

**No.J-12011/56/2006-IA-I**  
Government of India  
Ministry of Environment & Forests  
[IA-I - Division ]

Paryavaran Bhavan  
CGO Complex, Lodhi Road  
New Delhi- 110003

Date: 2<sup>nd</sup> September, 2013

**The Chief Executive Officer**  
Himagiri Hydro Energy Pvt. Ltd.  
A-404, Sunny Valley  
Plot No. 27, Sector-12  
Dwarka  
New Delhi-110075

**Subject: Panan HEP (300 MW) Project in North Sikkim District of Sikkim by M/s Himagiri Hydro Energy Pvt. Ltd.- Environmental Clearance for revised capacity of 300 MW- regarding.**

Sir,

This has reference to your letter no. HHEPL/2011-12 dated 5.1.2012 and subsequent letters dated 27.3.2012, 19.3.2013, 17.05.2013, 27.5.2013 and 24.6.2013 on the above subject.

2. The Ministry has earlier issued environmental clearance (EC) on 2.1.2007 to your application dated 6.10.2006 for 280 MW Hydroelectric project whereas revised documents submitted on 5.1.2012 indicated the enhancement of capacity to 300 MW. Based on the documents submitted to this Ministry and documents circulated during the presentation in 66<sup>th</sup> Expert Appraisal Committee (EAC) meeting held on 3-4<sup>th</sup> May 2013, it was clarified that the capacity enhancement was based on hydrological series (hydrological year 1990-91 to 2003-04) as approved by CWC on 4.9.2009. The enhancement of capacity to 300 MW approved by CEA on 7.3.2011 is mainly due to approved hydrological (discharge) series by CWC. The basic domain of FRL and TWL remain unchanged. There is no change in project location and features which might lead to higher environmental impacts. The original and revised proposal details are as under:

<b>S.No</b>	<b>Items</b>	<b>Original Proposal</b>	<b>Revised Proposal</b>
1	Installed Capacity (MW)	280MW( 4 X 70 MW)	300 MW ( 4 X 75 MW)
2	Dam Height (above the river bed level)	56 m	56 m
3	FRL (EL)	1116.5 m	1116.5 m
4	HRT (km)	9.8 km	9.549 km
5	Tunnel diameter (m)	6 m	6 m
6	TWL (m)	756 m	756 m
7	Power House	Surface	Surface

8	Land requirement Total (ha)	56.835 ha	56.6784 ha
9	Forest land (ha)	23.629 ha	20.7454 ha*
10	Submergence area at FRL	14.5 ha	13.2 ha
11	Muck Generation (m <sup>3</sup> )	24,42,350	19,01,203
12	Project Affected Families	116	87 **
13	Cost of the Project	Rs.1375.66 Crores	Rs. 1833.05 Crores

\* **Forest Clearance for diversion of 20.7454 ha forest land has been obtained vide letter no.3 SKC/2007-SHI/1793-94 dated 21.9.2010**

\*\* **87 is the actual number of affected families as obtained after completing the land acquisition process**

3. The details submitted by project proponent for the enhanced capacity was put-up for consideration of the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric Projects in its meeting held on 3-4<sup>th</sup> May, 2013. The EAC, after due consideration of the relevant documents submitted and presented during 6<sup>th</sup> June, 2013 earlier by project proponent and additional documents submitted in response to its observations, have recommended Environmental Clearance (EC) of the project for its revised capacity of 300 MW.

4. The project envisages among other things, construction of 56 m high dam (above the river bed level) across river Tholung Chu near village Linigaza in North Sikkim District of Sikkim to generate 300 MW of hydropower. The total land acquired is about 56.6784 ha, out of which 20.7454 ha is Forest land and 35.933 ha is Private land. Total submergence area is 13.2 ha. Total catchment of the project is 592 Sq. km. A surface powerhouse is proposed on the right bank of the river with 4 units of 75 MW each. A total 5 villages consisting of 87 families are like to be affected due to this project. The total estimated cost of the project is Rs. 1833.05 crores and the construction period of the project is 54 months.

5. Accordingly, the Ministry of Environment and Forests hereby accords Environmental Clearance for the revised capacity of 300 MW for Panan HEP as per the provisions of Environment Impact Assessment Notification, 2006 and its subsequent amendment in 2009, and in supersession of its earlier EC dated 2.1 2007, subject to strict compliance of the following conditions:

**Part A: Specific Conditions:**

(i) Catchment Area Treatment Plan as approved in the EMP, shall be strictly implemented in consultation with the Sikkim State Forest Department. Major works shall be completed before impounding of reservoir. As proposed, the CAT plan shall be completed in 4 years. The plan as already approved, is given below:

Treatment Measures	I Year	II Year	III Year	IV Year	Total
<b>(A) Biological Measures</b>					
Afforestation (ha)	325	310	200	--	825
Assisted Natural Regeneration (ha)	150	60	49	--	259

NTFP Regeneration (ha)	50	10	10	--	70
<b>(B) Engineering Measures</b>					
Brushwood Check-dam (Nos)	62	43	40	25	170
DSRM Check –dam (ha)	335	283	211	148	977
Bench Terracing (ha)	522	380	294	152	1348
Crate wires (ha)	220	136	120	40	516

- (ii) The details of land holding of project affected families (PAFs), whose land has been acquired, to be submitted to this Ministry including its Regional Office. The Rehabilitation & Resettlement (R&R) benefits for the land losing households will be as per the National Rehabilitation and Resettlement Policy, 2007 (NRRP, 2007). Adequate publicity of the compensation package of NRRP 2007. All R & R issues shall be completed before commissioning of the project.
- (iii) A Monitoring Committee for R&R shall be constituted which must include representatives of project affected persons including from SC/ST category and a woman beneficiary.
- (iv) All commitments made during the public hearing should be fulfilled completely by the project proponent.
- (v) Dumping and consolidation/compaction of muck shall be carried-out only in the designated muck dumping sites shall be above high flood level (HFL). As per the proposed muck disposal plan, a total of 19.01 lakh m<sup>3</sup> of muck will be generated due to excavation, out of which 7.63 lakh m<sup>3</sup> will be utilized for construction purpose and the remaining will dumped at the 10 designated dumping sites in an allocated area of 8.735 ha. All dumping sites should be more than  $\geq 30$  m away from the HFL of the river and toe walls for muck disposal sites should be constructed at least 30 away from HFL of the river.
- (vi) Equipments likely to generate high noise levels shall have to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000 as amended in 2010 under Environment Protection Act (EPA), 1986. For this, necessary insulators etc may be installed to contain noise levels.
- (vii) A minimum environmental flow of 2.74 cumec, i.e. equivalent to 20% of the average river discharge of the 4 consecutive lean months in the 90% dependable year shall have to be maintained during the lean months (December-March). During the non-lean, non-monsoon season (April-May & October-November), a minimum release of 3.5 cumec is to be maintained. In the monsoon months (June-September), the minimum environmental flow shall be 8 cumec.
- (viii) Continuous monitoring system for the flow measurement shall be installed and data be displayed at appropriate site for information of civil society and stakeholders. Six (6) monthly, results shall be submitted to the Regional Office of the Ministry and SPCB.
- (ix) The Fisheries Development Plan as proposed shall be implemented in consultation with Fisheries Department, Government of Sikkim. As proposed, the development of hatchery shall be taken-up for raising fingerlings of indigenous and exotic fish species. The allocated budget of Rs. 84.17 lakhs proposed for this purpose shall be fully utilized and not to be diverted for any other purpose/ activity.

- (x) The proposed Compensatory Afforestation programme in 55 ha shall be taken-up in consultation with State Forest Department. Additionally, other measures NPV and Biodiversity Conservation & Management Plan shall be taken-up strictly. The allocated grant of Rs. 508 lakhs for this purpose shall be fully utilized and not to be diverted for any other purpose. The project proponent shall maintain close liaison with the State Forest Department during the implementation of above plans to ensure compliance of the mitigation measures for flora/fauna and RET species. For compensatory afforestation preference shall be given to native species.
- (xi) To enhance the environment of project site, greenbelt, as proposed around the reservoir in 13.2 ha shall be undertaken. Greenbelt development shall include a mix of ornamental plants for aesthetics, economically important plants and evergreen trees. Use only endemic tree/shrub species. A detailed plan (list of species to be planted, planting rows, maintenance, protection measures etc) for the greenbelt shall be adopted. The allocated budget of Rs.10.06 lakhs shall be fully utilized and not to be diverted to any other purpose.
- (xii) The Dzongu region is provided with special status under Article 371(F) of Indian Constitution for preserving the Lepch culture. Labour colony as well as staff colony shall not be set-up within Dzongu area.
- (xiii) The proposed project falls within 10 Km of the boundary of Khangchendzonga National Park, and as per Supreme Court Order clearance from Standing Committee of National Board of Wildlife (NBWL) be obtained.

#### **Part – B : General Conditions**

- (i) Adequate arrangements for providing free fuel like kerosene/wood/ LPG shall be made at project cost for the labour engaged in the construction work so that indiscriminate felling of trees is prevented.
- (ii) Basic amenities, sanitation, medical facilities as well as recreational facilities shall also be provided to the labourers.
- (iii) All the labourers to be engaged for construction works shall be thoroughly examined by health personnel and adequately treated before issuing them work permit.
- (iv) Restoration of construction area including dumping site of excavated materials shall be ensured by leveling, filling up of burrow pits, landscaping etc. The area shall be properly treated with suitable plantation.
- (v) Potable drinking water and proper sanitary facilities shall be provided for labour force.
- (vi) No fugitive dust emissions shall be observed at the construction sites. Water sprinkling arrangements shall be made to suppress the fugitive emissions.
- (vii) Financial provision shall be made in the total budget of the project for implementation of the above suggested safeguard measures.
- (viii) The project proponent shall also submit six monthly compliance reports of the stipulated EC conditions (both in hard copies as well as by email) to the respective Regional Office of MOEF / State Pollution Control Board. Both monitoring report and compliance report shall be up-loaded on the website of the proponent.

6. The project proponent shall provide full cooperation and all required documents / data to the Officials from Regional Office MOEF and Headquarters of the Ministry who would be monitoring the implementation of environmental safeguards.
7. The responsibility of implementation of environmental safeguards rests fully with M/s Himagiri Hydro Energy Private Ltd. & Government of Sikkim.
8. Besides the above stated conditions, the project proponent and Government of Sikkim shall also implement all other environmental safeguards, as proposed in the relevant EIA / EMP report and other reports from time to time.
9. The implementation of the revised Environmental Management Plan (EMP) shall be strictly adhered to and sum of Rs. 53.424 Crores, the budgetary provisions for implementation of revised EMP shall be fully utilized and not to be diverted for any other purpose. Project management tools like PERT/CPM may be used to monitor and review progress of the project.
10. Any change in the scope of the project shall be intimated to the Ministry and fresh approval, if required, shall be taken from the Ministry.
11. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a timebound and satisfactory manner.
12. This clearance letter is valid for a period of 10 years from the date of issue of this letter for commencement of construction work of the project.
13. MOEF may depute experts or any committee to undertake inspection to ensure timely compliance. The project proponent shall extend full cooperation to such committee/ experts.
14. A Multidisciplinary committee (MDC) for monitoring the implementation of the environmental safeguard measures during construction period shall be constituted by the project proponent (PP) in consultation with MOEF. A panel may be proposed by the PP and submitted to MOEF for this purpose. Proponent shall organize six monthly meetings of the committee and submit the monitoring report to the Ministry.
15. The project proponent should advertise within 7 days at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>
16. A copy of the clearance letter will be sent by the project proponent to concerned Panchayat / Zilla Parishad/ Municipal Corporation, Urban local body and the local NGO, if any, from whom any suggestion / representation, if any, were received while processing the proposal. The clearance letters shall also be put on the website of the Company by the proponent.

17. State Pollution Control Board / Committee should display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's office / Tehsildar's office for 30 days.

Yours faithfully,

**(B.B. Barman)**  
Director

Copy to :

1. Secretary, Ministry of Power, Shram Shakti, Bhawan, Rafi Marg, New Delhi-1.
2. The Adviser (Power), Planning Commission, Yojna Bhavan, New Delhi – 1.
3. The Secretary (Power), Government of Sikkim, Gangtok – 737101.
4. The Secretary, Department of Forests, Environment & Wildlife, Govt. of Sikkim, Gangtok-737101.
5. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhavan, R.K.Puram, New Delhi – 110066.
6. The Regional Office, Ministry of Environment & Forests, Upland Road, Laiumkhrah, Shillong – 793003, Meghalaya.
7. The Member Secretary, State Pollution Control Board, Department of Forests, Environment & Wildlife, Government of Sikkim, Gangtok-737101
8. EI- Division, Ministry of Environment & Forests, New Delhi – 110003.
9. PS to JS(MS)/Director (BB)/P V Subba Rao (Sci – B)
10. NIC Cell, MOEF for immediate uploading.
11. SO (GA),MOEF for displaying on the Notice Board / SO (IA-I) for providing copy of EC.
12. Guard File.

**(B.B. Barman)**  
Director