



# Armenia: Viability Assessment for Potential Wind Power Electricity Generation Projects

Project Name	Viability Assessment for Potential Wind Power Electricity Generation Projects		
Project Number	55332-001		
Country / Economy	Armenia		
Project Status	Approved		
Project Type / Modality of Assistance	Technical Assistance		
Source of Funding / Amount			
	TA 6959-ARM: Armenia: Viability Assessment for Potential Wind Power Electricity Generation Projects		
	Clean Energy Fund under the Clean Energy Financing Partnership Facility	US\$ 1.00 million	
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth		
Drivers of Change	Gender Equity and Mainstreaming Governance and capacity development Knowledge solutions Partnerships Private sector development		
Sector / Subsector	Energy / Energy efficiency and conservation - Renewable energy generation - wind		
Gender Equity and Mainstreaming	Some gender elements		
Description	<p>The Government of Armenia requested support from the Asian Development Bank (ADB) in exploring opportunities to develop Armenia's wind energy potential. ADB responded to the request by preparing the first of two planned phases of technical assistance (TA). The knowledge and support TA concept paper for phase 1 was approved on 26 January 2022 supporting the government's selection of sites for investment in electricity generation from wind and build knowledge of the technical and financial feasibility work. The phase 1 TA will assist the Ministry of Territorial Administration and Infrastructure (MTAI) to comply with the new public investment management (PIM) framework requirements of Armenia. In that sense, it will help inform subsequent decisions in phase 2 on structuring prospective investments and selecting the best procurement options. Phase 1 TA will also help lay the groundwork for a possible public-private partnership (PPP) option if the requirements for it under Armenia's new PIM framework and other fiscal management rules under the new PPP legal and regulatory framework are met when public procurement options are appraised. The phase 2 TA (through a new, second TA project) is planned to support the preparation of a sustainable PPP transaction, in full compliance with national PPP legislation and its competitive bidding principles, when the confirmation of the viability of a commercially oriented wind energy investment under phase 1 TA and all the necessary PIM and PPP framework criteria (including clear value-for-money tests) are received.</p>		
Project Rationale and Linkage to Country/Regional Strategy	<p>A least-cost energy development plan for Armenia (2019), sponsored by the United States Agency for International Development (USAID), identifies the development of Armenia's abundant solar and wind potential as the clear least-cost options for new generation capacity. The baseline scenario of the least-cost energy development plan envisages the introduction of about 500 megawatts (MW) of wind generation capacity, which would provide annual generation of more than 1 billion kilowatt-hours, equal to 17% of current electricity consumption. In the longer term, a doubling of this capacity appears to be economical and will improve Armenia's energy security and independence. Currently, only 35% of Armenia's total electricity demand is met by indigenous resources (primarily hydroelectric), whereas 65% of electricity generation relies on imported natural gas and nuclear fuel. With no indigenous fossil fuel resources, the country is dependent on natural gas and oil imports from the Russian Federation (via Georgia) and Iran, as well as nuclear fuel (also from the Russian Federation) for its nuclear power plant, which provides about 30% of Armenia's electricity generation. The government promotes the development of renewable energy generation capacities in its Energy Sector Development Strategic Program to 2040, including wind power.</p> <p>This TA complements other ADB TA projects, including regional TA for Improved Decision-Making for Climate-Resilient Development in Asia and the Pacific. Armenia's grid emission factor is comparatively low because of the prominence of its nuclear, hydroelectric, and modern and efficient combined-cycle gas turbine plants in its generation mix. Accordingly, the climate change mitigation impact in the development of Armenia's wind power potential is relatively small (compared with other countries in the Central and West Asia region). For Armenia, the paramount driver of renewable energy investment derives from economic and geopolitical energy security concerns (i.e., reduction of reliance on imported gas in favor of indigenous resources).</p>		
Impact	Share of renewable energy sources in electricity production increased and greenhouse gas emissions reduced.		
Project Outcome			
Description of Outcome	Utilization of Armenia's wind power potential increased		
Progress Toward Outcome			
Implementation Progress			
Description of Project Outputs	Armenia's wind potential and grid stability assessed Armenia's wind power potential development increased		
Status of Implementation Progress (Outputs, Activities, and Issues)			
Geographical Location	Nation-wide		
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 Viability assessment and feasibility study; firm

Procurement ADB will engage the consultants and carry out procurement following the ADB Procurement Policy (2017, as amended from time to time) and its associated staff instructions.

Responsible ADB Officer Barseghyan, Areg Arcady

Responsible ADB Department Central and West Asia Department

Responsible ADB Division Energy Division, CWRD

Executing Agencies Ministry of Territorial Administration and Infrastructure

### Timetable

Concept Clearance 26 Jan 2022

Fact Finding 24 Jan 2022 to 22 Jun 2022

MRM -

Approval 27 Sep 2022

Last Review Mission -

Last PDS Update 27 Sep 2022

## TA 6959-ARM

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	1,000,000.00	0.00	0.00	0.00	0.00	1,000,000.00	-	0.00

Project Page <https://www.adb.org/projects/55332-001/main>

Request for Information <http://www.adb.org/forms/request-information-form?subject=55332-001>

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