

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

NAME OF SCHEME:		Mawblei H.E Pro
GENERAL INFORMATION		
1	State	Meghalaya
2	Location -	Damsite- West Khasi Hil village
(a)	Latitude of Dam	25° 31'36.96 '' N
(b)	Longitude of Dam	91° 02' 14.40 '' E
General layout /Index map may please be furnished		
3	District	West Khasi Hills District
4	Nearest G&D site	Damsite
5	Catchment Area near G&D site	218.00 Sq.Km
6	Status of availability of G&D site	Established since May 200
7	Basin/River	Wahblei
8	Catchment Area (Sq.km)	218.00 Sq.Km
9	Type of Scheme (ROR/Storage/PSS)	Storage scheme
10	Firm Power (MW)	15.75 MW
11	Annual Energy Benefits (GWh)	277.08 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/ Road and distance from the project.	Nearest Rail Head: Guwa Nearest Road: 10 Km fro District.
19	Upstream scheme, if any -	Nil
20	Downstream scheme, if any. -	Kynshi Stage -II HEP.
HYDROLOGY		
21	a) Catchment area at dam site	218.00 Sq Km
	b) Average annual runoff	536.17 M Cum
	c) 90% dependable annual runoff	483.52 M Cum
	d) 50% dependable annual runoff	542.57 M Cum
II PROJECT FEATURES		
RESERVOIR		
22	a) Full Reservoir Level (FRL)	El 762.00 m
	b) Maximum Water Level (MWL)	El 762.00 m
	c) Minimum Drawdown Level (MDDL)	El 750.80 m
	d) Gross Storage at FRL	34.23 M Cum
	e) Live Storage	20.61 M Cum
	f) Area under submergence at FRL	2.20 Sq Km
	g) Distance of the upstream most FRL from Dam site	
	h) Arial distance	4.31 Km
	i) Distance along the river	5.98 Km
DIVERSION TUNNEL		

23	a)Number	1 No.
	b)Size	2.40 m Φ
	c)Length	250.00 m
	d)Diversion discharge (assumed)	71.51 Cumecs
Dam		
24	a) Type	Concrete gravity
	b) Top elevation of dam -	EL. 764.00 m
	c) Height of dam above the river bed level	36.37 m
	d)Length of dam at top	253.00 m (upto NSL)
	e) River bed level -	El. 727.63 m
SPILLWAY		
25	a)Design flood (PMF)	3253.59 Cumecs
	b)Type	Ogee
	c)Crest Elevation	El 743.80 m
	d)Number of bays	3
	e)Size of radial gates	18.20 m x 8.60 m
	f)Length of Spillway	82.60 m
	g)Energy dissipation	Ski-Jump Bucket
INTAKE		
26	a)Invert level	El 744.00 m
	b)Number	1
	c)Fixed wheel vertical lift gate	3.00 m x 3.40 m
	d)Trash rack	4 of 12 m x 4.70 m
Head Race Tunnel		
27	a) Type	Modified Horse Shoe
	b) Length	3.68 km
	c) Diameter	3.00 m Φ
	d) Design Discharge	23.13 Cumecs
Pressure Shaft		
28	a)Number	1(Bifurcated into 2 of 1.6 m
	b) Length	2915.00m
	c)Internal Diameter	2.25 m Φ
SURGE SHAFT		
29	a) Type	Restricted Orifice
	b) Diameter	10.00 m Φ
	e) Height	40 m
	f) Diameter of orifice	2.50 m Φ
POWER HOUSE		
30	a)Type	Surface
	b)Installed capacity	76 MW
	c)Number of Units	2 of 38 MW
	d)Type of turbine	Francis turbine
	e)C.L of turbine	El 379.00 m
	f)Rated Head	367.34 m
	g)Transformer Cavern	55 m x 12 m x 43.30 m
CHANNEL		
31	a)Size	7.50 m x 2.50 m
	b)Length	60.00 m

	c)Design Discharge	38.79 Cumecs
32	SWITCHYARD	Size Gas Insulated Switchy transformation/s in Transl
	POWER GENERATION	
33	a)Installed Capacity	76 MW (2 x 38 MW)
	b)Annual Energy Generation in 90% dependable Year	277.08 MU
	c)Energy 50% dependable year	322.20 MU

Please give brief details about the HE Scheme and enclose a la

Brief details on Mawblei H.E.Project:

Mawblei H.E.Project, proposed to be located in Mawshynrut C & R D Block Meghalaya, is a storage type development which envisages construction of a concrete gravit on river Wah Blei, a tributary of river Kynshi, where the river bed is about El. 727.63 m to M Cum between the FRL of 762.00m and the MDDL of El 750.80 m, water from the re diverted to the Surface power house through a 3.68 m long modified horse shoe shaped h and a 2.915 Km long pressure shaft of 2.25 m dia. bifurcating into 1.6 m dia. for power gen have an installation of 2 units of 38 MW each operating under weighted average gross head m). The project is proposed to provide annual design energy generation of 227.08MU i salient features given for Mawblei HEP are tentative.

The detailed Topographical Survey and Geological mapping along the Alter the Proposed Water Conductor System (WCS) have been carried out and based on the feat Potential Study have also been prepared wherein the install capacity of the project is about 7 Report along the Alternative -III of the WCS 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

	NAME OF SCHEME SURVEY & INVESTIGATION	Mawblei HE Project 2x
1	Date of commencement of S&I	2006-2007(Hydrological
2	Date of Sanction	NEC/IRGN/MEG/2K/5/4
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. 472.00 Lakh
	Revised Estimate Cost	Rs. 892.00 Lakh
6	Agency of Investigation (in case of Pvt.Agency, Name,	Meghalaya Power Genera
7	Details of Progress @	Quantity Done
		75%

a	Tracer Path & Approaches	Trace Path completed
b	Roads	In Progress
c	Construction of Temp. Building	Completed
d	Purchase of Special T &P	To be taken up
e	Topographic Survey/Investigation	100%
f	Const. Material (CA&FA)	In progress
g	Hydrological observations	Data collection since June
h	Meteorological	Data collected since June
i	Environmental Survey	5%
j	Programme of works during the year	<p>Observation, compilation hydrometeorological data of activities.</p> <p>I. January - March, 2019 Preparation of revised budget of 2019-20,taking cross section hydrological study, check instruments,compilation and hydrometeorological data of both banks of dam axis</p> <p>II. April - June, 2019 Seismic study to be submitted seismic design Parameter(Delhi,Estimation of tentative material,Physical&Chemical alignment survey and details and reports,Dam break study for river survey downstream</p> <p>III. July - September, 2019 Petrographic test , water samples collected during high flood PH, monitoring hydrometeorological observation of discharge and works along WCS and PH of dam site,insitu test in the</p> <p>IV. October - December Cross check the level from</p>
k	Overall progress of works	75%
l	Geological and foundation Investigation	In progress
	@ 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 225.32 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 remote of Manpower, irregular allocation/release of fund, Inaccuracy of toposheet covering the project components result in delay of S&I works.	

(Signature)

Name:Shri. Q. Marbaniar

Designation:Executive En

Telephone No.....

yard (GIS) on the floor above the former cavern
Layout map.
<p>West Khasi Hills District of dam of about El. 36.37m high provide a live storage of 20.61 servoir are proposed to be head race tunnel of 3.00 m dia. eration. The power house would of 385.3 m (Net Head=373.37 in a 90% dependable year. The</p> <p>Alternative -I and Alternative -II of ures of the alternative-I, the Power 76 MW whereas the Geological</p>

Engineer (C)
Code No
HEMES

38 (MW)
observation)
08 Dt.23.01.2009
tion Corporation Limited.
Quantity to be done
25%

2006
2006

and computation of
of the project are persistent

9
udget for 2018-19 and main budget
ection of discharge site,revision of
ing the raingauge
nd computation of
xcavation of exploratory drift on

itted to national commitee of
(NCSDP)CWC,New
tive quantity of construction
cal Test of CA& FA, Road
ailed estimate including drawing
udy and preparation of estimate
am of dam site.

019
sample (silt sample) to be
d,drilling works along WCS and
eteological data,24 hours
and rainfall data and HFL,drilling
I,laboratory test of cores sample
he drifts,

; 2019
n discharge site to damsite and up

Financial Progress.

eness of the project area, Shortage
ie project, account to revision of

ig
ngineer ©
Code No