

STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES		
(PART I)		
NAME OF SCHEME Nongkohlait HE Project /ROR 120 (MW)		
GENERAL INFORMATION		
1	State	Meghalaya
2	Location -	Dam-Between East and South West Khasi Hills District, other components fall in South West Khasi Hills District.
a	Latitude of Dam	25° 20'23 " N,
b	Longitude of Dam	92° 32'18 " E,
General layout /Index map may please be furnished		
3	District	East & South West Khasi Hills District
4	Nearest G&D site	Damsite
5	Catchment Area near G&D site	229.00 Sq.Km
6	Status of availability of G&D site	Established since April, 2006, 200m upstream of Dam Axis.
7	Basin/River	Umngi
8	Catchment Area (Sq.km)	229.00 Sq.Km
9	Type of Scheme (ROR/Storage/PSS)	ROR scheme
10	Firm Power (MW)	a) with U/S Umngi 17.43 MW.
		b) Without U/S Umngi 3.32 MW
11	Annual Energy Benefits (GWh)	a) with U/S Umngi 385.24 Gwh.
		b) Without U/S Umngi 332.87 Gwh.
12	Inter State Aspects	Does not arise
13	International Aspects	do
14	Defense aspects	do
15	R&R Aspects	do
16	Forests area involved	Detail Investigation to be taken up
17	Geological problems anticipated, if any	Sub-surface investigation is to be carried out.
18	Accessibility-Nearest Rail head/	Nearest Rail Head: Guwahati - 158 Km via Shillong.
	Road and distance from the project.	Nearest Road:
19	Upstream scheme, if any -	Rangmaw HEP (65MW), Umngi (storage)HEP (2X27 MW)
20	Downstream scheme, if any. -	Nongnam HEP (50 MW), Mowpot HEP (21 MW)
II PROJECT FEATURES		
21	Type of Diversion Structure/Tunnel	
	a) FRL (m)	880 m
	b) MDDL (m)	871 m
	c) Live/storage (Mcum)	0.46 M Cum
22	Head Race Tunnel	
	a) Type	D- Shaped Tunnel
	b) Length	5.32 Km
	c) Diameter	3.50 m Φ
23	Power House	
	a) Type	Underground
	b) No. of units	2 units (2X60 MW)
		Rated Head=463.00 m

24	Tail Race	
	a) Type	D- Shaped Tunnel
	b) Length (m)	1.29 Km
	c) Size	4.50 m
	d) TWL (m)	391 m

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

Brief details on Nongkohlait H.E.Project:

Nongkohlait H.E. Project Dam is located between East and South West Khasi Hills District, other components fall in South West Khasi Hills District of Meghalaya envisages utilization of the waters of the Umngi, for power generation on a run-of-the-river type development, harness a gross head of about 490m and utilizing regulated releases from upstream projects. The project with a proposed installation of 120 MW (2X60MW) would afford an annual energy generation of 385.24 Gwh considering upstream Umngi HE Project and 332.87 considering scheme based on natural inflow without Umngi HE Project upstream, in a 90% dependable year. The levelled tariff from the project at present cost would be Rs.3.88/KWh considering upstream Umngi HE Project and Rs.1.72/KWh without considering Umngi HE Project on upstream.

The diversion site is located at Latitude 25020'23" N and Longitude 91032'18" E. The damsite is approachable from Umnangrim village on shilling – Mawsynram road, which is about 50 kms from Shillong. The nearest rail head and airport are located at Guwahati. A small airport is also functioning at Shillong. The Nongkohlait HE project envisages construction of 43 m high concrete gravity dam above the deepest foundation level across river umngi to provide a live storage of 0.46 m cum with FRL at 880 m and MDDL at 871 m, 5.32 Km long and 3.5 m dia D-shaped head race tunnel terminating in a surge shaft, 57 m high 10 m dia surge shaft, 655 m long, 2.70 m dia penstock, an underground power house having an installation of 2 vertical axis Pelton driven generating units of 60 MW each operating under a rated head of 463 m and 923 m long tail race tunnel to carry the power house releases back to the river.

(Signature)

Name: Shri. Q. Marbaniang

Designation: Executive Engineer (C)

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STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES

(PART- II)

Quarter Ending June, 2017

NAME OF SCHEME SURVEY & INVESTIGATION		Nongkohlait HE Project 2x40 (MW)	
1	Date of commencement of S&I	2009 (Hydrological observation)	
2	Date of Sanction	NEC/IRGN/MEG/2K/8 Dt.05.03.2014	
3	Likely date of completion of S& I	2018	
4	Likely date of completion of DPR	2019	
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
		25%	75%
a	Tracer Path & Approaches	12% completed	
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	10%	
f	Const. Material (Survey/Testing)	40%	
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	<p>Observation, monitor, compilation and computation of hydrometeorological data of the project are persistent activities.</p> <p>March to April :- To select the alternative discharge site or monitoring the existing discharge site, Installation of wind vane, Pan evaporimeter and recording rain gauge, supervising the Topographical Survey of the Project, Improvement of footpath from hilltop (wahtraw) to G&D site, Taking cross section of discharge site, checking the instrument of non recording rain gauge and recording rain gauge at every station.</p> <p>June to July:- observing HFL during rainy season hourly, preparing of estimate for different works, collerating the discharge data of Nongkohlait with Umngi HEP.</p> <p>August to September:- cross check the level from discharge site to dam site and up to TRT and maintaining the pillars of every permanent benchmark of the project, water availability studies of nongkohlait HEP, preparation of the general maps.</p> <p>October to December:- Preparation of X-section, L-section of Dam, WCS etc, setting of BM pillars along the periphery of reservior, Geological mapping of Damsite.</p>
k	Overall progress of works	25%
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 March 2017	Rs.36.51 Lakh
10	Capital Expenditure incurred upto June 2017	Rs.37.93 Lakh
11	Capital Expenditure incurred upto September 2017	Rs.42.22 Lakh
12	Budget estimate	
13	Revised Estimate 2017-18	
14	Budget Estimate 2017-18	
BOTTLE NECKS, IF ANY		
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)

Name:Er. Q. Marbaniang

Designation:Executive Engineer (C)

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