Lanco Teesta Hydro Power Limited

500 MW Hydro Electric Project (Teesta VI)

May 2018

Project Overview

Teesta VI Hydro Electric Project being developed by Lanco Teesta Hydro Power Limited is a part of the six hydro electric projects under development on the Teesta river, by the Government of Sikkim (GoS). The project was alloted by GoS in 2005 for its development on Build, Own, Operate and Transfer (BOOT) basis.

Project comprises of 4 x 125MW units to generate 2441 mu of energy assuming 90% dependable year

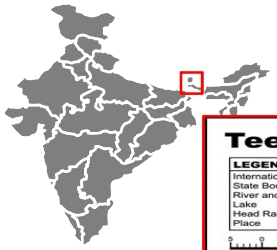
Power evacuation is proposed through a 12.44 km 220kV D/C (twin moose conductor) transmission line up to PGCIL Pooling station at Rangpo which is connected to the Eastern Grid

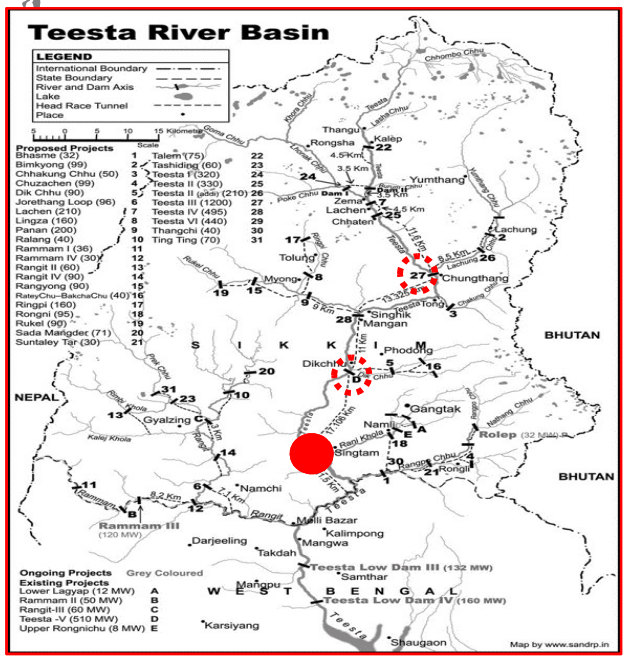
Originally envisaged to be operational by May 2012, the project ran into significant difficulties because of funding issues, delayed forest clearance, geological surprises and the Earthquake of 2011 which blocked all logistics and ongoing work

Capacity of over 4,173 MW is under various stages of implementation in Sikkim as per data provided by the Department of Power, GoS

Of the 4,173 MW hydel power projects in Sikkim, 2,158 MW are already operational with balance 2,015 MW power projects under various stages of implementation

Hydrological data collected by LTHPL and compiled by CWC indicate adequate water flow to maintain generation levels





Teesta VI, LTHPL (under construction 500 MW)

Teesta III and Teesta VI, Upstream operational projects

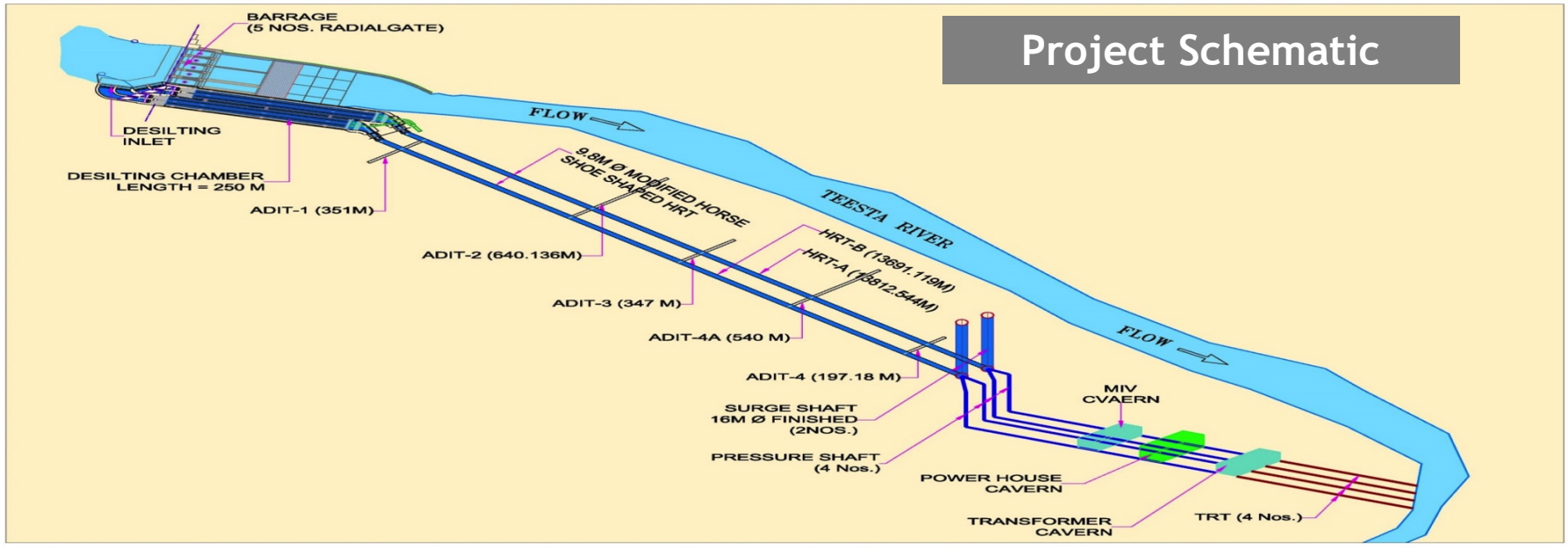
Major Upsteram Projects	MW	Developer
Teesta III	1200	TUL@
Teesta V	510	NHPCL#

@ Teesta Urja Limited
# National Hydro Power Corporation Limited

Source: Department of Power, Government of Sikkim

Teesta VI – Technical Specifications

Location	South Sikkim
River Tributary	Teesta
Project Capacity	500 MW (4 X 125 MW)
Barrage Gates	5 Nos (15m (W)18m (H) each)
Surface Desilting Arrangement	2 Nos. (250m X 28m X 25.57m)
Head Race Tunnel	2 Nos. Modified Horse Shoe Shape, 9.8m Dia , 13.75 Kms Long
Underground Power House	Underground, 142.75 m (L) X 18.5 m (W) X 50 m (H)
Net Head	103.2m
Tail Race Tunnel	4 Nos., D-Shaped 8.5 m Dia, Avg. Length 247m
Design Discharge	531 Cumecs
Maximum Flood Discharge	11600 Cumecs
Reservoir (Live Storage)	1.38 MCM
Annual Energy Generation	2441 Mus



Status at Project Site – Barrage & HRT

Barrage Complex

- Nearly 4 bays completed with overall completion at 70%.
- 18 months# time frame required for completion of balance works in desilting basin
- 20 months# work envisioned for completion of SFT works
- HRT intake work including slope protection expected to require 16 months# of additional time

Head Race Tunnels

- Heading excavation completed for 10.7 km of 27.5 km for two HRTs of 13.76 km length each
- 27 months# are required for completion of balance HRT works including Heading, Benching and Lining of tunnels

Source: Company
Basis estimates made by the Company

Status at Project Site - Powerhouse

Powerhouse Civil & Mechanical Works

- Cavern excavation completed for Power House
- Concreting of four draft tube liners completed
- EOT Cranes (2 x 200MT) have been installed and commissioned
- Draft tube erection works have been completed
- Erection of spiral casing of Unit 1 has been completed and tested
- Balance works expected to be completed in 24 months#
- 95% of E&M equipment has already been received and is stored at site
- Major supplies like components of Generating Units (Stator, Rotors, Turbine Shafts & Runners for all 4 units have been stored on site

Source: Company
Basis estimates made by the Company

Project Progress – Component Wise

Project Component	% Completion
Barrage	70%
Desilting Structure (Including Desilting Inlet and Chambers)	26%
Head Race Tunnel (Heading Excavation)	39%
Surge Shaft	70%
Pressure Shaft	70%
Power House (Civil Works)	78%
E&M Works	50%
HM Works	53%
Total Project Completion	**51%**

Source: Company

Amount Spent#	Rs. Crores
Land	17.00
EPC and plant & machinery	1,670.00
Preliminary & Preoperative Expenses	248.00
Financing Costs & IDC	2,035.00
Total	**3,970.00**

Source: Company
As on December 31, 2017

Key Investment Highlights

Large single location hydro power generation capacity	Run of the river project minimizing any impact on the environment	Well connected by road with existing infrastructure would help in smooth implementation and operations
Geological mapping of all Project components have been done	Upstream 1710 MW of operational capacity	New Proposed Hydro Power Policy with 4% interest subvention for 7 years
Assured revenue potential through future PPA agreements	Pooling station for power evacuation from project is near power station minimizing further capex costs	No hydrology risk given upstream NHPC project upstream has been generating as per design energy