



Nepal: South Asia Subregional Economic Cooperation Power Transmission and Distribution System Strengthening Project

Project Name	South Asia Subregional Economic Cooperation Power Transmission and Distribution System Strengthening Project				
Project Number	50059-003				
Country	Nepal				
Project Status	Proposed				
Project Type / Modality of Assistance	Grant Loan				
Source of Funding / Amount	<table border="1"> <tr> <td>Loan: South Asia Subregional Economic Cooperation Power Transmission and Distribution System Strengthening Project</td> <td></td> </tr> <tr> <td>concessional ordinary capital resources lending / Asian Development Fund</td> <td>US\$ 200.00 million</td> </tr> </table>	Loan: South Asia Subregional Economic Cooperation Power Transmission and Distribution System Strengthening Project		concessional ordinary capital resources lending / Asian Development Fund	US\$ 200.00 million
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration				
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships Private sector development				
Sector / Subsector	Energy - Electricity transmission and distribution				
Gender Equity and Mainstreaming	Effective gender mainstreaming				
Description	<p>The Asian Development Bank (ADB) will provide a loan to the Government of Nepal (the government) to (a) upgrade 220/132 kilovolt (kV) substations to 400/220/132 kV substations to enable electricity generated from independent power producer (IPPs) plants in the Khimti hydropower corridor to be exported to India; (b) construction of three 132/11 kV substations in Teku, Koteshwor, and Thapathali which will increase supply capacity into the Kathmandu Valley; (c) modernizing and reinforcing four distribution centers around Kathmandu Valley to be able to meet increasing domestic demand for electricity; and (d) construction of 33 kV, 11 kV, and 0.4 kV lines and substations to facilitate connection of approximately 150,000 new customers in Nepal's Province 2 in the country's southeast region. The proposed project complements the efforts of Millennium Challenge Corporation (MCC) to strengthen parts of Nepal's high-voltage transmission network and complete Nepal's portion of the second cross-border transmission line with India for increasing electricity trade.</p>				
Project Rationale and Linkage to Country/Regional Strategy	<p>Nepal is a landlocked, mountainous country located between large and fast-growing economies of People's Republic of China to the north and India to the east, west, and south. It is classified as a low-income, least developed country with gross national income (GNI) per capita of \$800 in 2017. The government is pursuing an accelerated growth path for Nepal to become a lower-middle income country by 2030, with a per capita GNI of at least \$1,026. Nepal has long recognized that the development of its large hydropower potential is an important cornerstone for poverty reduction and economic growth.</p> <p>Sector challenges. Following years of facing chronic electricity shortages during Nepal's dry winter months, Nepal Electricity Authority (NEA) has made significant improvements in electricity supply over FY2016/2017 and FY2017/2018. This was achieved through a combination of (i) increased electricity imports from India (around 400 MW); (ii) increased transmission capacity and operational flexibility by commissioning of new transmission facilities; and (iii) better load management of major industrial customers. However, the transmission system continues to need strengthening for smooth power flows from power supply locations to the load centers. At the same time, even though about 63% of the population in Nepal has access to electricity from the main grid, the supply has been unreliable and inadequate. These require immediate upgrading and expansion of the distribution system. The ongoing challenges NEA is facing may be characterized by: (i) inadequate generation capacity especially during dry season; (ii) insufficient transmission and distribution capacity; (iii) high technical and commercial losses especially in Province 2 due to under-performing and aging assets with poor collection efficiency and inadequate tariff; and (iv) lack of institutional capacity to prepare and implement power projects using high level technologies effectively.</p> <p>Government priorities. In 2019, the Government of Nepal initiated plans to install an additional 10,000 MW of generation capacity over the next 10 years and export the excess electricity to India and Bangladesh. The government has recognized the immediate need to reinforce and upgrade transmission lines and associated substations including strengthening the distribution networks. These investments will help address the country's power crisis and ensure universal access to reliable electricity supply for all by 2030. These efforts will contribute in promoting sustainable energy for all (Sustainable Development Goal #7) and achieving Nepal's Nationally Determined Commitments for the United Nations Framework Convention on Climate Change to (i) reduce its dependency to fossil fuel by 50%; and (ii) achieve 80% electrification through mix of renewable energy by 2025. The much-awaited Electricity Regulatory Commission has now been operationalized since mid-May 2019 to promote and protect competition in the electricity market, among others.</p> <p>In this context, the focus of Nepal's power system investment program is now gearing towards concentrating on delivery of reliable and quality supply of electricity to all its customers and on exporting excess power to India. Such quality of supply improvement is particularly important for high value customers in and around Kathmandu Valley and in corridors earmarked for industrial development. Currently, NEA is implementing the Power Transmission and Distribution Efficiency Enhancement Project (PTDEEP) in Kathmandu Valley with financial assistance from ADB. The scope of PTDEEP includes construction of grid substations and reinforcing and modernizing electricity distribution infrastructure within Kathmandu Valley, initially focusing on the critical Maharajgunj and Ratnapark distribution centers. It is also supporting installation of 98,000 smart meters and associated infrastructure and is expected to be completed by 2021.</p> <p>The proposed Power Transmission and Distribution System Strengthening Project will complete the reinforcement and modernization of supply in and around Kathmandu. The project will also ensure that hydropower generation can be evacuated and transmitted to the critical Kathmandu and outside load centers and the excess traded with neighboring countries. This project will also begin strengthening the distribution system outside Kathmandu in a systematic and phased manner starting with Province 2 where about 20% of the people are still without access to the grid power and those who with access face low quality and unreliable electricity supply. At the provisional level, NEA does not record electricity network performance, quality and reliability statistics. However, it is estimated that Province 2 is the worst performing on most measures with losses as high as 50% in some areas.</p>				
Impact	Reliable and efficient electricity for all by 2030 achieved (National Energy Crisis Reduction and Electricity Development)				

Outcome	Access, reliability, efficiency of power supply in Nepal improved
Outputs	Power system transmission capacity increased Distribution system in Kathmandu Valley and Bharatpur modernized with high-level technology Distribution network in Province 2 improved
Geographical Location	Nation-wide

Safeguard Categories	
Environment	B
Involuntary Resettlement	B
Indigenous Peoples	B

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	A project supervision consultant will be hired to support NEA in implementing the project. Procurement (including consulting services) will follow ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). As requested by NEA, advance contracting and retroactive financing will be considered, subject to a ceiling of 20% of the loan amount and a time limit of not more than 12 months prior to the date of the respective loan agreement.
Procurement	The EA has been implementing ADB projects and has a PMD in place. Under the PMD, a Project Management Unit will be established and supported by project management consultants. Project procurement classification B is appropriate

Responsible ADB Officer	Jiwan S. Acharya
Responsible ADB Department	South Asia Department
Responsible ADB Division	Energy Division, SARD
Executing Agencies	Nepal Electricity Authority (NEA) P. O. Box 5352 Kathmandu Nepal

Timetable	
Concept Clearance	05 Oct 2019
Fact Finding	30 Sep 2019 to 04 Oct 2019
MRM	25 Nov 2019
Approval	-
Last Review Mission	-
Last PDS Update	05 Oct 2019

Project Page	https://www.adb.org/projects/50059-003/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=50059-003
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