

STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES		
(PART I)		
NAME OF SCHEME Nongkohlait HE Project 2X31 (MW)		
I 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° 20'20.7 " N,
b	Longitude of Dam	92° 32'50 " 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	
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)	233 Sq.Km
9	Type of Scheme (ROR/Storage/PSS)	
10	Firm Power (MW)	
11	Annual Energy Benefits (GWh)	276.35 MkWH
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/ Road and distance from the project.	Nearest Rail Head: Guwahati - 158 Km via Shillong. 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 RESERVOIR		
a)	FRL/MWL	830.00 m
b)	Bed Level	750.00 m
c)	Gross Storage	6.28 MCM
DAM		
a)	Type	Concrete Gravity
b)	River Bed Level	750.00 m
c)	Top Level of Dam	832.00 m
d)	Height of the Dam	80.00 m
HEAD RACE TUNNEL		
a)	Number	1
b)	Shape	Modified Horse Shoes
c)	Length	5680.00 m
d)	Diameter	3.30 m
e)	Design Discharge	17.34 Cumecs
f)	Maximum Discharge	20.00 Cumecs
SURGE SHAFT		
a)	Number	1
b)	Diameter	10.00 m
c)	Length	80.00 m

PENSTOCK	
a) Number	1 (one)
b) Diameter	2.20 m
c) Length	965.00 m
POWER HOUSE	
a) Type	Surface
b) Installed Capacity	2X31 MW
c) Number of Unit	2
d) Type of turbine	Pelton
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:	
<p>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 62 (2X31 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 levellised 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.</p> <p>The diversion site is located at Latitude 25'20'20" N and Longitude 91'32'50" E. The damsite is approachable from Umnangrim village on Shillong – 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 80 m high concrete gravity dam, with FRL at 830 m, 5.63 Km long and 3.30 m dia D-shaped head race tunnel terminating in a surge shaft, 80 m high 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.</p>	

(Signature)

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STATUS OF SURVEY & INVESTIGATION OF HE SCHEMES			
(PART- II)			
Quarter Ending June, 2018			
NAME OF SCHEME SURVEY & INVESTIGATION		Nongkohlait HE Project 2x31 (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	2019	
4	Likely date of completion of DPR	2020	
5	Estimated cost of S&I/DPR and Phasing of Expenditure	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		
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 (Survey/Testing)	to be taken up	
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>Jan to April :-To select the alternative discharge site or monitoring the existing discharge site, Installation of wind vane, Pan evaporimeter and recording rain guage, supervising the Topographical Survey of the Project, Taking cross section of discharge site, checking the instrument of non recording rain guage and recording rain guage at every station, preparation of estimate and drawing.</p> <p>May to December:- Collecting silt sample, observing HFL during rainy season hourly, preparing of estimate for different works, collerating the discharge data of Nongkohlait with Umngi HEP. Water availability studies, supervising and monitoring the topographical Survey, setting of BM pillars along the periphery of reservoir, 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 December 2017	Rs. 44.48 Lakh	
10	Capital Expenditure incurred upto March 2018	Rs. 47.78 Lakh	
11	Capital Expenditure incurred upto June 2018	Rs. 48.58 Lakh	
12	Budget estimate		
13	Revised Estimate		
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)

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