

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC64713

Project Name	Second Energy Sector Project (P152343)
Region	EAST ASIA AND PACIFIC
Country	Mongolia
Lending Instrument	Investment Project Financing
Project ID	P152343
Borrower(s)	Government of Mongolia
Implementing Agency	Ministry of Energy
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	18-Apr-2016
Date PID Approved/ Disclosed	12-Jul-2016
Estimated Date of Appraisal Completion	
Estimated Date of Board Approval	23-Mar-2017
Concept Review Decision	Track I - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Mongolia's growing economy is faced with a sharp adjustment of large imbalances and a weak external environment. Mongolia relies heavily on foreign capital inflows to meet its investment needs. The country also relies on mining for its exports, but it is susceptible to volatile mineral market cycles. During the mining boom period in 2011 and 2012 and the downturn in 2013, Mongolia continued with expansionary policy measures which have led to double-digit inflation and a situation with less productive and effective use of limited fiscal resources. With the slowdown in China - the main export destination - declining commodity prices and the deteriorating business environment, Mongolia's Gross Domestic Product (GDP) growth sharply slowed to 2.3 percent in 2015 from a 13.9 percent average growth in 2011-13.

The growing external and fiscal vulnerabilities amid substantial downside risks will demand a continued policy adjustment to restore sound economic management. While the government has demonstrated its commitment to policy reforms, implementation risks are high.

Sectoral and Institutional Context

Consequent to the implementation of the Energy Law in 2001, the Mongolian power sector was

unbundled to 18 companies operating generation, transmission, distribution, load, and dispatch assets. The Energy Regulatory Commission (ERC) was established to regulate generation, transmission, distribution, dispatch and supply of energy. The distribution sub-sector is handled by four independent power systems: the Central Energy System, the Western Energy System, the Eastern Energy System and the Ultai-Ulastai Energy System. A single-buyer market operating a zero balance account was put in place in 2001 and the market continues to operate in this manner.

Mongolia's energy sector is faced with interrelated challenges of reliably meeting fast growing energy demand. Electricity demand is forecast to increase steadily mainly driven by mining sector-led economic growth and urbanization. However, the energy production remains subdued increasing by only 2% in the fourth quarter of 2015. The gap in supply and demand has led to more frequent and longer outages and forcing the distribution companies to reject a large majority of new connection requests, depriving hundreds of households and small and medium enterprises (SMEs) of access to modern energy.

Moreover, the regional distribution systems are reaching their capacity limits and are in critical need for upgrading and capacity expansion. The networks in load centers are considerably old and inefficient, system losses are high and the energy intensity of the economy is about twice as high as the Organization for Economic Co-operation and Development (OECD) average. Furthermore, local utilities are in financial distress, and flawed regulation and the current market structure are constraining the ability of the power sector to attract private participation and raise commercial financing.

In the medium- and long-terms, Mongolia's regulatory framework would require strengthening to achieve cost recovery, attract adequate levels of private sector participation, and ultimately move towards a more sustainable and inclusive energy sector development path. In the short-term, targeted investments would be required to make a significant contribution towards addressing high technical and non-technical losses, insufficient system capacity and poor service delivery. The Government of Mongolia (GoM) is committed to addressing these challenges as per the Program on Integrated Power Energy System of Mongolia ratified by the Parliament in 2007 and Updated Master Plan for Energy Sector Development in 2013.

Over the years, the World Bank Group (WBG) has been supporting the GoM efforts through a number of engagements focused on on- and off-grid power sector development. Notably, the Renewable Energy and Rural Electricity Access Project (REAP) helped GoM successfully complete its National 100,000 Solar Ger Electrification Program. Similarly, the Energy Sector Project (ESP) has successfully reduced system losses, and improved reliability and revenue collection in nine aimag (province) distribution utilities and the Ulaanbaatar Electricity Distribution Network.

Building on the achievements of the ESP, the proposed Project is designed to continue supporting GoM in addressing key bottlenecks in two distribution companies through upgrades of aging assets and expansion of distribution capacity. Such investments are expected to benefit households as well as SMEs that want to set-up or expand their businesses, respectively – thereby creating better employment opportunities and supporting economic development outside the capital area.

Relationship to CAS

The Country Partnership Strategy (CPS) FY13-17 for Mongolia focuses on three areas: (1) Enhance Mongolia's Capacity to Manage the Mining Economy Sustainably and Transparently; (2) Build a

Sustained and Diversified Basis for Economic Growth and Employment in Urban and Rural Areas; and (3) Address Vulnerabilities through Improved Access to Services and Better Service Delivery, Safety Net Provision and Improved Disaster Risk Management.

The proposed project would support Area (3) by improving the quality and increasing access of electricity supply in the project area. The project also helps to support Area (2) by improving access to and quality of electricity supply to households and businesses to enable economic growth and create job opportunities in urban and rural areas.

The project is also aligned with the WBG's Energy Sector Directions Paper, approved in 2013, which pledges to support clients in delivering the affordable, reliable, and sustainable energy needed to help achieve the Bank Group's twin goals of eliminating extreme poverty and promoting shared prosperity. This will be achieved through supply side efficiency gains, increased access, and financial performance improvement at distribution companies.

Moreover, access to reliable and cost effective energy lies at the core of poverty reduction and shared prosperity and is identified as necessary for meeting the Sustainable Development Goal 7 on Energy.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The development objective of the proposed project is to improve reliability of and access to electricity services and revenue collection in two regional distribution utilities in Mongolia.

Key Results (From PCN)

Key expected results from the proposed Project are:

- (i) reduced distribution system losses,
- (ii) reduced system interruption frequency due to distribution faults,
- (iii) increased access to electricity supply, and
- (iv) improved revenue collection.

Detailed indicators will be developed during preparation.

III. Preliminary Description

Concept Description

The proposed project would invest in high priority distribution infrastructure, information communication technology (ICT) and technical assistance (TA). The project is expected to create new assets or rehabilitate existing parts of the power system in two regional distribution companies identified by GoM as the highest priority for investment. Infrastructure investment would cover distribution lines and substations, and to a lesser extent, transmission lines. The ICT investment would support better corporate and operations management at two distribution companies, while the TA would enable the distribution and transmission companies to implement the project.

The project is envisioned to consist of three components as described below:

- Component A: Upgrade and Expansion of Regional Distribution Companies (estimated cost of \$29.2 million, of which \$24.2 million is IDA credit): Baganuur -Southeastern Region Electricity Distribution Network (BSEDN) and Erdenet-Bulgan Electricity Distribution Network (EBEDN).

The purpose of this component is to reduce system losses and improve reliability of and access to electricity services in selected parts of the distribution network through strengthening of power infrastructure. The support for the component would include: (i) rehabilitation, upgrade and expansion of selected existing substations and associated lines; (ii) construction of new substations and distribution lines; (iii) installation of e-meters and advanced metering infrastructure; and (iv) training in network design, proper installation of equipment, and power system loss reduction and basic financial management. The project would also provide additional substation capacity where needed so as to be able to supply the expected new loads and improve system reliability.

- Component B: Improved efficiency of National Power Transmission Grid (NPTG) (estimated cost of \$1.8 million, all IDA credit). There are three subcomponents: (i) installation of switchgears with vacuum circuit breakers; (ii) provision of software for planning and management purposes; and (iii) staff capacity building. This component will invest in switchgears and introduce efficient ICT solutions in NPTG to help reduce transmission losses and improve the efficiency of the transmission network and capacity of NPTG in planning and operations.

- Component C: Project Management, Technical Assistance, and Capacity Building (estimated cost of \$4.0 million, all IDA credit). The purpose of this component is to strengthen the capacity of the project management office (PMO) under the Ministry of Energy and the implementing units (PIUs) of the regional distribution companies through provision of technical assistance, training and study tours. The component includes: (i) technical assistance for project implementation and special studies; (ii) training programs to improve the project management capabilities; and (iii) project management cost.

In parallel with this project the Bank will provide support to GoM through the Scaling up Renewable Energy Program (SREP), for which an Investment Plan was approved in November 2015. SREP will provide grant financing of around \$30 million (about half through World Bank and the other half through ADB) to support development of renewable energy generation as well as to support and build capacity in the Energy Regulatory Commission (ERC). The objective of the ERC support will be to improve tariff methodologies, ensure efficient financial pass-through provisions to enable greater private participation, particularly in renewable energy generation - thereby moving the Mongolian power sector toward a more sustainable and market-based development model.

The SREP funded support to ERC will need to be linked to the ESP2 project since regulatory improvements will be critical to ensure improved financial performance and thereby sustainable operation of the regional distribution companies. In order to strengthen this link, the Bank is designing a TA activity supported from the Asia Sustainable and Alternative Energy Program (ASTAE) which is intended to (i) provide a review of proposed investment plans of two of the regional distribution networks with a view on establishing a social baseline and understanding the affordability issues of electricity tariffs; and (ii) to provide a diagnostic of the power sector regulatory environment and market structure to identify key gaps and capacity constraints and outline a roadmap to address these issues.

Lessons and experience learned and reflected in the project design

The project has been designed to take into consideration the lessons learned from other relevant Bank projects in Mongolia and other similar countries, particularly through the experiences of ESP which include the following (Report No: ICR2955):

- Early, intensive and continuous training and capacity building have proven to be critical to

the success of projects, particularly when the PIU has no previous experience with Bank processes and the domestic regulatory framework is weak;

- The practice of having the technical consultant sit with the aimag utilities to provide intensive hand-holding trainings and TAs is a key factor contributing to a project's success; and
- The TA support to the regulator needs to be designed in a focused and pragmatic matter, while taking government's will to act into consideration. On-going policy dialogue with high level government officials should be maintained during the whole course of the project.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04	x		
Forests OP/BP 4.36	x		
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11	x		
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	50.00	Total Bank Financing:	45.00
Financing Gap:	0.00		
Financing Source			Amount
BORROWER/RECIPIENT			5.00
International Development Association (IDA)			45.00
Total			50.00

VI. Contact point

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