Project Data Sheet

Project 44219-015

Project Name	South Asia Subregional Economic Cooperation (SASEC) Power System Expansion Project
Project Number	44219-015
Country / Economy	Nepal
Project Status	Closed
Project Type / Modality of Assistance	Technical Assistance

TA 8412-NEP: South Asia Subregional Economic Cooperation (SASEC) Power System Expansion Project

Source of Funding / Amount	People's Republic of China Poverty Reduction and Regional Cooperation Fund	US$ 500,000.00
	Japan Fund for Prosperous and Resilient Asia and the Pacific	US$ 1.00 million

Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration
Drivers of Change	Gender Equity and Mainstreaming
Sector / Subsector	**Energy** / Electricity transmission and distribution
Gender	Effective gender mainstreaming
Description	The proposed NEP: South Asia Subregional Economic Cooperation (SASEC) Power System Expansion Project (Project) is being designed to address these urgent needs of the Nepal power system. Transmission network strengthening and expansion, in conjunction with current hydropower generation development, is a precondition to reducing load shedding and increasing cross border power trade. The Project's Basic Information, the power sector Problem Tree, the Design and Monitoring Framework and the Initial Poverty and Social Analysis are attached as Appendix 1, 2, 3 and 4, respectively.

Project Rationale and Linkage to Country/Regional Strategy	Nepal is endowed with vast hydropower potential, with theoretical hydropower potential of 83,000 megawatts (MW), of which 43,000 MW is considered economically viable. However, Nepal is facing chronic power shortages where only 44% of the country's households have grid access to electricity. Electricity supply can be interrupted for 14-18 hours a day during the dry season. This is mainly due to inadequate generation capacity and transmission network. While Nepal has been making significant investments to increase the generation capacity including six hydropower projects totaling 592 MW under construction, and 1,735 MW planned in the near to medium term , the limited power evacuation network is becoming the bottleneck of meeting domestic power demand as well as power trade with neighboring countries. The country has a transmission system master plan, but it needs to be updated . The institutional capacity of system planning for the sole utility in power sector, Nepal Electricity Authority (NEA), needs to be enhanced, and the transmission and distribution departments of NEA needs to be ring fenced. A separate power trading company shall be established to be in charge of power exchanges with neighboring countries. By 2012, Nepal only had 2,130 circuit km 132 kV, and 511 circuit km 66 kV transmission lines. There is one existing cross-border connection in western Nepal to Tanakpur, India of around 100MW capacity. In eastern Nepal, the transmission lines along Tamur and Arun basins funded by the World Bank and Government of India are under development. A major cross-border transmission line between Dhalkebar in Nepal and Muzarffarpur in India, with a capacity of 1000 MW, is in progress on both sides of the border . This will help improve the power exchange between Eastern Nepal and India, particularly export of hydropower from Tamakoshi basin. The load centers of Nepal are located mainly in the central area of the country. In the same area, large-scale hydropower developments are underway in the Kali Gandaki basin and Marsyangdi basin, targeting both domestic demand and export to India. Independent Power Producers (IPPs) hydropower projects of 92MW and 119MW respectively are scheduled to be commissioned in Kali Gandaki basin and Marsyangdi basin by 2018 according to the power purchasing agreements signed between the IPPs and the NEA. NEA will face large penalties if the power evacuation facilities in the two basins cannot be put in place in time. Further, additional 840MW and 662MW hydropower plants are to be developed in the Kali Gandaki basin and Marsyangdi basin in the medium term. Therefore, the Government has prioritized the implementation of transmission lines in Kali Gandaki corridor (220/400 kV double circuit) and Marsyangdi corridor (220kV double circuit), and requested ADB's financing support. The Government is also planning the second cross-border transmission line from Bardghat in central Nepal to Gorakhpur in India to export electricity from hydropower projects in Kali Gandaki and other basins. The proposed Project will support the construction and operation of national high-voltage transmission lines for domestic demand and also enhance cross-border power trading capacity. In the near term, power trading between Nepal and India will be mainly imports from India. Some export of wet season surplus power is likely in the medium term. In the longer term, power trading will be mainly exports to India as a year-round daily power surplus is developed and the high-voltage transmission network is expanded to support large-scale hydropower development. The interconnection between Nepal and India will eventually form part of interconnected SASEC power systems.
Impact	

Project Outcome

Description of Outcome

Progress Toward Outcome

Implementation Progress

Description of Project Outputs

Status of Implementation Progress (Outputs, Activities, and Issues)

Geographical Location

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	The project will be executed over a period of 5 years from the date of loan approval. The design and implementation consultants (firm and individuals) will be recruited under ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). All procurement to be financed under the ADB loan or loans administered by ADB will be carried out in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). The equipment purchased under the PPTA will be transferred to NEA on the completion of the TA. Approval for advance contracting and retroactive financing will be required.
Responsible ADB Officer	Zhang, Hongwei
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	-
Fact Finding	-
MRM	-
Approval	30 Jul 2013
Last Review Mission	-
Last PDS Update	29 Sep 2014

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Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
30 Jul 2013	22 Aug 2013	22 Aug 2013	31 Dec 2015	31 Dec 2016	01 Jul 2017

Financing Plan/TA Utilization

Cumulative Disbursements

ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	1,500,000.00	0.00	0.00	0.00	0.00	1,500,000.00	17 Jun 2022	1,155,494.35