

Transmission Line and Associated Substation Project





Background

This 400 kV double circuit line starts from the Sitalpati (Arun-Hub) substation at Sankhuwasabha district and connects the Inaruwa Substation at the Sunsari District. This is the major transmission line planned to evacuate the power generated from the Arun River Corridor.

LOT 1:

Arun Hub (Sitalpati)-Inaruwa 400kV Transmission Line

LOT 2:

Expansion of Sitalpati 400 kV GIS Substation at Sankhuwasabha district



Energy



Location:

Sunsari, Dhankuta, Bhojpur and Sankhuwasabha districts



Land Required: 437 hectares

To expand electricity access, ensure

Sitapati 400 kV GIS substation located in Sankhuwasabha district where extension will be carried out.

energy reliability, explore energy export, and engage with local communities.

- Length: 95 km
- Number of Circuits. :2 (Double)
- Conductor: Moose Conductor (Quad)
- No. of Towers: 251
- Average Span: 391 m
- Starting Point: Sitalpati Substaion
- **Ending Point: Inaruwa Substation**
- 400 kV Gas Insulated Switchgears Substation
- Gas Insulated Switchgear
- Outdoor equipment
- **Indoor Equipment**
- Earthing, lightning protection on the extended area

Project Outcome



Encourage power producers to invest in this corridor for hydroelectricity generation.



Improved reliability and quality (Voltage/Frequency) of power supply

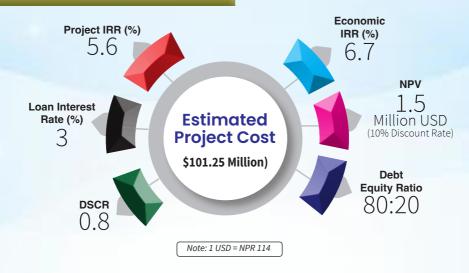


Reduced transmission and distribution loss



Job creation and economic development

Financial Indicators



Financing Requirements

Project Seeking Finance (Debt Finance)

Project Financing Plan		
Source	Amount (Million USD)	Share of Total (%)
Equity (GoN and NEA)	20.25	20.00%
Remaining for Lending	81	80.00%

Seeking lenders to finance 80% of the total project cost as a debt.

Project Implementation Timeline



Additional Information

In the year 2040, more than 3000 MW of power is expected to be generated in the Arun River corridor [Upper Arun HEP (1061 MW), Ikhuwa Khola HEP (40MW), Kimathanka Arun HEP (482 MW) etc.] and this project facilitates the transmission of power generated from them.



Pic 1: Project Layout

Relevant Agencies

- Ministry of Energy, Water Resource and Irrigation (MoEWRI)
- Nepal Electricity Authority (NEA)

About the Agency

Nepal Electricity Authority (NEA):

The Nepal Electricity Authority (NEA) is Nepal's government-owned utility overseeing electricity generation, transmission, distribution, and sales. It aims to provide reliable, affordable, and sustainable energy solutions, fostering national development and enhancing citizens' lives. Its mission is to ensure reliable electricity supply, promote renewables, and maintain environmental sustainability. Its objectives include expanding access, improving infrastructure, promoting renewables, driving economic growth, ensuring equitable distribution, and fostering transparent operations. It is pivotal in Nepal's energy sector for sustainable development.

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