

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

DOMINICAN REPUBLIC

POWER SECTOR SUSTAINABILITY AND EFFICIENCY PROGRAM II

(DR-L1058)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Jorge Mercado (ENE/CDR), Project Team Leader; Carlos Jácome (ENE/CHO), Project Team Co-leader; Hector Baldivieso; Odile I. Johnson; Raul A. Jimenez; Stephanie Suber, Cecilia Seminario, and Jeanette Bonifaz (INE/ENE); Yamille Morillo (ENE/CDR); Denise Salabie (VPC/FMP); Cristina Landázuri (LEG/SGO); and Joaquín Zentner (CID/CDR).

This document is being released to the public and distributed to the Bank's Board of Executive Directors simultaneously. This document has not been approved by the Board. Should the Board approve the document with amendments, a revised version will be made available to the public, thus superseding and replacing the original version.

CONTENTS

PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING	1
A.	Background, problem addressed, and rationale	1
B.	Objectives, components, and cost	14
C.	Key results indicators	19
II.	FINANCING STRUCTURE AND MAIN RISKS	20
A.	Financing instruments	20
B.	Environmental and social risks	20
C.	Fiduciary risks	20
III.	IMPLEMENTATION AND MANAGEMENT PLAN	20
A.	Summary of implementation arrangements	20
B.	Summary of arrangements for monitoring results	21
IV.	POLICY LETTER	21

APPENDIXES

Proposed resolution

ANNEXES	
Annex I	Summary Development Effectiveness Matrix (DEM)
Annex II	Policy Matrix
LINKS	
REQUIRED	
1.	Policy letter
2.	Means of verification matrix
3.	Results matrix
4.	Monitoring and evaluation plan
OPTIONAL	
1.	Analysis of compliance with the Public Utilities Policy
2.	Comparative matrix of changes
3.	National Electricity Pact for Power Sector Reform (Electricity Pact)
4.	Electricity Act 125-01
5.	2013-2016 Comprehensive Power Sector Plan
6.	Study of the works plan for generation and transmission in SENI, 2018-2030
7.	2030 National Development Strategy (Law 1-12)

ABBREVIATIONS

BonoLuz	Targeted electricity consumption subsidy
CDEEE	Corporación Dominicana de Empresas Eléctricas Estatales [Dominican Corporation of State-owned Electricity Companies]
CNE	Comisión Nacional de Energía [National Energy Commission]
EGEHID	Empresa de Generación Hidroeléctrica Dominicana [Dominican Hydroelectric Generation Company]
ETED	Empresa de Transmisión Eléctrica Dominicana [Dominican Electricity Transmission Company]
GCPS	Gabinete de Coordinación de Política Social [Social Policy Coordination Cabinet]
GWh	Gigawatt-hour
MEM	Ministry of Energy and Mines
MW	Megawatts
MWh	Megawatt-hour
PBP	Programmatic policy-based loan
SENI	Sistema Eléctrico Nacional Interconectado [Interconnected National Electricity System]
SIE	Superintendencia de Electricidad [Office of the Superintendent of Electricity]
SIUBEN	Sistema Único de Beneficiarios [Master Beneficiary System]

PROJECT SUMMARY

DOMINICAN REPUBLIC POWER SECTOR SUSTAINABILITY AND EFFICIENCY PROGRAM II (DR-L1058)

Financial Terms and Conditions					
Borrower: Dominican Republic			Flexible Financing Facility ^(a)		
			Amortization period:		20 years
Executing agency: Ministry of Finance			Original weighted average life:		12.58 years ^(b)
			Disbursement period:		1 year
Source	Amount (US\$)	%	Grace period:		5.4 years
IDB (Ordinary Capital)	400,000,000	100	Interest rate		LIBOR-based
			Inspection and supervision fee:		(c)
			Credit fee:		(c)
Total	400,000,000	100	Currency of approval:		U.S. dollar (US\$)
Program at a Glance					
Program objective/description: The general objective is to support the Government of the Dominican Republic in adopting and implementing the sector policies and reforms necessary to promote the financial sustainability and operating efficiency of the power sector. The specific objectives are to: (i) strengthen the institutional and supervision capacity of the power sector; (ii) strengthen sector planning and regulations; and (iii) support improvement in the management and operation of electricity distribution companies.					
This is the second of three consecutive, single-tranche loan operations that are technically linked but financed independently under the programmatic policy-based loan modality.					
Special contractual conditions precedent to the sole loan disbursement: (i) fulfillment of all the policy reform conditions included in the Policy Matrix (Annex II) and the policy letter ; and (ii) fulfillment of all other conditions established in the loan contract (paragraph 3.2).					
Exceptions to Bank policies: None					
Strategic Alignment					
Challenges ^(d) :	SI	<input checked="" type="checkbox"/>	PI	<input checked="" type="checkbox"/>	EI <input type="checkbox"/>
Crosscutting themes ^(e) :	GD	<input type="checkbox"/>	CC	<input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>

^(a) Under the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

^(b) The original weighted average life of the loan could vary depending on the effective signature date of the loan contract.

^(c) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable policies.

^(d) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(e) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, and rationale

- 1.1 **Fiscal and macroeconomic situation.** The Dominican Republic has a small economy that is extremely vulnerable to external shocks and natural disasters.¹ During the past decade,² the country has had real economic growth of 4.9%, above the average of 2.1% for Latin America and the Caribbean. In 2017, there was a slowdown in economic activity and growth decreased from 5.5% in the first quarter to around 3% in the second and third quarters. This resulted in cumulative growth of 4.6%, below the official projections of 5.5%. This was primarily a result of a drop in investments, influenced by uncertainty in the internal and external macroeconomic outlook, and a significant curbing of public capital spending. The government's monetary easing measures and stronger fiscal enforcement led to an economic recovery in the last quarter of the year, which still continues in 2018. The Dominican economy is expected to reach an average growth of 5.0% in real GDP from 2019 to 2022, according to government projections.³
- 1.2 In 2017, the Dominican Republic showed solid external sector performance and experienced low inflationary pressures. Inflation remained close to the middle of the target range of 4%±1%, and this trend is expected to continue in 2018. For the external sector, at year-end, the current account showed a deficit equivalent to 0.2% of GDP (1.1% of GDP in 2016), below the historical average and the lowest in the past 13 years. This result is associated with sustained revenue growth from tourism and family remittances, better export performance, and a moderate oil bill.
- 1.3 However, the fiscal consolidation process begun in 2012 is currently at a standstill. The consolidated public sector deficit was 4.4% of GDP in 2017 (4.2% in 2016), bringing the consolidated public debt to 48.9% of GDP at year-end. The power sector is one of the largest sources of fiscal pressure. From 2000 to 2017, the power sector's average deficit was 1.1% of GDP. The drop in international oil prices has resulted in a decrease in current transfers to 0.5% of GDP in 2017. Nevertheless, the increase in oil prices during the first half of 2018 is reversing this trend, resulting in greater pressure on fiscal accounts.
- 1.4 **Regulatory and institutional framework of the sector.** The legal, regulatory, and institutional framework of the power sector is defined by the [Electricity Act 125-01](#) of 2001, which eliminated vertical integration and provided the ability to attract private investment in order to facilitate new investments in all stages of the production chain: power generation, transmission, and distribution.
- 1.5 The main actors in the sector are: (i) the Ministry of Energy and Mines (MEM), created in 2013 through Law 100-3 of 2 August 2013, which is responsible for formulating and administering energy and mining policies; (ii) the Office of the Superintendent of Electricity (SIE), an independent agency responsible for promoting, regulating, and monitoring the power sector; (iii) the National Energy Commission (CNE), which is primarily responsible for preparing and coordinating

¹ Irma and María, two category 5 hurricanes, grazed the country in September 2017, causing economic damage in productive regions.

² The 2008-2017 period, based on *World Economic Outlook* data (April 2018).

³ Ministry of Economy, Planning, and Development, *Marco Macroeconómico 2018-2020* (June 2018).

legal and regulatory standards to ensure the proper functioning and development of the energy sector and for overseeing enforcement of these standards; (iv) the Dominican Corporation of State-owned Electricity Companies (CDEEE), which is responsible for developing plans and policies for State-owned electricity companies;⁴ and (v) the Coordinating Agency for the Interconnected National Electricity System (SENI), a private nonprofit entity responsible for coordinating electricity dispatch from the integrated national system (see Figure 1).

- 1.6 Private companies,⁵ combined public-private capital enterprises,⁶ a public enterprise,⁷ and independent power producers⁸ are responsible for generating electricity. The public sector is responsible for transmitting electricity, through the Empresa de Transmisión Eléctrica Dominicana [Dominican Electricity Transmission Company] (ETED). Three State-owned companies are responsible for distribution: Empresa Distribuidora de Electricidad del Norte S.A., Empresa Distribuidora de Electricidad del Sur S.A., and Empresa Distribuidora de Electricidad del Este S.A.⁹

⁴ [Law 142-13](#) stipulates that the CDEEE maintains its authority, powers, and functions with respect to its capacity as lead and coordinating entity for all strategies, objectives, and actions of the electricity distribution companies, and that the MEM assumes those related to the formulation, coordination, and promotion of the policy and programs related to the rational use of energy, energy efficiency, the development of alternative energy sources, and the promotion of energy in harmony with the environment, as set forth in laws 125-01 and 100-13, as of 30 July 2018.

⁵ The most important include: AES Dominicana; San Felipe; Compañía de Electricidad de San Pedro de Macorís; Compañía de Electricidad de Puerto Plata; Generadora Palamara - La Vega; Consorcio Laesa Limited LTD; Complejo Metalúrgico Dominicano; SeaBoard; Pueblo Viejo Dominicana Corp.; and Falconbridge Dominicana S.A.

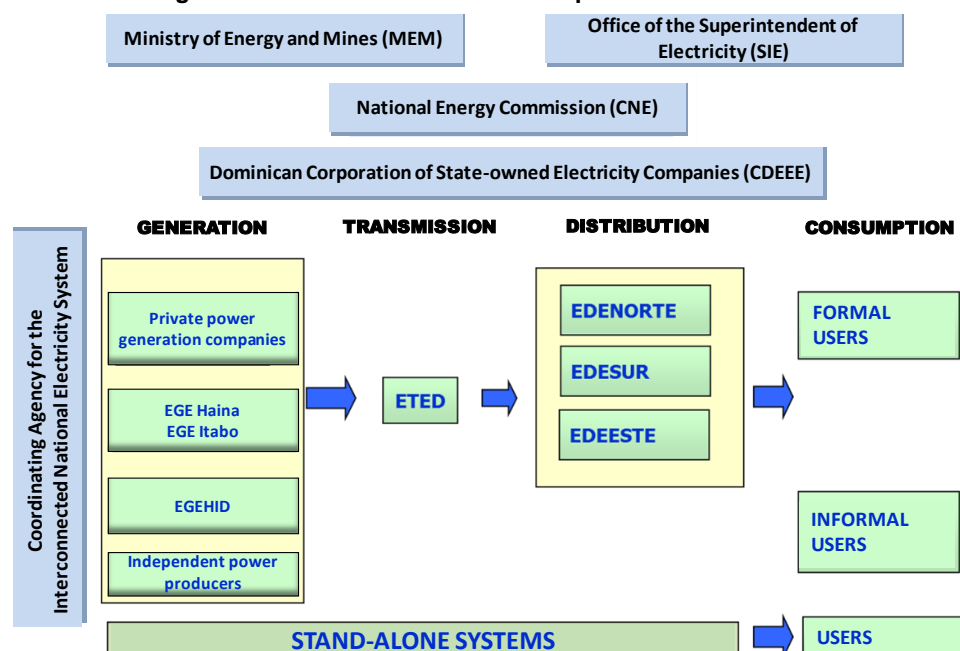
⁶ EGE Haina and EGE Itabo, in which the government participates through the Endowment Fund of Reorganized Companies, an organization responsible for overseeing, protecting, and administering State shares in the companies that emerged from the reform process.

⁷ Empresa de Generación Hidroeléctrica Dominicana [Dominican Hydroelectric Generation Company] (EGEHID).

⁸ Currently, 86% of the power generation capacity is privately owned and/or operated (except for self-generated power) and 14% is publicly owned. The system includes 15 generating companies, two of which are independent power producers. Of those 15, three generating companies (AES Dominicana, Empresa Generadora de Electricidad de Haina, and Empresa de Generación Hidroeléctrica Dominicana) provide more than 69% of the total power generated.

⁹ These three companies serve 98% of the domestic electricity market and provide service based on geographical location.

Figure 1. Structure of the Dominican power sector*



*Prepared by the authors based on Laws 125-01, 143-13, and 100-13.

- 1.7 The electricity system in the Dominican Republic.** The main characteristics of the power sector in the Dominican Republic as of December 2017 are: (i) an installed generation capacity of 3,703 megawatts (MW); (ii) a maximum annual demand of 2,219 MW; (iii) a total power generation of 16,326 gigawatt-hours (GWh), with the residential sector as the largest consumer at 38%; (iv) widespread subsidies that benefit 90% of residential customers and 50% of commercial customers; and (v) operating deficits caused by energy losses (29.9%), poorly managed collection processes, and high operating expenses for electricity distribution companies (US\$352.4 million). Despite the Dominican electricity system having generation capacity above its demand, due to operating and financial reasons, in circuits with high loss levels, there are daily scheduled power outages that last an average of between 8 and 12 hours. The quality and cost of the electricity supply affect the country's competitiveness¹⁰ in the micro, small, and medium-sized enterprise sector.
- 1.8 Policy actions in the power sector.** The government began a process of reforms in the sector in 2011, when the Bank approved the first of a series of three programmatic policy-based loan (PBP) operations, the Power Sector Sustainability and Efficiency Program (2610/OC-DR) for US\$200 million. This program was designed to implement the measures set forth by the government, the IMF, and multilateral banking institutions as part of the "Action Plan for the Power Sector 2010-2015." In this sense, the government had identified the fundamental strategic areas through which it could achieve the sector's financial sustainability and operating efficiency: (i) electricity generation through diversification of the generation matrix; (ii) operating efficiency of electricity distribution companies through reduction

¹⁰ According to the World Bank's *Doing Business* (2017), getting electricity ranks second among factors that hinder doing business in the Dominican Republic.

of losses and operating expenses; (iii) efficiency of the rate and subsidy system; and (iv) institutional strengthening and enhanced supervision.

- 1.9 In 2012, faced with a scenario of high oil prices, the government decided to prioritize the first two areas mentioned above (generation and distribution), basing its sector strategy on reducing power generation costs by modifying the generation matrix, and reducing electricity losses and operating expenses in electricity distribution companies. The government postponed addressing the rate and subsidy issues (which at that time, entailed rate increases of more than 40%) until after the completion of a major national dialogue to resolve the electricity problem (Electricity Pact). These talks finally took place from January 2015 to October 2017. Likewise, policy actions on the issue of the institutional independence of SIE were also postponed until after the national dialogue.
- 1.10 Lastly, based on the results of this dialogue, in March 2018, the government not only recognized the need to continue working on the four basic strategic areas, but also initiated measures to: (i) obtain commitments from electricity distribution companies to reduce their electricity losses and operating costs; (ii) achieve independence for SIE; and (iii) define regulatory criteria to establish an efficient rate structure and an optimized subsidy mechanism. As can be seen, the sector has been addressing, and the government has prioritized, the resolution of the same challenges identified since 2011. This situation has resulted in the overlap between the measures contained in the first policy-based loan (PBL), which are consistent with those proposed in this second PBL¹¹ and the measures in the consensus-based Electricity Pact. The fundamental areas are described below:
- 1.11 **Electricity generation.** In 2010, the country faced high costs for its electricity supply due to the high proportion of imported fossil fuels in the electricity generation matrix (88%) and high levels of energy losses in the distribution systems being included in consumer rates.¹² As a result of the first factor, the short-run marginal cost of the system stood at US\$140 per megawatt-hour (MWh) in 2010, well above the average of US\$100/MWh for Central America.
- 1.12 In late 2012, the government decided that it needed to intervene as an investor in electricity generation to promote diversification of the generation matrix. This intervention resulted in the construction of the Punta Catalina coal-fired power generation plant (752 MW), which will replace a large portion of the power generated from liquid fuel (which has high import rates).
- 1.13 The increase in generation capacity from natural gas and renewable energy sources (supported through Law 57-07 on Incentives for Renewable Energy and Special Regimes, enacted in 2007) contributed to reducing the use of imported liquid fossil fuels in the electricity generation matrix. The Dominican Republic has transformed and diversified its generation matrix, lowering the power generated from petroleum-derived liquid fuels from 85% (1990s) to 40% in 2017.

¹¹ The policy measures contained in the first and second PBLs are consistent, but the tools for action may, in some fundamental areas, have certain variations.

¹² As a mechanism to recover the high cost that these losses entail.

- 1.14 The commissioning of the Punta Catalina Thermal Plant in 2019, coupled with the awarding of international tenders by the government to procure electricity in the short and long term,¹³ should lead to: (i) stabilizing power generation costs (at around US\$100/MWh); (ii) focusing efforts on improving the operating efficiency of distributors; and (iii) significantly decreasing the need for government transfers to the sector. In addition, an increase in the proportion of renewable energy sources to 27% of the generation matrix is expected by 2030, bringing significant savings.¹⁴

Table 1. Progress in the Dominican power generation subsector

	2010	2017	Future (2022)
Price of crude oil (US\$/barrel)	79.59	50.84	59.00
Marginal cost ceiling (US\$/MWh)	13.72	123.44	8.11
Nonrenewable generation (%)	88.36	83.30	73.00 ^(*)
✓ Liquid fuel generation (%)	46.00	40.00	
✓ Natural gas generation (%)	27.24	30.10	
✓ Coal-fired generation (%)	15.11	13.20	
Hydropower generation (%)	11.69	13.30	14.00 ^(*)
Renewable generation (%)	0.00	3.30	13.00 ^(*)
Total generation (GW)	12,271.64	16,326.52	20,770.04
Installed capacity (MW)	2,956.18	3,702.81	4,496.00
Maximum demand (MW)	1,795.18	2,218.83	2,938.83
Other relevant actions		Expiration of Madrid Agreement	Entry into operation of Punta Catalina with 752 MW (gross), as well as production of 400 MW in renewable energy

(*) For 2030, see the renewable energy roadmap of the International Renewable Energy Agency, *Renewable Energy Prospects: Dominican Republic* (2017).

- 1.15 **Operating efficiency of electricity distribution companies.** For years, the management indicators of electricity distribution companies have fallen short of the standards for similar companies in the region. That is the result of a series of factors: (i) a rate model that has not accurately reflected the costs incurred in providing the service, particularly during the 2008-2014 period;¹⁵ (ii) high levels of total electricity losses, above the 30% annual average, mostly of a nontechnical type (business losses); and (iii) customer management problems, with low rates of billing and

¹³ An onerous agreement to purchase and sell energy, known as the Madrid Agreement, expired in July 2016.

¹⁴ According to the renewable energy roadmap country study (International Renewable Energy Agency, 2017), more than 80% of all renewable energy-based technology options could be implemented, obtaining savings when compared to the nonrenewable energy technologies that they will be replacing. From a business perspective, the set of renewable energy technologies identified beyond the benchmark case would provide savings of US\$62 per MWh of energy produced (or US\$17 per gigajoule).

¹⁵ In a scenario of high prices for imported fuels used to produce nearly 85% of the installed generation capacity.

collections, as well as informal connections estimated at 22% of the customer base.¹⁶

- 1.16 In 2010, the electricity distribution companies had: (i) technical and business losses of 35.20%;¹⁷ (ii) collection rates¹⁸ and cash recovery indexes of approximately 90.61% and 58.71%, respectively; and (iii) high operating costs: US\$234.99 million. These results contributed to exacerbating the sector's recurrent financial shortfalls: transfers of public funds increased to US\$729.86 million, with US\$647.1 million in current transfers.
- 1.17 In 2012, the government modified some of the strategies included in the first programmatic policy-based loan, such as maintaining electricity distribution companies under public management, instead of considering management contracts. However, it affirmed as priorities in its [2013-2016 Comprehensive Power Sector Plan](#) the strategic elements of reduction in electricity losses and efficient management of electricity distribution companies, to continue moving forward with their financial and operational improvements.¹⁹
- 1.18 As of 2017, modest progress has been made in reducing total electricity losses, primarily due to limited financing to carry out planned investments (reduction in technical losses) and poor management of electricity distribution companies.²⁰ The Bank, along with support from other cooperating institutions,²¹ has supported the government with the Support for the Power Distribution Network Modernization and Loss Reduction Program. The first phase of that plan (loan 3182/OC-DR) began implementation in 2010, with a budget allocation that enabled intervention in 10% of the system's circuits. In coordination with other multilateral institutions, the Bank intends to support the government with the implementation of a second phase (DR-L1128, in preparation).
- 1.19 To complete the financial picture for distributors, data shows that expectations for reduction in energy costs contrast with high and rising current expenditures. In the case of operating expenses, compared to an international benchmark and the results of recent studies to determine the value added for distribution, distributors have higher expenditures than the industry standard.²² This is confirmed through management indicators that link expenditures with revenue, number of customers, and other relevant variables.

¹⁶ See Jimenez (2017). *Are Blackout Days Free of Charge? Valuation of Individual Preferences for Improved Electricity Services*. IDB-WP-822.

¹⁷ In Latin America (2014), electricity losses average 16.5%.

¹⁸ For similar companies, it should not be below 98%.

¹⁹ The priority consisted in diversifying the generation matrix to make it more efficient, resulting in reduced service costs and lower government transfers to cover the electricity distribution companies' operating deficits.

²⁰ Based on experience in countries in the region that implemented loss reduction plans, the reduction during the first few years is approximately 5% per year.

²¹ World Bank, OPEC Fund for International Development, Central American Bank for Economic Integration, and Development Bank of Latin America.

²² In 2017, according to a performance report from the CDEEE, electricity distribution companies had a ratio of 260 customers per employee. The average for the Latin America region is 1,000 customers per employee (for example, in Chile, it is 1,540 customers per employee). Accounts receivable aging for electricity distribution companies is more than four months; for the region, the average is two months.

- 1.20 One of the agreed-upon targets of the National Dialogue for the Power Sector—known as the Electricity Pact—was that electricity distribution companies should have the capacity to cover their operating, maintenance, and investment expenses for expansion. This requires the following: effective management and monitoring instruments for electricity distribution companies, to eliminate financial deficits that require government financing; a loss-reduction plan; and an accountability system that promotes good performance. Therefore, an agreement was made to reduce the total level of losses for electricity distribution companies to 15% and limit their operating expenses to 10% of their revenue by 2022. Significantly, the priority in policy actions should be based on the operating efficiency of electricity distribution companies, to produce higher returns for the sector. Each percentage point of losses that is recovered represents approximately US\$21 million in revenue for the sector (distribution).

Table 2. Progress in the operating efficiency of electricity distribution companies

	2010	2017	Future (2022)
Total losses (%)	35.20	29.80	15.00
Cash recovery index (%)	58.71	67.50	82.30
Operating expenses/Revenue (%)	18.88	22.54	10.00
✓ Operating expenses (in US\$ millions)	234.99	352.41	332.50
✓ Total revenue (in US\$ millions)	1,244.56	1,563.58	
Operating expenses/Energy billed (US\$/MWh)	32.70	36.54	21.87
Customers per employee (number)	296.07	270.11	
Collections (%)	90.61	96.10	97.00
Energy recovery index (%)	58.71	68.10	84.21
Availability (%)	80.11	87.60	
Total transfers (% of GDP)	1.36	1.50	0
Total transfers (in US\$ millions)	729.86	1,141.10	0
✓ Capital transfers (in US\$ millions)	82.76	771.50	0
✓ Current transfers (in US\$ millions)	647.10	369.60	0

- 1.21 **Efficiency of the rate and subsidy system.** Electricity Act 125-01 ratified the principle of usage fees and rates intended to recover the costs of providing service and established a procedure for SIE to update rates in a manner that ensures the sustainability of companies. However, the rate structure for the power sector has remained inflexible for long periods, without adequately reflecting power generation costs, as follows: (i) rates have been below costs when oil prices surpassed US\$100/barrel (until before 2014); and (ii) rates have been above costs when a drop in oil prices considerably decreased power generation costs in the wholesale electricity market. This translated, in the first case, into a generalized subsidy that was covered by public finances, and in the second, into overpricing the generation component in the rate formula.
- 1.22 The rate structure also includes an implicit subsidy for consumption at or below 500 kilowatt-hours (kWh) per month. These subsidies benefit 90% of residential customers and 50% of commercial customers.

- 1.23 In 2009, through Decree 421-09, a new mechanism to provide targeted electricity consumption subsidies to the poorest population²³ was approved. This mechanism, known as BonoLuz,²⁴ identifies beneficiaries using the Master Beneficiary System (SIUBEN). In late 2010, BonoLuz covered almost 130,000 families; in 2011, the number of beneficiary families was 271,000 and in 2017, it was 450,000. BonoLuz currently provides subsidies to slightly more than 50% of the households living in poverty (804,000 families would qualify as beneficiaries). Difficulties in increasing coverage are due to: (i) budget constraints, particularly when fuel prices are high; and (ii) operational inability of distributors to continue regularizing households that are potential beneficiaries. Significantly, increasing the coverage of this targeted subsidy is one of the objectives of the first operation under this PBP series.
- 1.24 The current applied rate²⁵ is above the technical rate²⁶ or efficiency rate, which relieves pressure to immediately adjust the rate. Cross-subsidies (extra costs paid by the largest consumers to compensate for the low rates of users with the lowest consumption) have a net balance close to zero, despite the distortion they may cause to the technical rate.
- 1.25 As a whole, the challenge is to apply a transition rate aimed at correcting inefficiencies between 2019 and 2022, in order to reach the benchmark rate by 2023. At the same time, a new subsidy policy revising the thresholds for the generalized and targeted subsidies will be defined, to make it possible to include all eligible households identified in SIUBEN.
- 1.26 **Institutional strengthening and enhanced supervision.** One of the main institutional challenges for the sector is the consolidation of efforts to separate its activities into: (i) design and implementation of sector policies; (ii) planning; (iii) regulations; and (iv) business initiatives for power production and service delivery. The expansion of the generation, distribution, and transmission systems should be based on an indicative plan for expansion.²⁷ Therefore, the investments made should take into account technology alternatives that are economically viable for the country and a plan to support the maturing of new investments.
- 1.27 In 2015, pursuant to the 2030 National Development Strategy (Law 1-12), a national dialogue was launched with various sectors of society, to agree on a long-term strategy for the sector. This dialogue defined short-, medium-, and long-term actions aimed at providing the country with universal, quality, efficient, reliable, resilient, environmentally friendly, and financially sustainable electricity service. It also

²³ SIUBEN determines the poverty level based on a household's quality of life index.

²⁴ BonoLuz subsidizes fixed fees and consumption charges for up to 100 kWh/month for beneficiary households. SIUBEN, an existing national platform to provide subsidies and social assistance, is used to select those households.

²⁵ The applied rate is the rate actually charged to electricity service customers, which is set and published on a monthly basis by SIE.

²⁶ The technical rate covers the supply costs for distributors, which are supported by a competition regime pursuant to Electricity Act 125-01, plus the technical losses between the point of injection by generators and the point of power withdrawal by consumers, and the costs associated with transmission and distribution. There is a maximum 3% charge for nonbillable power. (Reference: Electricity Act 125-01).

²⁷ Indicative plans for generation and transmission are national energy plans of a comprehensive and indicative nature, which are intended to serve as models for investment and development project policies for the sector.

reaffirmed effective compliance with Electricity Act 125-01 and its regulations, while recognizing that addressing the problems of the sector will require specific changes to the legal framework and the functions of the State as developer, regulator, and compliance agency for the sector.

- 1.28 The national dialogue resulted in the preparation of the National Electricity Pact for Power Sector Reform (Electricity Pact) in line with the mandate of Presidential Decree 389-14 of October 2014. A consensus was reached for the Electricity Pact, which is in effect until 2030, and it is expected to be signed once political party leaders complete its review.
- 1.29 With respect to the institutional framework, despite the creation of the Ministry of Energy and Mines as lead agency for the sector, there are still institutional challenges that prevent the rational and efficient use of resources in the sector. In this regard, an updated indicative plan is needed for efficient expansion of power generation and transmission, including: (i) viable alternatives for generation sources and targets to serve demand following a least-cost criterion; (ii) plans for the development of rural electrification²⁸ that take into account public policies, sector development and expansion plans, identification of state-of-the-art technology solutions, and nonconventional renewable energy sources; (iii) development of a National Energy Efficiency Program;²⁹ and (iv) a rate mechanism that responds to the economic and financial soundness of the service, ensuring sustainability for companies and introducing efficiency incentives for electricity producers and consumers.
- 1.30 Moreover, management systems at electricity distribution companies need to be strengthened due to the lack of an effective monitoring mechanism; lack of robustness in defining budget transfers to distributors; and lack of an accountability system for operational and business management targets. This makes it difficult to monitor the fulfillment of operational and financial commitments and targets by electricity distribution companies. This task requires a monitoring and accountability information system as well as monitoring work from SIE, backed by independent technical audits with published results.
- 1.31 The Coordinating Agency of the SENI still needs to reinforce and automate its operations. Likewise, SIE needs to develop the regulations to select and pay for ancillary services, and other necessary regulations to improve the efficiency of the wholesale market.
- 1.32 To summarize, the sector still faces the following challenges: (i) operating inefficiency of electricity distribution companies; (ii) an inadequate rate system; and (iii) institutional weakness. For this reason, this operation will be supporting the government in the implementation of the policy actions necessary to close the

²⁸ As of 2017, 4% of the population lacked access to electricity. The majority are in the country's poorest and most isolated areas, such as: Elías Piña, where 32% lack coverage; San Juan de la Maguana, 31%; Santiago Rodríguez, 29%; and Montecristi, 25%.

²⁹ The National Energy Efficiency Program, which defines the guidelines for reducing costs and implementing innovative processes for energy savings, was established in 2011. This plan includes management of energy demand at government agencies and training in savings and energy efficiency. These measures addressed one of the objectives of the first operation under the PBP.

sector's gaps in the four basic strategic areas. The PBL is expected to contribute to achieving the following:

- (i) More efficient generation costs over the long term, due to the diversification of the generation matrix in line with the indicative plan for expansion of generation (Component 2), the monitoring of the minimum technical values of the power plants in order to optimize costs (Component 1), and the competitive bidding and procurement processes (Component 2).
 - (ii) Electricity losses and operating costs for distribution that are lower and more efficient, due to the implementation of the management-improvement plans and loss-reduction plans at electricity distribution companies (Component 3), where the distribution companies commit to and develop a plan to reduce electricity losses from 29.9% (2017) to 15% (2022). Each percentage point recovered (billed and collected) is estimated to represent US\$21 million per year in revenues. Fulfillment of this plan will be monitored by SIE (Component 1), audited by an independent auditor (Component 3), and subject to an accountability regime (Component 3).
 - (iii) An optimum rate regime, defining a target efficiency rate and a proposed subsidy regime that is better targeted. To close this gap, regulatory accounting is being developed for greater transparency and efficiency in the accounts and costs associated with electricity service delivery (Component 1). On this basis, a target rate³⁰ is defined and approved to adequately reflect the costs of efficient service delivery, with defined efficiency parameters in terms of electricity losses, collection percentage, the operating expenses/revenues ratio, and the rate of investment capital costs in the sector (Component 2). Lastly, a proposal will be made to allocate subsidies to support the most vulnerable users, in line with the rate regime to be proposed.
 - (iv) Institutions that fulfill their role under the mandate defined by law. An example of this is the creation of the MEM (Component 1) and its strengthening for the development of energy efficiency programs (Component 2). This also includes capacity-building at SIE to supervise compliance by electricity distribution companies in meeting their loss-reduction targets, power plants, in meeting the minimum technical values and ancillary services, etc. (Component 1).
- 1.33 **The country's sector strategy.** Sector policy is governed by the government's strategic plan, known as the [2030 National Development Strategy \(Law 1-12\)](#), which sets forth the main economic, social, institutional, and environmental objectives that will guide this policy until 2030. A specific objective of this strategy is to ensure a reliable supply of energy at competitive prices and under sustainable financial and environmental conditions. It calls for three "pacts" to be reached between the government and civil society on three priorities for the country: educational reform, fiscal reform, and power sector reform. MEM defined three strategic elements: (i) energy security and sustainability; (ii) management of mining resources; and (iii) institution-strengthening. The Executive Branch also established presidential targets for the sector, including: (i) preparing draft bills for institutional reform of the

³⁰ A benchmark rate to be applied starting in the month of January 2023.

energy, mining, and hydrocarbon sectors; and (ii) developing and implementing programs to promote renewable energy.

- 1.34 **Sector knowledge.** The IDB has accumulated extensive knowledge of the Dominican power sector, having supported its development particularly since 2009, through technical cooperation and dialogue, and financing investment and reform initiatives. These include the Electricity Distribution Network Rehabilitation Project (1281/OP-DR and 2042/OC-DR)³¹ and the Support for the Power Distribution Network Modernization and Loss Reduction Program (3182/OC-DR).³²
- 1.35 The Bank also has broad experience supporting policy reforms in the sector, and the most recent operations were: Nicaragua (4313/BL-NI), Suriname (2848/OC-SU), Peru (2847/OC-PE), Honduras (3619/BL-HO), and Ecuador (3420/OC-EC). The project completion report for operation 2847/OC-PE concluded that programmatic operations are appropriate instruments for supporting sector reforms involving multiple actors. Also, with a diversified, sustainable power supply, end consumers are the main beneficiaries of these interventions. The following lessons learned from these interventions are noteworthy, and were incorporated into the design of this PBP: (i) institutional and regulatory reforms on their own are not sufficient to ensure the efficient operation of the sector, so it is essential to enable institutions to autonomously exercise their legal responsibilities; (ii) policy measures, particularly regulatory measures, will require gradual implementation, but should have a defined schedule and clearly assigned responsibilities from the outset; and (iii) close support by the Bank for the government is necessary during the process to implement institutional and policy measure modifications, in the form of technical assistance. Through technical cooperation operation DR-T1179, which is in preparation, the Bank will continue its support to ensure that commitments are fulfilled and new areas that require support are identified.
- 1.36 Previous experience in the region and in other developing countries suggests that well-defined institutional and regulatory frameworks, transparent price-setting mechanisms, and private sector participation play a relevant role in the power sector's performance. Experience in Argentina, Bolivia, Chile, Mexico, Nicaragua, and Peru indicates that these dimensions lead to improving indicators of electricity losses, service quality, financial sustainability, and operating efficiency for companies (for example, indicators of collections, labor productivity, etc.).³³ Strengthening the institutional and monitoring capacity of the sector with clear, realistic targets for operating and financial efficiency are some of the institutional and private participation characteristics that help achieve positive results. A central element in previous projects is establishing regulations that provide incentives for

³¹ Approved in 2008 for US\$40 million and cofinanced by the OPEC Fund for International Development for US\$30 million.

³² Approved in 2014 for US\$78 million.

³³ For Argentina, Gonzalez-Eiras and Rossi (2007, IDB Working Paper); for Chile, Fischer and Serra (2004, Universidad de Chile); and for Peru, Chong and López-de-Silanes (2005, Stanford University Press). For a sample of 18 countries in the region, see "[Privatization, Institutional Reform, and Performance in the Latin American Electricity Sector](#)," Balza, Jimenez, and Mercado (2013, IDB). For examples regarding 28 developing countries, see "[The Impact of Regulatory Governance and Privatization on Electricity Industry Generation Capacity in Developing Economies](#)," Cubbin and Stern (2006, The World Bank Economic Review).

adopting good practices in company management, such as the implementation and use of integrated management information systems.³⁴

- 1.37 **Program strategy.** This second loan operation provides continuity to the Bank's support for the power sector reform program. This second operation in the series will seek to advance reforms aimed at achieving the sector's financial sustainability and operating efficiency, by expanding its supervision, regulatory, and planning capacity, and enhancing its operating and financial management improvements. Policy commitments for this second tranche are tailored to the sector's fundamental challenges in terms of: (i) generation; (ii) distribution; (iii) rates and subsidies; and (iv) institutional framework. The Bank has played a leading role in supporting the national agreements for improving the sector, contributing to each of the areas through studies such as the following: (i) generation: study on acceptable penetration of nonconventional renewable energies in the Dominican Republic (2017); update of the study on the SENI generation and transmission works plan, 2018-2030 (2017); (ii) distribution: structures for private participation in distribution and collection activities and viability of management contracts at electricity distribution companies in the Dominican Republic (2017), and study for the preparation of a master plan for the expansion of the distribution system and study of losses by electricity distribution companies (2017); (iii) rates and subsidies: alternative rates and subsidies for the Dominican power sector (2015); impact of the power sector crisis on the Dominican economy: final report for households (2016); and (iv) institutional framework: studies on institutional strengthening for the MEM with respect to rural electrification in 2017;³⁵ and other studies for the institutional strengthening of SIE in 2017.³⁶
- 1.38 This set of studies has served as the basis for the design of the policy measures that the government has decided to implement and that were addressed in the discussions in the document resulting from the national dialogue.
- 1.39 **The Bank's country strategy.** This operation is aligned with the IDB Group Country Strategy with the Dominican Republic 2017-2020 (document GN-2908). The Bank's strategic objective for the sector is to: "Improve the operating efficiency and rate structure of the power sector." Therefore, there are plans to support increased operating efficiency and financial sustainability in the distribution area, contributing to reduce its impact on public finances through investment loans aimed at achieving the operational, business, and financial recovery of State-owned distribution companies. To that end, the Bank is preparing an investment project, the Program to Expand Networks and Reduce Electricity Losses in Distribution (DR-L1128). The Bank will also maintain the technical support that it has provided to the sector,

³⁴ A recent Bank-supported project in Ecuador showed the results of implementing institutional measures on the levels of electricity losses and financial soundness of the sector, particularly for the Quito electricity distribution company. See "[Incrementando la eficiencia del sector eléctrico: Lecciones sobre la reducción de pérdidas eléctricas en Ecuador](#)," (2017, IDB).

³⁵ Preliminary technical and economic study of geothermal resources in the Dominican Republic, georeferencing of small hydropower plants, and study for the production of biomass-based briquettes.

³⁶ Update of the master account system (SUC) and the calculation of the value added of transmission, procedure for updating the transmission expansion plan.

particularly in the use of technical tools to execute the electricity expansion program and implement an efficient rate system.

- 1.40 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008), and is aligned with the following development challenges: (i) social exclusion and inequality, by defining a new subsidy policy for the power sector, seeking to improve the allocation and targeting of subsidies to the population that really needs them; and (ii) low productivity and innovation, by supporting the strengthening of both the Ministry of Energy and Mines, as the agency responsible for planning and development of rural electrification, and of electricity distribution companies. It is also aligned with the following crosscutting themes: (i) climate change and environmental sustainability, by helping reduce greenhouse gas emissions through program commitments associated with increased use of renewable energy sources, as a result of optimizing operations and efficiently expanding electricity generation and transmission systems and reducing losses; and (ii) institutional capacity and rule of law, by promoting reforms that strengthen the capacities of sector institutions in the areas of sector supervision, planning, and regulation, aimed at improving the transparency, efficiency, and self-sustainability of services. An estimated 23.81% of the operation's resources will be associated with policies to promote climate change mitigation activities, according to the [Joint Report on Multilateral Development Banks' Climate Finance](#). These resources contribute to the IDB Group's target of increasing financing for climate change projects to 30% of all operations approved by the end of 2020.
- 1.41 In addition, the program aligns with the Corporate Results Framework (CRF) 2016-2019 (document GN-2727-6), by supporting achievement of the country development result indicator: "Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery." In this regard, the program supports power sector reforms that promote the use of: (i) management plans by distributors; (ii) technological tools to monitor the management of electricity distribution companies; and (iii) an integrated resource administration system to improve the timeliness and quality of the management of administrative, financial, and business information by electricity distribution companies.
- 1.42 The program is consistent with the Energy Sector Framework Document (document GN-2830-5), in the thematic lines of energy access, sustainability, security, and governance, by driving policy reforms that promote: (i) provision of energy in rural areas; (ii) sustainable development of the sector; (iii) diversification of the energy matrix; and (iv) efficient use of power;
- 1.43 **Alignment with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5).** The program is aligned with the priority areas of document GN-2710-5, through reforms that promote: (i) social inclusion and equality, with quality electricity service offered to all system users; (ii) environmental sustainability, with an electricity generation matrix that has a significant proportion of renewable energy sources and a more efficient distribution service that entails fewer emissions; and (iii) institution-strengthening, with institutions ensuring universal, sufficient, timely, and quality electricity service.

- 1.44 **Consistency with the Public Utilities Policy (document GN-2716-6).** The program is consistent with the objectives of the Public Utilities Policy (PUP). The program complies with the principles of the Public Utilities Policy by enhancing the tools for planning and control in order to drive the operating efficiency and financial self-sufficiency of the companies in the power sector. Moreover, in order to comply with the conditions specifically set forth in the Public Utilities Policy (section IV of document GN-2716-6), for purposes of this policy-based loan, a cost-benefit analysis has been carried out for the proposed program's reforms, as well as a financial sustainability analysis, as indicated in the [Analysis of compliance with the Public Utilities Policy](#).

B. Objectives, components, and cost

- 1.45 **Objectives.** The general objective is to support the Government of the Dominican Republic in adopting and implementing the sector policies and reforms necessary to promote the financial sustainability and operating efficiency of the power sector. The specific objectives are to : (i) strengthen the institutional and supervision capacity of the power sector; (ii) strengthen sector planning and regulations; and (iii) support improvement in the management and operation of electricity companies.
- 1.46 **Stability of the general macroeconomic policy framework.** There should be a stable macroeconomic framework conducive to achieving program objectives and consistent with the guidelines set forth in the sector policy letter.
- 1.47 **Component 1. Strengthen the institutional and supervision capacity of the power sector.** This component aims to enhance the capacity to supervise the power sector accounts, to increase transparency; improve supervision of the wholesale electricity market, to enhance the efficiency of power generation; extend coverage of the subsidy and improve its targeting of electricity consumption in a sustainable manner; strengthen the institutional and coordination capacity of the sector; and strengthen institutional capacity to develop the country's rural electrification.
- 1.48 To this end, the following conditions have been agreed upon for the second loan operation: (i) SIE will have a monitoring and accountability information system that produces semiannual reports showing the progress of electricity distribution companies in meeting their targets to reduce losses and operating costs, which were established in their 2017-2022 management-improvement plans and loss-reduction plans. These reports should include the following: loss level, collection percentage, supply percentage, and operating expense to revenue ratio; (ii) the Coordinating Agency of the SENI will prepare and submit to SIE historical reports on the system's power generation plants meeting the minimum technical values, which SIE set by resolution in order to optimize generation costs; (iii) SIE will prepare and submit to the Executive Branch a draft decree approving amendments to the regulations governing the selection and compensation of ancillary services³⁷ for frequency regulation on the wholesale power generation market; (iv) SIE will issue and approve a resolution establishing the regulatory accounting procedures to be followed by the sector's generation, transmission, and distribution companies, using a methodology that harmonizes both accounts and costs associated with supplying electricity

³⁷ These are previously selected generating companies that use their installed capacity to maintain the continuity and quality of the Interconnected National Electricity System (SENI) in terms of frequency (a main characteristic of electricity service).

service, for increased transparency and efficiency; (v) GCPS will target and allocate electricity subsidies to persons determined eligible by SIUBEN, based on their socioeconomic status; (vi) SIE will define the basic criteria for reviewing the subsidy policy (cross-subsidies and direct subsidies through BonoLuz) for electricity service users; (vii) the Ministry of Finance, to enable payment of the targeted electricity subsidy, will implement the following budgetary measures: recognition of BonoLuz as a receiving entity in the expenditure classification for each year's Budget Act, and allocation to BonoLuz of the necessary financial resources for the subsidies; (viii) the National Congress will approve the law establishing the Ministry of Energy and Mines as the agency responsible for formulating and administering national energy policy and metallic and nonmetallic mining policy, and this ministry will be operating and with a budget allocated and approved; and (ix) MEM will have strengthened its capacity to perform its duties to develop rural and suburban electrification, by preparing a biannual plan of operations.

- 1.49 For the third loan, measures have been agreed upon to ensure the continuity of the commitments made for the first and second loans. These include the use of systems to monitor fulfillment of the targets established by electricity distribution companies; preparation by the Coordinating Agency of the SENI and monitoring by SIE of historical reports on the power plants meeting the minimum technical values; and monitoring the selection of ancillary services for frequency regulation in the wholesale power generation market. The following agreed-upon commitments are also noteworthy: (i) SIE will conduct periodic technical audits pursuant to Electricity Act 125-01; (ii) SIE will issue regulations establishing the necessary conditions to enable electricity distribution companies to subcontract sales activities, to improve their management; (iii) the Executive Branch will define and approve a new subsidy policy for the power sector, including cross-subsidies and direct subsidies (through the BonoLuz program); (iv) the CNE, as the institution attached to MEM pursuant to Law 100-13, will coordinate execution of its annual work plans with MEM; and (v) the CDEEE's rural electrification unit will implement the biannual work plans prepared by MEM in coordination with it. These last two measures have the primary purpose of strengthening the role of strategic planning assigned to MEM and its coordination with the CNE and the rural electrification units.
- 1.50 **Main policy matrix modifications for Component 1.** The following conditions were added to the component that seeks to strengthen the institutional and supervision capacity of the power sector: (i) monitoring the implementation of minimum technical values for power generation plants, since they were defined under the first PBP; (ii) establishment of MEM as the agency responsible for formulating and administering energy policy; (iii) approval of regulatory accounting as a methodology to harmonize accounts and costs associated with supplying electricity service; and (iv) definition of the basic criteria for reviewing the subsidy policy (cross-subsidies and direct subsidies through BonoLuz) for electricity service users.
- 1.51 There were also some modifications to the conditions planned for the first programmatic loan, which include: (i) condition I.1 originally stated: "The institutional mechanism for monitoring sector accounts is up and running." However, for this operation, the condition is that SIE will have a monitoring and accountability information system that produces semiannual reports showing progress in meeting the targets to reduce losses and operating costs for electricity distribution

companies. This was because the authorities decided that SIE is the most suitable agency to perform the duty of monitoring the sector. As part of its legal authorities, SIE has a follow-up and monitoring mechanism, and is therefore supervising power sector accounts; (ii) for condition I.2, the modification involved the approval and issuance by SIE of a resolution with the procedure to select and pay for ancillary services. This was because, in order for SIE to issue this resolution, it is first necessary to approve an amendment to the regulations, which was done by Executive Decree; and (iii) condition I.3 originally stated: "Evaluation of achievement of BonoLuz program goals." This was modified because although the number of beneficiaries increased beginning in 2012, the new administration did not establish specific coverage targets for the direct subsidy (BonoLuz program); however, it should be noted that the increase in the coverage of subsidies took place using the selection criteria established by SIUBEN, that is, targeting vulnerable and low-income groups.

- 1.52 **Component 2. Strengthen sector planning and consolidate the regulatory framework.** The objectives of this component are to: (i) ensure efficient expansion of the power generation and transmission systems; (ii) improve efficiency in the management of electricity demand, for which it was agreed that the Ministry of Energy and Mines will have strengthened its institutional capacity to develop energy efficiency programs; and (iii) support design and implementation of a new, efficient, and flexible rate regime that will promote sector sustainability.
- 1.53 To achieve these, the following agreements were made for the second programmatic loan: (i) the electricity distribution companies will execute the contracting to expand power generation and ETED will execute the contracting for new transmission projects, in accordance with the 2011-2025 Indicative Plan for Expansion of Generation and Transmission approved by the CNE; (ii) SIE will prepare the following baseline studies, as inputs for the update of the 2018-2030 Indicative Plan for Expansion of Generation and Transmission: a study of maximum penetration of nonconventional renewable energy in SENI; and a study to determine value added for transmission. The CDEEE will conduct a study to prepare a master plan to expand the distribution system; (iii) the electricity distribution companies will execute tendering and contracting for power generation through competitive processes, pursuant to Article 110 of Electricity Act 125-01; (iv) MEM will strengthen its institutional capacity to develop energy efficiency programs, through the establishment of an office of the deputy minister responsible for proposing and administering energy savings and energy efficiency policy, and for preparing reports on energy efficiency initiatives and projects; (v) MEM will prepare and submit for public consultation a new draft bill with the legal framework for a National Energy Efficiency Program, including: promotion and development, tax incentives, labeling programs, and use of efficient products; (vi) SIE will approve and issue a resolution for a benchmark rate, effective as of 1 January 2023, based on the following parameters: up to 15% in losses, 97% in collections, an operating expense to revenue ratio of 10%, and the capital cost index for power sector investments set by the Central Bank; and (vii) SIE will disclose, by publishing on its website, the methodology to calculate and project the implicit subsidies provided to electricity service users, which will be based on the difference between the benchmark rate and the applied rate.

- 1.54 For the third loan, the following has been agreed: (i) MEM will implement a National Energy Efficiency Program for the public sector; (ii) MEM will approve the 2018-2030 Indicative Plan for Expansion of Generation and Transmission; (iii) the Executive Branch will submit to the National Congress a bill with the legal framework for a National Energy Efficiency Program; (iv) electricity distribution companies will continue executing contracting for power generation through competitive processes; (v) SIE will approve the regulatory framework for distributed generation; and (vi) SIE will approve and apply a transition rate regime.
- 1.55 **Main policy matrix modifications for Component 2.** The main modifications with respect to strengthening sector planning and consolidating the regulatory framework include the following additions: (i) show progress in the update of the 2018-2030 Indicative Plan for Expansion of Generation and Transmission, given the importance of updating this plan prepared during the first programmatic operation; (ii) execute tendering and contracting for power generation through competitive processes, to increase the efficiency of electricity service delivery; and (iii) approve a benchmark rate³⁸ and disclose details of implicit subsidies to electricity service users.
- 1.56 In addition to the conditions added, there were some modifications to existing conditions, such as: (i) condition II.2, which originally stated, "Expansion of the generation system is consistent with the 2011-2025 Indicative Plan for Expansion of Generation and Transmission by the CNE, and generation contracts are being awarded through competitive processes," was modified to divide it into two conditions: (a) expand generation and transmission (new capacity) in accordance with the indicative plan; and (b) award power generation contracts to existing plants through competitive processes.
- 1.57 In addition, condition II.3 originally stated, "Submittal to Congress of the preliminary draft law to modify the rate regime" and "The Executive Branch prepares and implements regulations under the law to modify the rate regime." This was amended to read: "The SIE has approved and issued the resolution with the benchmark rate to be applied as of 1 January 2023, based on the following parameters: up to 15% of losses, 97% collection rate, an operating expenditure/revenue ratio of 10%, and the capital cost rate for investment in the power sector established by the Central Bank." The change is in response to the progress made on establishing a regulatory mechanism to set an electricity rate that acknowledges efficient costs of generation, transmission, and distribution. In parallel, regulatory accounting has been developed to provide transparency in the sector's cost structure. The definition of the efficiency rate provides an adequate benchmark for determining sector subsidies that should support, first of all, the most vulnerable users. The new condition considers the definition of this efficient rate structure, specifying both the rate target (recognizing efficiency costs) and the structure thereof, with the levels of subsidies defined by the State, based on benchmark technical studies.³⁹ Now, the program will aim to implement, gradually and through sector regulations, an efficient rate regime, by

³⁸ The benchmark rate is based on the technical rate with less demanding targets set by SIE (up to 15% in losses, 97% in collections, an operating expense to revenue ratio of 10%, and the capital cost index for power sector investments set by the Central Bank); this benchmark rate would be implemented as of January 2023.

³⁹ Update of the study to determine and adjust electricity rates for clients (technical rate) and the value added of distribution (VAD)," IDB, 2016 and a complementary study by the World Bank in 2018.

taking advantage of SIE's authority for such purposes (under Law 125-01). As an initial measure, SIE will establish an average or benchmark rate to be reached within five years, as established in the Electricity Pact. This is consistent with the objective of having an efficient and flexible rate regime that promotes sector sustainability. For the third programmatic loan, a more efficient and flexible rate regime is expected to have been implemented.

- 1.58 **Component 3. Improve the management and operation of the electricity companies.** The specific objectives of this component are to improve the operating and financial efficiency and sustainability of electricity distribution, and to improve the corporate management of the CDEEE and the electricity distribution companies. The following agreements were made for the second programmatic loan: (i) the Board of Directors of each electricity distribution company will approve its 2017-2022 management-improvement plans and loss-reduction plans, which will include annual targets until the following targets are achieved by 2022: 15% in total electricity losses, 97% in collections, an operating expense to revenue ratio of 10%, and the capital cost index for power sector investments set by the Central Bank; (ii) MEM and the Ministry of Finance will issue regulations establishing the criteria to determine the government institutions that are not subject to service interruptions,⁴⁰ pursuant to Electricity Act 125-01; (iii) electricity distribution companies will use the administrative module of the integrated resource administration system; and (iv) electricity distribution companies will use the financial and business modules of the integrated resource administration system.
- 1.59 For the third loan, agreements were reached to confirm that electricity distribution companies are achieving the results included in their management-improvement plans and loss-reduction plans. This includes a commitment that the Executive Branch will approve an accountability regime with measures to be implemented if electricity distribution companies fail to meet operational and investment indicators. Fulfillment of the planned targets by electricity distribution companies in the management and loss reduction plans will be monitored through: (i) the semiannual reports to be issued by SIE, based on the monitoring and accountability information system; and (ii) the independent technical audits contracted by SIE specifically to ensure fulfillment of the loss reduction and operating cost targets of the electricity distribution companies. In addition, for the third loan, there was also a commitment that the Ministry of Finance will issue regulations establishing the procedure for complete payment of electricity service bills to the electricity distribution companies for government institutions not subject to service interruptions, and that these regulations will be implemented. Lastly, an agreement was reached that electricity distribution companies and the CDEEE will prepare annual audited financial statements, based on the reports generated by the integrated resource administration system.

⁴⁰ Law 125-01 defines government institutions that are not subject to service interruptions as those institutions that, due to the nature of the service they provide, cannot be subject to an interruption of electricity service, such as hospitals.

- 1.60 **Main policy matrix modifications for Component 3.** The main modifications with respect to improvement in the management and operation of electricity companies are as follows: (i) issue regulations to establish the criteria for government enterprises not subject to service interruptions; and (ii) follow up on the use of the administrative module installed for the first programmatic loan.
- 1.61 The general and specific objectives for the essential themes targeted for the programmatic series (institutional framework, rates and subsidies, and operating efficiency of electricity distribution companies) have not changed since the series was proposed in 2011. However, specific policy actions for each of these themes have been adapted to the strategy that the Dominican government established for the power sector in 2012. The fundamental development objective sought for this programmatic series, a sector that is financially self-sustainable and operationally efficient, remains the same.
- 1.62 With respect to modifications, the most relevant is the implementation of management-improvement plans and loss-reduction plans for every electricity distribution company, as part of a structure that seeks to emulate the management contracts that existed between electricity distribution companies and the CDEEE. This contrasts with the mechanism planned for management contracts under the first operation.

C. Key results indicators

- 1.63 The achievement of program objectives will be measured taking as benchmarks the indicators and targets included in the [Results Matrix](#), which reflects the scope of the programmatic series. Program outcomes will be: (i) reduction in the system's power generation costs; (ii) decrease in fiscal transfers to the sector; (iii) reduction of total losses; (iv) improvement of the operating efficiency of the three electricity distribution companies (financial performance indicators); and (v) reduction of the average rate for end users. These outcomes must should to declining government transfers to the power sector, freeing up resources that can be redirected to other sector priorities of the government.
- 1.64 **Beneficiaries.** Reductions in power generation costs and improvements in operating and financial efficiency benefit the entire economy, as a result of better resource allocation. Improved financial sustainability will benefit electricity distributors and the CDEEE and will result in lower fiscal transfers, benefitting the economy as a whole by improving the allocation of public resources to programs with higher social value. A lower supply cost more closely reflects the real price for resources that the subsidized segments face. If the cost reduction translates into lower general rates, the industrial and commercial sectors will have lower costs for electricity consumption, achieving higher competitiveness. At the same time, the residential sector, on average, will see positive effects on income due to the reduction in average rates.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 This is the second of three individual operations under the PBP modality. Programmatic policy-based loans are the most appropriate Bank instrument to support expansion of the government's progress in the sustainable management of the sector. The PBP structure facilitates the policy dialogue between the country and the Bank, provides the necessary timeframe to implement reforms, and gives an opportunity to review the progress achieved in the first operation. The first loan was for US\$200 million.
- 2.2 **Dimensioning of the operation.** The total for this second operation will be US\$400 million. Based on the provisions of paragraph 3.27(b) of "Policy-Based Loans: Guidelines for Preparation and Implementation" (document CS-3633-2), the loan dimensioning was based on the country's fiscal resource needs. For 2018, the financing requirements of the federal government are equivalent to 5.5% of GDP. The amount of this operation is intended to cover part of that financing, accounting for 9.39% of the total financing requirements.

B. Environmental and social risks

- 2.3 According to Directive B.13 of the Environment and Safeguards Compliance Policy (document GN-2208-20 and Operational Policy OP-703), this operation requires no environmental impact classification. The proposed reforms will not generate negative environmental or social impacts.

C. Fiduciary risks

- 2.4 Based on an evaluation of the Dominican Republic's Public Financial Management Systems (August 2017) and the country's 2016 Public Expenditure and Financial Accountability report (presented in October 2016), in general terms, those public financial management systems are partially aligned with international good practices and present a medium risk level. The Dominican Republic has an extensive track record in managing external loan resources and no financial management risks are foreseen for the program. The Ministry of Finance has experience executing reform processes and will support the sector authorities that are leading the process in the power sector for which this PBP is providing resources. The proposed PBP provides unrestricted funds for budgetary support, as part of a responsible fiscal policy framework.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 The borrower will be the Dominican Republic. The borrower, acting through the Ministry of Finance as executing agency, will be responsible for program execution and use of loan proceeds. The Ministry of Finance, by conducting periodic analysis and monitoring meetings, will work jointly with the Ministry of Energy and Mines, the National Energy Commission, the Dominican Corporation of State-owned Electricity Companies, the Office of the Superintendent of Electricity, and the Social Policy Coordination Cabinet—the entities of competent jurisdiction involved—to meet programmatic commitments and consolidate sector reforms. The Ministry of Finance

will be responsible for: (i) promoting the achievement of policy objectives; (ii) providing evidence that the agreed-upon policy conditions were met; and (iii) compiling and providing information that will enable the government and the Bank to measure and evaluate program results.

- 3.2 The transfer of resources for this operation constitutes direct budgetary support. Resources will be transferred to the Ministry of Finance following the financial management procedures pursuant to national legislation. There will be a single disbursement, after the signing of the loan contract and the verification that special and general conditions precedent to the disbursement have been fulfilled. **The special contractual conditions precedent to the single loan disbursement will be: (i) fulfillment of the policy reform conditions included in the Policy Matrix (Annex II) and the [policy letter](#); and (ii) fulfillment of all other conditions established in the loan contract.** The Bank may request external audits, pursuant to the provisions of its policies.

B. Summary of arrangements for monitoring results

- 3.3 The provisions detailed in the policy, [means of verification](#), and [results](#) matrices constitute the key parameters for supervising and evaluating program results. Fulfillment of the policy commitments will be verified by the coordination team formed by the Ministry of Energy and Mines. The IDB will monitor program execution from its Country Office, as well as from the Energy Division.
- 3.4 Program evaluation arrangements. The proposed evaluation methodology will be a “before and after” analysis, which will measure the results indicators for the project baseline and after program implementation and compare the measurements to verify that the targets were achieved. Once the third operation is executed, there will be an ex post review of program results. The program team will prepare a project completion report upon completion of the third loan operation, applying the guidelines in effect for the preparation of these reports for the IDB, within six months after the disbursement for the last operation.

IV. POLICY LETTER

- 4.1 The borrower will submit to the Bank a sector [policy letter](#) outlining the main components of its macroeconomic and sector strategies and confirming its commitment to the reform measures established in the program.

Development Effectiveness Matrix		
Summary		DR-L1058
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators		
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2908	Improve the operational and tariff efficiency of the electricity sector
Country Program Results Matrix	GN-2915-2	The intervention is included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability	Evaluable	
3. Evidence-based Assessment & Solution	7.7	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	1.7	
3.3 Results Matrix Quality	3.0	
4. Ex ante Economic Analysis	N/A	
5. Monitoring and Evaluation	7.0	
5.1 Monitoring Mechanisms	1.1	
5.2 Evaluation Plan	6.0	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	B.13	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control, Internal Audit. Procurement: Information System, Price Comparison, Contracting Individual Consultant, National Public Bidding.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	The Bank has been supporting the GDR through the following TCs: "Support for the identification of potential solutions for rural energy supply DR" (DR-T1131); "" Regulatory Study for the Optimization of the Electricity Market " (DR-T1128); " Institutional strengthening of the Ministry of Mines and Energy (MEM)" (DR-T1127). Additionally, the Bank is preparing the TC "Support Evaluation of Projects to Reduce Losses and Strengthening the Governance of the Electricity Sector" (DR-T1179)

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

This loan operation is the second of a series of three, with a one-time disbursement each, which are technically linked to each other, but financed independently under the modality of Programmatic Loan to Support Policy Reforms (PBP). The general objective of the PBP is to support the Government of the Dominican Republic in the adoption and implementation of reforms and sectoral policies necessary to promote financial sustainability and operational efficiency in the electricity sector.

The documentation is well structured—a good summary of the regulatory and institutional framework of the sector is provided, as well as the process of reforms and respective achievements, including the main achievements of the first phase of the series. The current challenges of the electricity sector are identified and quantified, which are related to the legal framework and institutional strengthening, strengthening of planning and regulation, operational and financial efficiency, increase in electricity coverage, and the implementation of the targeted subsidy for electricity consumption.

The proposed solution is clearly linked to the identified challenges. Three components will be implemented: 1) Strengthening the institutional and supervisory capacity of the electricity sector; 2) Strengthening of Sectoral Planning and Consolidation of the Regulatory Framework; and 3) Managerial and operative improvement of the electric companies. The results matrix (RM) reflects the objectives of the operation and shows a clear vertical logic for the three components. The impact indicators will measure the effect of the PBP on financial sustainability and improvement of operational efficiency. The RM includes SMART indicators at the levels of products, outcomes, and impacts, with their respective baseline values, targets, and means to collect the information.

In accordance with the changes to the DEM, approved on January 30, 2018, this operation does not present an economic analysis and it includes the corresponding justification. The monitoring and evaluation plan proposes an evaluation using an ex post cost-benefit economic analysis, which is complemented by a reflexive evaluation (Before-After).

The risks identified in the risk matrix seem reasonable and are classified as Medium (2) and Low (1). Risks include mitigation actions and compliance indicators.

POLICY MATRIX

Objective: The general objective is to support the Government of the Dominican Republic in adopting and implementing the sector policies and reforms necessary to promote the financial sustainability and operating efficiency of the power sector. The specific objectives are to: (i) strengthen the institutional and supervision capacity of the power sector; (ii) strengthen sector planning and regulations; and (iii) support improvement in the management and operation of electricity distribution companies.

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Macroeconomic policy framework			
Stability of the macroeconomic policy framework.	Stable macroeconomic framework conducive to achieving program objectives and the principal points of the sector policy letter.	Stable macroeconomic framework conducive to achieving program objectives and consistent with the principal points of the sector policy letter.	Stable macroeconomic framework conducive to achieving program objectives and consistent with the guidelines set forth in the sector policy letter.
Component 1. Strengthen the institutional and supervision capacity of the power sector			
Better enable supervision of the power sector accounts, in order to enhance transparency.	Establish an institutional mechanism, approved by the Ministry of Finance, for defining and implementing a process to monitor power sector accounts and determining technical criteria to collect and validate information.	<p>The Office of the Superintendent of Electricity (SIE) has a monitoring and accountability information system that produces semiannual reports showing the progress of electricity distribution companies in meeting their targets to reduce losses and operating costs, which were established in their 2017-2022 management-improvement plans and loss-reduction plans. These reports should include:</p> <ul style="list-style-type: none"> • Loss level; • Collection percentage; • Supply percentage; and • Operating expense to revenue ratio. 	<p>SIE, based on its monitoring and accountability information system, generates periodic reports on meeting targets set by electricity distribution companies in their 2017-2022 management-improvement plans and loss-reduction plans.</p> <p>SIE has commissioned independent technical audits to monitor that electricity distribution companies meet their targets to reduce losses and operating costs. The results of these audits have been published.</p>

¹ Triggers for the third programmatic operation were updated according to the modifications made to the second operation, to ensure the program's horizontal logic.

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Improve supervision of the wholesale electricity market, in order to enhance the efficiency of power generation.	Approval and issuance by SIE of a resolution setting minimum technical values for the system's power generation plants in order to optimize generation costs.	The Coordinating Agency of the SENI prepares and submits to SIE historical reports on the system's power generation plants meeting the minimum technical values. SIE set these values through a resolution, in order to optimize generation costs.	The Coordinating Agency of the SENI continues to prepare and submit to SIE historical reports on the system's power generation plants meeting the minimum technical values, which SIE set to optimize generation costs.
		SIE prepares and submits to the Executive Branch a draft decree approving amendments to the regulations to select and pay for ancillary services for frequency regulation on the wholesale power generation market.	<p>The Executive Branch approves amendments to the regulations to select and pay for ancillary services for frequency regulation on the wholesale power generation market.</p> <p>SIE monitors that the selection of ancillary services for frequency regulation on the wholesale power generation market is being performed in accordance with the procedures approved by SIE.</p> <p>SIE issues regulations updating standards for service quality (commercial and technical) and product quality (frequency and voltage).</p>
		SIE issues and approves a resolution establishing the regulatory accounting procedures to be followed by the sector's generation, transmission, and distribution companies, with a methodology that harmonizes both accounts and costs associated with supplying electricity service, for increased transparency and efficiency.	<p>SIE conducts periodic technical audits pursuant to Electricity Act 125-01.</p> <p>SIE issues regulations establishing the necessary conditions to enable electricity distribution companies to subcontract sales activities, to improve their management.</p>

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Extend coverage of the targeted electricity consumption subsidy in a sustainable manner.	Determination by the Social Policy Coordination Cabinet (GCPS) of the target population of beneficiaries of the targeted electricity consumption subsidy (BonoLuz) and the method for evaluating whether targets are met.	GCPS targets and allocates electricity subsidies to persons found eligible under the Master Beneficiary System (SIUBEN), based on their socioeconomic situation. SIE defines the basic criteria for reviewing the subsidy policy (cross-subsidies ² and direct subsidies through BonoLuz) for electricity service users.	The Executive Branch defines and approves a new subsidy policy for the power sector, including cross-subsidies and direct subsidies (through the BonoLuz program).
	Adoption of budgetary measures for sustainable functioning of the targeted electricity subsidy, including: (i) GCPS certification that sufficient funds have been budgeted for the Special Contributions Administration Program to cover BonoLuz outlays for 2011; (ii) GCPS identification of criteria and parameters for calculating costs for allocating funds to BonoLuz in the 2012 budget policy; and (iii) creation by the Ministry of Finance of a budget line for BonoLuz in the expenditure classification for the 2012 Budget Act, for direct allocation of funds.	The Ministry of Finance, to enable payment of the targeted electricity subsidy, implements the following budgetary measures: <ul style="list-style-type: none"> • Recognition of BonoLuz as a receiving entity in the expenditure classification for each year's Budget Act; and • Allocation to BonoLuz of the necessary financial resources for the subsidy. 	The GCPS is implementing budgetary measures to enable payments for the new targeted electricity subsidy mechanism.

² A **cross-subsidy** is a regional pricing structure based on the amount of energy consumed, where users with higher consumption pay a rate higher than the benchmark rate established by SIE, benefitting users with lower consumption, who pay a rate lower than the benchmark.

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Strengthen the institutional and coordination capacity of the sector.		The National Congress approves the law establishing the Ministry of Energy and Mines as the agency responsible for formulating and administering national energy policy and metallic and nonmetallic mining policy. This ministry is operating and has an allocated and approved budget.	<p>The CNE, as the institution attached to MEM pursuant to Law 100-13, coordinates execution of its annual work plans with MEM.</p> <p>MEM allocates part of its budget to implement programs in various areas, such as: access, energy efficiency, planning, and supervision.</p> <p>MEM has implemented the provisions of the Basic Regulations.</p>
Strengthen institutional capacity to develop the country's rural electrification.	Preparation by the Dominican Corporation of State-owned Electricity Companies (CDEEE) of a policy document with an institutional design in support of the Rural Electrification Plan.	MEM strengthens its capacity to carry out its rural and suburban electrification development responsibilities, by preparing a biannual plan of operations.	<p>MEM has prepared and approved an energy access plan based on international good practices for planning.</p> <p>The CDEEE's rural electrification unit will implement the biannual work plans prepared by MEM in coordination with it.</p> <p>The rural and suburban electrification unit has the resources necessary to promote and finance rural and suburban electrification programs and plans.</p>

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Component 2. Strengthen sector planning and consolidate the regulatory framework			
Ensure efficient expansion of the power generation and transmission systems.	<p>Preparation by the CDEEE and approval by the CNE of the 2011-2025 Indicative Plan for Expansion of Generation and Transmission, covering:</p> <ul style="list-style-type: none"> • Renewable energy resources for power generation • All potential options for viable power generation in the Dominican Republic • Estimates for covering 100% of demand • Expansion at minimum marginal cost. 	<p>The electricity distribution companies contract for the expansion of power generation and Empresa de Transmisión Eléctrica Dominicana (ETED) contracts for new transmission projects, in accordance with the 2011-2025 Indicative Plan for Expansion of Generation and Transmission approved by the CNE.</p>	
		<p>SIE prepares the following baseline studies, as part of the update of the 2018-2030 Indicative Plan for Expansion of Generation and Transmission:</p> <ul style="list-style-type: none"> • Study of maximum penetration of nonconventional renewable energy in the Interconnected National Electricity System (SENI) • Study to determine value added for transmission <p>And the CDEEE conducts the following study:</p> <ul style="list-style-type: none"> • Study to prepare a master plan to expand the distribution system. 	<p>MEM has approved the 2018-2030 Indicative Plan for Expansion of Generation and Transmission, including nonconventional renewable energy sources and an updated study on electricity demand.</p>
		<p>The electricity distribution companies execute tendering and contracting for power generation through competitive processes, pursuant to Article 110 of Electricity Act 125-01.</p>	<p>The electricity distribution companies continue contracting for power generation through competitive processes.</p> <p>SIE approves the regulatory framework for distributed generation.</p>

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Improve efficiency in the management of electricity demand.		<p>MEM strengthens its institutional capacity for energy efficiency programs, through:</p> <ul style="list-style-type: none"> • Establishment of a deputy minister's office responsible for proposing and administering energy savings and energy efficiency policy; and • Preparation of a report on energy efficiency initiatives and projects. 	MEM has approved and is implementing a National Energy Efficiency Program for the public sector.
	<p>Preparation by the CNE of a bill containing the legal framework for the National Energy Efficiency Program, covering:</p> <ul style="list-style-type: none"> • Institutional design • Financing mechanisms • Promotion and development • Tax exemption • Tax incentives • Labeling programs • Use of efficient products. 	<p>MEM prepares and submits for public consultation a new draft bill with the legal framework for the National Energy Efficiency Program, including:</p> <ul style="list-style-type: none"> • Promotion and development • Tax incentives • Labeling programs • Use of efficient products. 	The Executive Branch submits to the National Congress a bill with the legal framework for the National Energy Efficiency Program.

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Support design and implementation of a new, efficient, and flexible rate regime that will promote sector sustainability.	<p>Preparation by SIE, and submittal to the Office of the Legal Counsel of the Executive Branch, of the draft bill to modify the rate regime and make it more flexible, including:</p> <ul style="list-style-type: none"> Provisions to implement the new regime; An automatic adjustment mechanism for the electricity technical rate³ that reflects changes in generation, transmission, and distribution costs. 	<p>SIE approves and issues a resolution for a benchmark rate,⁴ effective as of 1 January 2023, based on the following parameters:</p> <ul style="list-style-type: none"> Up to 15% in losses; 97% in collections; An operating expense to revenue ratio of 10%; and The capital cost index for power sector investments set by the Central Bank. 	SIE approves and is applying the transition rate ⁵ regime.
		<p>SIE discloses, by publishing on its website, the methodology to calculate and project the implicit subsidies provided to electricity service users, which will be based on the difference between the benchmark rate and the applied rate.⁶</p>	SIE continues to disclose, by publishing on its website, the methodology to calculate and project the implicit subsidies provided to electricity service users, which will be based on the difference between the benchmark rate and the applied rate .

³ The **technical rate** covers the supply costs for distributors, which are supported by a competition regime pursuant to Law 125-01, plus the technical losses between the point of injection by generators and the point of power withdrawal by consumers who are billed for the service, and the costs associated with transmission and distribution (expansion, operation, and maintenance costs, and operating margins). There is a maximum 3% charge for nonbillable power. (Reference: Electricity Act 125-01).

⁴ The **benchmark rate** refers to a technical rate with less ambitious targets set by SIE (up to 15% in losses, 97% in collections, an operating expense to revenue ratio of 10%, and the capital cost index for power sector investments set by the Central Bank), which the State intends to implement as of January 2023.

⁵ The **transition rate** is the rate to be charged to users during the 2019-2022 period, until the benchmark rate is reached in January 2023.

⁶ The **applied rate** is the rate actually charged to all electricity service customers on their bills, which is set and published on a monthly basis by SIE.

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Component 3. Improve the management and operation of the electricity companies			
Improve the operational and financial efficiency and sustainability of power distribution.	Improve the operational and financial efficiency of electricity distribution companies by placing them under management contracts with the corporate management of CDEEE, with targets regarding electricity loss reduction, financial performance, number of registered customers, and number of users with 24-hour service.	<p>The Board of Directors of every electricity distribution company approves its 2017-2022 management-improvement plans and loss-reduction plans, which include annual targets in order to achieve the following targets by 2022:</p> <ul style="list-style-type: none"> • 15% in total electricity losses; • 97% in collections; • An operating expense to revenue ratio of 10%;⁷ and • The capital cost index for power sector investments set by the Central Bank. 	<p>Electricity distribution companies have achieved the results included in their management-improvement plans and loss-reduction plans for the applicable period.</p> <p>The Executive Branch has approved an accountability regime with measures to be implemented if electricity distribution companies fail to meet operational and investment indicators.</p>
		<p>The Ministry of Energy and Mines and the Ministry of Finance issue regulations establishing the criteria to determine the government institutions that are not subject to service interruptions, pursuant to Electricity Act 125-01.</p>	<p>The Ministry of Finance issues regulations establishing the procedure for complete payment to electricity distribution companies of the electricity service bills for government institutions not subject to service interruptions.</p> <p>The Ministry of Finance, electricity distribution companies, and government institutions not subject to service interruptions apply the regulations that establish the criteria to determine which government institutions are not subject to service interruptions and the procedure for complete payment of their electricity service bills.</p>

⁷ This number is subject to the outcome of applying regulatory accounting to 2017 results.

Objectives	First programmatic operation 2011	Second programmatic operation 2018	Triggers Third programmatic operation ¹
Improve the corporate management of the CDEEE and the electricity distribution companies.	CDEEE approval of the use of an integrated resource administration system at the electricity distribution companies, to improve the timeliness and quality of financial and business information.	Electricity distribution companies use the administrative module of the integrated resource administration system.	Electricity distribution companies and the CDEEE prepare annual audited financial statements, based on the reports generated by the administrative, financial, and business modules of the integrated resource administration system.
	Electricity distribution companies fully implement the financial module of the integrated resource administration system.	Electricity distribution companies use the financial and business modules of the integrated resource administration system.	

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/18

Dominican Republic. Loan ____/OC-DR to the Dominican Republic
Power Sector Sustainability and Efficiency Program II

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Dominican Republic, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Power Sector Sustainability and Efficiency Program II. Such financing will be for the amount of up to US\$400,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on __ _____ 2018)