



Khimti Those Siwalaya Storage Hydropower Project

(1216 MW)



Government of Nepal
Investment Board Nepal



Background

The Khimti Those Siwalaya Storage Hydropower Project (KTSSHPP) in Nepal's Dolakha and Ramechhap districts is strategically located upstream of the operational Khimti-I Hydropower Project (60 MW) and the upcoming Khimti-II Hydropower Project (48 MW) with a capacity of 1216 MW and an annual energy output of 1411.35 GWh. The project area is reachable by a motorable road. The proposed dam site sits 10 km upstream from Khimti Bazar, near the confluence of Khimti and Tamakoshi Rivers. Khimti Bazar lies 14 km north of Manthali, a 4-hour drive away, which is approximately 100 km from Kathmandu via the Khurkot-Dhulikhel route (BP Highway). The road features single lanes with occasional passing niches. Access to the proposed dam area near Those Village is also possible from Kathmandu via motorable roads, with the reservoir area accessible from Those, Siwalaya, and Garjhyang Rural Municipality.



Sector:
Hydropower



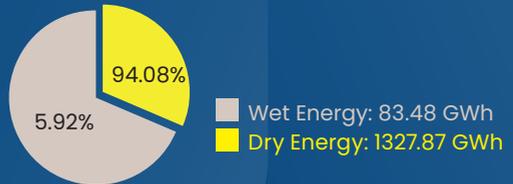
Location:
Border, Ramechhap and
Dolkha district



Land Required:
N/A

Salient Feature:

- Installed Capacity: 1216 MW
- Annual Energy: 1411.35 GWh



Features/Components

- Catchment Area at dam site: 238 km²
- Design discharge: 117.34 m³/s
- Net Head: 1172.5 m
- Concrete gravity dam height: 218 m
- Horseshoe-shaped Head Race Tunnel with length 11.7 Km and 7.2 m diameter
- 4 gated spillways accommodating a design flood of 3131.20 m³/s and addition 4 bottom outlets
- Surge tanks: Underground with 10m diameter at a height of 221m
- Underground four main penstocks made up of 2.6 m diameter and 2355 m length
- Eight units of Pelton turbine each with capacity of 152 MW
- Powerhouse: Underground cavern (167m*21m*40m)
- Horse-shoe type tailrace tunnel with length 5.5 Km and 8 m Diameter
- Transmission lines: 400 KV with length 5 Km to New Khimti substation

**Based on interim draft report of January 2024*

Project Outcome



Increased electricity generation capacity



Enhanced regional connectivity and access to remote areas



Fisheries Enhancement



Promote Tourism and Recreation



Contribution to sustainable development and environmental conservation



Support for water resource management including flood control



Revenue generation and job creation during construction and operation

Financial Indicators

Estimated Project Cost*

NPR 289,770 Million
(\$2180.36 Million)

Note: 1 USD = NPR 132.9



Pay-back period (Y)
19.31



Economic IRR
12.15 %

*Based on interim draft report of January 2024

Project Implementation Modality



Public Private Partnership (PPP model)

Project Implementation Timeline



Additional Information

The estimated construction of this project is 8 years. This project is just upstream of under operation project Khimti-I hydropower (60 MW) and under construction project Khimti-II hydropower project (48 MW). Construction of this project shall compensate for these projects.



Pic 1: Project Layout

Relevant Agencies

- Investment Board Nepal (IBN)
- Ministry of Energy, Water Resources and Irrigation (MoEWRI)
- Department of Electricity Development (DOED)

About the Agency

Agency Name: Investment Board Nepal

Investment Board Nepal is a high-powered agency chaired by Rt. Hon. Prime Minister established as a nodal agency for Public Private Partnership (PPP) and investment promotion in Nepal. Since its establishment, IBN has played an instrumental role in implementing transformative infrastructure projects fundamental to bolstering socio-economic development of the country. IBN has provided investment approvals. Being guided by the Long-term Vision (2043), the 15th Plan and other subsequent policies of the Government of Nepal; and international commitments such as Sustainable Development Goals, IBN has been developing credible and bankable projects to garner investment.

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