

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

<b>NAME OF SCHEME:</b>		<b>Nongkohlait I</b>
<b>GENERAL INFORMATION</b>		
1	State	Meghalaya
2	Location -	South West Khasi Hills Dist
(a)	Latitude of Dam	25° 20' 8.49 " N } at dar 91° 32' 39.91 "E }
(b)	Longitude of Dam	
<b>General layout /Index map may please be furnished</b>		
3	District	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 20
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)	To be taken up
11	Annual Energy Benefits (GWh)	276.35 MU in 90 % Dep
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
17	Geological problems anticipated, if any	Sub-surface investigation
18	Accessibility-Nearest Rail head/	Nearest Rail Head: Guwa
	Road and distance from the project.	Nearest Road:
19	Upstream scheme, if any -	Rangmaw HEP (3x32.5M
20	Downstream scheme, if any. -	Nongnam HEP (2x15MW
<b>II PROJECT FEATURES</b>		
<b>RESERVOIR</b>		
21	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
<b>Dam</b>		
22	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
<b>Head Race Tunnel</b>		
23	a) Type	Modified Horse Shoe
	b) Length	5680.00 m
	c) Diameter	3.30 m Φ
	d) Design Discharge	17.34 Cumecs
<b>SURGE SHAFT</b>		

24	a) Number	1
	b) Diameter	10.00 m
	c) Length	80.00 m
<b>PENSTOCK</b>		
25	a) Number	1 (one)
	b) Diameter	2.20 m
	c) Length	965.00 m
<b>POWER HOUSE</b>		
26	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 la

**Brief details on Nongkohlait H.E.Project:**

The dam site of Nongkohlait H.E. Project Dam is located in the Khasi Hills Districts, other components of the project fall in South West Khasi Hills District. The project envisages utilization of the waters of the Umngi, for power generation on a run-of-river scheme with a gross head of about 440.00m and utilizing regulated releases from upstream projects. The project of 62 (2X31 MW) would afford an annual energy generation of 276.35 Gwh considering up to 332.87 Gwh (PFR) considering scheme based on natural inflow without Umngi HE Project for one year. The levelled tariff from the project at present cost would be Rs.3.88/KWh considering up to Rs.1.72/KWh without considering Umngi HE Project on upstream.

Based on the optimisation study of Umngi Basin the diversion site is located at a distance of 1.63 km from Umnangrim village on Shillong – Mawsynram road, which is about 50 kms from Shillong. The project is located at Guwahati. An airport is also functioning at Umroi, Ri Bhoi Districts of Meghalaya. The project envisages construction of 80 m high concrete gravity dam, with FRL at El 830 m, 5. shaped head race tunnel terminating in a surge shaft, 80 m high and 10 m dia surge shaft, 96 m underground power house having an installation of 2 vertical axis Pelton driven generating up to 276.35 Gwh under rated head of 396 m. Exploration of alternative surface Power House is in progress.

Signature)

Name:Er. Q. Marbaniang

Designation:Executive En

Telephone No.....

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

Quarter Ending June ,2019

<b>NAME OF SCHEME SURVEY &amp; INVESTIGATION</b>	Nongkohlait HE Project
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1	Date of commencement of S&I	2006(Hydrological observ
2	Date of Sanction	NEC/IRGN/MEG/2K/8 Dt.
3	Likely date of completion of S& I	2021
4	Likely date of completion of DPR	2022
5	Estimated cost of S&I/DPR and Phasing of Expenditure	Rs. 502.00 Lakh
6	Agency of Investigation (in case of Pvt.Agency, Name,	Meghalaya Power Genera
7	<b>Details of Progress @</b>	Quantity Done
		25%
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	45%
f	Const. Material (CA&FA)	In progress
g	Hydrological observations	Data collection since June
h	Meteorological	Data collected since June
i	Environmental Survey	To be taken up
j	Programme of works during the year	<p>Observation,monitoring, c hydrometeorological data o activities.</p> <p><b>Jan to April</b> :-To select t monitoring the existing di computation of Hydromet guage at every station, Su survey of a project and pr drawings.</p> <p><b>May to December</b>:- Mor hydrometeorological data,c season ,preparing estimat rainfall and discharge data with Umngi HEP,water a computation of hydromet mapping of damsite .</p>
k	Overall progress of works	25%
1	Geological and foundation Investigation	Geological Mapping initiate
	@ In case it is not possible to give tentative quantity it should be given as percentage I	
8	Estimated cost of Survey & Investigation with price level year	
9	Capital Expenditure incurred upto June 2019	Rs 51.89 Lakh
10	Budget estimate	
11	Revised Estimate	
<b><u>BOTTLE NECKS, IF ANY</u></b>		
<p>Limited working days (approx. 6(six) months in a year), Difficult Terrain and remote of Manpower, irregular allocation/release of fund, Inaccuracy of toposheet covering th project components result in delay of S&amp;I works.</p>		

(Signature)

Name:Shri. Q. Marbaniar

Designation:Executive En

Telephone No.....







Code No