Project Data Sheet

Project Name: Uttarakhand Climate Resilient Power System Development Project

Project Number: 51308-008

Country / Economy: India

Project Status: Approved

Project Type / Modality of Assistance:
- Grant
- Loan

Source of Funding / Amount:

**Grant 9238-IND: Harnessing Renewable Energy for Sustainable Rural Development**

- Japan Fund for Prosperous and Resilient Asia and the Pacific
- US$ 2.00 million

**Loan 4402-IND: Uttarakhand Transmission Strengthening & Distribution Project**

- Ordinary capital resources
- US$ 200.00 million

Operational Priorities:
- OP1: Addressing remaining poverty and reducing inequalities
- OP2: Accelerating progress in gender equality
- OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- OP4: Making cities more livable
- OP5: Promoting rural development and food security
- OP6: Strengthening governance and institutional capacity

Sector / Subsector: Energy / Electricity transmission and distribution - Energy efficiency and conservation - Renewable energy generation - solar

Gender: Effective gender mainstreaming

Description:
The proposed Uttarakhand Power Transmission Strengthening and Distribution Improvement Project will expand the coverage and strengthen the capacity of the transmission network to improve the reliability of power supply to support the distribution network, better utilize the state's indigenously available hydropower resources. It will develop a disaster- and climate-resilient distribution system in the capital city of Uttarakhand. It will also support in developing community-based energy generation and livelihood opportunities.
Project Rationale and Linkage to Country/Regional Strategy

The power sector in Uttarakhand has been unbundled under the Electricity Act 2003 into three independent utilities: (i) Uttarakhand Jal Vidyut Nigam Limited (UJVNL) for power generation; (ii) Power Transmission Corporation of Uttarakhand (PTCUL) for transmission and; (iii) Uttarakhand Power Corporation Limited (UPCL) for distribution. The state's total installed electricity generation capacity was 3,356 MW as of March 2018. Of this, 1,816 MW (54.11%) is generated from hydropower, 520 MW (15.5%) from natural gas, 440 MW (13.1%) from coal, 547 MW (16.3%) from other renewable energy (0.07% from small hydro, wind and solar) and 31 MW (0.92%) from nuclear sources. It experienced a peak energy deficit of 0.7% in FY2017/2018 and is anticipating 3% energy shortage in FY2018/2019.

To bridge the energy gap, a number of generation projects are in various stages of implementation. Hydropower potential in Uttarakhand is estimated to be 25,000 MW, of which only 3,600 MW have been developed. About 5,500 MW of new hydropower plants are under construction in four river basins of Uttarakhand (Bhagirathi, Alaknanda, Sharda and Yamuna). However, the capacity of the present transmission system is not sufficient to evacuate the power generated from the proposed new hydropower stations. Thus, the expansion of transmission network will play a vital role not only in evacuating power from new generation projects to load centers efficiently but also in reducing power purchase cost which otherwise need to be purchased from expensive gas-based power plants or short-term power from central exchanges.

At the same time, expansion of the distribution network in Dehradun, the capital city of Uttarakhand and a favorite tourist destination, has become very critical. However, it is becoming difficult to find space to expand the existing overhead distribution network which is aged and overloaded, leading to increased number of outages and higher technical losses. It is facing acute pressure from vehicular traffic due to narrow roads, lack of planning in the past and hilly terrain of the district. Road traffic congestion is affecting the number of tourists visiting during the peak season. This situation demands immediate solution for expansion of the distribution network without serious impact on the road infrastructure.

Impact

Impacts the Project is Aligned with
(i) Continuous reliable power for all electricity consumers in Uttarakhand achieved (24x7 Power for All Uttarakhand and Uttarakhand Action Plan on Climate Change)
(ii) Clean energy transition of Uttarakhand catalyzed (Uttarakhand Vision 2030 and Uttarakhand Solar Policy 2023)

Project Outcome

Description of Outcome
Efficiency, reliability, and quality of power supply to consumers in Uttarakhand improved

Progress Toward Outcome

Implementation Progress

Description of Project Outputs
Power network strengthened, modernized, and climate proofed
Institutional capacity of implementing agencies enhanced
Inclusive energy-based livelihood and career paths in the energy sector promoted.
Status of Implementation Progress (Outputs, Activities, and Issues)

Geographical Location: India, Uttarakhand

**Safeguard Categories**

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<td>Environment</td>
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<td>Involuntary Resettlement</td>
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<td>Indigenous Peoples</td>
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**Summary of Environmental and Social Aspects**

Environmental Aspects

- Involuntary Resettlement

- Indigenous Peoples

**Stakeholder Communication, Participation, and Consultation**

- During Project Design
- During Project Implementation

**Business Opportunities**

**Consulting Services**

All procurement of goods, works, nonconsulting, and consulting services will be undertaken in accordance with ADB Procurement Policy (2017, as amended from time to time) and ADB’s Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

**Procurement**

All procurement of goods, works, nonconsulting, and consulting services will be undertaken in accordance with ADB Procurement Policy (2017, as amended from time to time) and ADB’s Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

**Responsible ADB Officer**

Kolantharaj, Jaimes

**Responsible ADB Department**

Sectors Group

**Responsible ADB Division**

Energy Sector Office (SG-ENE)

**Executing Agencies**

Government of Uttarakhand
Uttarakhand Energy Department (UED)

**Timetable**

- **Concept Clearance**: 16 May 2019
- **Fact Finding**: 24 Mar 2023 to 05 Apr 2023
- **MRM**: 29 Sep 2023
- **Approval**: 01 Dec 2023
- **Last Review Mission**: -
- **Last PDS Update**: 01 Dec 2023