

#### SHIGA ENERGY PRIVATE

Ref. No: SEPL/F-5/12-13/845

To The Joint Director, North-Eastern Regional office, Ministry of Environment & Forest, Government of India.

2nd Floor, Rabdenling, Annex II Adjoining Royal Plaza Upper Shyari, Gangtok East Sikkim - 737101 Tel: +91-3592-204703

Dated: 22.11.2012

#### Subject: Six Monthly compliance Report on status of Environmental Safeguards of 97MW Tashiding Hydro Electric Project.

Dear Sir,

This is with reference to Environmental Clearance of 97MW Tashiding Hydro Electric Project vide MoEF letter No.J-12011/66/2006-IA-I dated 29.07.2010 following are clarified for your kind perusal.

- 1. As per the Stage I Clearance the following amount is deposited by RTGS in Union Bank of India Sunder Nagar New Delhi on dated 13/04/2011 under the following Heads:
  - Compensatory afforestation: Rs 28, 43,900=00.
- Net Present Value: Rs 32,18,774=00 ii)
- CAT Plan: Rs 63,48,000=00 iii)
- Biodiversity Conservation & Management Plan: Rs 88, 40,000=00 iv)
- Public Notification Published as per the Para 12 of the Environmental Clearance. We have advertised in two Local Newspapers widely circulated in the region around the Project "Himali Bela" in Nepali, "Sikkim Express" in English and Sikkim Herald Classified the Government of Sikkim Paper dated: 11nd August 2010 and 12 August 2010, informing that Project has accorded environmental clearance.
- 3. Six Monthly compliance on the status of the 97MW Tashiding Hydro Electric Project to the stipulated environmental conditions is enclosed as annexure-A. Environmental activities as annex B, Corporate Social Responsibilities as Annexure C and Monthly Progress report of the project as Annexure D.

This is for your kind information.

Thanking You

Yours faithfully

Karma Norden Lachungpa, Environment Officer,

For, Shiga Energy Pvt. Ltd.

Copy to: 1) Additional Director, MoEF New Delhi, for kind information.

2) Central Pollution Control Board, Govt. of India, for kind information.

2) CCF-cum -Nodal Officer (FCA) Gangtok, for kind information.

3) Member Secretary, State Pollution Control Board Gangtok, for kind information.

# 97MW TASHIDING HYDRO ELECTRIC PROJECT DATA SHEET

Sl.No.	Particulars DATA S	Details
1.		Run- of- River Scheme
2.	Project Type	
	Name of the Project	97MW Tashiding Hydro Electric Project
3.	i) Environmental Clearance ii) Forest Clearance.	No.J-12011/66/2006-IA-I dated 29.7.2010 MoEF GOI vide letter No.3-SKB 007/2010-SHI/1693-94 dated 16 <sup>th</sup> Sept.2011. Forest Env.& wildlife Management Deptt GOS vide Letter No.1368/FCA/FEWMD 955-57 Dated 24/9/2011
4.	LOCATION:	
	District	West District
	State	Sikkim
	Latitude	27°20'28"N
	Longitude	88°13'59"E
5.	Address for Correspondence	
	a) Addresss of concerned Project Head(with pin code, Telephone/Fax)  b) Address of Project Incharge site office (With Pin code, Telephone/Fax)	Shri.P.B.Praveen Kumar, Director Shiga Energy Pvt.Ltd. Rabdenling, Annex-II, Adjoining Hotel Royal Plaza Upper Shyari,Gangtok,East Sikkim. e-mail:praveenpb@yahoo.com Telephone:03592-280709 Fax:03592-280703 Mr.C.L.Thakur Vice-President,Shiga Energy Pvt.Ltd. Yangtey, Gyalshing, West Sikkim, Telephone:03595-250055 Fax-03595-250044 e-mail:cl.thakur@dansenergy.com
6.	Break up of the Project Area	
	a) Forest Land Total	4.3492Ha(Surface 2.7840Ha+Underground :1.5652Ha) in West Sikkim,
7.	Break-up of the Project affected Population.	Project affected families:30 Landless affected families: Nil
8.	Financial Details	
	a) Project cost as originally planned.	465.95Crores.
9.	Forest Land requirement	
	a.The Status of approval for diversion of forest land for non forestry use,	The Ministry of Environment & Forest Government of India vides its letter No.3-SKB 007/2010-SHI/1693-94 dated 2 <sup>nd</sup> May 2008 Forest Env.& wildlife Management Deptt GOS vide Letter No.1368/FCA/FEWMD 955-57 Dated 124/9/2011

Annexure-A

**Compliance Status on Environmental Clearance.** 

Sl.No.	Stipulated Conditions	Compliance Status		
Part –	Part –A: Specific Conditions			
(i)	Catchment area treatment plans as has been proposed should be completed in 3 years.	We have already deposited the CAT amount of Rs. 63, 48, 000=00 in the CAMPA fund and work will be carried out by the State Forest Department.		
(ii)	Five dumping site have been identified for dumping 380858m³ of excavated material. For retaining the dumped /unused material for subsequent stabilization along the hill slopes and along the stretch of the road sausage-cumretaining walls shall be developed. These need to be built prior to the dumping of muck at these sites. These walls would range from 70 to 290m length at the proposed dumping site.	Muck dumping is being carried out in approved muck dumping sites. Sausage cum retaining walls have been developed as proposed		
(iii)	It should be ensured that the dumping yards blend with the natural landscape by developing the sites with gentle slopes, bunds, terraced and water ponds, patches of greenery in and around them.	After the completion of the construction work we will convert the dumping sites into natural vegetation parks and recreational centre.		
(iv)	For maintaining environmental flow in the river two cumec water should be released during lean season.	We will comply as per the MoEF norms.		
(v)	The scheme of disposal of solid waste should cover the integrated project area including from labour colony during construction Phase. Solid waste from the labour camps shall be collected in beans/Masonry Vats and the same shall be dumped or disposed to nearby municipal landfills/authorized dump sites. No dumping of solid waste is allowed near any water body or a stream to exclude any health hazard problems to the society.	dumped into the pit which does not fall near any water body or a stream to exclude any health hazards problem to the community.  We are in touch with central Govt. organization for converting these solid waste from the labour camp into Biogas for its useful purpose.		
(vi)	Jobs should be provided to atleast 1 member of all the 30 affected families as per their skills.	We have already provided jobs to atleast one member of all the affected families as per their skills and also contract works are being allocated to the affected families and we are further encouraging them to produce organic vegetables and developed poultry farming.		

(vii)	Fishery Management Plan as proposed in the EMP should be implemented in totality.	We will implement the Fishery Management plan as proposed in the EMP together with the Fisheries Department, Govt. of Sikkim.
(viii)	The Proponent should carry out a study on post construction period during O&M stage in between 3 to 5 years after commissioning of the project to examine the actual environmental impact of the project on its surrounding compare to what was planned initially. The study should be conducted by a reputed institute/consultant.	Our construction phase has just started. Between 3 to 5 years after the commissioning of the project we will carry out a study on post construction period during O&M stage to examine the actual environmental impact of the project on its surrounding compared to what was planned initially by a reputed institute/consultant.

## **Part-B: General Conditions**

Sl.N	Stipulated Conditions	Compliance status	
o.		Compilative status	
(i)	Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.	Sufficient free fuel( only LPG) has been provided by the company for labourers engaged in the project. As such food is provided to the employees at the Company's mess where LPG is used as fuel.	
(ii)	Fuel depot may be opened at the site to provide the fuel (kerosene/wood/LPG).Medical facilities as well as recreational facilities should also be provided to the labourers.	The fuel Depot (LPG) has been established at site.  We have employed two nurses and an ambulance has been provided to meet the emergency needs for project employees and also the public residing within the project site. Routine HIV Test programmes and medical camps are also conducted at the site.	
(iii)	All the labourers to be engaged for construction works should be thoroughly examined by health personal and adequately treated before issuing them work permit.	Labourers engaged at construction work were examined by MBBS Doctors and treated before issuing the work permit. Regular health checkup is continuing at various sites. HIV Test for all the migrant labourers has also already been conducted and would be conducted in every 6 months by the State AIDS Control Society.	
(iv)	Restoration of Construction area including dumping site of excavated materials should be ensured by leveling, filling up of burrow pits, landscaping etc.The area should be properly treated with suitable plantation.	We have been complying with the guidelines that have been drawn and we will also take plantation steps once the dumping yard is filled.	
(v)	Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.	Yes, the financial provision for implementation of environmental safeguards has been kept.	
(vii)	Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, shillong for review.	Monitoring committee is not yet constituted.	

6.	The responsibility of implementation of environmental safeguards rests fully with the M/s Shiga Energy Pvt.Ltd. & Govt. of Sikkim.	We will strictly comply with all the conditions set for the safeguards of environment with the cooperation of Forest Env. & Wildlife management Department, Government of Sikkim.
7.	The total amount of Rs.466.76 lakh kept in the budgetary provision for implementation of environmental management plan should be strictly adhered and not to be diverted for any other purpose.	We will fully implement the said budget for Environmental Management programme.
8.	In case of change in the scope of the project, project would require a fresh appraisal.	In case of any changes we will inform the concern department and take the fresh appraisal.
9.	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and take action including revoking of the clearance under the provision of the Environment (protection) Act,1986 to ensure effective implementation of the safeguard measures in a time bound and satisfisfactory manner.	We agree.
10.	This clearance letter is valid for a period of 10 years from the date of issue of this for commencement of construction work	The construction work began since December, 2012.
11.	A copy of the clearance letter will be marked to concerned Panchayat / local NGO, if any .from whom any suggestion / representation has been received while processing the proposal. The Clearance letter shall also be put on the website of the Company by the proponent.	Till date we had not received the suggestion /representation while processing the proposal. The Clearance letter already been uploaded in the company's website.
13.	The project proponent shall also submit Six monthly reports on the status of compliance of the stipulated EC conditions including result of monitored data (both in Hard copies as well as by e-mail) to the representative Regional office of MoEF, the respective Office of CPCB and the SPCB.	We will submit in Hard Copy and soft copy as well by e-mail to the concerned officials.
14.	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act.1997.	We agree

Public Notification Published of the Environmental Clearance in Local Newspapers in Sikkim Express and Himali Bela(Nepali)













Ambulance, Nurse at site

# Safety counseling for the labourers by our safety officer





## RECREATIONAL PROGRAMME FOR THE EMPLOYEES







# **ENVIRONMENTAL ACTIVITIES- ANNEXURE B**

# **SITE PLANTATION DRIVE**



1000 saplings were planted







PLANTATION BEING CARRIED OUT BY THE MLA, FOREST DEPTT. AND OUR STAFF ON WORLD ENVIRONMENT DAY. 500 SAPLINGS WERE PLANTED





# A visit by Mr. Chandan Gosh, Disaster Management expert from Central Government during the second week of September.

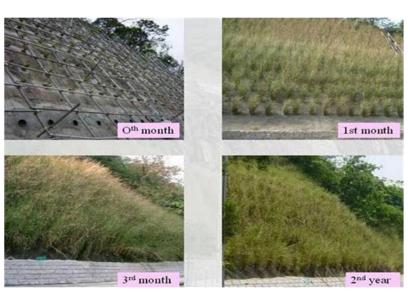
Various suggestions were made by Mr. Gosh, Professor and Head, National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India after his visit to our site. Accordingly we will take up the preventive measures to control landslides.

We will take up his vetiver plantation at site and biogas plant at our Kabirthang Colony.





# Vetiver plantation





### CORPORATE SOCIAL RESPONSIBILITY- ANNEXURE- C

#### SPONSERING YOUNG BOYS FOOTBALL ACADEMY, GYALSHING

Young Boys Football Academy is a club for the young stars of the future, located at Gyalshing, West Sikkim. They attend school like normal children and are trained during the morning and evening time.

With the rigorous efforts of the Coach and the footballers, these young footballers have entered various State and National level football tournaments. Shiga Energy Pvt. Ltd. on its attempt to help these young and aspiring footballers announced a total sponsorship of Rs. 3 lakhs. The first installment of Rs.65, 000 was handed over to Mr. Namgyal Bhutia, Coach cum Manager of the Academy.



## **Educational tour to the Project Area**

On the 17<sup>th</sup> of April, 2012 Shiga Energy Pvt. Ltd. organized an educational trip for the students of three Schools Ramitay Primary School, Lower Omloak Primary School and Kaberthang Primary School to the Project area.



## **CUTTING AND TAILORING SCHEME**

The cutting and tailoring institute initiated by Shiga Energy Pvt. Ltd. at Sakyong, Geyzing. This institute was started since the mid of Dec, 2011 for a period of 6 months. The main objective of this programme was to generate self employment among the local unemployed women. A trainer was assigned to train these women to perfection.



#### CONCLUSION OF THE CUTTING AND TAILORING SCHEME



6 tailoring machines were distributed in the presence of the local Panchayat after the completion of the training period of 6 months.

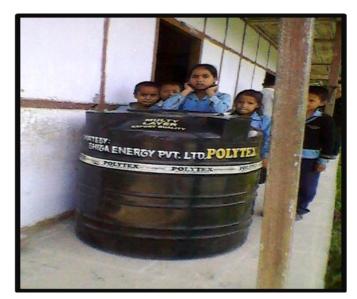








A 500 LITRE WATER TANK PROVIDED TO KABIRTHANG PRIMARY SCHOOL



# **RENOVATION OF RAMITAY PRIMARY SCHOOL**





# Art and Drawing Competition for School Children of Sakyong School









**CHART DRAWN BY THE CHILDREN** 

Essay Competition held at Sakyong School



### FREE MEDICAL CAMP

A day long free Medical Camp was organized on the 26<sup>th</sup> of February, 2012 at Rai Gaon, Gyalshing. Free medical services were provided to the villagers. Medical Services offered during the camp included a full patient consultation, basic physical examination, blood pressure and temperature test. Free medications were dispensed which had a comprehensive range of drugs. Two mini buses were assigned to provide conveyance to the villagers.







# **HIV Test Programmes for the Employees**

Six monthly HIV Test programme is being conducted for all the employees in coordination with Sikkim State AIDS Control Society's Mobile ICTC. So far two programmes have been conducted. First during the month of April and the second during the end of September.





FIRST ROUND HIV TEST PROGRAMME PICTURES

## SECOND ROUND HIV TEST PROGRAMME









## **FORMATION OF SECURITY/RESCUE TEAM**

A rescue team of total 42 were formed where all the candidates are bonafide Sikkim subject holder and also affected landowners.

<u>Objective:</u>

- 1. To protect the assets of the company.
- 2. To function as a rescue team in the times of emergency.
- 3. Generate local employment.

The team was trained at the fire station in Kyongsa, Geyzing. Under the supervision of the Sikkim police (fire fighting department).

The team had to undergo intensive training for a period of 45 days.

The team has been given fire fighting and rescue operation training.

# **RESCUE TEAM GETTING TRAINED**









# MONTHLY PROGRESS REPORT-ANNEXURE- D

OCT 2012



# 97 MW TASHIDING HEP SIKKIM

MONTHLY PROGRESS REPORT



SHIGA ENERGY PVT LTD

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#### **EXECUTIVE SUMMARY**

#### **OWNER - SHIGA ENERGY PVT LTD**

# CIVIL AND HM WORKS CONTRACTOR – BUMI GEO ENGINEERING LTD ELECTRO-MECHANICAL TURNKEY CONTRACTOR – ALSTOM INDIA LTD DESIGN CONSULTANT – ENERGY INFRATECH PVT. LTD

Under Ground excavation of HRT-Face -1 of 73.60 m length is completed during the month making total progress of excavation to 229.40 m.

Under Ground excavation of HRT-Face -2 of 32.45 m length is completed during the month making total progress of excavation to 143.55 m.

Under Ground excavation of HRT-Face -3 of 49.35m length is completed during the month making total progress of excavation to 267.85 m.

Under Ground excavation of HRT-Face -4 of 37.2 m length is completed during the month making total progress of excavation to 184.0 m.

Under Ground excavation of HRT-Face -5&6 of 7.5 m length is completed during the month making total progress of excavation to 7.5 m.

#### 1. PROJECT STATUS

#### 1.1 Clearances

SEPLhas obtained all clearances which are required for construction of the Tashiding HEP.

#### 1.2 Financial Closure

The financial closure for the Project was achieved in the month of **July 2011**.

#### 2. Infrastructure Works at Project Site

#### 2.1 Infrastructure Works

Infrastructure works are almost completed, the detail of which is given below:

#### i. Land Acquisition:

The total land required for the project has been acquired.

#### ii. Construction of Roads:

The work for construction of access road is completed and regular maintenance is under progress.

#### iii. Construction of Bridge near Adit-1:

Bridge erection work completed and is under operation.

#### iv. Construction of Bridge near Barrage:

- Left Bank Abutment Concreting of Foundation is completed.
- Right Bank Abutment Concreting of Foundation is completed.

#### v. Construction of Magazine house:

Construction of Magazine House is completed.

#### vi. Construction Power:

Transmission line network for Construction power has been charged and is under operation.

#### vii. Miscellaneous:

- Setting up SEPL's administrative and technical office at Project Site has been done.
- Works of labour quarters for the Civil Contractor is completed.

#### 3. Progress of Works

#### 3.1 Head Race Tunnel

Excavation of all the three Adits is completed.

#### 3.1.1 HRT-Face-1:

Under Ground excavation of HRT-Face -1 of 73.6 m length is completed during the month, making total progress of excavation to 229.4 m.

#### 3.1.2 HRT-Face-2:

Under Ground excavation of HRT-Face -2 of 32.45 m length is completed during the month, making total progress of excavation to 143.55 m.

#### 3.1.3 HRT-Face-3:

Under Ground excavation of HRT-Face -3 of 49.35 m length is completed during the month, making total progress of excavation to 267.85 m.

#### 3.1.4 HRT-Face-4:

Under Ground excavation of HRT-Face -4 of 37.2 m length is completed during the month, making total progress of excavation to 184.0 m.

#### 3.1.5 HRT-Face-5&6:

Underground excavation of HRT-Face -5&6 of 7.5 m lengthis completed during the month, making total progress of excavation to 7.5m.

#### 3.2 Power House area:

#### Excavation and Slope protection works

Reinforced cement concrete of pre excavation anchor beam at El. 732.00m is 89% completed. Cladding wall concreting of 95% has been completed from El.732 to El.722m. Surface Excavation work is 63% completed from El.712.00 to El.693.00m and El.722 to El.716.00m. Shotcreting work is 40% completed from El.712.00 towards El.702.00m. SDA fixing work is 35% completed from El.732 to El.722 & from El.712 to El.695.00m.

#### Protection works along river side

Wire crate fixing work has been completed and Back filling with due compaction has been completed to El 707.00 m.

#### 3.3 Intake Site:

Surface excavation and Portal development of DT-Inlet portal is completed. Underground excavation of 6.0 m length is completed.

#### 3.4 Surge Shaft:

Surface preparation for Adit to Surge shaft has been completed.

#### 4. Quality Control:

Quality control Lab truss and sheeting work is completed.

#### 5. Electro-mechanical Work:

The contract for entire Electro Mechanical works was awarded to M/s ALSTOM Projects India Ltd on turnkey basis. Advance payment has been released to Alstom Projects India Ltd as per contract.

M/s ALSTOM Projects India Ltd has submitted the model test report and same has been accepted.

#### The following drawings/documents have been approved:

- 1. Francis turbine Material & Material Equivalence datasheet
- 2. Generator Material Equivalence datasheet
- 3. Design Memorandum of Grounding System
- 4. Inspection & Test Plan Turbine & Accessories
- 5. Francis Turbine Draft Tube Elbow & Liner Hydraulic Design
- Francis turbine Draft Tube General Arrangement Drawing
- 7. Inspection and Testing plan of MIV –Spherical valve and Accessories
- Inspection and Test Plan of governing system and OPU
- 9. Inspection and Test Plan of Generator package
- 10. Painting specification
- 11. MIV Spherical Valve material equivalence sheet
- MIV Design Memorandum has been reviewed and our observations have been sent to Alstom.
- Generator Design Memorandum has been reviewed and our observations have been sent to Alstom.
- Francis Turbine Design Memorandum has been reviewed and our observations have been sent to Alstom.
- Inspection and test plan of EOT crane has been reviewed and our observations have been sent to Alstom.
- GSU Transformer Design Memorandum has been reviewed and our observations have been sent to Alstom.
- PH Elevator Design Memorandum has been reviewed and our observations have been sent to Alstom.

#### Following Material Dispatch Clearance Certificate (MDCC) has been released:

- 1. Grounding System (Lot-1).
- 2. Draft Tube Elbow & Liner for Unit -1 and unit -2.

#### Inspection carried out

1. Draft tube Elbow & Liner (Part 1&2) of Unit 1 & Unit 2.

#### **Status of E&M equipment at Alstom works:**

- 1. Basic Design and Detailed design in respect of turbine, generator ,MIV, governing equipment is under progress
- 2. Draft Tube elbow /liner for unit 1 and Unit 2 and grounding system material (Lot-1) have been manufactured, Inspected and reached project site.
- 3. Review of manufacturing drawings for Lower Pit Liner, Upstream Sleeve, Spiral Case, Stay Ring, MIV Body, Downstream Sleeve, Upper Bracket sole plate,

Generator Stator layout, Generator rotor Layout, Stator Sole plate, Francis Turbine Cross Section General layout, Grounding System Connection details and Generator lower guide bearingare under progress.

4. Design and Engineering of BOP items such ascooling water system ,drainage & dewatering System, 11 KV isolated phase bus duct, EOT crane, Fire-fighting system, Ultrasonic flow-meter, Cable & Cable Trays and Power house elevator is under progress.

In a joint visit with Alstom Projects India Ltd to the project site, storage space for E&M equipment has been identified. Alstom Projects India Ltd has established the accommodation facilities for their executives for starting construction activities of the project.

#### 6. Transmission System:

SEPL has signed the Long Term Access Agreement (LTAA) with Power Grid Corporation of India Limited (PGCIL) on 19th October, 2011 for evacuation of power. Switchyard works will start at a later stage.

#### 7. Social and Environmental Works:

### 7.1 HIV Test Programme

The second round of HIV test programme for Tashiding Hydro Electric Project was conducted between18<sup>th</sup>to 20<sup>th</sup>of September 2012. This programme was conducted by Shiga Energy Pvt. Ltd. in association with mobile ICTC, Sikkim State AIDS Control Society. A total of 350 employees including both local and migrant employees were screened for HIV. HIV awareness was also generated amongst the employees by the Counselor of Sikkim State AIDS Control Society.



## 8. PROGRESS PHOTOGRAPHS:



Drilling Works at HRT-Face-1 is under progress
HRT-Face-2 Scaling workunder progress



Face Drilling and Profile markingat HRT-Face-3 is under progress



**Drilling Works at Face-4 is under progress** 



Excavation Works at Face-5 & 6