# 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>Iraq</td>
<td>P162454</td>
<td>Iraq Electricity Services Reconstruction and Enhancement 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>MIDDLE EAST AND NORTH AFRICA</td>
<td>22-Feb-2019</td>
<td>30-May-2019</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 Finance</td>
<td>Ministry of Electricity</td>
</tr>
</tbody>
</table>

**Proposed Development Objective(s)**

To improve the reliability, operational and commercial efficiency of electricity services in the selected project areas.

**Components**

- Component 1. Transmission Network Reinforcement
- Component 2. Distribution Network Reconstruction and Operational and Commercial Efficiency Enhancement
- Component 3. Institutional Capacity Strengthening and Project Implementation Support

# PROJECT FINANCING DATA (US$, Millions)

## SUMMARY

<table>
<thead>
<tr>
<th>Total Project Cost</th>
<th>200.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Financing</td>
<td>200.00</td>
</tr>
<tr>
<td>of which IBRD/IDA</td>
<td>200.00</td>
</tr>
<tr>
<td>Financing Gap</td>
<td>0.00</td>
</tr>
</tbody>
</table>

## DETAILS

### World Bank Group Financing

| International Bank for Reconstruction and Development (IBRD) | 200.00 |

**Environmental Assessment Category**
B-Partial Assessment

Decision
The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **This resource-rich, middle-income country has experienced internal and regional struggles seeking to align political institutions with diverse and cross-cutting socioeconomic, ethnic, and religious identities.** As highlighted in the Iraq Systematic Country Diagnostic (SCD) report of 2017, the combination of oil wealth and the mismanagement of political and social diversity has led to acute fragility and conflict, exacerbated by long-standing governance problems and the challenge of ensuring a more equitable allocation of national resources. The government of Iraq (GoI) still faces the challenge of providing and improving basic services and addressing unemployment and poverty.

2. **Economic growth has decelerated sharply over the past few years.** The war with the Islamic State of Iraq and Syria (ISIS) and a protracted reduction in oil prices have resulted in a 21.6 percent reduction of the non-oil economy since 2014. Iraq’s high dependence on oil implies that overall growth is estimated to have contracted by 0.8 percent in 2017, due to a 3.5 percent reduction in oil production, following an agreement by Organization of Oil Exporting Countries (OPEC) and non-OPEC oil producers to cut oil production until the end of 2018.

3. **Poverty, as estimated by the GoI, reached 22.5 percent nationwide in 2014.** In the ISIS-affected governorates, the impact of economic, social, and security disruptions is estimated to have doubled poverty rates to 44 percent. In the South, where poverty rates have always been high, the macrolevel shocks have increased estimated poverty rates to above 30 percent.

4. **Iraq’s energy sector is its most significant economic sector—with the oil subsector accounting for over 65 percent of GDP, more than 90 percent of annual government revenue, and 98 percent of the country’s exports.** Iraq has the fifth largest proven crude oil reserve in the world, with 141.4 billion barrels, and the oil and gas sector dominates the economy, even by regional standards. With the rapid increase in production since 2015, the country is now the world’s third largest and OPEC’s second largest oil exporter. With 130 trillion cubic feet of proven reserves at the end of 2016, Iraq’s proven and largely untapped natural gas reserves are the 12th largest in the world.

5. **Despite vast oil and gas reserves, Iraqis do not have access to adequate electricity for basic needs and must resort to using expensive diesel generators.** Due to an inability to utilize the available national resource, Iraq relies on expensive and imported alternative fuel supply sources costing an estimated US$6 billion to US$8 billion per year, with the cost of power shortages exceeding US$40 billion annually (INES report 2013). The lack of access to reliable power has a significant impact on

---

household well-being, business growth, and the capacity of the enterprise sector to create sustainable jobs for the growing numbers of youth entering the job market.

6. **Dilapidated infrastructure and poor basic services are depriving Iraq's South region of inclusive economic growth and shared prosperity.** The project area covers the South Electricity Distribution Company (SEDC) service territory that includes the governorates of Basra, Al-Muthanna, Thi Qar, and Missan. The provision of basic services like electricity are key to shoring up the legitimacy of the central government as it seeks to reestablish its authority, especially over the areas that see themselves as having been marginalized for years or getting out of conflict.

7. **Iraq is extraordinarily vulnerable to the impacts of climate change.** Deep exposure to natural disaster risk (extreme heat, water scarcity, wildfires, urban flooding, coastal flooding, river flooding, and landslides) and innate susceptibility to disruptive weather (variable rainfall, extended drought, and violent sandstorms) will be amplified by higher temperatures, shifting precipitation, and rising sea levels. By mid-century, climate-induced water shortages could reduce GDP growth in the region by 6 percent to 14 percent each year. By the end of the century, Iraq is projected to experience a mean annual temperature increase of 2°C to 6°C while its average annual rainfall is forecasted to decrease by 25 percent to 65 percent\(^2\). Energy infrastructure projects in Iraq contends with a unique array of climate challenges. Higher temperatures will simultaneously increase electricity demand, decrease its supply, and impair its delivery. On the demand side, more heat waves will cause load curves to spike; whereas on the supply side, hotter temperatures will reduce the capacity factors of the power generation plants. Prolonged climate-induced drought could also spur greater migration into cities, accelerate urbanization, and intensify pressure on already strained and degraded economic and social infrastructure. To eliminate extreme poverty and promote shared prosperity, infrastructure investments in the country face an increasingly urgent need to address climate and natural disaster risk.

### Sectoral and Institutional Context

8. **Iraq's energy sector has suffered from decades of conflict and sanctions that have left its institutions weakened and resulted in under-investment and chronic deterioration in energy infrastructure.** Although Iraq has made significant progress in improving its power generation, the sector continues to confront serious challenges in the face of a high demand growth of over 10 percent per annum, including chronic electricity shortages with grid supply availability at less than 15 hours per day. The recurring public protests in Basra and elsewhere, last seen during the summer of 2018, are evidence of the exasperation of Iraqi citizens with continued poor reliability of the electricity supply.

9. **The project aims to support the Government of Iraq (GoI) program to:** (i) improve quality of supply by removing distribution and transmission bottlenecks in selected clusters; (ii) **re-establish financial sustainability of the electricity sector** to reduce the burden on public resources and enable Iraq to attract increased private sector participation and financing, initially in upstream electricity generation and domestic gas production, and (iii) **support the decentralization and corporatization of electricity services** to improve accountability and proximity of decisions and resources to the citizens.

\(^2\) Iraq country profile, Climate Change Knowledge Portal
10. **Improving Quality of Supply.** Addressing the particularly deteriorated state of the electricity transmission and distribution network and the associated commercial management systems is key to improving delivery of electricity services to Iraqi citizens. The deteriorated grid infrastructure is unable to deliver increased levels of electricity supply when available; and in the case of Basra, the supply shortage is compensated through the Iranian grid. The project will support improving the reliability and efficiency of electricity supply in the governorates of Baghdad, Basra, Al-Muthana, Dhi Qar and Missan, together accounting for over 50 percent of the country’s total electricity consumption, through the construction of new transmission and distribution substations and lines and rehabilitation of existing ones.

11. **Re-establishing financial sustainability of the electricity sector.** Improving the financial sustainability of distribution operations is key to reducing the fiscal burden levied by the sector on Iraq’s budget, drawing resources away from other public sector needs such as reconstruction, health and education. It is also a critical element to establish a conducive investment climate in the power sector. Given the high system losses, low revenues and sizable investment needs, the distribution sector is currently unable to attract private sector capital, which calls for public support to gradually improve performance and provide minimum comfort to attract the private sector and commercial funding. Over the medium term, improvements in revenue collections, reduced cost of generation, and improvements in grid reliability to off-take additional generated electricity would help to reduce the investor risk perception, thus improving access to low cost financing and private sector efficiency and entrepreneurship.

12. **Supporting the decentralization and corporatization of electricity services to improve accountability and proximity of decisions and resources to the citizens.** The project will support the operationalization of the new Electricity Law through decentralized electricity services delivery. This will include support for sector institutional, operational, and performance improvement for better electricity services delivery by strengthening the business processes of Baghdad Electricity Distribution Company (BEDC) and the South Electricity Distribution Company (SEDC) as corporate entities and “Islands of Excellence.” This model could later be scaled up to cover other electricity distribution companies as the sector performance improvements, corporatization and modernization are rolled-out. The proposed operational improvement focused on BEDC and SEDC is aimed to be a transformative catalyst in the provision of electricity services in Iraq. Improved electricity distribution operations, with accountability and operational decisions closer to the consumers, will go a long way in addressing chronic distrust amongst electricity consumers and at the same time will begin to alleviate the burden on government resources by enhancing financial performance.

**C. Proposed Development Objective(s)**

**Development Objective(s) (From PAD)**
To improve the reliability and enhance the operational and commercial efficiency of electricity services in the selected project areas.

**Key Results**
13. The following key indicators will be measured to demonstrate the achievements of the PDO:

   i. **Reliability of electricity service delivery.** Percent reduction in unserved energy demand due to
limited transmission and distribution network capacity: 50 percent—baseline = 111.0GWh (2017), target = 42.5GWh (2022)


iii. **Commercial operations.** Percentage increase in billed-to-supplied energy: 30 percent—baseline = 26.3 percent (2016), target ≥ 60 percent (2022).

**D. Project Description**

14. **The project will support improving the reliability, efficiency, and governance of electricity supply in the governorates of Basra, Al-Muthana, Dhi Qar, and Missan by improving transmission and distribution infrastructure and reducing technical loss of electricity within the transmission and distribution system.** The project also finances an operational and commercial efficiency enhancement program that includes the design, supply, installation, and commission of an integrated distribution management information system (IDMIS). The IDMIS shall cover core electricity distribution utility business functions, namely, network operations and maintenance, commercial, and management of corporate resources. Lastly, the project will support the decentralized electricity services and operationalization of the electricity law with regard to the corporatization of the SEDC.

15. **The project will directly support increasing the efficiency and reliability of electricity supply within the project areas by strengthening the transmission and distribution system through the construction of several transmission and distribution substations and lines.** The project is expected to increase the electricity supply reliability in the project areas by reducing the electricity supply interruptions due to overloads and network technical losses by about 50 percent and 17 percent, respectively. The commercial efficiency enhancement program is expected to increase electricity revenues sales by about 40 percent, with increased billing from 30 percent to over 70 percent. The project will also support sector institutional reforms for improved electricity services delivery, operations improvement, transparency, and accountability by supporting the initial business processes of the SEDC as a corporate entity.

16. **There will be climate change co-benefits.** Several of the project activities will generate climate change mitigation and adaptation co-benefits. The transmission and distribution network capacity reinforcement, including reconductoring of existing lines with higher capacity conductors, will result in a reduction in technical losses, estimated at 1.9-megawatt (MW) power savings annually. The strengthened electricity infrastructure will improve supply reliability and thus contribute to the reduction of GHG emissions by decreasing reliance on small private generators (diesel based), which are less efficient and cause more GHG emissions compared to the national grid supply and whose use is widespread due the poor reliability of the grid supply. The activities under the project will also address climate change vulnerability and hazards as facilities to be installed (transmission lines, substations, and advanced metering infrastructure) will integrate resilient designs that will shield the power sector from the future impacts of extreme weather. Such measures are expected to address structural stability and impact of high temperature, floods, high winds, sand storms, and earthquakes and will generate climate change adaptation co-benefits.
17. The project will consist of the following three (3) main components: (i) Component 1-Transmission Network Reinforcement; (ii) Component 2-Distribution Network Reconstruction, Operational and Commercial Efficiency Enhancement; and (iii) Component 3-Institutional Capacity Strengthening and Project Implementation.

18. **Component 1-Transmission Network Reinforcement.** This component is proposed to finance activities aimed at increasing the transmission network capacity to: (i) address network capacity limitations to meet existing electricity power demand; (ii) meet expected future load growth; (iii) provide operation flexibility and hence improved electricity supply reliability; and (iv) reduce transmission network technical losses. The proposed activities include: (i) 132/33/11KV substations rehabilitation and upgrades; (ii) 132KV transmission network reinforcement; and (iii) supply and installation of 132/33/11KV mobile substations. The proposed scope is expected to increase the transmission network capacity by about 1.60GW.

19. **Component 2-Distribution Network Reconstruction, Operational and Commercial Efficiency Enhancement.** This component will support activities related to: (a) distribution network rehabilitation and reinforcement to meet both current and future electricity demand, reduce technical losses and increase operations flexibility including distribution substations and lines; and (b) Design, supply, install and commission of an Integrated Distribution Management Information System (IDMIS) covering electricity distribution core business functions namely; network operations and maintenance, commercial, and management of corporate resources. The IDMIS will include a Revenue Protection Program (RPP) to improve electricity sales revenue management, including a geo-referenced customer database, metering, billing and revenue collection.

20. **Component 3-Institutional Capacity Strengthening and Project Implementation Support.** This will include development of a regulatory framework and institutional capacity enhancement aligned with the government reform program for improved accountability, governance, financial sustainability and increased private sector participation. This component will also include project implementation support, advisory services, and technical assistance.

E. Implementation

Institutional and Implementation Arrangements

21. The project area covers the transmission and distribution network serving the governorates of Basra, Al-Muthana, Thi Qar, and Missan. The South Electricity Company (SEDC) is the designated Project Implementing Entity. The SEDC is the designated Project Implementing Entity. The project transmission component will be implemented by the South Electricity Transmission Company (SETC), whereas the SEDC shall be responsible for the implementation of the distribution component. The SEDC will transfer the transmission component project agreement implementation responsibilities to the SETC via a Project Implementation Agreement.

22. An Owner’s Engineer (OE) will support overall project implementation and capacity development of the SEDC and SETC Project Implementing Entities (PMTs) in contract management, financial management and environmental and social safeguards. A Business Support Services Firm (BSSF), with experience in utility operations, will be hired to support the SEDC to strengthen its institutional
capacity in key functions of corporate resources, commercial and network management and
operations.

**F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

The project will be implemented in the Iraq South region covering the governorates of Basra, Al-Muthana, Thi Qar, and Missan. The project region is mostly desert. However, the Tigris river extends from the boundaries of Missan governorate from the north, reaching its confluence with the Euphrates river in the Basra governorate downstream. The region has both constant and seasonal surface waters in the form of marshes. The Mesopotamian marshlands at the confluence of the Tigris and Euphrates rivers are important economically and ecologically to all peoples of this area and are of global environmental significance. Oil is one of the most important minerals available for exploitation the region accounting for about two thirds of the current country’s production. The oil fields have associated natural gas most of which is currently flared which result in very high levels of air pollution, especially in Basra. Biodiversity, over 400 species of birds have been recorded in the northern Gulf Region (comprising Kuwait, Iraq, eastern Saudi Arabia and western Iran). The region is especially important as part of the intercontinental flyways used by huge numbers of birds moving between Africa and Eurasia. However, since the proposed new transmission lines will be erected along already existing energy corridors passing through desert land, no project interventions are expected to take place in areas of ecological importance and away from the routes of bird migrations. Most of the land to be acquired by the project is state owned land and measures will be taken to avoid temporary or permanent land acquisition. Where resettlement may be required, fair compensations will be provided to the affected people according to the criteria stipulated in the Project RPF.

**G. Environmental and Social Safeguards Specialists on the Team**

Ehab Mohamed Mohamed Shaalan, Environmental Specialist
Ibrahim Ismail Mohammed Basalamah, Social Specialist

**SAFEGUARD POLICIES THAT MIGHT APPLY**

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>The project will include the procurement and installation of 132Kv and 33KV overhead transmission and distribution lines respectively, and 400KV/132/33/11KV substations. Civil works such as substation equipment foundations, shallow excavations, laying concrete foundations, erection of towers and poles as well as stringing of cables and</td>
</tr>
</tbody>
</table>
wires will take place. Air emissions, noise, water pollution and generation of solid wastes are expected. Therefore, OP4.01 is triggered. A project ESMF has been prepared and disclosed both in-country and at the World Bank website,

<table>
<thead>
<tr>
<th>Performance Standards for Private Sector Activities OP/BP 4.03</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>No</td>
</tr>
<tr>
<td>The project activities are not expected to take place in areas of ecological importance. The 132KV and 33KV overhead transmission and distribution lines will be erected along already existing Right of Way (ROW) line corridors and mainly passing through desert land.</td>
<td></td>
</tr>
<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
</tr>
<tr>
<td>No forests are existing within the project boundaries.</td>
<td></td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
</tr>
<tr>
<td>No pests or agriculture related activities will take place.</td>
<td></td>
</tr>
<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
<td>No</td>
</tr>
<tr>
<td>It is not expected that the 132KV and 33KV transmission and distribution lines will pass through site of cultural importance. However, this will be confirmed after the detailed line routes’ selection following the detailed line surveys and profiling.</td>
<td></td>
</tr>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>No</td>
</tr>
<tr>
<td>No indigenous people exist within the project boundaries.</td>
<td></td>
</tr>
<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>Yes</td>
</tr>
<tr>
<td>Since the location of all the project activities are not known during the preparation stage, an RPF has been prepared to provide guidelines to handle resettlement requirements and compensation procedures during project implementation. The RPF has been disclosed both in-country and at the World Bank website.</td>
<td></td>
</tr>
<tr>
<td>Safety of Dams OP/BP 4.37</td>
<td>No</td>
</tr>
<tr>
<td>The project scope doesn’t include any activities related to dams.</td>
<td></td>
</tr>
<tr>
<td>Projects on International Waterways OP/BP 7.50</td>
<td>No</td>
</tr>
<tr>
<td>No project activities will take place on international waterways.</td>
<td></td>
</tr>
<tr>
<td>Projects in Disputed Areas OP/BP 7.60</td>
<td>No</td>
</tr>
<tr>
<td>No project activities will take place in any Disputed Areas.</td>
<td></td>
</tr>
</tbody>
</table>
KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The expected project benefits during the works construction and operation phases are:

(i) During the construction phase, in the vicinity of the sites:
(ii) income generation through the creation of temporary jobs;
(iii) development of small businesses (food, clothing, etc.); and
(iv) increased income through the procurement of local and imported materials sold on the domestic market.

Post project implementation, the following positive impact is expected:

(i) improved quality of life through the possibility of using electrical appliances and lighting of homes;
(ii) improved security, due to public lighting;
(iii) increased economic activities stemming from the development of businesses, mechanization and electrification of stores and workshops;
(iv) access to information services (new technology, TV, etc.); and
(v) improved performance of administrative and social services as well as economic operators based in the project area (better working conditions, possibility of IT equipment, communication facilities).

The safeguard issues and potential negative impacts associated with the project are highlighted below. The impacts are rated to be of low to moderate significance. The anticipated impacts are limited to the specific routes and sites, associated or localized, reversible and time limited and can be mitigated. With mitigation measures in place, the impacts will be either neutralized or decreased to the minimum. None of the listed impacts is considered irreversible or of potential large scale.

During Construction (Overhead transmission lines and substations)

(i) Air emissions from heavy machinery;
(ii) Dust generation from excavation activities and open storage of materials and excavated soils;
(iii) Noise emissions from heavy machinery used in general construction activities;
(iv) Improper management of solid, liquid, and hazardous wastes and contamination of soils;
(v) Water consumption in construction activities;
(vi) Improper disposal of wastewater from site offices;
(vii) Dewatering of subsurface waters and improper disposal of the resulting wastewater;
(viii) Potential impacts on culturally valuable sites and antiquities due to excavation activities;
(ix) Traffic congestion and blockage of access due to excavation and installation works;
(x) Damage of crops and negative impacts on livelihoods due to installing overhead transmission and distribution power lines especially in privately owned agricultural lands;
(xi) Permeant land requirements to establish permanent substations;
(xii) Temporary land requirements for mobilization of machinery and other construction works processes;
(xiii) Impact on the illegal occupants and the commercial activities going on along the ROW of the network;
(xiv) Risk of damage/breakage of underground utility lines and piping (drinking water, wastewater, electricity cables, telephone lines) during excavations especially inside urban areas;
(xv) Worker health and safety concerns especially if local subcontractors are utilized in some construction activities.
entailing construction related safety risks. Local subcontractors generally don’t have the culture of using personal protection equipment or maintaining good worker health and safety procedures or practices.

During Operation

132KV overhead transmission lines. Once constructed the main impacts that arise from their physical presence are the Electromagnetic Field (EMF) together with noise created by the Corona effect. In addition, physical presence creates a visual impact and a threat to birds which may collide with the wires.

Electromagnetic Fields (EMF). The size of the Right of Way and the protection zone is largely determined by the required line clearance. The EMF for 132KV lines at standard clearance of distance of 15.5 m from the footprint of the line is < 5 kV/m, which is in conformance with stipulated standard for limitless exposure. Therefore, at a standard clearance ROW there will be risk from exposure of EMFs levels greater than the safe limits.

Aesthetics. The transmission lines will be permanent structures crossing wide areas of deserts which may disturb the natural aesthetic value of these desert landscapes. However, since the region is famous for oil fields and flares in many parts of the desert, the natural aesthetic value of the desert has been significantly disturbed by the oil production sites. Therefore, the transmission lines and towers are expected to have a minor impact on the aesthetic value of the desert landscape in Basra.

Substations. The switchgear used in substations such as circuit breakers is insulated with sulfur hexafluoride, which is a potent greenhouse gas. This gas can leak into the atmosphere from aging equipment or during maintenance and servicing.

Installation of transformer substations and/or switching substations. The installation of new transformer or switching substations in brickwork cabins will involve the performance of civil works and the use of common construction methods and materials. There are no plans to open access paths specifically to them.

Rehabilitation of transformer substations and/or switching substations. Removal of obsolete equipment produces metal materials that may be recycled (steel and copper, in particular). However, some transformers may contain oils that are contaminated with polychlorinated biphenyls (PCBs). If it turns out that some transformers actually contain PCBs, special measures shall be taken for their packaging and ultimate removal to prevent environmental and public health risks.

Land for the installation of infrastructure. The installation of substations, transmission and distribution lines may require land acquisition or that compensation be paid for any land occupied by formal or informal dwellers.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The 132KV installed under the project will produce electromagnetic fields (EMF) which has some public health impacts especially when passing too close to habited areas such as urban areas, residential homes, schools or hospitals. Given the required standard ROW minimum clearances, no long-term impacts are expected.

Substation transformers and associated switchgear will emit noise. The noise emission levels will be specified to conform to international standards, such the IEC, and as such will be limited to acceptable levels.
The presence of live lines and equipment will always entail electrical hazards which will be mitigated by ensuring that the structures and lines sags conform to the required clearances including installing underneath shield wires at busy crossings such as roads, if necessary. In addition, if the final route selection for the 132KV is assessed to have bird migration corridors, bird flappers will be included to guard against bird collision with the lines.

The project is expected to improve the network reliability and reduce technical losses. Reduced technical losses would imply less generation and reduction in the equivalent GHG emissions, whereas improved reliability will spur economic growth, job creation and improved quality of life from improved basic services delivery, among others.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
Routing alternatives apply to location of substations, and the line routes for the proposed 132KV transmissions and 33KV distribution over lines. The siting of substations and the line routes selection will avoid environmental and social impacts as possible. The routes of the proposed transmission and distribution lines will be selected in such a way to avoid passing through any ecologically or culturally sensitive areas.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.
Given that routing of the transmission and distribution networks as well as the exact locations of the substations and transformer rooms lines are not known with certainty at the appraisal time of this project, an Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) have been prepared for the project to provide guidelines for handling resettlement requirements and compensation procedures during implementation. The ESMF and RPF have been disclosed both in country and at the World Bank website on October 16, 2018 and January 28, 2019, respectively. Whenever a specific site or route is identified, an Environmental and Social Management Plan (ESMP) and a Resettlement Action Plan (RAP), if necessary, will be prepared. The site specific ESMPs will be prepared following the principles and procedures set forth in the ESMF. Clear measures for handling health and safety issues, managing the impacts of labor influx and compensating resettlement impacts will be set forth clearly in the ESMPs or further associated tool (e.g. the RAPs). The site specific ESMPs and RAPs will be prepared, cleared and disclosed prior to the commencement of any construction works.

Implementation of environmental and social mitigation measures. All contracts for construction will include site specific ESMPs which will be mandatory to implement. The implementing agencies (SEDC and SETC) will appoint environmental and social officers to ensure the implementation of the ESMP requirements. In addition, Bank supervision missions will ensure compliance with the ESMP measures.

Borrower's/Implementing Agency Capacity to implement ESMPs. The Implementing agencies (SEDC and SETC) have no prior experience in implementing or supervising the ESMPs. The Implementing Agencies PMTs shall each have designated environmental and social safeguard specialists who will be supported by the Project owner’s Engineer (OE) to review the site specific ESMPs/RAPs and monitor the overall implementation of the ESMPs. In addition, the PMTs shall ensure that all ESMP/RAP requirements are obligations embedded in construction contracts.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.
Key stakeholders are the officials of the project areas, the Ministry of Electricity officials, staff of both Distribution and Transmission Departments, NGOs and the project affected people (PAPs). The mechanism for carrying out public
consultation and participation was through local meetings during the preparation of the ESMF and RPF. The public consultation took into account the literacy levels of the various stakeholders. A similar approach will be used for the preparation of the site specific ESMPs and (RAPs, where required). The purpose of the consultations sessions is to present the overall project scope and design; project benefits; and the associated anticipated environmental and social impacts of the project activities. The objective is to enable the stakeholders to understand the project and its activities, as well as to ensure that their concerns and issues are considered during all phases of the project, including at the planning phase.

Conducting extensive public consultation was not feasible at the time of preparing the ESMF and RPF due to security concerns and prevalent civil unrests in the region. However, there were consultations with the both the South Electricity Distribution Directorate (SEDC) and the South Electricity Transmission Directorate (SETC) on May 3rd, 2018. The objective of the session was to present the objectives of the ESMF and RPF, obtain more information about the roles and responsibilities of the Project Management Teams (PMTs), land tenure, environmental laws, land acquisition, and identify key issues and determine how concerns of all parties will be addressed.

The findings of the public consultations, as included in the ESMF and RPF, have been disclosed at websites of the Iraq Reconstruction Fund for Areas Affected by Terrorists Operation (REFAATO) and Ministry of Electricity (interlinked with the SEDC and SETC). All project affected people have been made aware to provide their comments and concerns where necessary.

GRIEVANCE REDRESS MECHANISM (GRM). The Bank’s OP 4.12 on Involuntary Land Acquisition and Resettlement requires that affordable and accessible procedures for third party settlement of disputes arising from resettlement (i.e., grievance redress mechanisms) should be available. This GRM takes into account the availability of judicial recourse as well as traditional and community dispute resolution mechanisms.

The SEDC and SETC will each establish a GRM unit to handle Project activity-related complaints or requests each with a dedicated focal point person. Multiple access points (telephone, complaint’s box, website, email, text message, etc.) shall be provided so that beneficiaries will have multiple ways to voice their concerns. The contact information of the GRM focal points will be posted in local language at the local level. Each PMT Manager will have the overall responsibility to address concerns brought to the attention of the focal points regarding any environmental and/or social impacts due to Project activities. Complaints received shall be registered, tracked, investigated and promptly resolved. Copies of complaints shall be recorded in the activity files and the progress reports, including the number and type of complaints and the results of their resolution.

World Bank Grievance Redress. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB’s independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank’s attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank’s corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.
B. Disclosure Requirements

### Environmental Assessment/Audit/Management Plan/Other

<table>
<thead>
<tr>
<th>Date of receipt by the Bank</th>
<th>Date of submission for disclosure</th>
<th>For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Jan-2019</td>
<td>28-Jan-2019</td>
<td></td>
</tr>
</tbody>
</table>

"In country" Disclosure

**Iraq**

16-Oct-2018

Comments

The ESMF has been disclosed in-country at the websites of: (i) Ministry of Electricity (interlinked with the SETC and SEDC websites) and (ii) the Iraq Reconstruction Fund for Areas Affected by Terrorists Operation (REFAATO).

### Resettlement Action Plan/Framework/Policy Process

<table>
<thead>
<tr>
<th>Date of receipt by the Bank</th>
<th>Date of submission for disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Jan-2019</td>
<td>28-Jan-2019</td>
</tr>
</tbody>
</table>

"In country" Disclosure

**Iraq**

16-Oct-2018

Comments

The RPF has been disclosed in-country at the websites of: (i) Ministry of Electricity (interlinked to the SETC and SEDC websites) and (ii) the Iraq Reconstruction Fund for Areas Affected by Terrorists Operation (REFAATO).

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?
Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?
Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?
Yes

**OP/BP 4.12 - Involuntary Resettlement**
Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?
Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?
Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?
Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?
Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?
Yes

Have costs related to safeguard policy measures been included in the project cost?
Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?
Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?
Yes

CONTACT POINT

World Bank

Paul Baringanire
Senior Energy Specialist

Mohammed Wafaa Al-Ani
Operations Officer

Borrower/Client/Recipient
Ministry Finance

Implementing Agencies

Ministry of Electricity
Dr. Luay Al-Khatteeb
Minister of Electricity
imoe_hq@yahoo.com

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): Paul Baringanire
Mohammed Wafaa Al-Ani

Approved By

Safeguards Advisor: Nina Chee 14-Mar-2019
Practice Manager/Manager: Erik Magnus Fernstrom 14-Mar-2019
Country Director: Yara Salem 15-Mar-2019