



Regional: Regional Cooperation on Increasing Cross-Border Energy Trading within the Central Asian Power System - Modernization of Coordinating Dispatch Center Energiya (Subproject 1)

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| Project Name | Regional Cooperation on Increasing Cross-Border Energy Trading within the Central Asian Power System - Modernization of Coordinating Dispatch Center Energiya (Subproject 1) | | |
| Project Number | 52112-002 | | |
| Country / Economy | Regional Kazakhstan Kyrgyz Republic Tajikistan Uzbekistan | | |
| Project Status | Active | | |
| Project Type / Modality of Assistance | Technical Assistance | | |
| Source of Funding / Amount | TA 9709-REG: Regional Cooperation on Increasing Cross Border Energy Trading within Central Asian Power System-Modernization of Coordinating Dispatch Center Energiya (Subproject 1) | | |
| | Asian Clean Energy Fund under the Clean Energy Financing Partnership Facility | | US\$ 1.00 million |
| | TA 9709-REG: Regional Cooperation on Increasing Cross-Border Energy Trading within the Central Asian Power System - Modernization of Coordinating Dispatch Center Energiya (Subproject 1) | | |
| | Technical Assistance Special Fund | | US\$ 500,000.00 |
| | High Level Technology Fund | | US\$ 1.00 million |
| | TA 9709-REG: Regional Cooperation on Increasing Cross-Border Energy Trading within the Central Asian Power System - Modernization of Coordinating Dispatch Center Energiya (Subproject 1) | | |
| | Regional Cooperation and Integration Fund | | US\$ 450,000.00 |
| | TA 9709-REG: Regional Cooperation on Increasing Cross-Border Energy Trading within the Central Asian Power System - Modernization of Coordinating Dispatch Center Energiya (Subproject 1) | | |
| | Technical Assistance Special Fund | | US\$ 150,000.00 |
| | Technical Assistance Special Fund | | US\$ 100,000.00 |
| Operational Priorities | OP2: Accelerating progress in gender equality OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability OP6: Strengthening governance and institutional capacity OP7: Fostering regional cooperation and integration | | |
| Sector / Subsector | Energy / Electricity transmission and distribution - Energy sector development and institutional reform | | |
| Gender | Some gender elements | | |
| Description | The technical assistance (TA) subproject will have the following outcome: cross-border clean energy trade increased using high-level technology (HLT) by coordinating dispatch center (CDC) Energiya. The HLT will replace manual processes to allow CDC to operate in a real-time regime. | | |
| Project Rationale and Linkage to Country/Regional Strategy | Diminished power trade in the region. Power trade among Central Asian countries has been declining since the collapse of the Soviet Union in 1991. In 1990, 25,413 million kilowatt-hours (kWh) were traded among Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. By 2010, the energy trade had decreased to 2,256 million kWh following the disconnection of Tajikistan from CAPS in 2009; it bottomed out in 2016 at 2,080 million kWh. The drop in energy trade has caused widespread power outages in Tajikistan in winters and increased fossil fuel use by Kazakhstan, Turkmenistan, and Uzbekistan in summers. While hydropower exports from the Kyrgyz Republic have continued, the lack of hydropower from Tajikistan in summer has forced fossil fuel-rich countries to generate electricity using gas and oil instead of exporting those fuels. Meanwhile, Tajikistan has had to make substantial investments in generating capacity to produce electricity in winter, while being unable to export hydropower in summer. Tajikistan spills large amount of water annually which could have been used to generate about 5 billion7 billion kWh of energy. Because of the limited electricity trading opportunities within CAPS, the Kyrgyz Republic had to find additional trading partners such as the People's Republic of China and Pakistan. | | |
| Impact | CAREC 2030 Program Results Framework Countries' emissions reductions target achieved, regional cooperation framework accomplished, and energy security in selected CAREC countries enhanced | | |
| | | | |
| Project Outcome | | | |
| Description of Outcome | Cross-border clean energy trade increased using high-level technology by CDC Energiya | | |
| Progress Toward Outcome | TA's consulting firm (RTE/EDF) was engaged on 8 Jul 2019 to assess and update the needs of CDC based on the work already performed by other development partners. RTE/EDF completed the needs assessment of CDC, design basis memorandum, and detailed design which were accepted by CDC. The bidding for the modular EDM system was launched on 15 July 2020 with submission deadline on 7 October 2020, extended from original 25 August deadline due to coronavirus disease (COVID-19). 2 bids were received. Financial proposal was opened on 11 January 2021. Negotiations were conducted on 11 and 15 February 2021. Negotiated contract was signed by General Electric Grid Solutions (winning bidder) on 18 March 2021. The regional workshop on knowledge transfer regarding operating intermittent power grids, which was planned to be organized in cooperation with the Japan International Cooperation Agency, was postponed due to COVID-19. The workshop will be held virtually on 2021. A review mission is planned to be conducted by Q3 2021 to assess the progress of the EDM system setup. | | |

| Implementation Progress | |
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| Description of Project Outputs | CDC Energiya modernized, capacitated, and engendered |
| Status of Implementation Progress (Outputs, Activities, and Issues) | <p>1. The consultant firm contract award was on 11 July 2019. The design basis memorandum was prepared and approved by CDC Energiya in January 2020. Detailed design was accepted by CDC on 27 May 2020.</p> <p>2. Two individual consultants have also been engaged as envisaged. The TA coordinator is coordinating the activities of ADB, CDC, implementing agencies, and national dispatch centers.</p> <p>3. As part of increasing the number of women employees in CDC, the gender and development expert conducted surveys and explored opportunities to engage more women students in universities by creating incentive mechanisms and an enabling environment for women employment.</p> <p>4. The regional workshop on knowledge transfer regarding operating intermittent power grids, which was planned to be organized in cooperation with the Japan International Cooperation Agency, was postponed due to COVID-19 and planned to be conducted in 2021.</p> <p>5. A review mission is planned to be conducted by Q3 2021 to assess the progress of the EDM system setup.</p> |
| Geographical Location | Kazakhstan - Nation-wide; Kyrgyz Republic - Nation-wide; Tajikistan - Nation-wide; Uzbekistan - Nation-wide |

| Summary of Environmental and Social Aspects | |
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| Environmental Aspects | |
| Involuntary Resettlement | |
| Indigenous Peoples | |
| Stakeholder Communication, Participation, and Consultation | |
| During Project Design | |
| During Project Implementation | |

| Business Opportunities | |
|------------------------|---|
| Consulting Services | <p>International and national consultants will be recruited individually through framework agreements wherein short-listed consultants may be hired as needed for the duration of the agreement to provide technical expertise and logistical support to ADB and the implementing agencies. Firms will also be recruited using the quality- and cost-based selection with a 90:10 quality-to-cost ratio. The consultants will be engaged in accordance with the ADB Procurement Policy (2017, as amended from time to time) and the associated project administration instructions and/or staff instructions.</p> <p>JICA will be single sourced to organize a regional workshop in Tashkent, Uzbekistan to showcase experiences of Japan power sector especially in dealing with abrupt power changes due to natural calamities. Japan's experience in dealing with abrupt power changes due to natural calamities is importance as many of the CAPS countries experience power intermittency as well. JICA will organize presenters from Agency for Natural Resources and Energy under Ministry of Economy and Industry (ANRE) to share experience in policy setting regarding energy and natural resources; Japan Organization for Cross Regional Coordination of Transmission Operations (OCCTO) to share experience of cross-regional management of electrical businesses; Electricity and Gas Market Surveillance Commission (EGC) to share experience of monitoring of the electricity, gas and heat power trading market for the deregulation of energy market; Japan Electric Power Exchange (JEPX) to share experience in short and forward transactions and facilitation of the conflict mitigation; and TEPCO Power Grid to share dispatch center experience.</p> |
| Procurement | Procurement by the consultant will follow the ADB Procurement Policy (2017, as amended from time to time). |

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| Responsible ADB Officer | Musaev, Shokhimardon |
| Responsible ADB Department | Central and West Asia Department |
| Responsible ADB Division | Energy Division, CWRD |
| Executing Agencies | Asian Development Bank |

| Timetable | |
|---------------------|-------------|
| Concept Clearance | - |
| Fact Finding | - |
| MRM | - |
| Approval | 28 Jan 2019 |
| Last Review Mission | - |
| Last PDS Update | 29 Apr 2021 |

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| Milestones | | | | | |
|-------------|--------------|------------------|-------------|-------------|--------|
| Approval | Signing Date | Effectivity Date | Closing | | |
| | | | Original | Revised | Actual |
| 28 Jan 2019 | - | 28 Jan 2019 | 31 Dec 2021 | 30 Jun 2023 | - |

| Financing Plan/TA Utilization | | | | | | | Cumulative Disbursements | |
|-------------------------------|--------------|-------------|---------------|-----------------|--------|--------------|--------------------------|--------------|
| ADB | Cofinancing | Counterpart | | | | Total | Date | Amount |
| | | Gov | Beneficiaries | Project Sponsor | Others | | | |
| 1,200,000.00 | 2,000,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3,200,000.00 | 13 Dec 2022 | 2,131,261.80 |

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