preparation of general layout of the project</p>	
l	Overall progress of works	71%	
m	Geological and foundation Investigation	In progress	
	@ In case it is not possible to give tentative quantity it should be given as percentage Financial Progress.		
8	Estimated cost of Survey & Investigation with price level year		
9	Capital Expenditure incurred upto December 2024	Rs 353.74 Lakh	
10	Budget estimate		
11	Revised Estimate		

BOTTLE NECKS, IF ANY

- 1.Limited working days (approx) 6 months in a year.
- 2.Harsh topography and remoteness of the project area
- 3.Irregular availability of the official expert of the concerned Government agencies/department who are to carry out the study /information of the respective aspects of the Detailed Project Report(DPR) of the project.
- 4.Land holding system-The land of the project areas are privately owned and issuing of NOC for S&I of the project takes a considerable amount of time.
- 5.Scarcity of local firms/contractors capable of carrying out the S&I works such as topographical survey and exploratory drilling of the project.
- 6.The official formalities such as trading license and labour licenses etc. are some of the reasons where the agencies/firms from outside the state are reluctant to take up the S&I works in Meghalaya.
- 7.Compliances to the observation of the concerned Directorates/Divisions/organisations,etc. under CEA by the expert agencies/departments are received after much delay.


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