Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 29-Nov-2018 | Report No: PIDISDSA25548
### 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>Guinea</td>
<td>P164225</td>
<td>Guinea Electricity Access Scale Up 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>AFRICA</td>
<td>03-Dec-2018</td>
<td>15-Feb-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>Republic of Guinea</td>
<td>Electricité de Guinée, Agence Guinéenne d'Electrification Rurale (AGER)</td>
</tr>
</tbody>
</table>

**Proposed Development Objective(s)**

The project development objective is to increase access to electricity in selected areas of Guinea.

**Components**

- Reinforcement and expansion of grid access in selected regions and reduction of illegal consumption
- Electrification of remote localities with privately operated hybrid systems (solar PV with storage/diesel) mini grids
- Owner's Engineer, Access Program Coordination, Technical Assistance, Capacity building and project implementation support

### PROJECT FINANCING DATA (US$, Millions)

#### SUMMARY

<table>
<thead>
<tr>
<th>Total Project Cost</th>
<th>108.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Financing</td>
<td>108.50</td>
</tr>
<tr>
<td>of which IBRD/IDA</td>
<td>50.00</td>
</tr>
<tr>
<td>Financing Gap</td>
<td>0.00</td>
</tr>
</tbody>
</table>

#### DETAILS

World Bank Group Financing
The review did authorize the team to appraise and negotiate

Other Decision (as needed)

**B. Introduction and Context**
Country Context

1. Although Guinea is well endowed with mineral and energy resources, it is among the poorest in the world with an annual per capita income of only US$460. Guinea has a population of 12.6 million (2015), which is increasing at a high rate of above 3 percent per year. A series of external shocks that took place in 2014, including the Ebola crisis and the sharp decline of commodity prices, have further raised the poverty rate which was close to 58 percent at that time. The Ebola epidemic had a dramatic impact on the economy, as demonstrated by the estimated loss of US$535 million in the gross domestic product (GDP) in 2015. The country now ranks ninth from the bottom of the Human Development Index (HDI), with 73 percent of the population living on less than US$2 a day, whereas only 19 percent of the population has access to sanitation, and the adult literacy rate is 25 percent, which is the second lowest in the world. The female HDI value for Guinea is 0.364, which contrasts with an HDI of 0.464 for males, resulting in a Gender Development Index (GDI) value of 0.784 in 2015. These results place the country in the last fifth group of the ranking, notably below the GDI values for Sub-Saharan Africa and among low HDI countries, which are 0.877 and 0.849, respectively.

2. To get the economy back on a solid footing, the Government developed a post-Ebola recovery plan for 2015–2017, followed by the 2016–2020 National Economic and Social Development Plan (Plan National de Développement Economique et Social, PNDES), which covers all key sectors of the economy. The overall objective of the PNDES is to stimulate strong and high-quality growth to improve the well-being of Guineans and to initiate the structural transformation of the economy, while putting the country on the path towards sustainable development. The PNDES strategy is based on four development pillars: (a) promotion of good governance for sustainable development, (b) sustainable and inclusive economic transformation, (c) development of inclusive human capital, and (d) sustainable management of natural resources. It forecasts an average economic growth rate of 9.4 percent per year for 2018–2020 supported by ambitious infrastructure projects, particularly in the energy and transport sectors. The proposed Electricity Access Scale Up Project will specifically contribute to two of the four pillars of PNDES: the sustainable and inclusive economic transformation pillar and the development of inclusive human development pillar.

3. The energy sector will play a crucial role as the prime mover for the implementation of the PNDES. The National Energy Policy (NEP) will contribute to fast-track the implementation of the PNDES through its objectives to (a) guarantee the availability, quality, and reliability of electricity supply to contribute to the provision of social services, social transformation, and poverty reduction; and (b) to promote renewable energy and energy efficiency programs to reduce the dependency on fossil fuels and enable exports. The PNDES explicitly highlights the need to increase access to sufficient, reliable, and affordable modern energy services for socioeconomic transformation and industrial growth. A key challenge is to achieve the goals of the PNDES while improving the sustainability of the national electricity utility (Electricité de Guinée, EDG) and maintaining electricity tariffs at a socially acceptable level.

4. According to the World Economic Forum’s 2017 Global Gender Gap Report, Guinea ranks 113 out of 144 countries, despite being included in the group of countries that have recently closed more than 80 percent of their gender gap. Guinea holds one of the last three spots together with Benin and Chad in educational attainment, having closed less than 70 percent of its education gender gap. Men continue to be more literate than women: 89 percent of young males and 38 percent of adult males are literate versus 78 percent of young females and 22 percent adult females. Although the Guinean Constitution (Article 180) provides equal access to employment, women continue to suffer from additional barriers in the workforce: professional segregation, unskilled and low-paid or informal jobs that provide no social protection, among others. Furthermore, less than 20 percent of women in Guinea have an account at a financial institution or with a mobile money service provider and they still have limited access to credit by requiring in many cases their husbands’ permission (Women, Business and the Law 2018). The Enterprise Survey 2016 indicated
that in Guinea, 9 percent of firms have female participation in firm ownership, and 6 percent of firms have females in top management positions.

Sectoral and Institutional Context

5. The sector institutions in Guinea are undergoing a major restructuring toward liberalization, but the sector is still dominated by public sector players. The Ministry of Energy and Hydraulics (MEH) sets the sector’s policy and plays an overarching custodial role of the sector. The recently established Agence Guinéenne d’Electrification Rurale (AGER), created on May 9, 2017, will oversee the development of rural electrification programs including decentralized off-grid electrification solutions. A law establishing the independent regulator has been adopted by the Parliament on November 24, 2017, and the Government of Guinea (GoG) has recently appointed the regulator’s managing director. The Electricity Law is being updated to reflect new developments in the sector and to encourage private participation in power generation in the short term and in hydropower in the longer term, with support from the African Development Bank (AfDB). A set of regulations are expected in 2019 to enforce the Electricity Law. There are already four thermal independent power producers (IPPs) in the country, and the Kaleta Hydropower Project has been structured as a public-private partnership (PPP), which enabled Government to raise equity in the Souapiti Hydropower Project. The state-owned electricity utility EDG is currently managed by a private operator, under a World Bank-supported Management Services Contract (MSC). The Rural Electrification Law governing the concession for small power plants of less than 500 kW was adopted in 2013 and standard concession agreements for mini-grids operated by private operators were already developed by the Decentralized Rural Electrification Project (PERD) in 2005.

6. The key Guinean electricity sector challenges are (a) low level of access rate to electricity and high number of illegal connections, (b) poor performance of EDG, (c) financial sustainability of the sector, and (d) high electricity system inefficiencies. Table 1 summarizes key sector indicators for the country.

<table>
<thead>
<tr>
<th>Sector Indicators</th>
<th>Guinea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Access to electricity (% of population)</td>
<td>18.1</td>
</tr>
<tr>
<td>Installed capacity (MW)</td>
<td>699</td>
</tr>
<tr>
<td>Annual energy generation (GWh)</td>
<td>1,740</td>
</tr>
<tr>
<td>Number of registered customers</td>
<td>271,249</td>
</tr>
<tr>
<td>System losses (%)</td>
<td>35</td>
</tr>
<tr>
<td>Average electricity tariff (US$ per kWh)</td>
<td>0.10 (2018)</td>
</tr>
<tr>
<td>Average cost of service (US$ per kWh)</td>
<td>0.25 (2018)</td>
</tr>
<tr>
<td>Annual turnover (million, US$)</td>
<td>100.2</td>
</tr>
<tr>
<td>Billing rate (%)</td>
<td>64.2</td>
</tr>
<tr>
<td>Collection rate (%)</td>
<td>83.4</td>
</tr>
<tr>
<td>Number of utility staff</td>
<td>1,597</td>
</tr>
</tbody>
</table>


7. Even when counting illegal connections (which stand at 11 percent of the population), the rate of access to electricity in Guinea of 29.1 percent continues to be below the Sub-Saharan African average
of 43 percent, in large part due to a lack of financing. Moreover, there is a wide disparity between electricity access in the Conakry area, and access in central, western regions (Guinée Maritime and Moyenne Guinée), and the area of northeast of Sigui. In rural areas, the level of access is only 3 percent while it is about 48 percent in urban areas. While EDG officially serves about 160,000 clients in the capital city of Conakry alone, the actual consumers are estimated to be two times that figure when taking into account illegal connections and electricity theft. Informal connections in urban areas result from (a) delays in grid expansion resulting in makeshift connections (b) high cost of connection for certain consumers in addition to high cost of internal house wiring, (c) low capacity of EDG to respond to new requests for connections, (d) poor billing practices which enable legal connections owners to sell electricity to informal consumers or sub-clients, and (e) outright fraud or theft of electricity.

8. **EDG’s assessment is that there is a relatively high potential to reduce commercial losses and increase revenues through regularization of illegal connections.** The Power Sector Recovery Project (PSRP) (P146696) is financing a general census of EDG’s consumers to provide a more accurate number of illegal connections and their profiles. The results of the first phase of the census done in August 2018 in two of EDG’s commercial branches (Lampanyi and Kountia) in Conakry, indicate that only 31 percent of consumers have legal connections, and 69 percent of the consumers were illegal. Of the total, 48 percent are unsafely hooked to legal consumers of EDG’s. As these legal customers do not have metering, they generally pay a flat fee to EDG regardless of the quantity of electricity consumed, and they therefore capture rents from illegal consumers, without providing EDG with additional revenues. Finally, 21 percent of consumers surveyed were considered to have clandestine connections, whose regularization will require accompanying campaign measures to be successful. Based on the records from the commercial department of EDG on the collection rate from regularized clients, these consumers are not necessarily poor and can afford to pay electricity bills. The experience from the PSRP which also finances a component of regularization of informal connections in three districts in Conakry, has indicated that regularized beneficiaries, with meters, consume about 330 kWh per month each and increase revenues of EDG. The Steering Committee of the Management Service Contract (MSC) between EDG and the Government is a champion for the reduction of illegal connections and anti-fraud reforms.

9. **The National Least Cost Electricity Access Scale Up Program 2016–2020 (NLCEAP) will accelerate electricity access for the population and businesses.** The GoG has adopted a target to increase legal access to electricity from 18.1 percent in 2016 to 36 percent by 2020 towards universal access by 2030 as indicated in the figure 1. The GoG commissioned the preparation of the NLCEAP based on optimizing grid and off-grid technologies which were designed through geographical information system modeling financed by the World Bank’s Energy Sector Management Assistance Program (ESMAP) (TF015026). It was presented by the Government to the donor consultative group in Paris on November 17, 2017, as a first step to mobilize the required financing of around US$644 million over 2016–2020, including technical assistance (TA) funds in the order of US$36 million, which together would increase the number of connections through grid extensions (662,280) and off-grid solutions (57,000). At that meeting, donors pledged around US$388 million and committed to provide additional financing in their respective country partnership strategies over the PNDES implementation period. Out of the pledges, the Government has already mobilized about US$288 million with ongoing projects financed by different donors including the World Bank, AfDB, Islamic Development Bank (IsDB), French Development Agency (Agence Française de Développement, AFD), European Union (EU), and the Government budget, as shown in annex 2.7. The National Least Cost Electricity Access Scale Up Program confirms that for 95 percent of localities, the least-cost electrification option is mainly but not exclusively, through connection to the main grid. According to
the program, mini-grids will be developed temporarily to electrify remote localities where grids cannot reach in the next 10–15 years, with a priority given to localities with relatively high revenues and willingness to pay (WTP). Solar home systems (SHS) will be distributed by private operators, and the Regional Off-Grid Electrification Project (ROGEP) (P160708) will provide credit and guarantee facility for further market penetration. A market analysis study for SHS in Guinea was conducted by the ROGEP implementing agency, Economic Community of West African States Center for Renewable Energy and Energy Efficiency (ECREE), to suggest the required incentives to facilitate expansion of the SHS business. The access program is expected to be implemented in three phases based on the sequencing of funding from donors and considering the implementation constraints of the country.

Figure 1. Planned Pace of Electrification in Guinea

10. **The access program will prioritize connection of communities closer to the existing medium-voltage (MV) lines, with high population density and capacity to pay.** As such, the program will allow the utility to optimize its efficiency in electricity supply to households and businesses and contribute to improve EDG’s financial sustainability. To ensure that the National Least Cost Electricity Access Scale Up Program is implemented in an equitable and transparent manner, the least-cost access study presented technical, commercial, and economic electrification prioritization criteria that guided the selection of the proposed investments. The Government will adopt a prioritization policy by February 2019 to guide future investments in grid expansion access. Site selection process will be sector policy-based and enforceable for the overall electricity access program.

11. **Stakeholders supported the concept of a sector wide approach (SWAp) to implement the NLCEAP in a closely coordinated manner.** The SWAp structure of the access program reflects the joint commitment of development partners to the objectives of the access program and the commitment at the highest level of the Government. In addition, the SWAp enables Government to work with different development partners to meet the national access target. However, it should be noted that the SWAp does not necessarily require donors to harmonize administrative and fiduciary processes, although this is an objective that is desirable in the long term. The program seeks to balance the delivery of access through established practices for grid-based access and off-grid, with the reinforcement of access institutions EDG and AGER, and commercial measures for revenue protection.
12. **The NLCEAP covers the costs of household connections while beneficiaries pay for the internal house wiring which is expensive in Guinea.** The average estimated cost of connection in the project areas (urban and peri-urban areas) is about US$160, and it could be as much as ten times higher in rural areas. In addition, the cost of internal house wiring is high with an average of US$ 100\(^1\) per household, making connecting to the grid prohibitively expensive for poor households. Given that an average household cannot afford such high initial costs, the NLCEAP will cover the costs of connections, while the internal house wiring costs will be borne by beneficiaries. However, for low-income households, the access program provides for the standard ready-board electrification kits at subsidized cost for basic electricity services, especially in rural areas. Connections that fall under rehabilitation and regularization of obsolete and informal connections are also subsidized to realize the benefits of as reduction of technical and commercial losses and additional revenues to the utility. The Commercial Department of EDG will be the main implementing vehicle for the ‘last mile’ grid access as it is responsible for customer connections and collecting revenues, through tariffs, from newly connected clients under the program.

13. **The WTP in the project areas is compatible with applied tariffs and level of electrified costumer’s consumption, and grid electricity is affordable.** The household electricity access baseline survey supported by ESMAP TF015026 in 2016 revealed that an average household in Guinea is willing to pay GNF 105,023 (US$ 12.15) per month for electricity. The same survey indicated that in the project area, the average household consumption per month will be 207 kWh. At the current subsidized tariff, this amount of energy would cost GNF 52,785 (US$ 6) which is 1.2 percent of the average monthly income per household. At the full cost of supply, the same amount of energy would cost about GNF 468,441 (US$ 52), equivalent to 10.6 percent of the household monthly income as shown in table 2. Based on lessons learned, if the electricity bill doesn’t exceed 10% of the income, it is considered that household can afford electricity. From the analysis, even at the full cost of service, grid electricity is affordable. An information campaign is underway to support the governments’ effort to increase electricity tariffs for high value consumers which is required to improve the quality of service. In any case, consumers to be connected from this project will pay a tariff set by the regulator at the national level, which is likely not to exceed the willingness to pay as the cost of service will decrease over time.

### Table 2. Willingness To Pay versus household income

<table>
<thead>
<tr>
<th></th>
<th>household monthly income (GNF)</th>
<th>WTP(GNF)</th>
<th>monthly expenses for electricity at current subsidized tariff(GNF)</th>
<th>monthly expenses for electricity at cost of service tariff(GNF)</th>
<th>% electricity expenses at subsidized tariff/ income</th>
<th>% electricity expenses at cost of service tariff/ income</th>
<th>% WTP/income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>4,401,589.12</td>
<td>105,023.00</td>
<td>52,785.00</td>
<td>468,441.00</td>
<td>1.20%</td>
<td>10.64%</td>
<td>2.39%</td>
</tr>
</tbody>
</table>

Source: electricity baseline survey in Guinea, Econoler, 2016.

14. **The proposed project will contribute to Fragile, Conflict and Violence (FCV) risk mitigation by increasing the population with access to electricity and improving reliability and security of supply.**

---

\(^1\) The cost of internal house wiring ranges between GNF 800,000 to GNF 1,100,000.
Although there has been significant improvement in power generation and distribution over the last five years, Guinea was characterized by frequent protests and riots against prolonged electricity outages, both in Conakry and regional towns including Boke, Kamsar, Siguiiri, etc. Lack of access to sufficient, affordable and reliable electricity service delivery constitutes one of the key drivers of fragility in Guinea. It contributes to the population’s frustration, leading to lack of support for state institutions, since the public administration is perceived as underfunded and inefficient in providing electricity services. The proposed project will not only increase the population with electricity services, but also improve the reliability and security of the supply as result of strengthening the distribution system and regularizing substandard and unsafe illegal connections. This will contribute to reinforcing the state legitimacy in the eyes of the public.

15. The demand-supply analysis shows that the existing and planned bulk generation capacity is sufficient to support the planned project, the access program in general, and other economic activities. The current domestic electricity demand is about 335 MW while the installed capacity is 699 MW. The demand is expected to grow at about 10 percent per year in the next five years. The peak demand forecasted for 2022 is estimated at 810 MW, driven by (a) meeting unserved demand, (b) the implementation of Electricity Access Scale Up Program with an estimated households demand of 192 MW by 2022, including the demand of about 25 MW from the implementation of the proposed project, and (c) the likely development of industrial activities including major mining projects which would require about additional 230 MW. The projected installed capacity will be about 1400MW in 2022 as shown in the table 2.6 and will be sufficient to meet the domestic demand and the excess power will be exported to neighboring countries. To meet the medium to long-term energy needs, the country has started to develop its hydropower potential with the completion of Kaléta (240 MW) with Chinese financing in 2015, and the launching of the construction of Souapiti (450 MW) also with Chinese support. Other projects that are being considered by the Guinean authorities include Sambangalou (128 MW) regional hydro plant on the Gambia River (bordering Senegal and Guinea), Amaria (300 MW), Korafindi (100 MW), and Kogbedou-Frankonedou (90 MW). The country is also considering developing several solar photovoltaic (PV) plants with the International Finance Corporation (IFC) and the World Bank technical support through Korea World Bank Partnership Facility (TF072713). Owing to these projects, Guinea will have enough capacity to retire some its high cost thermal plants (by 2023 when some of these generation projects are operational), while meeting future domestic demand and exporting in the regional market. On the transmission side, the existing and planned high-voltage (HV) backbone transmission network, including the interconnections (Organisation de Mise en Valeur du fleuve Gambie [OMVG], Guinea-Mali and Interconnector Project Integrating Côte d’Ivoire-Liberia-Sierra Leone and Guinea [CLSG]) is covering large parts of the country and makes the access target feasible as investment requirements in MV and low-voltage (LV) lines are relatively cheaper and such lines are faster to implement.

16. Grid access expansion is financially viable and will have a positive impact on EDG’s cash flow and revenues. Positive cash flows which will increase EDG’s revenues will be generated from two sources: (i) legalizing many illegal connections and (ii) new connections through network expansion and densification in high income households in Conakry and secondary cities. The financial analysis shows that at the project
completion in 2023, the annual project cumulative cash flows will be US$ 41 million, and the project annual Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) will be US$ 26 million, which will be 20% of the total EDG’s EBITDA.

17. **Household consumption of electricity in Guinea is among the lowest in the world, and therefore, the impact of expanding access on financial deficit of EDG is marginal and will be offset by other ongoing interrelated programs that aim at increasing financial viability of the sector and gradually reducing subsidies.** The energy consumption by new households to be electrified under the proposed project will be less than 10% of the total annual consumption, and hence the impact on the financial deficit of EDG will not be significant. The ongoing programs to (a) shift energy generation mix towards cheaper renewable sources; (b) improve EDG’s efficiency and commercial performance through the implementation of the MSC; (c) power supply to mines and other high consumers not connected to the grid yet but willing to pay a high tariff, in addition to tariff adjustment plan, will reduce the operating financial deficit of EDG and subsidies will drop as a result. Projections from EDG shows that by 2023, the Government subsidies will not be required. To avoid negative impact on the financial situation of EDG, the project will focus on areas where the cost of expanding the grid is lower, and all new consumers will be mainly equipped with prepayment meters.

18. **The technical, commercial, and financial performance of the sector is poor by regional standards but expected to improve with the implementation of the MSC and additional actions supported by the PSRP (P146696) and the additional financing (P160771).** As part of the electricity sector recovery plan adopted by the Government in 2012, an MSC was signed on June 19, 2015, between the GoG and the consortium Veolia-Seureca to improve the performance of EDG, under the financing of the PSRP. Over the past three years of implementation, there has been a marked improvement in the operation and maintenance of the grid infrastructure, as documented in the midterm review of the PSRP held in November 2017 and the recent audit report of the first semester of 2018. However, the MSC contractor needs to improve on commercial performance and increase its efforts to achieve the MSC objectives regarding human resources capacity development. An additional financing project (P160771) was approved by the Board on March 16, 2018, to enable the MSC to reach its development objective. Specific objectives of the MSC, as outlined in the Government-adopted Internal Recovery Plan (IRP) of EDG, include (a) improvement of service delivery and grid efficiency: increase reliability of power supply and reduction of technical losses; (b) improvement of commercial performance: reduction of commercial losses, reduction of illegal connections, increase of billing and collection rates; and (c) capacity building of human resources of EDG to sustain performance progress after the MSC. These would in turn contribute to improve the financial performance of the sector.

1. Table 2 shows the evolution of main sector performance indicators since the effectiveness of the

---

3 Discussions between the GoG and active mining companies on the possibility to connect mines to the grid have started
4 Number of consumers billed on meters is still low at 23 percent compared to the target of 80 percent in 2018, billing collection rate for LV consumers is still low at 87 percent compared to the target 93 percent in 2018, and so on.
5 Improvement of billing and collection rates is the priority of the MSC in 2019.
MSC.

Table 2. Performance of EDG from 2015 to 2017

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual generation (GWh)</td>
<td>1,180</td>
<td>1,530</td>
<td>1,700</td>
<td>44%</td>
</tr>
<tr>
<td>Number of substations built (MV/LV)</td>
<td>2,270</td>
<td>2,410</td>
<td>2,485</td>
<td>10%</td>
</tr>
<tr>
<td>Annual duration of power outage (hr)</td>
<td>—</td>
<td>350</td>
<td>210</td>
<td>−40%</td>
</tr>
<tr>
<td>Demand growth (MW)</td>
<td>245</td>
<td>295</td>
<td>335</td>
<td>36%</td>
</tr>
<tr>
<td>System Average Interruption Duration Index (MT) outside Conakry (hr)</td>
<td>—</td>
<td>177.5</td>
<td>153.7</td>
<td>−23.8</td>
</tr>
<tr>
<td>Rate of non-planned outage of generation plants (%)</td>
<td>-</td>
<td>33</td>
<td>23</td>
<td>-10</td>
</tr>
<tr>
<td>Annual sales of electricity (GNF, billions)</td>
<td>524</td>
<td>780</td>
<td>902</td>
<td>70%</td>
</tr>
<tr>
<td>Revenues collected</td>
<td>407</td>
<td>449</td>
<td>554</td>
<td>36%</td>
</tr>
<tr>
<td>Billing rate (%)</td>
<td>-</td>
<td>64.1</td>
<td>64.2</td>
<td>0.1(^6)</td>
</tr>
<tr>
<td>Collection rate (%)</td>
<td>60</td>
<td>79</td>
<td>83</td>
<td>23</td>
</tr>
<tr>
<td>Average generation cost (GNF per kWh)</td>
<td>1,766</td>
<td>1,261</td>
<td>1,184</td>
<td>−33%</td>
</tr>
<tr>
<td>Average unit price (GNF per kWh)</td>
<td>-</td>
<td>719.5</td>
<td>770</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: EDG

19. **The country is committed to fully implement the IRP and sustain technical and commercial performance of EDG.** The Government is analyzing different options for the management and the supervision of the performance of EDG after the expiration of the MSC by the end of October 2019. A decree defining the new governance structure along with an implementation road map, which will follow the expiration of the MSC, is expected by February 2019. The Development Policy Operations (DPO) series under preparation (P166322) will support the reform to ensure sustainability of EDG performance improvement.

20. **Electricity tariffs in Guinea are not cost-reflective and have not kept up with inflation, and therefore the long-term financial sustainability of the sector is uncertain.** The main drivers of the poor financial health of the sector is an expensive energy mix, combined with relatively low consumer tariffs that are well below the cost of supply. Electricity tariffs for households, which represent 45% of the consumption are currently US$0.01−0.03 per kWh for households (one of the lowest tariffs in West Africa), whereas they are in the order of US$0.17−0.26 per kWh for public institutions and industries. The cost of supply of power to end users is about US$0.25 per kWh due to (a) the high proportion of costly diesel generation resulting from the seasonality of hydropower generation, and poor investment planning resulting in the construction of emergency thermal generation capacity; and (b) grid losses, rampant power thefts, and poor billing. Even if the theft and billing issues were addressed, as expected under the EDG MSC, there would remain a considerable gap between tariff and cost of supply until the energy mix is substantially shifted towards cleaner and more affordable electricity.

21. **To reduce the operating financial deficit of EDG, the Government is committed to adopt a gradual electricity tariff increase and reduce subsidies over time.** The gap between electricity tariffs and cost of supply leads to EDG being in a critical financial situation with an operating deficit of US$92 million in 2017, considering the Government subsidies of about US$116 million. The Government has implemented in

---

\(^{6}\) The MSC did not improve the billing rate. This is an area of focus in 2019.
May 2018, according to the International Monetary Fund (IMF) program, tariff increases of about 10 percent for residential and tertiary categories of consumers and 25 percent for industrial consumers and administrations. A transparent financial model of the sector, defining progressive tariff adjustments methodology and road map that will enable the sector to reach a cost recovery tariff in the medium term, has been commissioned in June 2017. Its conclusions will be reviewed and adopted by the Government by February 2019 and will serve as a tool for further tariff adjustments by the electricity regulator. A tariff study reflecting the adopted tariff increase in different categories of consumers is being conducted under the financing of the AfDB and it will be completed by end December 2018. Through DPO series (P166322), the World Bank will continue to assist the Government to develop enabling activities to improve the likelihood of success for the Government’s tariff adjustments. Through the ESMAP TF (TF0A7498), the World Bank is supporting (a) the elaboration of a communication plan for effective implementation of ongoing power sector reforms including tariff adjustment, and (b) distributional analysis of tariff increase and subsidies to ensure the tariff increase is less regressive and subsidies are pro-poor.

22. **The Government is also pursuing parallel efforts to address the situation of arrears and high debts of the sector.** The Government is conducting an analytical study that will confirm the amount of arrears of electricity consumption by public institutions and public lighting accumulated as of December 31, 2018, and result in a plan to clear them in the medium term. It will also put in place a robust and reliable system to ensure regular payment of electricity bills by the public sector and parastatal institutions. The Government is also preparing a financial restructuring plan of EDG that will include recapitalization of EDG and assets transfer from the Government to EDG to be implemented in 2019. The restructuring plan will facilitate the Government to address the debts of around US$330 million (about 3.2 percent of GDP or two years of annual turnover) that EDG owes to fuel suppliers and IPPs.

23. **The Government strategy to address the sector sustainability and financial issues is four-pronged:** (a) proper sector planning to promote the shift in the energy mix toward cheaper and cleaner hydropower and solar energy, and elimination of expensive thermal generation; (b) addressing the issues linked to EDG governance, management, and commercial policy (power thefts, illegal connections, billing and collection, development of supply to industries) through investment projects such as the PRSP (P146696) and the additional financing (P160771) which is focused on EDG reform; (c) reducing the level of subsidy required over time, with a mix of tariff increases and efficiency gains along the value chain, which will be achieved through cooperation with the IMF and various donors; and (d) increasing revenues to the utility through improved services to high value customers such as the industrial, mining, and exports sectors to some extent. The access program will be phased out in a way to match progress on both the generation capacity and utility performance improvement, focusing first on improving revenues by regularizing illegal connections and piloting PPP for mini-grids, which, if successful, can reduce the pressure on EDG to overextend to remote rural areas, and so on.

24. **The World Bank is engaged in addressing the sector issues and supporting the sustainable**

---

7 The Government concluded a new IMF-supported program in December 2017, which includes fiscal consolidation measures needed to maintain fiscal deficit at a sustainable level. Tariff increase was identified as critical measure to gradually reduce Government subsidies.

8 The physico-financial model recommends three scenarios of tariff increase to reach financial equilibrium in three years, five years, and seven years. The GoG will decide on the appropriate scenario in February 2019.

9 The trust fund finances the Electricity Subsidy Reform in Guinea, Mali, and Togo (P166128)

10 EDG estimates the arrears to be around US$ 70 million
The World Bank’s ongoing operations in the power sector include (a) the PRSP (P146696) and the Additional Financing (P160771), (b) regional interconnection projects: CLSG project (Côte d’Ivoire, Liberia, Sierra Leone, and Guinea interconnector), OMVG project (Gambia, Guinea, Guinea Bissau, and Senegal), and Guinea – Mali, which are financed by IDA together with other donors; and (d) the Second Macroeconomic and Fiscal Management DPO series (P161796), which includes energy sector-related prior actions\(^{11}\) and a new DPO series (P166322) is under preparation. The Electricity Sector Efficiency Improvement Project (ESEIP) with an overall financing of US$30 million closed on June 30, 2016, and the PERD with financing of US$7 million which closed on June 30, 2013 (P042055). The US$2.1 million World Bank-executed Sustainable Energy for All (SEforALL) TA (TF015026) closed on August 31, 2017. It financed the preparation of the electricity access Scale Up investment prospectus to mobilize concessional financing for access, the monitoring and evaluation (M&E) framework to track the performance of the power sector, capacity building of the MEH in PPPs, and the development of the hydropower atlas for the country and Internet viewer for potential investors. The Regional Off-grid Electrification Project (P160708) under preparation will also provide financial support to promote privately financed SHS in Guinea by creating credit line and risk mitigation facilities through the Banque Ouest Africaine de Développement and the Economic Community of West African States Bank for Investment and Development.

25. Other donors are willing to co-finance the national electricity access program, but complementary measures need to be taken in parallel to ensure that the extension of supply to clients who pay a tariff well below the cost of supply does not further deteriorate the financial position of EDG. The donor roundtable organized in Paris during November 16–17, 2017, mobilized US$ 21 billion for PNDES implementation, including the funding for electricity access scale-up. The AFD will co-finance the proposed project with €50 million in addition to its ongoing operation in distribution rehabilitation and access of €50 million. Other ongoing donor financing include (a) the AfDB and the IsDB implementing a joint project to connect about 135,038 households with about Units of Account 60,850,000 (equivalent to US$84.2 million); the AFD through its distribution rehabilitation project will connect around 50,000 households, the World Bank through rehabilitation of Dixinn and rehabilitation of distribution systems in Ratoma, Matoto, and Kaloum will connect around 57,901 households, EU and AFD will co-finance the construction of four mini hydro plants, and connect around 30,000 households in remote areas. Through the national budget, the GoG is also expanding access rate in regional cities and will connect about 87,251 households. With the above grid extension initiatives, a total of 330,190 connections will be connected leaving the gap of 332,090 connections to reach the targeted 662,280 new connections under the National Least Cost Electricity Access Scale Up by 2020.

C. Proposed Development Objective(s)

**Development Objective(s) (From PAD)**

\(^{11}\) Two energy sector prior actions include (1) the Recipient, through the MEH, has (a) adopted IRP of EDG, which includes, among others, a revenue protection system for high-valued customers, and (b) committed to provide budgetary transfers for the first year of the associated business plan and (2) the Recipient’s Council of Ministers has submitted to Parliament a draft law establishing an independent regulator for the electricity sector to monitor financial compliance with electricity tariffs and strengthen oversight of the sector.
26. The Project Development Objective (PDO) is to increase access to electricity in selected areas of Guinea.\textsuperscript{12}

Key Results

27. People provided with new or improved electricity service and non-household connections through grid expansion and mini-grids.

D. Project Description

28. The proposed project will be the cornerstone of the SWAp. Specifically, the project will combine financing for energy access investments and support to EDG’s revised commercial policy to increase revenues with TA and capacity strengthening to establish the SWAp framework and institutional mechanism for coordinating the contributions of the other donors. The program implementation will therefore start with regularization of illegal connections and densification of grid extension in sub-urban areas (low-hanging fruits) in Conakry and regional cities connected to the national grid, including Dubreka, Maneah, Coyah, Forécareah, and Kindia. Specific gender activities will be carried out to ensure that women will be further represented in the workforce in the energy sector and that as consumers they will benefit from access to electricity to improve their livelihoods.

29. The proposed lending instrument is a four-year Investment Project Financing (IPF) financed by IDA and AFD. The proposed project will be co-financed with the AFD.\textsuperscript{13} AFD’s financing will be a parallel co-financing, where the investments depend on one another to reach the national access targets, but with separate investment locations. The financing of AFD will follow the World Bank’s procurement and safeguard guidelines. Joint safeguards instruments will be prepared. Other donors with whom discussions are ongoing, including the AfDB, EIB, and IsDB, will provide parallel financing at a later stage. Program-for-Results was considered as an alternative instrument; however, it was not judged a viable option, given that the implementing entity (EDG) is overstretched with performance improvement under the MSC and the capacity for procurement and safeguards implementation is still limited. IPF is an appropriate instrument for Guinea.

Project Components

30. The proposed project will comprise three components:

---

\textsuperscript{12} Main selection criteria include: (i) technical criteria: priority will be given to areas that are closer to the existing interconnected grid where the cost of electrification is low; (ii) financial criteria: priority will be given to areas with low poverty incidence and high potential economic development and high affordability of electricity consumption; and (iii) commercial criteria: priority will be given to regularization of illegal connections in urban areas and then to new densely populated areas.

\textsuperscript{13} In the AFD-World Bank cofinancing framework, there are two types of co-financing: joint co-financing and parallel co-financing. This will be a parallel financing with each donor fully financing activities in separate locations. The World Bank will manage the project implementation and AFD will pay project management fees.
Component 1: Reinforcement and expansion of grid access in selected regions and reduction of illegal consumption (US$86.50 million, including US$31.50 million from IDA and US$55.00 million from AFD).

31. This component will provide the financing needed to expand access to electricity services to multiple market segments in selected areas where the interconnected grid can reach, based on the timing and number of connections included in the electricity access program adopted by the Government in 2017. This component will focus on improving and expanding electricity access in urban and relatively high-density areas with demonstrated capacity to pay. This component also includes financing for the supply and installation of last mile connection equipment, including smart meters for large consumers, prepaid meters, as well as ready boards for low voltage customers. Any connection charges related to internal house wiring and opening accounts with the utilities concerned are expected to be marginal and paid by the consumers. It will include three subcomponents.

32. Subcomponent 1.1: Regularization of illegal connections in Conakry (US$16 million, including US$6 million from IDA and US$10 million from AFD). This subcomponent will finance the supply and installation of standardized materials to regularize about 100,000 illegal and unsafe connections in the urban areas of Kaloum, Ratoma, Matoto, Matam, and Dixinn, where distribution networks have been rehabilitated. The regularized connections will be equipped with new consumption meters (mostly prepayment). Regularization of illegal connections will target as priority relatively large consumers who may consume most of the illegally supplied electricity and will be expanded gradually to smaller consumers, while managing carefully the potential sociopolitical reactions to regularization in certain areas. Accompanying citizen engagement measures will be implemented to ensure full understanding and support from the community.

33. Subcomponent 1.2: Rehabilitation and extension of distribution networks of Maneah, Dubreka, and Coyah in Greater Conakry (US$49.5 million, including US$20.5 million from IDA and US$29 million from AFD). This subcomponent will finance supply of materials for rehabilitation and construction of about 342 MV/LV substations, MV and LV lines, connections, and installation of meters in the three districts of Maneah, Coyah, and Dubreka that are in critical need of distribution network rehabilitation. These investments will reduce technical losses in the network and connect about 56,100 new customers including 50,400 single-phase and 5,600 three-phase customers.

- **Subcomponent 1.2.1: Rehabilitation of distribution network in Maneah (US$20.5 million from IDA).** The project will finance the construction of about 19.1 km of MV lines of 148 mm$^2$ cross section and 70 mm$^2$ for public lighting; construction of 34.5 km of MV lines with 54.6 mm$^2$ and 70 mm$^2$ for public lighting; construction of 121 distribution substations (250 kV transformers); 262.7 km of LV lines; and 9,100 public lighting spots. It will finance about 28,400 household connections including 25,560 single-phase and 2,840 three-phase connections. It will finance the removal of obsolete 43 substations, 11.9 km of MV lines, and 14 km of LV lines.

- **Subcomponent 1.2.2: Rehabilitation and extension of distribution network in Dubreka (US$17 million from AFD).** The project will finance the construction of about 10 km of MV lines of 148 mm$^2$ cross section and 70 mm$^2$ for public lighting; construction of 46 km of MV lines with 54.6 mm$^2$ and 70 mm$^2$ for public lighting; construction of about 12 km double
circuit/148 mm² MV lines; construction of 111 distribution substations (250 kV transformers); 149 km of LV lines; and 5,900 public lighting spots. It will finance about 12,000 household connections including 10,800 single-phase and 1,200 three-phase connections. It will finance the removal of obsolete 9 substations, 7.2 km of MV lines, and 4 km of LV lines.

- **Subcomponent 1.2.3: Rehabilitation and extension of distribution network in Coyah (US$12 million from AFD).** The project will finance the construction of about 22.5 km of MV lines of 148 mm² cross section and 70 mm² for public lighting; construction of 25.2 km of MV lines with 54.6 mm² and 70 mm² for public lighting; construction of 63 distribution substations (250 kV transformers); 75 km of LV lines; and 3,600 public lighting spots. It will finance about 15,600 household connections including 14,040 single-phase and 1,560 three-phase connections. It will finance the removal of obsolete 13 substations, 6 km of MV lines, and 4 km of LV lines.

Figure 2. Map of Donors Financing Rehabilitation and Extension of Distribution Network in Greater Conakry

34. **Subcomponent 1.3: Rehabilitation, densification, and extension of distribution networks in secondary cities of Forecariah and Kindia (US$21 million, including US$5 million from IDA and US$16 million from AFD).** This subcomponent will finance the upgrading of an existing substation in Kindia and two existing MV lines to be able to densify and extend the distribution network in these secondary cities and localities along the MV lines. This will involve the rehabilitation and construction of new MV lines, installations of new MV/LV transformers, associated distribution (LV) networks, and consumption meters to new customers. Specifically, the subcomponent will finance the following activities: (a) reinforcement of the existing 75.16 km/117 mm²/20 kV MV line Maneah-Forecareah that is overloaded to be able to supply Forecareah, improve quality of services for the existing 15,000 customers, and supply new customers in surrounding areas; (b) densification of the distribution network in Forecareah center and connect about 4,000 new customers; (c) reinforcement of the existing 15 MVA/110 kV/15 kV Kindia substation that is extremely overloaded by adding in two new transformers 40 MVA/110 kV/20
kV to be able to meet the current increasing demand of the city; and (d) rehabilitation, densification, and extension of the distribution grid in Kindia and connect about 34,000 clients.

Table 3. Activities to be Financed under Rehabilitation, Densification, and Extension of Distribution Network in Kindia and Forecareah

<table>
<thead>
<tr>
<th>Area</th>
<th>Activity</th>
<th>Estimated Costs (US$, millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindia</td>
<td>Upgrading the existing substation 110 kV and densification</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Upgrading the existing 20 kV line Donkeah-Kindia</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation, densification, and extension of distribution and new connections</td>
<td>10.0</td>
</tr>
<tr>
<td>Forecareah</td>
<td>Upgrading of the 90km MV line Maneah - Forecareah</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Distribution grid densification and new connections (4,000)</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>21.0</strong></td>
</tr>
</tbody>
</table>

35. The proposed network reinforcement investments in Subcomponents 1.2 and 1.3 will rebalance transformer loads, as many of EDG’s distribution transformers supplying Conakry and other grid-connected cities are heavily overloaded and have to be switched on/off manually on a daily basis to avoid damage. The reinforcement will, therefore, reduce power outages and technical losses, improving the quality of supply for connected users while allowing a fair management of electricity sales and consumption. The installation of new transformers is expected to make available enough capacity to provide electricity to previously unelectrified households and profitable business customers in the localities along the MV line.

Component 2: Electrification of remote localities with privately operated hybrid systems (solar PV with storage/diesel) mini-grids (US$7 million, including US$3.5 million from IDA and US$3.5 million from AFD)

36. This component aims at setting up a pilot of privately operated mini-grids in about 10 locations which are not expected to benefit from the national grid connection in the next 10 years under current least-cost electrification plan. This component will build and improve on the previous World Bank-financed PERD. It constitutes the first phase of long-term engagement in mini-grids and it will be scaled up, should the pilot be successful, either through an additional financing, or financing from other donors that are participating in the Sector Wide Approach, to support the national off-grid program to electrify about 50,000 households by 2022. The pilot will promote a replicable PPP model including a targeted subsidy scheme to make the project tariff affordable with private sector equity financing. To maximize private sector interest in the pilot, localities that will benefit from this subcomponent will be prioritized based on the following criteria: (a) far from national grid to mitigate risk of grid encroachment, that is, more than 100 km away from the closest substation and more than 10 km away from any planned HV line; (b) high population headcount exceeding 1,000 households; (c) ability and WTP given the expected level of tariffs; (d) easy to moderate accessibility to the site to facilitate operations (that is, close to practicable roads); (e) existence and potential development of small and medium enterprises; (f) potential supply to social institution (health centers, primary schools, adduction to drinking water, public lighting, youth centers, cultural centers, worship centers); and (g) expressed preliminary interest of private sector
participation. Eligible localities in the areas where the World Bank has investments in agriculture and health will be selected.

37. Private operators will be selected competitively, as part of a transparent, fair, and open selection process. Most of standard upstream documents such as concession agreements, business plans, and standard specifications were developed by the closed World Bank-financed PERD and will be reviewed in the execution of investments under this component. Prefeasibility studies conducted by AGER for the preselected sites will be used to prepare the competitive selection. The expected subsidy level to each locality would be around 60–80 percent of the initial investments to reduce the electricity tariff to US$0.2 per kWh, which is considered to be affordable. Concessions agreements will be signed by the Minister in Charge of Energy, upon payment of equity contribution by the operator. The component is designed to maximize ownership to the private operator, while providing the required TA to AGER for administering and monitoring the PPP transaction, as well as the support operators as needed.

38. The component will also support off-grid electrification innovations such as using telecommunication infrastructure power supply (developed by telecom operators) to electrify the surrounding eligible localities. Special attention will be provided to female entrepreneurs, female-headed households, and female customers through information campaigns and subsidies to stimulate their demand for a connection. A social and gender approach will be applied in the rural communities to ensure equal access to electrification. Information campaigns will be designed jointly by AGER and local women’s associations and gender-focused nongovernmental organizations (NGOs) to effectively communicate the benefits of the energy access and to accompany new mini grids consumers. Income-generating opportunities will be created through trainings for promoting productive uses of energy, targeting mainly rural women, that will contribute to increase their small businesses productivity and to lighten the burden of their daily work.

Component 3: Owner’s engineer, access program coordination, technical assistance, capacity building, and project implementation support (US$15 million from IDA)

39. This component will center on establishing and/or strengthening the institutional capacity needed specifically for the access program implementation and social inclusiveness. It will complement the limited capacity-building support provided under the PSRP (P146696) and the additional financing (P160771) to the MEH and EDG for the implementation of the communication plan, operationalization of AGER and Authorité de Regulation des Secteurs d’Electricité et d’Eau (ARSEE), and other parallel TA activities financed by the AfDB and AFD on legal and regulatory framework of the sector. To that effect, it will include the following subcomponents.

40. Subcomponent 3.1: Owner’s engineer (US$4 million from IDA). This subcomponent will finance services of consultant to support the implementing entity for Component 1 (EDG) to better supervise construction works.

41. Subcomponent 3.2: Establishment of the National Access Program Coordination Unit (SWAp Secretariat) to coordinate and optimize the support of donors for access through grid extension and mini-grids (US$1.1 million). This subcomponent will finance the establishment and functioning of a SWAp Secretariat (Access Program Coordination Unit) within the MEH, composed of a coordinator, a program implementation and M&E expert and power planning expert. The SWAp Secretariat will oversee Project
Implementation Units (PIUs) in EDG and AGER for the grid extension and off-grid components of the access program, respectively. It will have no fiduciary role.

42. **Subcomponent 3.3: Project implementation support (US$4.5 million).** This subcomponent will finance the operationalization and running of the PIUs within EDG (including staff of the commercial unit involved in the implementation of new connections) for grid access and AGER for off-grid access for the duration of the project. Specifically, costs will include (a) the recruitment of fiduciary, engineering, and safeguard consultants; (b) office equipment; (c) transport equipment needed for capacity development and supervision in the provinces; and (d) specialized consultants as needed.

43. **Subcomponent 3.4: Studies and technical assistance (US$3.4 million).** The subcomponent will finance (a) the update of the geospatial planning model taking into account cost reduction of off-grid technologies, specific technical studies for the electrification of the remaining regional capital cities, and the development of supply of electricity to industries and mines to reduce the financial losses of EDG through increased supply of electricity to large businesses with a high WTP; (b) TA to AGER for the implementation of projects—studies, planning, promotion, and M&E; (c) TA for the MEH to define the role of SHS in the national access program and design financial incentives for market development following recommendations of the market assessment study financed by the ROGEP; and (d) any critical TA for the implementation of the project.

44. **Subcomponent 3.5: Capacity building and social inclusiveness of access and regularization of illegal connections (US$2 million).** The subcomponent will finance capacity-building program to strengthen staff skills and expertise to reinforce technical, commercial, financial efficiency, and gender equality in the energy sector within the MEH, AGER, and EDG. To reduce commercial losses linked to nonpayment of electricity consumption and illegal connections, a partnership will be created between EDG and local women’s associations and gender-focused NGOs to carry out information dissemination campaigns aiming at raising awareness on the benefits of legal connections among the energy consumers. They will also contribute to identify and monitor the existence of illegal connections in the different neighborhoods. This subcomponent will also finance TA activities to present recommendations for improving (a) the recruitment practices at EDG that will result in an increase of the percentage of women in professional and technical female staff and (b) the work environment for women who will be encouraged to apply through institutional initiatives (campaigns, quotas, and technical trainings).

**E. Implementation**

**Institutional and Implementation Arrangements**

45. The Government will create a National Access Scale Up Coordination Unit within the MEH (also known as SWAp Secretariat). The role of SWAp Secretariat will be to regularly update the access rollout plan, mobilize financing resources, and monitor the implementation of the program by EDG and AGER. A Project Steering Committee, composed of representatives of the main stakeholders, including the President Office, the Prime Minister’s Office, the MEH, the Ministry of Economy and Finance, the Ministry of Budget, the Ministry of Planning and Economic Development, the Public Procurement Control Authority, EDG and AGER, will be established. EDG’s ability to use funds and to exercise fiduciary

---

14 As of October 2018, there are about 1,600 employees of which 280 are women at EDG. The management team is composed of seven members—all of them are men.
responsibilities effectively will be further enhanced. A PIU will be created within EDG, accountable to the Steering Committee and to the management of EDG. This PIU will have fiduciary management capacity (for example, for financial management [FM] and procurement) and environmental and social safeguard management with procedures that meet the requirements of the World Bank and AFD and other donors who would join later. EDG already has experience with the management of distribution system rehabilitation projects under the World Bank, AFD, AfDB, and IsDB financing. The fiduciary management and safeguards team of current PRSP (P146696) will be maintained and strengthened to manage this project. The PIU within EDG will be responsible for deploying the network by outsourcing connections to private companies. The commercial unit of EDG will be involved in administrative, financial, and commercial activities related to the implementation new connections. A Project Implementation Manual (PIM) describing roles and responsibilities of different actors will be prepared before the effectiveness of the project.

46. For the execution of the decentralized component of the project (Component 2), AGER will be the executing agency. It will expand its capacity acquired under the World Bank-financed PERD (P042055) to implement such a project. AGER will be involved in the selection of private operators and provide them with the required TA to implement their business plans. The MEH will sign concession agreements, on AGER’s recommendation, with the selected operators. The newly created Electricity and Water Regulator, ARSEE, will not initially be involved in the regulation of mini grids. The PIM will describe roles and responsibilities of AGER and ARSEE during the implementation of component 2.

47. EDG’s PIU and AGER will have the responsibility for the day-to-day management of the project and coordination of project-related activities, including (a) ensuring the timely implementation of the project in accordance with the PIM; (b) preparing annual work plans and budgets and annual procurement plans; and (c) assuming overall responsibility for, among others, such fiduciary tasks as procurement, FM, M&E (for example, developing and maintaining a system for monitoring the project’s key performance indicators), communications, and environmental and social safeguards (ensuring adherence to the safeguard documents). As part of the project’s implementation arrangements, an owner’s engineer will be contracted to assist the PIU of EDG to implement Component 1.
F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

At this stage of the project preparation, all sites of the project and locations are not determined, except the sites for the main component 1.2-Rehabilitation and extension of the distribution network in Maneah, Dubreka and Coyah. The project will increase access to electricity in both urban and rural areas through grid extension and solar PV mini-grids in selected remote localities. The remaining specific project sites will be determined during the course of project implementation.

G. Environmental and Social Safeguards Specialists on the Team

Demba Balde, Social Specialist  
Bougadare Kone, Environmental Specialist
<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 is Category B as the rehabilitation, densification and extension of distribution networks and regularization of illegal connections under component 1, and the establishment of hybrid systems (solar PV/batteries/diesel) mini grids under component 2, involve rehabilitation and construction works of MV lines, installations of MV/LV transformers, construction of LV distribution lines, which are expected to generate potential social and environmental risks and negative impacts. The negative impacts are expected to be moderate and mostly site specific. As the exact locations of some of these facilities were not determined at the time of appraisal, the Environmental &amp; Social Management Framework (ESMF) was prepared and disclosed in country on October 25, 2018 and at the World Bank Website on October 25, 2018. With regards to specific sites for the rehabilitation, densification and extension of distribution network in Maneah, Coyah and Dubreka in Greater Conakry, specific ESIA study has been prepared and disclosed both in-country on November 7, 2018 and at the World Bank Website on November 7, 2018.</td>
</tr>
<tr>
<td>Performance Standards for Private Sector Activities OP/BP 4.03</td>
<td>No</td>
<td>The Performance Standard is not triggered as the project doesn't intend to involve Financial Intermediaries (FI).</td>
</tr>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>Yes</td>
<td>It is not anticipated that the project will support activities that could threatened the natural habitats but as some of the facilities routing remains unknown at this stage, some of the activities may be undertaken in critical or sensitive natural habitats, including rights of way for the MV distribution lines crossing wetlands or other critical habitats. The policy is triggered to prevent in case some activities to be selected during project implementation would affect natural habitats.</td>
</tr>
<tr>
<td>Forests OP/BP 4.36</td>
<td>Yes</td>
<td>The proposed project does not include any activities related to forest exploitation. However, as with OP</td>
</tr>
</tbody>
</table>
4.04, this policy is triggered to prevent those rehabilitation and extension activities which could induce direct or indirect significant impacts on forest conservation or sustainable management to be selected and financed by the project. The ESMF included relevant sections that will guide avoiding or managing impacts on forest.

The policy is not triggered as the project does not anticipate acquiring pesticides or equipment of pesticides application. Any wooden poles to be used will be imported treated for termites or rodent insects.

The project will not involve significant physical work, but construction of new MV lines, installations of new MV/LV transformers, associated distribution (LV) networks will lead to excavations and may be demolitions. Such footprint physical works may lead to excavation of artifacts and other cultural relics. Because the nature of the proposed physical activities and the project areas, Physical Cultural Resources policy OP/BP 4.11 is triggered due to the possibility of finding evidence of physical cultural resources during civil works. As a result, the ESMF of the project included a procedure for dealing with cases of "chance finds" procedures on civil works contracts, even where risks are deemed low.

This policy is not triggered in Guinea where there are no Indigenous Peoples, as per Government policy and as described in World Bank policy.

This policy is triggered as the proposed investments under Component 1 (construction of new MV lines, associated distribution LV networks, connection of new customers) may induce land acquisition, economic displacement, and temporary relocation of persons affected by the project (PAPs). At this point, the exact location of some infrastructures is still to be determined and detailed designs still have to be completed. To address any potential negative impacts, a Resettlement Policy Framework (RPF) has been prepared and published both in-country on October 25, 2018 and at the World Bank Website on October 25, 2018, outlining principles and guidelines for mitigation and compensations in the event of land acquisition resulting from economic displacement. A Resettlement Action Plan (RAP) for

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Triggered Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
<td>The policy is not triggered as the project does not anticipate acquiring pesticides or equipment of pesticides application. Any wooden poles to be used will be imported treated for termites or rodent insects.</td>
</tr>
<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
<td>Yes</td>
<td>The project will not involve significant physical work, but construction of new MV lines, installations of new MV/LV transformers, associated distribution (LV) networks will lead to excavations and may be demolitions. Such footprint physical works may lead to excavation of artifacts and other cultural relics. Because the nature of the proposed physical activities and the project areas, Physical Cultural Resources policy OP/BP 4.11 is triggered due to the possibility of finding evidence of physical cultural resources during civil works. As a result, the ESMF of the project included a procedure for dealing with cases of &quot;chance finds&quot; procedures on civil works contracts, even where risks are deemed low.</td>
</tr>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>No</td>
<td>This policy is not triggered in Guinea where there are no Indigenous Peoples, as per Government policy and as described in World Bank policy.</td>
</tr>
<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>Yes</td>
<td>This policy is triggered as the proposed investments under Component 1 (construction of new MV lines, associated distribution LV networks, connection of new customers) may induce land acquisition, economic displacement, and temporary relocation of persons affected by the project (PAPs). At this point, the exact location of some infrastructures is still to be determined and detailed designs still have to be completed. To address any potential negative impacts, a Resettlement Policy Framework (RPF) has been prepared and published both in-country on October 25, 2018 and at the World Bank Website on October 25, 2018, outlining principles and guidelines for mitigation and compensations in the event of land acquisition resulting from economic displacement. A Resettlement Action Plan (RAP) for</td>
</tr>
</tbody>
</table>
The main project activity: Rehabilitation, densification and extension of distribution network in Dubreka, Coyah and Maneah has been prepared and published both in-country on October 31, 2018 and at the World Bank Website on November 7, 2018.

Safety of Dams OP/BP 4.37  No  The project interventions will not finance construction of dams nor will it support any dam infrastructure of that nature. Therefore, this policy is not triggered.

Projects on International Waterways OP/BP 7.50  No  Projects activities will not be implemented in the areas of international waters nor have any impacts on international waterways. Therefore, this policy will not be triggered.

Projects in Disputed Areas OP/BP 7.60  No  Project activities will not be implemented in disputed areas as there are no known disputes areas within the project zone. Therefore, this policy is not triggered.

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 project is not likely to result in potential large scale, significant and/or irreversible impacts. It does not involve physical displacement of populations, but may result in economic displacement and livelihoods impacts on subsistence farmers and small traders. Environmental impacts involved include soil erosion, ambient air quality during construction, emergency conditions due to fire risks accidents, etc..

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
   The safeguard issues identified under the project are not expected to have any indirect and/or long-term impacts. Furthermore, establishing preventive mitigation measures and ensuring their proper implementation throughout the implementation of project activities will limit any potential adverse effects in the immediate and longer-term.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts:
   Project alternatives were not considered relevant because the potential impacts of this project are considered minimal as observed and validated by the performance of the safeguard arrangements under the ongoing project.

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.
   To comply with triggered Bank safeguard Policies and Country environmental statutory requirements, the Government of Guinea has prepared a new ESMF and RPF both widely consulted on and publicly disclosed in country on October 25, 2018 and on the WB website on October 25, 2018. The new ESMF and RPF were designed with the
objective of providing mitigation measures for the planned activities. The safeguard arrangements within the existing ESMF and RPF for the ongoing Bank financed Power Sector Recovery Project have demonstrated robust assessment and effective implementation in mitigating the identified potential environmental and social impacts. The same safeguard implementation arrangements and the capacity at the PIU will be sustained and strengthened under the new project to continue the effective implementation of the upscaling subproject activities under components 1 & 2. The project will hire an environmental specialist and a social development and gender specialist to oversee the implementation of the safeguard compliance during the project implementation, under the supervision of the existing Environmental and Social Specialist of the PSRP (P146696). These new safeguards specialists will be trained by the World Bank Safeguards Specialists in the implementation and monitoring of WBG's safeguard policies. The safeguard arrangements within the project have been agreed during the identification, selection and preparation of the project activities.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key stakeholders involved in the Guinea Electricity Access Scale Up Project include the Ministry of Energy and Hydraulics, the National Directorate of Energy, the PIUs, the Districts of Maneah, Dubreka, Coyah, Forecareah and Kindia, remote localities to be selected for mini-grids, as well as project beneficiaries. Throughout the Project’s development, these stakeholders have been and will continue to be involved in a series of discussions regarding its rationale, design, and implementation arrangements. Local stakeholders will continue to be involved throughout project implementation via community participation and citizens engagement. Additionally, various stakeholder consultations have been held during the revisions of the various safeguards instruments (ESMF, RPF, ESIA and RAP). The consultations took the form of community fora, focus group meetings at both community and roundtable meetings. Key project stakeholders identified for consultations included Government ministries and agencies, specifically the Local Government Authorities, local NGOs, and project beneficiary community members. Meetings have been held with key officials and opinion leaders to examine the level of awareness and involvement with the Project, concerns of Project implementation, and to obtain relevant documents or baseline information of Project area and the environmental and social setting of Guinea.

The consultations of the safeguards documents were undertaken within selected communities in geographically representatives from August 2, 2018 to September 18, 2018. The consultations also served to gather information on the mandates and permitting requirements to inform the development of the Project.

B. Disclosure Requirements

<table>
<thead>
<tr>
<th>Environmental Assessment/Audit/Management Plan/Other</th>
<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></td>
<td>07-Nov-2018</td>
<td>07-Nov-2018</td>
<td></td>
</tr>
</tbody>
</table>
"In country" Disclosure
Guinea
07-Nov-2018

Comments
the ESMF was disclosed on October 25, 2018 while the ESIA for grid rehabilitation, densification and extension in Maneah, Dubreka and Coyah was disclosed on November 7, 2018

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>07-Nov-2018</td>
<td>07-Nov-2018</td>
</tr>
</tbody>
</table>

"In country" Disclosure
Guinea
31-Oct-2018

Comments
the RFP was disclosed on October 25, 2018 while the RAP for grid rehabilitation, densification and extension in Maneah, Dubreka and Coyah was disclosed on October 31, 2018

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?  
No

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?  
NA

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?  
NA
### OP/BP 4.11 - Physical Cultural Resources
Does the EA include adequate measures related to cultural property?
NA

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?
NA

### 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

### OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?
NA

Does the project design include satisfactory measures to overcome these constraints?
NA

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?
NA

### 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**

Yussuf Uwamahoro  
Senior Energy Specialist

**Borrower/Client/Recipient**

Republic of Guinea  
Joachim Lama  
Secretary General  
joachim.lama@yahoo.fr

Sanfina Diakité  
Secrétaire Général du Ministere de l’Energie et de l’Hydraul  
ssanfina@gmail.com

**Implementing Agencies**

Electricité de Guinée  
Abdenbi Attou  
Administrator General  
attou.abdenbi@veolia.com

Agence Guinéenne d’Electrification Rurale (AGER)  
Jacques Loua  
Directeur des Investissements
louajacques@yahoo.fr

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

<table>
<thead>
<tr>
<th>Task Team Leader(s):</th>
<th>Yussuf Uwamahoro</th>
</tr>
</thead>
</table>

Approved By

<table>
<thead>
<tr>
<th>Safeguards Advisor:</th>
<th>Maman-Sani Issa</th>
<th>29-Nov-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Manager/Manager:</td>
<td>Charles Joseph Cormier</td>
<td>30-Nov-2018</td>
</tr>
<tr>
<td>Country Director:</td>
<td>Michael Hamaide</td>
<td>03-Dec-2018</td>
</tr>
</tbody>
</table>