Ghunsa Khola Hydroelectric Project (77.5 MW)





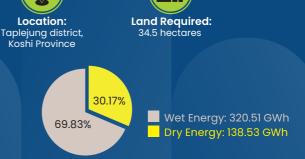
Background

GKHEP developed by Remit Hydro Limited (RHL), represents a Run-of-the-River (RoR) hydropower scheme designed to harness the potential of Ghunsa Khola. The project is in the Taplejung District with installed capacity of 77.5 MW and total annual energy generation of approximately 460 GWh. This Hydropower Project has achieved a significant milestone by securing the License for Production of Electricity, Environment clearance and the PPA (being finalized). The project benefits from a well-established network of access roads, including the 242 km HO-7 highway leading to Phungling Bazaar and the North-South Olangchungola road, further enhanced by RHL's construction of two bailey bridges at Ranipul and Handrung (in Tamor River), ensuring seamless accessibility to the project site and its powerhouse.



Salient Feature:

- Scheme: Run of River (RoR)
- Installed Capacity: 77.5 MW
- Energy: 459.04 GWh



Features/Components

- Diversion weir (32m wide)
- Two side intakes
- Two radial gates under sluices, each measuring 3.5m x 4.5m
- Two connecting tunnels, 3.10 x 3.10 meters, with
 lengths of 153.50m and 120.70m
- Two desilting chambers, each 62m long and 11.5m wide
- 4.208 km-long headrace tunnel guiding flow towards power generation unit
- Powerhouse cavern with Pelton turbines and generators
- 55.6m high surge shaft for pressure regulation

Project Outcome



Ensuring Energy Security



Promote Tourism and Development



Increment in local economic ventures



Achievement of Sustainable Development Growth and Green Growth



Enhancing local infrastructure, including access roads & bridges



Employment Opportunities

Financial Indicators FIRR (%) 15.39 NPV 7,148.911 Million NPR Debt **Equity Ratio** 70:30 53.8 Million USD **Estimated Project Cost** NPR 18,133.47 Million (\$136.44 Million) Benefit Pay-back **Cost Ratio** period (Y) 1.29 Note: 1 USD = NPR 132.9 **Project Modality & Requirement Project Seeking Finance** Public Build Own Private Seeking lenders to Operate Partnership finance 70% of the total Transfer project cost as a debt (PPP model) (BOOT) **Project Implementation Timeline** 2001 2019 2023 Updated Supplementary Project Ideation/ feasibility FIÁ **Ranking Studies** study Feasibility Detailed

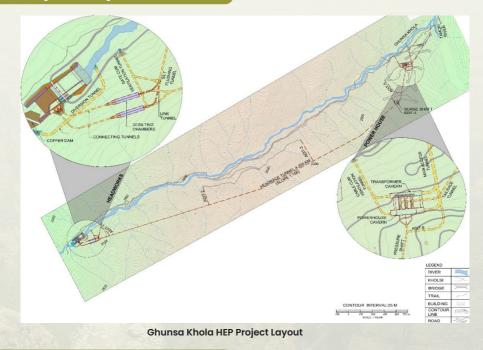
Project Report

2022

Study/EIÁ

2012

Project Layout



Relevant Agencies

- Nepal Electricity Authority (NEA)
- Hydroelectricity Investment and Development Company Limited (HIDCL)
- Vidyut Utpadan Company Limited (VUCL)
- Remit Hydro Limited (RHL)

About the Agency

Agency: Remit Hydro Limited

Remit Hydro Limited, as the project owner, leads innovation in Nepal's hydroelectric sector, reflecting the government's vision for diversified investments and expanded opportunities. By developing projects like GKHEP, RHL supports national goals of GDP growth and sustainable development, aiming to empower local communities and ensure energy security. Through strategic infrastructure investments, RHL fosters economic stability and aligns with Nepal's aspirations for energy independence. GKHEP's integration into the "Janatako Jalawidhyut Karyakram" underscores its significance in Nepal's energy strategy and its potential for socio-economic development. RHL remains committed to reshaping the energy landscape, driving progress, and securing a prosperous future for Nepal.

Website: https://remithydro.org.np/ Email: info@remithydro.org Phone: +977-01-4581780

