ADB ASIAN DEVELOPMENT BANK

Nepal: South Asia Subregional Economic Cooperation Power System Expansion Project

Project Name	South Asia Subregional Economic Cooperation Power System Expansion Project
Project Number	44219-014
Country	Nepal
Project Status	Active
Project Type / Modality of Assistance	Grant Loan Technical Assistance
Source of Funding / Amount	**Grant 0397-NEP: South Asia Subregional Economic Cooperation Power System Expansion Project** Government of Norway — US$ 60.00 million **Grant 0398-NEP: South Asia Subregional Economic Cooperation Power System Expansion Project** Strategic Climate Fund — US$ 11.20 million **Loan 3139-NEP: South Asia Subregional Economic Cooperation Power System Expansion Project** concessional ordinary capital resources lending / Asian Development Fund — US$ 180.00 million **Loan: South Asia Subregional Economic Cooperation Power System Expansion Project** European Investment Bank — US$ 120.00 million **TA 8678-NEP: Supporting Rural Electrification Through Renewable Energy** Technical Assistance Special Fund — US$ 500,000.00 **Grant 0520-NEP: South Asia Subregional Economic Cooperation Power System Expansion Project** Strategic Climate Fund — US$ 20.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration
Drivers of Change	Governance and capacity development Partnerships
Sector / Subsector	**Energy** - Electricity transmission and distribution - Renewable energy generation - small hydro - Renewable energy generation - solar - Renewable energy generation - wind
Gender Equity and Mainstreaming	Effective gender mainstreaming
Description	ADB assisted the Government of Nepal in increasing capacity of national power grid and enhancing renewable energy development. The South Asia Subregional Economic Cooperation Power System Expansion Project is building more than 200 kilometers of power transmission lines, as well as substations, along Kali Gandaki corridor in the Himalayas and Marsyangdi-Kathmandu route. The project is also building or upgrading more than 1,000 kilometers of power distribution lines in the east, central, and west regions of the country. To bring affordable renewable energy to remote areas, the project is building small hydroelectric power plants, as well as mini-grid based solar and solar/wind hybrid energy systems.
Project Rationale and Linkage to Country/Regional Strategy	Nepal is facing chronic power shortages. Only 65% of the country's households have access to electricity and per capita electricity consumption is 102 kilowatt-hours per year, one of the lowest in the world. The installed capacity is 762 megawatts, well below the peak demand of 1,095 megawatts. As a result, consumers connected to the national grid experience scheduled power cuts of 12 hours per day or more during the dry season. In addition, the limited power transmission and distribution network is a bottleneck both for meeting domestic power demand and for potentially trading power with neighboring countries.

Impact	Increased electricity access in Nepal and improved power exchange across the border

Project Outcome

Description of Outcome	Increased capacity of national grid and enhanced renewable energy development
Progress Toward Outcome	Procurement and implementation works are ongoing for capacity increment of national grid as well as renewable energy devleopment. Project outcome is likely to be achieved.
Implementation Progress	
Description of Project Outputs	1. Power transmission capacity increased 2. Power distribution network improved 3. Mini-grid-based renewable energy systems in off-grid areas increased 4. Capacity development support to NEA and AEPC provided.
Status of Implementation Progress (Outputs, Activities, and Issues)	Implementation has started for construction of 220 kV Dana-Kushma transmission line and associated substations at Dana and Kushma. Work has also started for construction of 220 kV Marsyangdi-Kathmandu transmission line and associated substations at Markichowk and Matatirtha. Procurement for 220 kV New Butwa-Bardaghat transmission line is in process. Work is also ongoing for reinforcement of grid substations at Gandak, Butwal, New Kawasoti, Bharatpur, Banepa, Baneshowr, Damauli, Lahan and Dhalkebar. Distribution network improvement projects is also under implementation. Construction of distribution substations and distribution lines in eastern and western region of Nepal are underway. Upgradation of distribution lines is also being done under the component. A mini- grid project at Simrutu khola is under construction. Also a solar wind hybrid system installation at Chisapani is in process. Other mini-grid and off grid renewable energy sub-projects are either in procurement process or being prepared. Project supervision consultant is onboard to support the NEA in project implementation and for capacity development. Consultant for preparation of Distribution and Rural Electrification Master Plan is in recruitment process. Consultants for project implementation support to AEPC are onboard.
Geographical Location	

Safeguard Categories

Environment	B
Involuntary Resettlement	A
Indigenous Peoples	B

Summary of Environmental and Social Aspects

Environmental Aspects	Initial environmental examinations and an environmental assessment and review framework for future unidentified off-grid subprojects have been prepared for both on- and off-grid components following ADB's Safeguard Policy Statement (2009) and the government's environmental regulatory framework. Potential impacts are mostly temporary and reversible, but some irreversible impacts on the natural habitat will occur because of the clearance of about 150 hectares of forested land. Available information on the habitat ranges and elevations of sensitive species indicates that critical habitat will not be directly impacted; potential impacts on natural habitat and potentially sensitive ecosystems have been identified and can be readily mitigated. Due diligence has determined that associated hydropower facilities comply with Nepal's regulatory requirements. Cumulative and induced impacts will have net positive benefits from easier access to energy and productive end uses of energy. Climate change risk screening was conducted and resulted to a medium climate change classification. Risks identified will be addressed through best practice engineering design. The initial environmental examinations and environmental management plans (EMPs) for all components include mitigation measures, monitoring, and budgetary provisions that are adequate to address the environmental impacts of the project. The EMPs' requirements are being incorporated into bidding documents. The NEA and AEPC supervise construction contracts and EMP implementation, including preparation of semiannual monitoring reports. The EMPs will be updated as necessary during implementation. Public consultation and information disclosure requirements have been met. The environmental assessment for the project are disclosed on ADB's website.

Involuntary Resettlement	The project will require land acquisition and involuntary resettlement, which will primarily be economic displacements with limited impact from physical displacement. The transmission and distribution components will have permanent and temporary impacts. Permanent impacts are anticipated from land acquisition for the construction of new transmission substations, distribution substations, transmission towers, and distribution poles. The temporary impacts will be from the loss of trees and crops along the right-of-way. About 715 households will be affected by land acquisition and loss of crops and trees. An initial assessment shows that the project areas do not have any endangered indigenous peoples groups. The magnitude of the impacts on indigenous peoples is not significant. Impacts are limited to loss of portions of land which will be compensated at replacement cost. Where these groups are considered vulnerable, additional resettlement assistance will be provided, in addition to the compensation, and consultations will be carried out to make them aware of the project and to obtain their endorsement for land acquisition. The off-grid component will not have any resettlement impacts for sample subprojects and no adverse impacts on indigenous peoples. The minimum private land requirements for the sample subprojects will be met through voluntary land donation. A due diligence report has been prepared for the sample subprojects. The off-grid component allows for future subprojects, which have not been identified and are subject to due diligence. Therefore, a resettlement framework and an indigenous peoples planning framework have been prepared as required by the Safeguard Policy Statement and related national policies and legislation. AEPC will monitor the implementation of the resettlement and indigenous people plan, and will submit semiannual reports to ADB. Social safeguards measures will be achieved in line with the provisions stated in the PAM. A summary of the initial social safeguards assessment is presented in the summary poverty reduction and social strategy.
Indigenous Peoples	Based on surveys, two draft combined resettlement and indigenous peoples plans have been prepared for the on-grid components, in line with ADB's Safeguard Policy Statement and the government's legal framework.
Stakeholder Communication, Participation, and Consultation	
During Project Design	Stakeholder participation and consultations were conducted during project design.
During Project Implementation	Stakeholder consultations are being conducted during project implementation.

Business Opportunities

Consulting Services	The project will be executed over a period of six years from the date of loan effectiveness. Consultants (individuals and firm) to be financed by ADB funds and ADB administered funds will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). For the procurement to be financed by ADF loan, or jointly by ADF and Norwegian grant, a blanket waiver of member country procurement eligibility restrictions will be applied. Under NEA component, out of the 2 consulting packages, one has been signed and the other one is in final stage of procurement. All consulting services contracts for AEPC has been awarded.
Procurement	The project will be executed over a period of six years from the date of loan effectiveness. All procurement to be financed by ADB fund and ADB administered funds will be carried out in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). For the procurement to be financed by ADF loan, or jointly by ADF and Norwegian grant, a blanket waiver of member country procurement eligibility restrictions will be applied. Under NEA component, out of 10 procurement packages, 7 have been awarded and rest are under procurement process. Under AEPC component, 2 contracts are already awarded while other are at different stages.

Responsible Staff

Responsible ADB Officer	Shah, Grishma
Responsible ADB Department	South Asia Department
Responsible ADB Division	Nepal Resident Mission
Executing Agencies	*Alternative Energy Promotion Center (AEPC)* *INFO@AEPC.GOV.NP* *Khumaltaar Heights* *Lalitpur Sub Metropolitan City* *Nepal* *Nepal Electricity Authority* *Sanepa, Lalitpur* *Nepal*

Timetable

Concept Clearance	31 Jul 2013
Fact Finding	16 Mar 2014 to 21 Mar 2014

MRM	22 Apr 2014
Approval	04 Jul 2014
Last Review Mission	-
Last PDS Update	21 Mar 2017

Grant 0397-NEP

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
04 Jul 2014	14 Nov 2014	15 Jan 2015	30 Jun 2022	-	-

Financing Plan		Grant Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	60.00	Cumulative Contract Awards			
ADB	0.00	04 Jul 2014	0.00	15.34	70%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	60.00	04 Jul 2014	0.00	4.50	20%

Grant 0398-NEP

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
04 Jul 2014	11 Jul 2014	15 Jan 2015	30 Jun 2022	-	-

Financing Plan		Grant Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	11.20	Cumulative Contract Awards			
ADB	0.00	04 Jul 2014	0.00	1.78	16%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	11.20	04 Jul 2014	0.00	1.76	16%

Grant 0520-NEP

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
29 Nov 2016	18 Jan 2017	19 May 2017	30 Jun 2022	-	-

Financing Plan		Grant Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	20.00	Cumulative Contract Awards			
ADB	0.00	29 Nov 2016	0.00	0.00	0%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	20.00	29 Nov 2016	0.00	0.00	0%

Loan 3139-NEP

Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
04 Jul 2014	11 Jul 2014	15 Jan 2015	30 Jun 2022	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	368.80	Cumulative Contract Awards			
ADB	180.00	04 Jul 2014	0.00	105.47	65%
Counterpart	68.80	Cumulative Disbursements			
Cofinancing	120.00	04 Jul 2014	0.00	27.19	17%

TA 8678-NEP

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
04 Jul 2014	05 Aug 2014	05 Aug 2014	30 Jun 2017	31 Dec 2017	-

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
500,000.00	0.00	0.00	0.00	0.00	0.00	500,000.00	04 Jul 2014	242,426.17

Project Page	https://www.adb.org/projects/44219-014/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=44219-014
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