



Mugu Karnali

Storage Hydroelectric Project

(1902 MW)



Background

Mugu Karnali Storage Hydroelectric project is a storage scheme hydropower designed to harness the potential of Kranali River. The Project is located at Bajura District with installed capacity of 1902 MW and total annual energy generation of 6291.8 GWh. Ministry of Energy, Water Resource and Irrigation has awarded Survey License of Mugu Karnali Storage Hydro Electric Project (1902 MW) to Vidhyut Utpadan Company Limited (VUCL) on July 06, 2018 and after completion of feasibility study VUCL has applied for Generation License at DOED on June 27, 2023.



Sector:
Storage

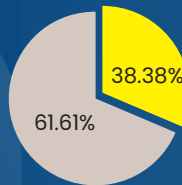


Location:

Karnali river in Bajura district of Sudurpaschim Province and Mugu, Humla and Kalikot district of Karnali Province

Salient Feature:

- Storage project with a capacity of 1902 MW.
- Annual energy generation: 6291.8 GWh



■ Wet Energy: 3876.8 GWh
■ Dry Energy: 2415 GWh

Features/ Components

- Catchment area at intake: 16,098.30 km²
- Design discharge: 762.5 m³/s
- Gross head: 276.0m
- Rock Fill Dam with Central Impervious Core and Filter with height 283 m
- 4 number of Side intake
- Main spillway is Low Ogee Shaped gated Chute
- 4 number of circular underground tunnel type water conveyance with diameter 8 m with each 565 m length
- Restricted orifice surge shaft
- Underground Powerhouse
- 2 number of Underground inverted D-shaped tail race Tunnel with length 1,040 m
- 8 number of Vertical Axis Francis Turbine
- Transmission Line: 400 kV D/C approx. 42.0 km length
- Connection Point: Rengil Substation, Kalikot district (to be developed by RPGCL)

Project Outcome



Excess energy Export to neighboring country



Achievement of Sustainable Development Growth and Green Growth



Promote Tourism and Development



Enhancing local infrastructure, including access roads & bridges

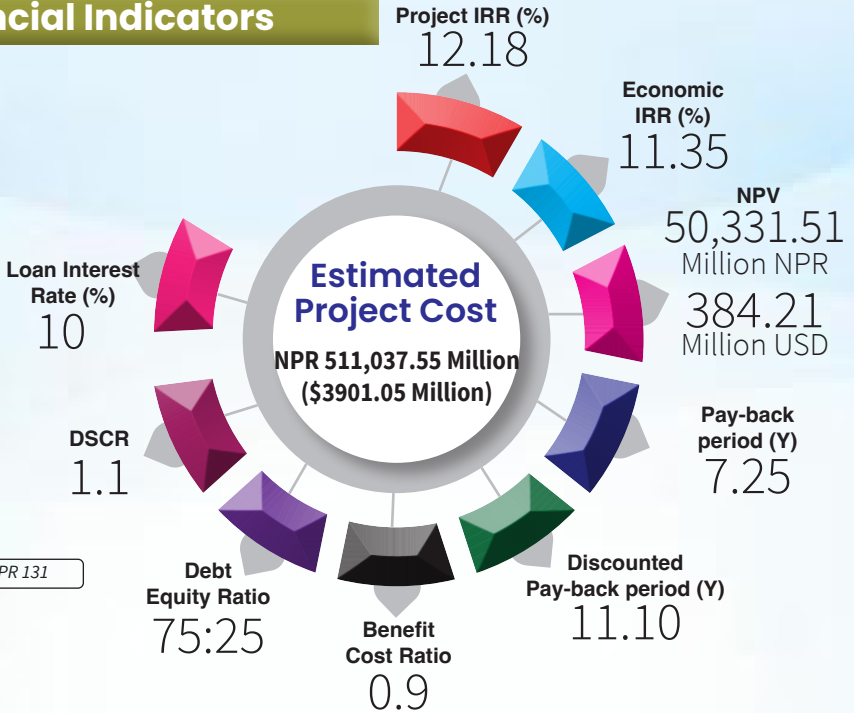


Increment in economic activities



Employment Opportunities

Financial Indicators



Project Modality & Requirement



Public Private Partnership
(PPP model)

Build Own Operate Transfer
(BOOT)

Project Seeking Finance



Seeking lenders to finance 75% of the total project cost as a debt

Project Implementation Timeline

