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

	NAME OF SCHEME:	Nongkohlait H.E Project- ROR, 2x31 MW
	GENERAL INFORMATION	
1	State	Meghalaya
2	Location -	South West Khasi Hills Dist.Meghalaya
(a)	Latitude of Dam	25° 20'8.49 " N } at damsite
(b)	Longitude of Dam	91° 32'39.91 "E }
	General layout /Index map may please be furnished	
3	District	South West Khasi Hills District
4	Nearest G&D site	Damsite
5	Catchment Area near G&D site	233.00 Sq.Km
6	Status of availability of G&D site	Established since April 2006.
7	Basin/River	Umngi
8	Catchment Area (Sq.km)	233.00 Sq.Km
9	Type of Scheme (ROR/Storage/PSS)	ROR scheme
10	Firm Power (MW)	Detail study to be taken up
11	Annual Energy Benefits (GWh)	276.35 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 in progress.
18	Accessibility-Nearest Rail head/	Nearest Rail Head: Guwahati - 170 Km.
19	Road and distance from the project.	Nearest Road: Damsite: Shillong-Mawsynram road, Power House:Phlangkynshi village
20	Upstream scheme, if any -	Umngi HEP (2x31 MW)
21	Downstream scheme, if any. -	Nongnam HEP (2x15MW),Mawput(2x19MW)
II	**PROJECT FEATURES**	
22	**RESERVOIR**	
	a) Full Reservoir Level (FRL)	El 830.00 m
	b) Maximum Water Level (MWL)	El 830.00 m
	c)Minimum Drawdown Level (MDDL)	El 780.00 m
	d) Gross Storage at FRL	6.28 M Cum
	e)Live Storage	4.19 M Cum
	f)Bed level	El 750.00 m
23	**Dam**	
	a) Type	Concrete gravity
	b) Top elevation of dam -	EL. 832.00 m
	c) Height of dam above the river bed level	80.00 m
	d)Length of dam at top	164.00 m (NSL to NSL)
	e) River bed level -	El. 750.00 m
24	**Head Race Tunnel**	
	a) Type	Modified Horse Shoe
	b) Length	5680.00 m
	c) Diameter	3.30 m Φ
	d) Design Discharge	17.34 Cumecs

25	**SURGE SHAFT**	
	a) Number	1
	b) Diameter	10.00 m
	c) Length	80.00 m
26	**PENSTOCK**	
	a) Number	1 (one)
	b) Diameter	2.20 m
	c) Length	965.00 m
27	**POWER HOUSE**	
	a) Type	Surface
	b) Installed Capacity	2X31 MW
	c) Number of Unit	2
	d) Type of turbine	Pelton Turbine
	e) Gross Head	440.00 m
	f) Net Head	396.00 m
	g) J.N.L	390.00 m

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

Brief details on Nongkohlait H.E.Project:

The Nongkohlait HE project envisages construction of 80 m high concrete gravity dam across Umngi river with FRL at El 830 m, 5.68 Km long and 3.30 m dia D-shaped head race tunnel terminating in a surge shaft, 80 m high and 10 m dia surge shaft, 965 m long, 2.20 m dia penstock, an underground power house having an installation of 2 vertical axis Pelton driven generating units of 31 MW each operating under rated head of 396 m. The project has been proposed to develop as a run- of –the river type scheme harnessing a gross head of about 440.00m and utilizing regulated releases from upstream project.

The project with a proposed installation of 62 (2X31 MW) would afford an annual energy generation of 276.35 Gwh considering upstream Umngi HE Project and 332.87 Gwh (PFR) considering scheme based on natural inflow without Umngi HE Project in a 90% dependable year.

Signature

Name:Shri. Q. Marbaniang

Designation:Executive Engineer (C)

Telephone No.....Code No

STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES
(PART- II)
Quarter Ending December,2023

	NAME OF SCHEME SURVEY & INVESTIGATION	Nongkohlait HE Project (2x31 MW)	
1	Date of commencement of S&I	2006(Hydrological observation)	
2	Date of Sanction	NEC/IRGN/MEG/2K/8 Dt.05.03.2014	
3	Likely date of completion of S& I	-	
4	Likely date of completion of DPR	-	
5	Estimated cost of S&I/DPR and Phasing of	Rs. 502.00 Lakh	
6	Agency of Investigation (in case of Pvt.Agency,	Meghalaya Power Generation Corporation Limited.	
7	**Details of Progress @**	Quantity Done	Quantity to be done
		30%	70%
a	Tracer Path & Approaches	12%	
b	Roads	To be taken up	
c	Construction of Temp. Building	Completed	
d	Purchase of Special T &P	To be initiated	
e	Topographic Survey/Investigation	70%	
f	Const. Material (CA&FA)	In progress	
g	Hydrological observations	Data collection since June 2006	
h	Meteorological	Data collected since June 2006	
i	Environmental Survey	To be taken up	
j	Programme of works during the year	Observation,monitoring, compilation and computation of hydrometeorological data of the project are persistent activities. **Jan to March,203** :- Observation of Hydrometeorological data,monitoring the existing discharge site,supervising and checking the topographical survey points or marks of the project and checking the instruments of recording and non-recording raingauge at every stations. **April to June, 2023** :Taking cross section of discharge,detail survey for location the surge shaft and Power House Area,collecting silt sample,monitoring,compilation and computation of hydrometeorological data,observing HFL during moonsoon. **July to Sept, 2023** :- Hydrological studies,monitoring and collecting of Hydrometeorolgical data and Geological mapping of damsite. **Oct to Dec,2023**:-Setting up BM pillars along the periphery of reservoir,collecting,monitoring,compilation and computation of hydrometeorological data,setting up BM pillars along periphery of rservoir and Geological mapping along WCS.	
k	Overall progress of works	30%	
l	Geological and foundation Investigation	Geological Mapping initiated	
	@ 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 2023	Rs 101.24Lakh	
10	Budget estimate		
11	Revised Estimate		

	BOTTLLE 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 drillingof 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.Covid -19 may be attributed to the matter.

(Signature)
Name:Shri. Q. Marbaniang
Designation:Executive Engineer (C)
Telephone No.....Code No