Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 18-Feb-2020 | Report No: PIDA27931
BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Project Name</th>
<th>Parent Project ID (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mongolia</td>
<td>P170676</td>
<td>Ulaanbaatar Heating Sector Improvement Project</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAST ASIA AND PACIFIC</td>
<td>17-Feb-2020</td>
<td>23-Apr-2020</td>
<td>Energy &amp; Extractives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Project Financing</td>
<td>Ministry of Finance</td>
<td>Ministry of Energy</td>
</tr>
</tbody>
</table>

Proposed Development Objective(s)

The Project Development Objective is to expand capacity and improve efficiency of the district heating network in selected project areas.

Components

Component 1: Rehabilitation and expansion of DH network due to investments financed under the project
Component 2: Capacity strengthening and project implementation support due to investments financed under the project

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

<table>
<thead>
<tr>
<th>Total Project Cost</th>
<th>41.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Financing</td>
<td>41.00</td>
</tr>
<tr>
<td>of which IBRD/IDA</td>
<td>41.00</td>
</tr>
<tr>
<td>Financing Gap</td>
<td>0.00</td>
</tr>
</tbody>
</table>

DETAILS

World Bank Group Financing

<table>
<thead>
<tr>
<th>International Development Association (IDA)</th>
<th>41.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDA Credit</td>
<td>41.00</td>
</tr>
</tbody>
</table>
Environmental and Social Risk Classification
Moderate

B. Introduction and Context

Country Context
1. The Mongolian economy experienced rapid growth over the last 15 years led by the mining sector and private sector development, despite a recent slow-down in 2015/16. The exploitation of abundant mineral resources led to a doubling of the country’s GDP in the last 10 years, shifting the country’s traditional agricultural economy to a largely mining-driven economy. The mining industry contributes about 20 percent of GDP, and nearly 86 percent of total exports and the majority of foreign direct investment. However, the over-dependence on mineral wealth has made the economy highly susceptible to external shocks and contributed to boom-and-bust cycles. Most recently, the economy slowed down significantly in 2015/16 due to external and domestic factors, and the country approached a severe economic and fiscal crisis in 2016.

2. Building on the momentum in 2017 and 2018, Mongolia’s medium-term economic outlook remains positive but there are reasons to be vigilant. Supported by strong domestic demand, foreign direct investment and relatively robust commodity exports, the economic grew by 7.2 percent in 2018 and 7.3 percent in the first half of 2019, compared 1.2 percent in 2016. Notwithstanding the recent progress, substantial external and domestic risks remain, including commodity market volatility and weakening global demand, and growing political uncertainty due to the 2020 election. To safeguard the economic recovery, it will be important to ensure a prudent fiscal policy and improve public financial management. To promote a longer-term resilience of the Mongolian economy, it will be key to further improve economic institutions, strengthen human capital, enhance the investment climate, and accelerate structural reforms.

3. Ulaanbaatar (UB), where half of Mongolia’s population lives, has been expanding rapidly in the last two decades, due to rural-urban migration, while there is a clear spatial dimension to the distribution of urban poor. The expansion of UB has been phenomenal, both in terms of population growth as well as its urban extent. With approximately 16 percent of the city’s households below the poverty line, the city has a higher proportion of low-income households than any other sub-national administrative location type. The incidence of poverty in UB is highest among households living in ger areas, consisting of unplanned detached houses or gers (traditional felt tents), with predominately unemployed household heads, less educated household heads, or those dependent on social transfers and private sector wages.

1 World Bank 2017. URBAN POVERTY IN ULAANBAATAR - Understanding the Dimensions and Addressing the Challenges.
### Sectoral and Institutional Context

4. **In UB, the coldest capital city in the world, heating services are essential.** There are generally two heating options: centralized and decentralized. The wintertime temperatures regularly fall below -30 degrees Celsius and the heating season is usually 8-9 months. Approximately half of the city’s 376,400 households (approximately 55 percent) live in urban buildings, while the other half live in detached houses or gers in the ger districts -- informal settlements in the outskirts of UB. In urban areas, heat is supplied to about 120,000 households though a district heating (DH) network, whereas the rest homes in ger and near-ger districts, which are not connected to the DH network, rely on decentralized heating solutions for heating including heat-only-boilers (HoBs), low-pressure boilers and stoves.

5. **The centralized systems DH in UB are managed by different level of government agencies and operated by a number of companies.** Four state-owned enterprises (SOEs), comprising three coal-fired, combined heat and power (CHP) plants and one heat only plant, produce heat for Ulaanbaatar’s district heating (DH) system. The four producers are CHP2, CHP3, and CHP4 and the heat only Amgalan plant. The Ulaanbaatar District Heating Company (UBDHC) is an SOE, responsible for heat transmission in the primary network. It also serves 43.7 percent of residential customers and 8 percent of entities and factories. The Housing and Public Utilities of Ulaanbaatar City (OSNAAUG) is a municipally-owned company, responsible for heat distribution in the secondary networks. It serves 38.1 percent of residential customers and 25.7 percent of entities and factories. It is responsible for public central heating with approximately 140 group substations. The small Private City Housing Companies (PCHCs), which also have responsibility for secondary network distribution, serve the remaining 18.2 percent of residential customers.

6. **The decentralized heating systems are a major contributor to ground-level air pollution, making UB one of the world’s most polluted cities.** Coal-fired HoBs are used for small central networks in newly developed buildings that are not connected to the DH network, while smaller low-pressure boilers and stoves are commonplace in traditional ger areas. Individual ger residences in UB’s expanding peri-urban areas rely mainly on solid fuel–fired heating stoves (coal and wood). It is estimated that the use of inefficient boilers and stoves in the ger areas contributes to more than 60 percent of the annual fine particulates concentrations in UB. During the winter, PM$_{2.5}$ levels can reach up to 20 times those considered safe. The lasting exposure to higher concentration of pollutants increases the risk of major health complications and severe respiratory diseases.

7. **Driven by population growth, urbanization, and economic development in UB, the heating demand is increasing rapidly.** Over the past two decades, population growth in Mongolia’s capital city has increased exponentially, mainly due to rapid rural-to-urban migration, and it is expected to reach 1.9 million by 2035. With urbanization and economic growth, new multi-story buildings are being constructed at a rapid pace, requiring connections to the DH network. Over the next decade, it is projected that demand for DH will grow by 5–6 percent a year.

---


3 In past five years, both peak heat demand and annual energy have increased 2.8% p.a., equivalent to 137 Tcal and 35 Gcal/h p.a, respectively.
8. At the same time, the district heating (DH) infrastructure that serves most urban buildings is deteriorating. The DH network in UB is dilapidated due to a lack of investment in rehabilitation and upgrading over the past decades. The technical losses of the DH network are high at above 19 percent, compared to 9 percent in Harbin, the coldest provincial capital in China. It is estimated that 50 percent of the transmission pipelines, with a total length of about 130 km are in poor technical condition, requiring replacement in the short to medium run. The secondary (distribution) network with a total trench length of about 226 km, has a variety of owners and operators, also requires major rehabilitation and upgrades. Furthermore, inefficiency exists at generation level where the idle capacity of the CHPs are not utilized.

9. The heat transmission network is reaching the capacity limit, which has become the main constraint in connecting new distribution customers in both urban and near-urban areas. In 2014, CHP 3 increased 20% of the heat production capacity from 485 Gcal/h in 2013 to 585 Gcal/h by replacing the existing power generator set. Moreover, to meet peak demand and for back up purposes, both plants have additional capacity to produce heat directly from the steam boilers, thus by-passing the power generator, at about 85% efficiency. Nevertheless, the idle capacity of the CHPs cannot be utilized because the heat transmission network has become a capacity constraint to connect more customers to the DH network. The efficiencies at generation level can be improved through removing the transmission capacity bottleneck.

10. Limited access to DH and lack of viable alternatives would inevitably lead to more reliance on inefficient and polluting boilers, exacerbating air pollution in winter. Without access to DH, the new buildings have to resort to HoBs which are inefficient and polluting. The efficiency of the HoBs is about 60 percent while the incremental efficiency of heat extraction from CHPs is significantly higher as the additional heat output is generated as byproduct of power. Moreover, CHPs are equipped with flue gas cleaning equipment to remove most particles from the glue gas whereas HoBs are not equipped with such facilities.

11. The fragmented institutional structure of the UB heating sector limits incentives for efficiency improvements and constrains long-term investment planning. The unbundled DH sector in UB includes four generation companies, one transmission company and a number of distributors, both public and private. The DH distribution companies have long been unable to balance revenues and costs, which has led to poor maintenance and under-investment in their networks. Also, they have lacked integrated investment management, as well as tools and skills for monitoring operation of the DH system. These shortcomings have constrained their capacity to attract financing for investments. The fragmented structure makes investment planning coordination difficult, leaving each company with inadequate funds for maintenance and capital investments.

12. The heating sector is in a weak financial state and relies heavily on government budget for needed investments to maintain and expand its services. Despite recent adjustments, consumer tariffs remain below cost-recovery level. This results in a shortage of funds to cover routine maintenance and capital improvements in the sector, exacerbating the poor operational and financial performance of sector companies. It requires state subsidies for sector operators and cross-subsidies at various points along the entire heat supply chain. The lasting, heavy reliance of the sector on government support to maintain, invest

---

4 Thirty percent of the pipes in operation were commissioned between 1979 and 1988, while the oldest ones were commissioned in 1959. Pipes commissioned in 1989–2007 are in fair condition; but only a small length of new pipes was commissioned during this period (representing about 10 percent of the total length). This means that only half of the total pipe length (i.e., pipes commissioned in 2008 or later) is in good condition.
and expand the network continues to weigh on the sector’s financial standing and sustainable development prospects.

13. **A combination of investment measures and institutional and regulatory reforms is needed to help address key challenges in the DH network and meet growing heat demand in a sustainable manner.** Funded by the Energy Sector Management Assistance Program (ESMAP), the Bank supported the government to develop a heating sector roadmap, which identified the following key policy and priority investments to improve the DH situation: (i) rehabilitate and expand heat production, transmission, and distribution network to improve efficiency, and connect new customers in urban and selected ger areas to the network; (ii) gradually implement consumption based billing and heat tariff reforms to recover costs for sustained system operations and maintenance in the sector and incentivize customers to make energy efficiency improvements; and (iii) streamline the institutional arrangement of housing companies and improving the regulatory frameworks to ensure the generation, transmission, distribution companies and their consumers all comply with strengthened standards for accountability.

**Government Priorities Supported by the Proposed Project**

14. **The Government of Mongolia recognizes that improving the heating sector has great potential to meet UB’s growing heating needs and reduce air pollution.** The State Policy on Energy, released by the Ministry of Energy in 2015, sets forth efficiency, environment, and safety as the three priority areas and strategic goals for the energy sector. As a top priority, the government has set the vision to develop a reliable, adequate, sustainable and self-financed district heating system in urban areas and to reduce emissions from non-network heating by switching to cleaner alternatives in ger areas. The Government’s National Program on Reducing Air and Environmental Pollution places great emphasis on DH network rehabilitation and expansion. Moreover, improving DH network fully complements the government’s efforts to build more apartment buildings in the ger areas supplied by DH.

15. **To support the government’s vision, the Bank has been actively engaged in the heating sector development through a combination of investment lending, policy dialogue, and technical support in the past decade.** The Ulaanbaatar Clean Air Project (UBCAP) financed by the Bank has the objective to enable targeted households in ger areas to switch to cleaner heating appliances and developed feasibility studies for selected medium-term particulate matter abatement measures. To scale up its development impact, an additional financing (AF) of UBCAP was approved on September 30, 2019 to help ger residents access cleaner heating appliances, scale up the efficiency of household energy use, and support measures to reduce levels of particulate matter in the air. The above referenced heating sector roadmap identified the investments and regulatory and institutional reforms required to put the sector on a sustainable path and the proposed project is one step further down on the path.

16. **Going forward, technical support will continue to focus on institutional and regulatory reform options and build consensus among public and other stakeholders on sustainable options.** The public housing companies were consolidated into one public entity OSNAUG in 2014 to provide heating and water services to urban households, as a first step toward addressing the significant fragmentation of the district heating market especially in distribution. Despite progress made, the institutional structure remains fragmented and

---

a holistic optimization of DH supplies is needed. Furthermore, the Bank supported a diagnostic assessment of electricity and heat tariffs to identify key issues and present options on tariff reforms. The ongoing Master Plan work supported by the Bank will provide essential inputs on least cost investment and long run marginal cost to refine the tariff reform options. Continued support on institutional and regulatory reform is still strongly needed. They will remain one of the key components under the planned programmatic Advisory Services and Analytics (ASA). The activity will continue to support the main stakeholders to further refine options for the improvement of institutional structure and the tariff framework focusing on tariff calculation and tariff structure/regime. Also, Component 2 of the proposed project will include technical assistance and capacity building to key stakeholders on sector reforms.

17. **The development partners are closely coordinating and collaborating in support of the Government’s plan to improve the heating sector.** European Bank for Reconstruction and Development (EBRD) is currently providing financing (€10 million loan and €5 million grant) to UBDHC. The Bank and EBRD have been in close coordination since the development of respective priority investment plans to ensure complementarity and avoid overlapping. While both will finance rehabilitation and extension of DH network, they differ in the specific sections of the network to rehabilitate and extend. In addition, the Bank is also coordinating with the Asian Development Bank (ADB) on its ongoing Ulaanbaatar Urban Services and Ger Areas Development Investment Program, which helps UB create eco-friendly districts and regional centers in selected locations with quality services, including providing both centralized and decentralized heating solutions to ger residents. Altogether, these investments contribute to the overall access and efficiency improvement of heating services. Going forward, close donor coordination in the heating sector will continue.

18. **To build on and complement these efforts, the proposed project will support transmission capacity expansion and efficiency improvement of the DH network to meet increasing heat demand and reduce emissions to the air.** The proposed project has a number of economic, environmental and social benefits: (i) rehabilitation and capacity expansion of the transmission network is critical to address the capacity constraint, thereby enabling connections to modern heating technology and improving efficiencies at generation side by utilizing the idle capacity; (ii) investments in the transmission network will improve system-wide operating efficiency in the network, which will reduce fuel costs, operating losses and maintenance costs, and extending the lifetime of sector assets; and (iii) connecting more buildings to the DH network will bring positive local externalities in health benefits associated with improved air quality and positive global externalities in reduction of CO₂ emissions by replacing existing small coal-fired HoBs and traditional stoves and preventing new ones to be built in the near future. Other benefits also include decreased risk of collapse of key facilities and improvements in the quality of service.

Relevance to Higher Level Objectives

19. **The proposed operation is aligned with and supports the Country Partnership Strategy (CPS) for 2013–2017 (Report No. 67567-MN) discussed by the World Bank’s Board of Executive Directors in May 2012.** The DH network is critical to perform one of the most important municipal services and the proposed operation is in line with the third area of focus of the CPS, ‘Address Vulnerabilities through Improved Access to Services and Better Service Delivery, Safety Net Provision, and Improved Disaster Risk Management’. Its outcome indicators of (a) supported better delivery of basic services (education, health, justice, and infrastructure) and (b) reduced vulnerability of households exposed to natural hazards and pollution are consistent with the
The proposed objective of the project. The institutional reforms proposed under operation will contribute to the objectives of the current CPS and Performance and Learning Review (PLR) by strengthening policy and institutional framework to support cost effective and sustainable infrastructure investments. In addition, the project addresses air pollution as one of the key challenges identified by the Systematic Country Diagnostic (Report No. 132637, November 2018) and the heating sector as one of the key sectors to address it.

20. The proposed project would support the World Bank’s twin goals and United Nations Sustainable Development Goal (SDG) 7. This will be achieved through increased access during cold winter months, supply-side efficiency gains, and financial performance improvement at DH companies. Moreover, access to reliable and cost-effective energy lies at the core of poverty reduction and shared prosperity. The project would support the World Bank’s twin goals of reducing poverty and increasing shared prosperity as well as contribute to SDG 7 goal of universal access to affordable, reliable, and sustainable energy.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)
The Project Development Objective is to expand capacity and improve efficiency of the district heating network in selected project areas.

Key Results
- Transmission capacity added (Megawatt)
- Projected lifetime energy savings due to investments financed under the project (Gigawatt-hours [GWh])
- Projected lifetime reduction in CO₂ emissions due to investments financed under the project (Metric ton)

D. Project Description

21. The Project includes two components: (1) Investments in rehabilitation and expansion of DH network; and (2) Capacity strengthening and project implementation support.

22. Component 1: Rehabilitation and expansion of DH network (estimated US$40 million). This Component will support the preparation and implementation of priority investments for the DH system operated by UBDHC, including related goods, works and consulting/ non-consulting services. The proposed prioritized investment plan was informed by the World Bank’s technical assistance and follow-up discussions with the Government and stakeholders.

23. Component 1 will support three priority investment subcomponents: 1.1. Rehabilitation and upgrading of the DH network in selected existing service areas; 1.2. Expansion of the DH network into selected new/ger areas; and 1.3. Modernization of the DH pumping stations. It will mainly finance replacement of poorly insulated and leaking pipes and expansion loops, installation of smart booster pumping stations, and network expansions and reinforcements.
24. **Component 2: Capacity strengthening and project implementation support** (estimated US$1 million). This component is proposed to include two main subcomponents: Subcomponent 2.1. Strengthening of operational and fiduciary function of UBDHC; and technical assistance to the key stakeholders on sector planning and regulation, and institutional arrangement. The subcomponent will support an assessment of the profitability of UBDHC, development of recommendations to improve its financial performance, and strengthen their capacity, together with other stakeholders, including through workshops and study tours. Subcomponent 2.2. Implementation support for project management, including environmental and social preparatory and implementation work, monitoring and evaluation, and incremental operating expenses of the Project Management Office (PMO).

<table>
<thead>
<tr>
<th>Legal Operational Policies</th>
<th>Triggered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects on International Waterways OP 7.50</td>
<td>No</td>
</tr>
<tr>
<td>Projects in Disputed Areas OP 7.60</td>
<td>No</td>
</tr>
</tbody>
</table>

**Summary of Assessment of Environmental and Social Risks and Impacts**

A. **Environmental and Social Risk Classification (ESRC) Moderate**

**Environmental Risk Rating Moderate**

The project will overall produce positive environmental and social benefits, such as reduction of air pollution emission, through improved efficiency of heating, improved water use efficiency which will assist in reducing risk of respiratory disease. Nonetheless, the physical activities to be supported by the project will cause some environmental risks and impacts related to construction activities, i.e. generation of solid wastes, wastewater, dust emission, noise, occupational hazards risks associated with welding, traffic and height fall, and impact on communities by traffic interruption and traffic safety. The key occupational hazard is associated with asbestos removal from old pipes, its transport and disposal. It can also, to a smaller extent present risk for community safety if transport and disposal are not organized properly. In the operation stage, the adverse environmental impacts would be rare and few and are related to noise and vibration caused by the building level heat exchangers.

The environmental baseline has been surveyed, showing that the project area involves neither high seismic risk and high flood risk nor critical natural habitats. The proposed activities under the sub-component 1.1 (rehabilitation of DH transmission network) will not involve any cultural heritage assets or sites; in the ESMF prepared for sub-component 1.2 (extension of DH transmission network), 1.3 (modernization of pumping stations) and part of 1.1, an exclusion list has been developed to ensure that the activities under the sub-component 1.2 and 1.3, and part of 1.1, will avoid legally protected cultural heritages. The component two will finance non-physical activities aimed at support policy and institutional reforms in the medium to long term and strengthening UBDHC’ capacity. The component two essentially will not generate any environmental and social impacts themselves, and this project will not support the implementation of the recommended actions of this component.
The heating source is the existing Combined Heating Plant 3 (CHP 3). Due diligence carried out for the CHP 3 indicates that CHP 3 complies with the EHS requirements in Mongolia.

Given the project scope, the potential environmental adverse risks and impacts are not likely to be significant. The potential risks and impacts and issues are predictable and expected to be temporary and/or reversible, low in magnitude and site-specific.

The client has some experience and capacity in managing environmental issues associated with the district heating facilities at the size commensurate with this project. However, they do not have adequate experience and capacity of managing asbestos and will require capacity building in this area. A capacity building plan has been developed under the support of the Bank and incorporated into the ESMP and the ESCP. The client will allocate adequate funds to implement the capacity building plan and will assign qualified staff, at the beginning of the project implementation and before commencement of works, to work in the PMU to deal with environmental and social issues on daily basis during the cycle of the project. In addition, the bank team will provide technical support to build capacity and to carry out the asbestos management plan, i.e. training plan for contractors and workers, and supervision plan for supervisors. As such, the environmental and social risks on the capacity of the borrower is considered moderate.

**Social Risk Rating Moderate**

ESS 5 is relevant, a Resettlement Plan (RP) has been prepared for 5 small shops and other fixed assets (such as fences) in the existing transmission right of way which will be affected by refurbishment of the existing heating pipeline (subcomponent 1.1). The RP was disclosed during project preparation. A cut-off date was circulated, and the RP will be implemented well prior to the commencement of construction works. Similarly, temporary shops or fixed assets may also be affected by any network expansion (sub-component 1.2), which will be in an existing road right of way or buried under the road; as the alignment is unknown prior to appraisal a Resettlement Policy Framework (RPF).

The proposed project activities under component 1 (investment in rehabilitation and expansion of the district heating network) will generate positive social and health benefits by improved efficiency and capacity of heating services.

Social impacts and risk will be temporary primarily associated with civil works; of low magnitude, site specific and mitigated for the most part. The activities are largely rehabilitation and maintenance to the existing network and a small expansion of the heating transmission network into a near urban ger district (transmission only, no new building connections). Social impacts will be of short duration, with minor differences from baseline conditions, they will be localized and affect a small proportion of receptors. These will mostly be experienced during the construction phase, with disrupted pedestrian access and traffic for both the renovation of the existing network and the new network expansion. Similarly utility disruptions will be experienced, with approximately 2 week disruptions to hot water experienced by residential and commercial buildings in the refurbishment area; however this impact remains within the range normally experienced each summer when maintenance works are undertaken in Ulaanbaatar. A social impact assessment (SIA) has been prepared by the borrower for the project, with mitigation measures incorporated into the project ESMP. Provisions of ESS 2 and 4 are relevant. Labor influx is not anticipated.
It is estimated that between 50-100 local workers will be engaged during peak construction, all from the local labor market. The borrower has prepared a labor management procedure which is included in the ESMP. Under ESS2 a labor Code of Conduct has been prepared. ESS 7 is not relevant, there are no Indigenous Groups in the project area.

The ES documents consider coordination and consultation with project affected people and other interested stakeholders according to ESS10. A project level GRM has been prepared and will be operationalized throughout the project lifecycle, as part of a stakeholder engagement plan. Based on the above, the social risk is considered to be moderate.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts
Overview of the relevance of the Standard for the Project:
The team visited the site and reviewed the Feasibility Study Report (FSR), E&S instruments prepared for this project. The conclusions and findings of due diligence review done by the Bank team are summarized in section above and detailed in the disclosed appraisal stage ESRs.

ESS10 Stakeholder Engagement and Information Disclosure
A Stakeholder Engagement Plan (SEP) has been developed and disclosed on the borrower and the World Bank websites at the early stage of preparation. The draft SEP was presented and shared with stakeholders in November 2019. Stakeholder feedback has been considered in the project design and preparation. The GRM will respond to complaints throughout the project lifecycle and has been devised to promptly respond to any project grievances. All ES documents were disclosed locally on 14th Feb. 2020 by the client in Mongolian in UB and disclosed at the World Bank’s website on 7th Feb. 2020.

B.2. Specific Risks and Impacts
A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions
The project is expected to involve a limited number of direct and contracted workers for installation works (component 1), PMU staff, technical and skilled workers, as well as labors which can be sourced locally. Potential labor issues are managed through the ESMP and Labor management procedure (LMP); a labor GRM has been developed as part of the LMP. For any expansion work, the workforce composition and origin will be similar; labor requirements are outlined in the project ESMF. An asbestos management plan has been prepared. Bidding Documents prepared for the project will include OHS measures, and asbestos management plan and the traffic management measures, as well as outline industry standard Codes of Conduct that includes measures to prevent GBV/ Sexual Exploitation and Abuse (SEA).

ESS3 Resource Efficiency and Pollution Prevention and Management
This project will not significantly increase the water consumption albeit the project is in a drought area. Conversely, the project will help reduce water loss in the DH system which is now very leaky by replacing the distribution pipelines. This project will not use or procure pesticides and will not produce toxic waste in operation stage. But asbestos waste will be generated during replacing aging pipes, which could affect the health of the workers on site. A general asbestos management plan has been prepared and incorporated into the ESMP and provisions related to
implementation of asbestos management plan incorporated in the ESCP. Site specific asbestos removal plans will be developed by Contractors. The GHG emission estimate for this project has been carried out under the support of the WB.

**ESS4 Community Health and Safety**
Labor or other influx (opportunity seekers) is not anticipated, given the locally residing workforce available for installation work. In addition, the increased number of vehicles transporting equipment and materials on the roads nearby the communities may pose a road safety risk. Thus, a General Traffic Management Plan (TMP) has been developed as an integral part of the ESMP and provisions related to implementation of TMP incorporated in the ESCP. No risks on GBV or SEA were mentioned during consultations; these risks are assessed as low for the project. Nonetheless, measures to further minimize and respond to GBV risks are included. The project area is not prone to earthquake and flood, and the facilities to be supported by the project will not be open to the public. A general TMP has been developed. The asbestos management plan, from the point of community safety, covers the transportation of asbestos and includes an emergency preparedness and response plan. This project will not affect any ecosystem services that communities depend on.

**ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**
ESS 5 is relevant, a Resettlement Plan (RP) has been prepared and was disclosed during project preparation. A cut-off date was circulated, and the RP will be implemented well prior to the commencement of construction works. A Resettlement Policy Framework (RPF) has been prepared to guide assessment of impacts and compensation and incorporated into the project ESMF disclosed during project preparation. Any RP/s will be developed in conformance with World Bank Environmental and Social Framework (ESF), 2017 land Acquisition, restrictions on land Use and involuntary resettlement (ESS5) and Mongolian Law. Any RP/s developed for the expansion will be implemented prior to commencement of works.

**ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**
Site survey was conducted in the project area and found that there are no critical natural habitats in the project area. Given the type of the project, the project will neither introduce invasive alien species, nor involve primary production and harvesting of living natural resources.

**ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**
Given the projects location in Ulaanbaatar city, no specific ethnic minority groups are known to reside in these areas, nor will the project be on any traditional customary land. Thus, this ESS is not relevant.

**ESS8 Cultural Heritage**
Under the sub-component 1.1, the site survey indicates that there are no physical cultural heritages within the project area. Under the sub-component 1.2 and 1.3, presence of cultural heritage sites in and near the project area will be screened at the early stage of EA and the impacts on legally protected cultural heritage sites will be avoided. The chance finds procedures have been introduced in the existing ESMP and will be part of the ESMPs prepared during project preparation. In addition, the project will not involve development of physical cultural heritages for commercial purpose. Consultations did not report any impacts anticipated on intangible cultural heritage; nor did the SIA find any potential impacts on intangible cultural heritage in this urban location. Project infrastructure will be within existing ROWs.
ESS9 Financial Intermediaries
This project will not involve any FIs.

B.3 Other Relevant Project Risks
No other relevant risks are identified.

E. Implementation

Institutional and Implementation Arrangements

The Project Management Office (PMO) will be established within the MOE headed by a Project Director. The MOE will provide ministerial oversight for project activities including project preparation, supervision, and M&E. The PMO will be responsible for the procurement of the goods, works, and services; undertaking of FM including disbursement processing and project audit; public relations; consolidation of environmental and social safeguards measures in compliance with the World Bank’s requirements; and preparation of periodical reports and their submission to the World Bank. The PMO will liaise with UBDHC, and make sure that UBDHC actively participate in the project implementation stages, particularly by providing technical inputs. Under the PMO’s oversight, UBDHC will participate, among others, in the definition of technical specifications, tender evaluations, and construction supervision. UBDHC will assign, and if necessary hire, a technical support team that will ensure implementation of the investment activities in their respective areas. Establishment of a PMO with the composition, resources and terms of references satisfactory to the Association is a condition of effectiveness. Establishment and thereafter maintaining a technical team within UBDHC on terms of reference and with qualifications acceptable to the Association to provide technical support for the implementation of the Project is a legal covenant. Details of the Project’s institutional and implementation arrangements are further detailed in the Operational Manual.

CONTACT POINT

World Bank

Yun Wu
Senior Energy Specialist

Borrower/Client/Recipient

Ministry of Finance
Batkhuu Idesh
Director General
Batkhuu_i@mof.gov.mn

Implementing Agencies
Ministry of Energy
Enkhtaivan G
Director General
enkhtaivan@energy.gov.mn

FOR MORE INFORMATION CONTACT
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s): Yun Wu

Approved By

Environmental and Social Standards Advisor: 

Practice Manager/Manager: 

Country Director: Andrei Mikhnev 20-Feb-2020