



# Mongolia: Updating the Energy Sector Development Plan

Project Name	Updating the Energy Sector Development Plan	
Project Number	43079-012	
Country / Economy	Mongolia	
Project Status	Closed	
Project Type / Modality of Assistance	Technical Assistance	
Source of Funding / Amount	TA 7619-MON: Updating Energy Sector Development Plan	
	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	Governance and capacity development Partnerships	
Sector / Subsector	Energy / Energy sector development and institutional reform	
Gender	No gender elements	
Description	<p>The proposed TA will support the government of Mongolia in (i) comprehensively assessing the sector to identify investment gaps and the urgent reforms needed to create enabling environment for sustained sector development, (ii) formulating priority investments in energy sector, and (iii) enhancing capacity of the government in energy sector assessment and investment analysis. The proposed TA is included as a non-lending assistance for 2010 under the country operations business plan for Mongolia (2009 2012). The proposed TA is also aligned with ADB's Energy Policy (2009) in terms of promoting energy sector reforms, capacity building, and governance. The proposed TA will complement the energy sector road map by identifying the priority lending and non-lending interventions to attain sector road map objectives in the CPS.</p>	
Project Rationale and Linkage to Country/Regional Strategy	<p>The current installed capacity in Mongolia is 840 mega watt (MW). But only 650MW (77%) is available due to aged power plants. Similarly, the transmission and distribution losses have reached 30% due to aging transmission and distribution lines, and transformers. This inefficient system is coming under tremendous pressure as the power demand led by the mining boom is rising consistently for the past five years. The power sector investment has traditionally been inadequate due to limited state finance, moderate demand growth and uneconomical electricity tariffs inhibiting private investment. The current state of the power sector is threatening to constrain the economic growth and may lead to serious failures with catastrophic consequences for the economy and the social well-being of the population. While the mining boom is expected to provide much needed revenues to the Government for undertaking the urgent investments in the power sector, the private sector is expected to play a crucial role in sustaining these investments in the long term. There is an urgent need to take stock of the existing sector infrastructure and identify the existing and projected critical capacity gaps in short to medium terms (2010 2020) and, prepare a practical investment plan considering the available and anticipated public sector investment and potential private investment. In view of the above urgent needs in the power sector, it is being prioritized for ADB intervention in the proposed country partnership strategy (CPS 2010 2015), which is being finalized.</p> <p>The present energy sector master plan for Mongolia (2000 2020) was prepared under two ADB supported assistance (TA) projects in 1994 and 1999, respectively. During the energy sector assessment in preparation of the CPS, many discrepancies were noted in the power demand forecast for the period 2000-2010, where the actual demand grew much faster than what was projected earlier. The mining boom has led to rapid economic growth - the gross domestic product (GDP) of Mongolia has increased by 7% - 10% per annum since 2003. This has spurred demand for the electricity, which is way beyond the high case growth assumption (4.5% to 5.0% per annum) of the present energy sector master plan (2000 2020). Because of this high demand pressure, overall power plant reserve margin of central energy system (CES) has fallen below the required 20%. New large-scale mining development in South Gobi region is expected to cause significant power demand pressure on the CES, worsening the already critical situation. In addition to the urgent capacity addition, there is a strong need to align the sector strategies based on energy efficiency and low-carbon development path. The Government of Mongolia has recently announced some specific plans and targets to this effect; (i) attain 20% 25% renewable energy in the mix; (ii) promote energy efficiency; and (iii) realize cross-boarder power supply to neighboring countries to enhance revenues through power export.</p> <p>In view of these developments, it is urgently needed to comprehensively analyze, refine and update the existing energy sector master plan for the 2010 2020 period. This will perfectly complement the ADB sector strategies in the new CPS and the ongoing support for the sector reforms especially seeking private sector investment. To build investors' confidence and improve the private sector investment in energy sector, Government of Mongolia is developing legal and institutional framework for Public-Private Partnership (PPP), and preparing a specific investment project with two complementary ADB financed TA projects which are currently underway.</p>	
Impact	Improved power supply in environmentally sustainable manner	
Project Outcome		
Description of Outcome	Increased capacity in electricity and heating to meet additional demand	
Progress Toward Outcome	The final workshop was held on 6 September 2013, which was participated by relevant keyholders and donors. Draft final report was submitted on 30 September 2013 and final report was submitted in December 2013. Several capacity addition projects for stable electricity and load supply is being started.	
Implementation Progress		
Description of Project Outputs	Capacity development training and seminars to strengthen capacity in sector assessment and investment needs analysis Comprehensive sector investment plan, 2010 2020 with identified priority investment projects Policy note with recommended policies and reforms to overcome investment constraints	
Status of Implementation Progress (Outputs, Activities, and Issues)	Draft final report was submitted on 30 September 2013 and final report including policy note was submitted in December 2013. Capacity enhancement training for master planning including demand forecasting, econmic optimization, investment planning, and tariff setting was conducted in September and in December 2013.	
Geographical Location		
Summary of Environmental and Social Aspects		

Environmental Aspects	
Involuntary Resettlement	
Indigenous Peoples	
<b>Stakeholder Communication, Participation, and Consultation</b>	
During Project Design	The EA, the IA, the other relevant government ministries and agencies, and major donors in energy sector were consulted to prepare project design.
During Project Implementation	Discussed during the consultation meeting with the Ministry of Energy (MOE), chaired by the state secretary and participated by the steering committee members and department heads, the draft power heat and electricity expansion plan (2013-2025) for central electricity system (CES).

<b>Business Opportunities</b>	
Consulting Services	The TA will require international (25 person-months) and national (57 person-months) consulting services. International experts include (i) an energy specialist and team leader, (ii) an energy economist, (iii) a macro economist, (iv) a financial analyst, (v) a renewable energy specialist, and (vi) a power engineer. National experts include (i) an energy specialist and deputy team leader, (ii) a heating engineer, (iii) a transmission engineer, (iv) a power engineer, (v) a renewable energy specialist, (vi) a financial analyst, (vii) an energy economist, and (viii) a macro economist. The consulting firm (including international and local consultants) will be recruited by ADB in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time) through the quality- and cost-based selection method (with a quality cost ratio of 80:20), following submission of simplified technical proposals.
Procurement	ADB's Procurement Guidelines (2010, as amended time to time) will be followed and the shopping method will be used to procure equipment under the TA. Equipment used by consultants during TA implementation will be handed over to the executing agency upon completion of the TA.

Responsible ADB Officer	Yamamura, Shigeru
Responsible ADB Department	East Asia Department
Responsible ADB Division	Energy Division, EARD
Executing Agencies	Ministry of Mineral Resources and Energy Government Building-2, United Nation's Street-5/2 Ulaanbaatar 210646, Mongolia

<b>Timetable</b>	
Concept Clearance	20 May 2010
Fact Finding	03 Sep 2010 to 10 Sep 2010
MRM	-
Approval	19 Oct 2010
Last Review Mission	-
PDS Creation Date	12 Oct 2010
Last PDS Update	27 Mar 2014

## TA 7619-MON

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
19 Oct 2010	02 Feb 2011	02 Feb 2011	28 Feb 2012	30 Dec 2013	18 Sep 2014

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	1,000,000.00	200,000.00	0.00	0.00	0.00	1,200,000.00	17 Jun 2022	849,956.73

Project Page	<a href="https://www.adb.org/projects/43079-012/main">https://www.adb.org/projects/43079-012/main</a>
Request for Information	<a href="http://www.adb.org/forms/request-information-form?subject=43079-012">http://www.adb.org/forms/request-information-form?subject=43079-012</a>
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