



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 23-Mar-2023 | Report No: PIDC35623

**BASIC INFORMATION****A. Basic Project Data**

Country Dominican Republic	Project ID P180512	Parent Project ID (if any)	Project Name Dominican Republic Distribution Efficiency Improvement and Utility Strengthening Project (P180512)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Jun 22, 2023	Estimated Board Date Oct 04, 2023	Practice Area (Lead) Energy & Extractives
Financing Instrument Investment Project Financing	Borrower(s) Dominican Republic	Implementing Agency La Empresa Distribuidora de Electricidad de Este (EDEESTE), La Empresa Distribuidora de Electricidad de Sur (EDESUR), La Empresa Distribuidora de Electricidad de Norte (EDENORTE)	

Proposed Development Objective(s)

The project development objective is to improve the governance, operational efficiency, and environmental sustainability of the electricity distribution companies in the Dominican Republic

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	225.00
Total Financing	225.00
of which IBRD/IDA	225.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	225.00
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Environmental and Social Risk Classification

Moderate

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. The Dominican Republic (DR) has experienced sustained economic growth and notable poverty reduction records.** The country had an annual average Gross Domestic Product (GDP) of 4.7 percent from 2000 to 2021¹, driven primarily by capital accumulation and private consumption. Over the last decade, the DR became the second fastest-growing economy in Latin America and the Caribbean (LAC) supported by strong tourism, remittances, foreign direct investments (FDI), mining revenues, free-trade zones, and telecommunications. Between 2000 and 2021 the national poverty rate fell from 31.8 percent to 23.8 percent, extreme poverty from 7.9 percent to 3.1 percent, and the Gini coefficient from 0.51 to 0.39,² while the population increased from 8.5 to 11.1 million. Meanwhile, public debt has been rising, mainly concentrated in the central government.³ Growth is expected to remain around 5 percent in the medium term. The implementation of structural reforms in energy, water, and public-private partnerships (PPPs), particularly reforms, as well as efforts to increase the quality of human capital and attract FDI to higher value-added industries, are expected to sustain that growth potential.
- 2. The DR is highly vulnerable to climate change, with exposure to multiple natural hazards.** The country is exposed to high risk of flooding, landslide, cyclone and wildfire and medium risk of water scarcity and extreme heat – all of which are expected to increase in frequency and intensity due to climate change – in addition to medium exposure to earthquakes.⁴ This carries significant risk to human, financial and physical asset losses, including in energy generation, transmission, and distribution infrastructure. In September 2022, Hurricane Fiona brought torrential rain and powerful winds, forcing 12,500 people out of their homes, and leaving 709,000 people without power.⁵ These events underline the country's vulnerability to climate change and the need to improve resilience across the sectors.
- 3. The National Development Strategy (NDS) 2030⁶ outlined specific actions that the GoDR would undertake to mitigate the impacts of climate change on the Dominican society and economy.** In the energy sector, the Government envisaged the promotion of decarbonization of the economy by increasing the use of renewable energy and greater energy efficiency, while strengthening the coordination between levels of government, broader stakeholder buy-in, and public awareness.

¹ World Bank Data. See: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2019&start=2000>

² Ministry of economy, planning and development of the Dominican Republic. *Boletín de estadísticas oficiales de pobreza monetaria en la República Dominicana 2021 No. 9*. See: <https://mepyd.gob.do/publicaciones/boletin-pobreza-monetaria-a7-no9>

³ World Bank. Country Partnership Framework for the Dominican Republic for the period FY22-FY26, March 2, 2022 (Report No. 167896-DO)

⁴ <https://thinkhazard.org/en/report/72-dominican-republic>

⁵ See: <https://www.accuweather.com/en/hurricane/puerto-rico-outages-continue-in-fiona-aftermath-as-storm-moves-through-turks-and-caicos/1250040>

⁶ See: <https://mepyd.gob.do/publicaciones/-ley-1-12-estrategia-nacional-de-desarrollo-2030>



4. **The GoDR further issued the National Energy Plan (NEP) 2022-2036⁷ to expand the electricity supply in an environmentally and financially sustainable manner, to promote rational use of energy, and to guide the climate-informed investments in the sector.** The NEP defines the scenarios for the sector expansion to continue to facilitate the country's fast-paced growth, while incentivizing greater RE deployment and reducing reliance on hydrocarbon energy sources, all in line with the Government's vision and commitment to increasing the share of RE from the current 16 percent to 25 percent by 2025 and to 30 percent by 2030.

Sectoral and Institutional Context

5. **There are a multitude of actors in the electricity sector in the DR, with a high level of private participation in power generation.** The market is unbundled with separate generation, transmission, and distribution companies. Privately owned generation accounts for 73 percent of the country's total installed capacity (3,822 MW) with the remainder delivered by fully public companies or through PPPs.⁸ The Electricity Transmission Company (*Empresa de Transmisión Eléctrica Dominicana*, ETED) is the public company in charge of transmission, and there are three state-owned regional distribution companies (*Empresa Distribuidora de Electricidad*, or EDEs), which are EDE Norte, EDE Sur, and EDE Este, with each EDE controlling about a third of the total market of electricity users. The Market Coordinator (*Organismo Coordinador del Sistema Eléctrico Nacional Interconectado*, or OC-SENI) controls the contract and spot market, and the Superintendence of Energy (*Superintendencia de Electricidad*, or SIE) regulates the sector, including service quality and tariffs.
6. **The Electricity Pact (*Pacto Eléctrico*) signed in February 2021 aims to address these fundamental challenges.** The Pact was built around four priorities: (i) redefine the roles of government institutions and the private sector in the electricity sector, including the dismantling of the Dominican Corporation of State Electricity Companies (*Corporación Dominicana de Empresas Eléctricas Estatales*, CDEEE); (ii) strengthen the regulatory framework to assure free competition, promote efficiency, attract investment, protect consumer rights, and enhance transparency and accountability; (iii) assure that the electricity sector is environmentally responsible and adapted for climate change resilience and mitigation; and (iv) improve the sector's financial sustainability, which includes setting specific targets for revenue collection rates and distribution loss reduction.
7. **CUED issued the national Integrated Loss Reduction Plan for the EDEs for the period 2022-2028.** The Plan identified a financing need of approximately US\$700 million to improve the commercial management of the EDEs and address the high technical and non-technical losses. For the implementation of the Plan, the GoDR has requested a loan from the International Bank for Reconstruction and Development (IBRD) in the amount of US\$225 million to support improvements in governance and operational efficiency of the three EDEs and implementation of loss reduction measures, including the establishment of new smart metering infrastructure and related investments in all three distribution companies.

Relationship to CPF

8. **The proposed Multi-Phase Programmatic Approach (MPA) is fully aligned with the objectives of the World Bank Group's Country Partnership Framework (CPF) for the Dominican Republic FY22-26.⁹** The use of the MPA instrument aims to present a programmatic framework for the Bank's engagement in the sector in the medium

⁷ See: <https://www.cne.gob.do/documentos/plan-energetico-nacional-pen/>

⁸ *Organismo Coordinador del Sistema Eléctrico Nacional Interconectado de la República Dominicana (OC). Informe Mensual de Operación Real Diciembre 2022.* See: <https://www.oc.do/Informes/Operaci%C3%B3n-del-SENI/An%C3%A1lisis-Operativo>

⁹ Report No. 167896-DO. Approved by the World Bank's Board of Executive Directors on March 31, 2022



term. The MPA objectives, which focuses on increasing efficiency, financial self-sufficiency, and environmental sustainability of the energy sector in the DR, support two of the CPF objectives under the first High Level Outcome: 'Improved access to quality public service delivery'. It contributes to Objective 1.1: Improved fiscal space and public spending efficiency by supporting measures that will improve the electricity sector's financial viability, whilst the poor sector performance has required a significant fiscal support crowding out spaces for other social spending; and to Objective 1.2. Enhanced efficiency in electricity by improving the performance of the energy distribution companies, with the goal to achieve greater efficiency and reliability of the electricity sector.

C. Proposed Development Objective(s)

The project development objective is to improve the governance, operational efficiency, and environmental sustainability of the electricity distribution companies in the Dominican Republic

Key Results (From PCN)

- i. Energy losses in the supported distribution circuits reduced (Percentage)
- ii. Estimated GHG emission compared to a business-as-usual baseline (Metric ton of CO2)

D. Concept Description

9. The Project will be implemented through the following main components.

- a. Component 1: Improving governance of the distribution companies (US\$7 million). This component supports the implementation of several reforms outlined in the CUED resolution aimed to enhance the governance of the distribution companies for better performance and results. It will inform the implementation of key governance improvement measures, including: (i) the introduction of technologies and processes to ensure effective monitoring and follow-up on the progress toward predefined Key Performance Indicator (KPI) targets, including distribution losses, initially for the years 2024 and 2025, to be renewed on a rolling basis; (ii) gradual introduction of a performance-based approach in the outsourcing of specific commercial activities of the EDEs; and (iii) improved transparency measures including periodical publication of key performance indicators (KPIs) and commitment to produce annual audited financial statements for each of the EDEs. During Project preparation, the option to support the governance improvements measures by introducing Performance-Based Conditions (PBCs)¹⁰ will be explored.

The expected intermediate results are that the adoption of good governance guidelines will introduce merit-based appointment to key senior management positions (directors and managers) ensuring a high level of qualifications and professionalism and minimizing politization of the management of the EDEs, and therefore improving overall governance. The adoption of KPIs and internal benchmarking and establishment of data collection systems allowing them to effectively monitor progress, will improve efficiency and quality of the commercial and distribution services, reduce non-technical losses and thereby raise revenues, reduce technical losses and thereby GHG emissions (refer to the Economic Analysis section below), as well as improving resilience through increased focus on accountability for and transparency of technical performance as well as financial sustainability. Improvements in the current models for outsourcing of technical and commercial activities, including loss reduction measures, will allow remuneration based on the performance as measured through main indicators (e.g., reliability, energy losses and collection

¹⁰ This would entail that disbursements under categories subject to PBCs are provisional when evidence of expenditures incurred has been provided, but the achievement of the PBC has not yet been demonstrated.



percentage).

- b. Component 2: Support to the implementation of the Integrated Loss Reduction Plan (US\$215 million). This component supports smart meter and line installation works in selected distribution circuits and improvement of commercial management activities of all three the distribution companies, thereby reducing technical and non-technical losses, while the social management activities will support training to users on efficient and rational use of electricity, thereby lowering consumption. In addition, installation of modern smart meters will lead to better efficiency in managing and reporting on interruptions in electricity supply, making the services more resilient to disruptions to business continuity in cases of extreme weather events, including heat waves.
 - i. Sub-component 2.1: Support for strengthening commercial management. This sub-component will finance the campaigns to increase supplies and update the database of the EDEs, the supply and installation of macrometers in the medium voltage (MV) network and totalizers in the low voltage (LV) network, and the acquisition of equipment for the measurement laboratories in the EDEs.
 - ii. Sub-component 2.2: Replacement of obsolete meters and installation of meters for new clients. This sub-component will finance the supply of meters for installation to clients with authorized direct connections, the replacement of obsolete or poorly functioning meters, the supply and installation of meters to new clients as a result of the demand growth, and the supply and physical security of meter panels and replacement of meters to clients with a high consumption profile.
 - iii. Sub-component 2.3: Distribution network rehabilitation and standardization of supplies to clients. This sub-component will support investments in rehabilitating the selected circuits by each EDE. The investments include: (i) supply and installation of remote measurement and remote switching systems where applicable; (ii) supply and installation for the rehabilitation of low and medium voltage (LV/MV) distribution networks and the standardization of supplies to end-customers; (iii) supply and installation of macro-measurement equipment in MV branches and totalizers in distribution transformers, for better monitoring and control of energy flows, overloads, energy balances and commercial losses in the distribution networks.
 - iv. Sub-component 2.4: Social and environmental management. This sub-component will support the monitoring of environmental and occupational health and safety management, monitoring of the collection sites for materials used, and waste generated during the execution of the works. It will also support the implementation of the Social Management Strategy to restore trust between users and the EDEs, which will help increase cash recovery levels, and the efficient and safe use of electricity. Through the application of the Social Management Strategy, community leaders and citizens will be informed about the objectives of the program in their communities and will organize themselves to participate actively during its execution. Social Pacts will be signed between the EDEs and the communities to establish the commitments that both parties must assume to make the program viable and achieve its objectives. The residents of the benefited communities will be trained in the safe and efficient use of electricity and their rights and duties as regular customers of the EDEs. The component will finance activities related to the implementation and evaluation of the Strategy. This evaluation includes carrying out (ex-ante and ex-post) customer satisfaction surveys.



- c. Component 3: Capacity building, administration, monitoring, and evaluation (US\$3 million). This component will finance the costs related to the administration of the project as well as providing the necessary technical assistance to the EDEs, CUED, MEM and SIE in order to facilitate successful implementation, such as: (i) capacity building and contracting of consulting services to support the relevant sector entities on a just-in-time basis; (ii) performance financial audits of all program components; (iii) technical supervision of the interventions; (iv) evaluation of the performance of the program's technical and commercial indicators; and (v) acquisition of equipment to support supervision of program execution, training, and operating expenses. During preparation, the Project will review with the client the share of women-led or -owned businesses relying on electricity and potential way to support them or explore the possibility of supporting women to have more leadership role in the preparation and signing of the Social Pacts, among others.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	

10. The environmental risk rating for Phase 1 of the MPA is considered moderate at this stage. The project will support the implementation of energy efficiency measures and improve the governance and capacity of the electricity distribution companies in the DR. Project activities under Components 1.2 and 3 include the rehabilitation of low and medium voltage (LV/MV) distribution networks, and installation of metering systems, while component 4 will support the strengthening of the Environment, Social, Health and Safety (ESHS) capacities of the Project Implementation Unit (PIUs) (within the CUED and the EDEs) to manage the project. Anticipated key concerns for potential environmental risks and impacts are mostly related to the rehabilitation of the distribution networks and the installation of metering systems; however, these are expected to be site-specific, shortterm, and effectively mitigated, subject to the establishment of proper Environmental and Social measures. Key environmental risks and impacts include (i) generation of electrical waste (transformers, cables, meters, streetlights, poles); (ii) nuisance related to vibration and noise; (iii) temporary disruptions to local traffic; (iv) health and safety risks to the project workforce and local communities. Environmental and Social Standard 1 (ESS1) below includes detailed information on the proposed Environmental and Social instruments to further identify, manage and mitigate these risks and impacts. The exact location of the proposed civil works will be determined during implementation, and the risk rating may be modified proportionately if deemed necessary. The project will also result in environmental benefits from activities aiming to strengthen the ESHS risk management capacity of the EDEs, which will positively contribute to the country's actions toward achieving environmental sustainability in the energy sector of DR. Environmental risks for future phases of the MPA will be assessed as part of the preparation of each of the subsequent phases and therefore, their risk rating may differ from the one of this first Phase.
11. The social risk rating for Phase 1 of the MPA is considered moderate at this stage. The Project is expected to have positive impacts on urban and rural residents of the selected areas of intervention due to the rehabilitation of the distribution electrical grid, home connections to beneficiaries, and the reduction of electricity interruptions. Project activities focus on the supply and installation of macrometers, the supply of meters for installation to clients with authorized direct connections, the replacement of obsolete and/or in poor condition meters, and the



supply and installation of meters to new clients as a result of growing demand. The key social risks identified include (i) potential opposition to the costs associated with the installation of meters and to the increase of the payment amounts facilitated by such metering; (ii) contextual risks associated with certain groups that questioned the terms of the electrical pact, particularly the changes in cross-subsidies bought by the recently enacted sector laws; (iii) risks associated with the interactions between EDE workers and the inhabitants of the homes whose meters will be installed or replaced, which could potentially include sexual harassment, and risks associated with the transmission of COVID-19 during such interactions. To address these risks, the Borrower has a strong stakeholder engagement strategy focused on building or restoring trust between users and EDEs, which is also expected to promote an efficient and safe use of electricity, complemented by additional stakeholder engagement measures to be included in the Stakeholder Engagement Plan (SEP), such as a grievance mechanism to be developed in a manner consistent with ESS10. These activities will build on the successful Social Management Strategy developed by the Borrower under the previous project, through which community leaders and citizens will be informed about the objectives of the program in their communities in advance and will be able to organize themselves to participate actively during its execution. Social pacts will be signed between the EDEs and the communities to establish the commitments that both parties must assume to make the program viable and achieve its objectives. Since these activities are supported by Component 3, the Bank will supervise this process, with indicators in its results framework. Likewise, provisions to reduce the risks associated with workers' interactions and household inhabitants will be included in the codes of conduct to be developed as part of the Labor Management Procedures (LMP). The inclusion of vulnerable groups and their access to services provided by the EDEs is an issue that will be further explored during the preparation of the Environmental and Social risk management instruments. The positive results from the previous project, and the increased and installed Environmental and Social capacity at the PIU at CUED and the three EDEs, also contributed to the determination of this risk rating. The social risks of future phases of the MPA will be assessed as part of the preparation of each subsequent phase, and their social risk rating could differ from the one of this first phase.

12. The Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) rating is moderate. The main risk identified is related to the interactions between EDE workers and the local population. However, these activities are expected to take place outside of the user's homes, and workers will be subject to norms of behavior defined by their employer. To manage these risks, the project will include measures aimed at preventing and mitigating SEA/SH risks, like the development of a SEA/SH action plan as part of the ESMF, training, and codes of conduct for all project workers, with mechanisms in place to effectively monitor and enforce its compliance (which will be described in the project's LMP), along and the implementation of a grievance mechanism (to be detailed in the SEP and the LMP); these will be widely socialized amongst the interested parties, affected communities, and contractors. The Dominican Republic also has a regulatory framework prohibiting SEA/SH.

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APPROVAL

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