



STATE POLLUTION CONTROL BOARD
DEPARTMENT OF FOREST, ENVIRONMENT & WILDLIFE MANAGEMENT
GOVERNMENT OF SIKKIM
DEORALI, GANGTOK.

PUBLIC NOTICE

M/s Sikkim Hydro Power Ventures Ltd. (a subsidiary of Gammon India Ltd.) proposes to construct a 66 MW hydro-electric project by utilizing the water of Rimbi Khola, a tributary of Rathangchu in the West District of Sikkim. The Salient features of the project are as under:

RANGIT – II HYDROELECTRIC PROJECT (2 x 33 MW)

SALIENT FEATURES:

LOCATION

| | |
|-------------|-------------|
| State | Sikkim |
| District | West Sikkim |
| River | Rimbi Khola |
| River Basin | Brahmaputra |

Diversion site

| | |
|-----------------|------------------------------|
| Longitude | 88 ⁰ 10'32" E |
| Latitude | 27 ⁰ 18'46" N |
| Nearest Airport | Bagdogra – 145 km |
| Nearest Railway | New Jalpaiguri (BG) – 130 km |

TYPE OF PROJECT

| | |
|--------------------------|---------------------------------|
| Type | Run-of-River |
| Installed Capacity | 66 MW (2 x 33) |
| Annual Energy Generation | 296.21 MU (90% dependable year) |

HYDROLOGY & CLIMATE

| | |
|-----------------------------------|---------------|
| Catchment Area (up to head works) | 116.52 sq. km |
| Average yield 90% dependable | 393 MCum |
| Maximum | 1155 MCum |
| Maximum daily rainfall | 363.9 mm |

| | |
|------------------------|------------|
| Minimum daily rainfall | 9.8 mm |
| Maximum design flood | 1152 cumec |
| Portable maximum flood | 1152 cumec |
| Seismic factors | |
| Horizontal direction | 0.23 g |
| Vertical direction | 0.15 g |

DIVERSION ARRANGEMENT

| | |
|------------------------------|----------|
| Diameter of Diversion tunnel | 3.40 m |
| Tunnel length | 120.57 m |
| Open channel | 118.73 m |

DAM

| | |
|--|--|
| Type of Dam | Concrete gravity dam |
| Height of Dam | 40 m |
| Top level of Dam | 1365 m |
| Full Reservoir Level (F.R.L) | 1360 m |
| M.D.D.L | 1352 m |
| Maximum Water Level (M.W.L) | 1362.5 m |
| Dead storage capacity | 1340 m |
| Gross Storage Capacity | 2.25 MCum |
| Live Storage (between FRL & MDDL) | 0.223 MCum |
| Number of Spillways | 3 |
| Size of Spillway Gate | 6.00 m x 6.00 m |
| Crest Elevation (Sluice) | 1340.00 m |
| Type of Sluice Gate | Radial |
| Number of Overflow Bays | 1 |
| Size of (ungated) overflow Bay | 6.00 m |
| Crest Elevation of ungated (Ogee Spillway) | 1360.5 m |
| Length of the dam at top | 96.22 m |
| Width of the dam at top | 7.5 m |
| Free Board for FRL | 3 m |
| Maximum Tail Water Level | 1341 m |
| River Bed Level | 1334 m |
| Expected Foundation Level | 1325 m |
| Energy dissipation device | Ski Jump Bucket |
| Intake Structure | 1 no. with invert at El. 1343 m and of Size 3 m width and 6 m height |

POWER HOUSE

| | |
|-----------------------|--------------|
| Type of Power House | Surface |
| Length of Power House | 52.50 m |
| Width of Power House | 16.00 m |
| No. of Units | Two |
| Type of Turbine | Pelton Wheel |

| | |
|--------------------------------------|----------------|
| Rated Unit Capacity | 33 MW |
| Excitation System | Static |
| Heaviest component to be transported | 50 MT |
| Power House Crane | 1 no. 125/25 T |
| Maximum Gross Head | 626.00 m |
| Rated Net Head | 600.00 m |
| Design Discharge | 12.46 cumec |

TAIL RACE CHANNEL

| | |
|---------------------------|-------------------------|
| Size of Tail Race Channel | 170 m x 2.00 m x 3.30 m |
| Length | 50.00 m (approx.) |
| Type | Free Flow |
| Tail Race Bed Level | 724.50 m |

SWITCH YARD

| | |
|-----------------------|----------------------------|
| Location | On the bank of Kalej Khola |
| Number & Size of Bays | 2 nos. 80.00 x 70.00 m |
| Voltage Level | 132 KV |
| Type of Switchyard | Outdoor |

| | |
|----------------------------|-----------|
| CONSTRUCTION PERIOD | 36 Months |
|----------------------------|-----------|

PROJECT COST

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|---|------------------|
| a) Total estimated cost at Jan. 2007 Price level | |
| i) Gross | Rs. 358.63 crore |
| b) Civil work | Rs. 166.29 crore |
| c) Electrical & Mechanical works (including Transmission Lines) | Rs. 114.08 crore |
| d) Cost/MW Installed | Rs. 5.43 crore |
| e) Cost of Energy Generation per Kwh at Bus bar for 90% dependable year | |
| i) Tariff per unit for first year (90% dependable year) | Rs. 2.57/KWh |
| ii) Average (for 5 years) | Rs. 2.47/KWh |

Whereas by notification of the Govt. of India in the Ministry of Environment & Forest, Govt. of India No. S.O. 1533 (E) dated 14th September 2006 issued under sub-section (1) and clause V of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of Rule 5 of Environment (Protection) Rules, 1986 and in suppression of the notification no. S.O. 60 (E) dated 27th January 1994 as made mandatory under part II, section 7, sub-section 3 dated 14th September 2006, the State Pollution Control Board is required to conduct Public Hearing in the interest of the public for preparing recommendations based on the technical assessment of documents and data furnished by the Project Authorities for obtaining necessary environmental clearance from MoEF, Govt. of India. Therefore notice is hereby given to all concerned persons, having a plausible stake in the environment aspects of the project or activity and to provide responses in writing or by participating in the public hearing to be conducted on 6th August 2008 at Pelling School ground, West Sikkim at 10.00 A.M. onwards. Any person having plausible stake in the environmental aspects of the project or activity can submit their responses before the hearing date which may be addressed to the Member-Secretary, State Pollution Control Board, Department of Forest, Env. & Wildlife Management, Govt. of Sikkim, Deorali, Gangtok. Further access to the details of the project/executive summary, has been made available in the web-site www.sikenvis.nic.in and at the offices of the State Pollution Control Board, Sikkim, Deorali, Gangtok, Office of the District Collector (West) Gayzing, District Industry Office, Gayzing, West Sikkim and Zilla Parisad Bhawan, Gayzing, West Sikkim.

Sd/-

Member Secretary,
State Pollution Control Board,
Deptt. of Forest, Env. & W/L Management,
Govt. of Sikkim,
Deorali – Gangtok.