

**STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES
(PART I)**

NAME OF SCHEME:		Selim H.E Project - ROR, 2x48 MW (Latest Revised)
GENERAL INFORMATION		
1	State	Meghalaya
2	Location -	Damsite-Between East & West Jaintia Hills District, near Umsalang village
(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)	2.39 MW
11	Annual Energy Benefits (GWh)	315.67MU 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 PROJECT FEATURES		
RESERVOIR		
21	a) FRL	El 1103.50 m
	b) MWL	El 1103.50 m
	c) MDDL	El 1093.50 m
	d) Gross storage at FRL	1.505 M Cum
	e) Capacity at MDDL	0.548 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 above the river bed level	34.50 m
	d) Deepest foundation level	El 1069 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	4786m
	c) Diameter	3.40 m Φ
	d) Design Discharge	28 Cumecs
Pressure Shaft		
25	a) Shape	Circular
	b) Length	1233.00m
	c) Internal Diameter	2.00m
SURGE SHAFT		
26	a) Type	Restricted Orifice
	b) Diameter	18.00 m
	c) Top elevation	1118.96 m
	d) Bottom elevation	1075.00 m
	e) Height	43.96 m
	f) Diameter of orifice	2.30 m
	g) Gate	1 No (4.00 m x5.00 m)

POWER HOUSE	
a) Type	Surface
b) Size (LXB)	
27 i) Machine Hall	30 m x 15 m
ii) Service/Erection Bay	11 m x 15 m
iii) Auxiliary Bay	30 m x 6 m
iv) Maximum height from turbine floor	10.00 m
c) Installed Capacity	2X 48 MW
d) NTWL	724.37 m
TURBINE	
28 a) Type of Turbine	PELTON
b) Maximum Gross Head	387.50 m
c) Minimum Gross Head	377.50 m
d) Rated net Head	345.417 m

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

Brief details on Selim H.E. Project:

The proposed damsite of Selim H.E. Project is located between East and West Jaintia Hills District of Meghalaya. It is the uppermost hydro electric project in a series of 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 387.50 m. The project with a proposed installation of 96 MW (2X48MW).

The diversion site is located at Latitude 25° 21' 48.99" N, and Longitude 92° 11' 38.52" E. The damsite is approachable from Mupyt village on Shillong – Dawki highway at a distance of 20 kms from Jowai and 85 Km from Shillong. The nearest rail head and airport are located at Guwahati and Umroi respectively.

The Selim HE project envisages construction of 34.50 m high concrete gravity dam 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, 4.786 Km long and 3.40 m dia circular Head Race Tunnel terminating in a 43.96 m high 18.00 m dia surge shaft, 2.30 m dia orifice, a surface power house having an installation of 2(two) nos of Pelton type generating units of 48 MW each operating under a rated head of 345.417 m.

(Signature)

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Designation: Executive Engineer (C)
Telephone No.....Code No

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

Quarter Ending September,2020

NAME OF SCHEME SURVEY & INVESTIGATION		Selim HE Project (2x48 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	2022	
4	Likely date of completion of DPR	2022	
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
		55%	45%
a	Tracer Path & Approaches	50%	
b	Roads	20%	
c	Construction of Temp. Building	Completed	
d	Purchase of Special T &P	To be taken up	
e	Topographic Survey/Investigation	In progress	
f	Surface & Sub-surface Investigation	55%	
g	Const. Material (CA&FA)	50%	
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, 2020 Observing HFL at Dam site and Power house, collecting of water samples for laboratory test from G&D site, Drilling along Dam axis (river bed, intake bucket area and top left abutment), making tracepath/footpath for site visit of Officials from Forest and Fishery Department, Govt. of Meghalaya, checking of rain gauge instruments at different rainfall stations, land acquisition survey of the submergence area.</p> <p>II. April - June, 2020 Logging of cores sample of Dam site Area, Drilling along the WCS and Power House, preparing estimate for exploratory drift on both right and left bank of the dam, Collecting silt sample for laboratory test, Preparing detail survey & estimate for Construction of approach kutch road to Dam Axis from hill top.</p> <p>III. July - September, 2020 Collecting silt sample for laboratory test, collecting of water samples for laboratory test from G&D site,Scrutiny of data and preparation of dam break studies report by CWC (Foundation Engineering Directorate,Delhi),Preparation of dam break Management Plan, Construction materials survey and laboratory test of materials.</p> <p>IV. October - December, 2020 Detail survey of road from Power House to Hill Top, Construction of Kutch 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	55%	
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 September 2020	Rs 272.69 Lakh	
10	Budget estimate		
11	Revised Estimate		
<u>BOTTLE NECKS, IF ANY</u>			
Limited working days (approx. 6(six) months in a year), Difficult Terrain and remoteness of the project area, Shortage of Manpower, irregular allocation/release of fund, Inaccuracy of toposheet covering the project, account to revision of project components result in delay of S&I works.			

(Signature)

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