



## Regional: Energy System Analysis, Technology Road Maps and Feasibility Studies for Pilot Testing

Project Name	Energy System Analysis, Technology Road Maps and Feasibility Studies for Pilot Testing																
Project Number	52041-002																
Country	Regional																
Project Status	Active																
Project Type / Modality of Assistance	Technical Assistance																
Source of Funding / Amount	<table border="1"><tr><td colspan="2"><b>TA 9690-REG: Energy System Analysis, Technology Road Maps and Feasibility Studies for Pilot Testing</b></td></tr><tr><td>Climate Change Fund</td><td>US\$ 700,000.00</td></tr><tr><td>Clean Energy Fund under the Clean Energy Financing Partnership Facility</td><td>US\$ 700,000.00</td></tr><tr><td>Clean Technology Fund</td><td>US\$ 100,000.00</td></tr><tr><td>Republic of Korea e-Asia and Knowledge Partnership Fund</td><td>US\$ 850,000.00</td></tr><tr><td>United States Agency for International Development</td><td>US\$ 250,000.00</td></tr><tr><td>Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility</td><td>US\$ 550,000.00</td></tr><tr><td>People's Republic of China Poverty Reduction and Regional Cooperation Fund</td><td>US\$ 700,000.00</td></tr></table>	<b>TA 9690-REG: Energy System Analysis, Technology Road Maps and Feasibility Studies for Pilot Testing</b>		Climate Change Fund	US\$ 700,000.00	Clean Energy Fund under the Clean Energy Financing Partnership Facility	US\$ 700,000.00	Clean Technology Fund	US\$ 100,000.00	Republic of Korea e-Asia and Knowledge Partnership Fund	US\$ 850,000.00	United States Agency for International Development	US\$ 250,000.00	Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility	US\$ 550,000.00	People's Republic of China Poverty Reduction and Regional Cooperation Fund	US\$ 700,000.00
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth																
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships Private sector development																
Sector / Subsector	<b>Energy</b> - Electricity transmission and distribution - Energy efficiency and conservation - Energy sector development and institutional reform - Energy utility services - Large hydropower generation - Renewable energy generation - biomass and waste - Renewable energy generation - geothermal - Renewable energy generation - small hydro - Renewable energy generation - solar - Renewable energy generation - wind <b>Information and communication technology</b> - ICT industries and ICT-enabled services - ICT strategy and policy, and capacity development <b>Transport</b> - Urban roads and traffic management																
Gender Equity and Mainstreaming	Some gender elements																
Description	The knowledge and support technical assistance (TA) will prepare energy system development scenarios and technology road maps and support the scale-up of innovative energy technologies in developing member countries (DMCs). The TA is aligned with the energy policy of the Asian Development Bank (ADB). It will support ADB in implementing its Strategy 2030 and DMCs in meeting the Sustainable Development Goals (SDGs), including their nationally determined contributions (NDCs) as part of the Paris Agreement on climate change.																
Project Rationale and Linkage to Country/Regional Strategy	Innovative technologies and business models are needed by DMCs to facilitate and speed up transitions, and infrastructure investments must be future-proofed regarding rapid technological evolution and climate change. However, many DMCs have limited knowledge or experience in determining the benefits and risks associated with innovative energy technologies and business models; therefore, they often default to conventional carbon intensive approaches. DMCs may be reluctant to embrace cutting-edge technologies given the lack of understanding of the benefits and risks of using them, as well as perceived higher costs. To mobilize and accelerate investment at the scale necessary to address the SDGs and NDCs, ADB needs to deliver innovative technical and financial assistance that can improve the bankability of infrastructure projects, especially in the energy sector. Pilot projects are often needed to demonstrate in-country technology viability, and dissemination of the knowledge gained through these pilots by connecting Asian countries with knowledge developed in Asia and the Pacific is important along with global knowledge transfer.																

Impact                                      Access to reliable, low-carbon, and cost-effective energy increased

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**Project Outcome**

Description of Outcome                                      Use of sustainable innovative technologies in participating DMCs increased

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Progress Toward Outcome

**Implementation Progress**

Description of Project Outputs                                      Energy system scenarios and technology road maps produced  
City-, country-, and/or region- specific feasibility studies for pilots or investments produced  
Regional knowledge sharing and support of scale-up of innovative technologies and suitable business models disseminated

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

Geographical Location                                      Regional

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**Summary of Environmental and Social Aspects**

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

**Stakeholder Communication, Participation, and Consultation**

During Project Design

During Project Implementation

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**Business Opportunities**

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Consulting Services This method will be used to engage consulting inputs of equivalent to a total of 78 person-months of firm consulting services (37 person-months of international consulting inputs and 41 person-months of national consulting inputs) will be engaged. Below is a summary of the firm consulting services.

International Consultancy Inputs:

- (i) Team Leader / Sustainable Energy Technology Expert (international consultant, 12 person-months)
- (ii) Energy Modeler (international consultant, 8 person-months)
- (iii) Technology Legal and Regulatory Expert (international consultant, 8 person-months)
- (iv) Researchers (international, 3 experts, 3 person months per expert)

National Consultancy Inputs:

- (i) Sustainable Energy Analysts (10 person-months)
- (ii) Sustainable Energy Legal, Regulatory and Policy Analyst (10 person-months)
- (iii) Researchers (3 experts 7 person-months each)

ADB will engage consultants and carry out procurement following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions. National consultants should be nationals of the country where the project is implemented

This method will be used to engage consulting inputs equivalent to a total of 123 person-months of individual consulting services (52 person-months of international consulting inputs and 71 person-months of national consulting inputs) will be engaged. Below is a summary of the consulting services.

International Consultancy Inputs:

- (i) Sustainable Energy Technology Expert (international consultant, 18 person-months)
- (ii) Sustainable Energy Technology Analyst (international consultant, 15 person-months)
- (iii) Technology Legal and Regulatory Expert (international consultant, 7 person-months)
- (iv) Sustainable Technology Finance Expert (international consultant, 3 person-months)
- (v) Procurement Specialist (international consultant, 3 person-months)
- (vi) Urban Infrastructure and Sustainable Energy Advisor (international consultant, 3 person-months)
- (vii) Project Finance Advisor (international consultant, 3 person-months).

National Consultancy Inputs:

- (i) Sustainable Energy Strategy Analysts (25 person-months)
- (ii) Sustainable Energy Legal, Regulatory and Policy Analyst (10 person-months)
- (iii) Technology Policy Expert: transfer of technology and intellectual property rights (10 person-months)
- (iv) Environment and Climate Change Policy Analyst on national climate policy and environment policy and regulation (10 person-months)
- (v) Outreach and Coordination Expert (7 person-months)
- (vi) Urban Infrastructure Project Advisor (3 person-months)
- (vii) Environment and Climate Change Analyst (3 person-months)
- (viii) Social Safeguards Analyst (3 person-months)

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Procurement	computers, printers, software, and accessories may be procured
Responsible ADB Officer	Zhai, Yongping
Responsible ADB Department	SDSC
Responsible ADB Division	SDSC-ENE
Executing Agencies	<i>Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550, Philippines</i>

<b>Timetable</b>	
Concept Clearance	-
Fact Finding	05 Nov 2018 to 05 Nov 2018
MRM	-
Approval	17 Dec 2018
Last Review Mission	-
Last PDS Update	18 Dec 2018

#### TA 9690-REG

Financing Plan/TA Utilization						Cumulative Disbursements		
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
700,000.00	3,150,000.00	0.00	0.00	0.00	0.00	3,850,000.00	-	0.00

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Project Page	<a href="https://www.adb.org/projects/52041-002/main">https://www.adb.org/projects/52041-002/main</a>
Request for Information	<a href="http://www.adb.org/forms/request-information-form?subject=52041-002">http://www.adb.org/forms/request-information-form?subject=52041-002</a>
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