

TC Document

I. Basic Information for TC

▪ Country/Region:	JAMAICA
▪ TC Name:	Supporting the Recovery of the Energy Sector in Jamaica from the COVID-19 Pandemic
▪ TC Number:	JA-T1191
▪ Team Leader/Members:	Masson, Malaika Ebony Anietia (INE/ENE) Team Leader; Madrigal Martínez, Marcelino (INE/ENE) Alternate Team Leader; Baltodano Carrasquilla, Fabiola (INE/ENE); Blair, Sudaney (CCB/CJA); Fishpaw, Heidi Zoe (VPS/ESG); Goldenberg Lopez, Federico (INE/ENE); Herrera, Rene (VPC/FMP); Jainauth-Umrao, Naveen (VPC/FMP); Jimenez Mosquera, Javier I. (LEG/SGO); Johnson, Rochelle Simone (INE/ENE); La Valley, Adriana (CCB/CJA); Montanez, Leopoldo (INE/ENE); Robberechts, Elizabeth M. (INO/EN) Sudaney (CCB/CJA); Fishpaw, Heidi Zoe (VPS/ESG); Goldenberg Lopez, Federico (INE/ENE); Herrera, Rene (VPC/FMP); Jainauth-Umrao, Naveen (VPC/FMP); Jimenez Mosquera, Javier I. (LEG/SGO); Johnson, Rochelle Simone (INE/ENE); La Valley, Adriana (CCB/CJA); Montanez, Leopoldo (INE/ENE); Robberechts, Elizabeth M. (INO/EN)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	No
▪ Date of TC Abstract authorization:	13 Apr 2020.
▪ Beneficiary:	Ministry of Science, Energy and Technology (MSET) and Jamaica Public Service (JPS)
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC Strategic Development Program for Infrastructure(INF)
▪ IDB Funding Requested:	US\$200,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	September 7th, 2020
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	INE/ENE-Energy
▪ Unit of Disbursement Responsibility:	CCB/CJA-Country Office Jamaica
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law; Environmental sustainability

I. Objectives and Justification of the TC

- I.1 The general objective of this TC is to support the Government of Jamaica (GOJ) to recover from the effects of the COVID-19 pandemic, as it relates to reliable access to electricity and assisting vulnerable communities. The specific objectives of this TC are to: (i) support the development of a National Electricity Loss Reduction Plan (PLANREP) for Jamaica; (ii) facilitate the definition and early identification of projects associated with the PLANREP; and (iii) support interventions for vulnerable communities.

- I.2 In March 2020, the Government of Jamaica (GOJ) commenced its implementation of COVID-19 responses, including travel restrictions, and closure of businesses and schools. As the sole vertically integrated electric utility licensed to transmit, distribute, and dispatch electricity in Jamaica, the Jamaica Public Service (JPS) immediate actions were to keep lights on and ensure a reliable power supply to support business continuity. While teleworking, residential customers have experienced a significant increase in energy usage and high electricity bills. The Regulator (OUR) recorded a 200% increase in complaints from customers with spikes in their electricity bills.¹ JPS also reported a 44% increase in queries due to similar reasons between March and April compared to 2019 and asserted that the main drivers for the spike were the depreciation of the dollar, increase in energy usage, and fuel costs.² In local media, JPS further explained that bills were inflated by approximately 20% as a result of electricity theft,³ therefore, distorting electricity costs, primarily affecting vulnerable customers. JPS experienced a 10% decline in overall energy sales⁴ and liquidity constraints due to supply chain disruption, an increase in non-payment of electricity bills, and electricity theft due to the pandemic. Both the Minister of Science, Energy and Technology (MSET) and customers have challenged the utility to be more transparent in addressing commercial losses and implementing sustainable loss reduction initiatives.
- I.3 In 2018, JPS recorded total losses of 26.27% with 18.33% primarily attributed to electricity theft and that approximately 200,000 customers (23% of customer base) illegitimately connected to their network. Over the past five years (2014-2018), JPS made investments of US\$51M to address electricity losses by undertaking initiatives,⁵ but these initiatives only resulted in less than a 1% reduction in losses.⁶ Commercial losses cost JPS from US\$9M to US\$16M⁷ annually in penalties, which is approximately 0.1% of GDP.⁸ Ultimately, this expense diverts approximately 16%⁹ of capital investments from reinforcing the grid and contributes to a growing sense of mistrust between the utility, customer and government to provide reliable access to electricity. Understanding and attending electricity losses therefore not only has important macroeconomic implications but it is critical for the financial health of the utility, and socioeconomic balance in the country. That is why the MSET has made losses a key element in the next revision of the Government's Integrated Resource Plan (IRP) for electricity demand forecasting. Attending to losses from a planning perspective therefore creates the opportunity to improve energy efficiency in the systems, thereby reducing electricity generation and fossil fuels. This opportunity benefits the environment via reduced greenhouse gas emissions (GHG) as well as

¹ [OUR Investigating Complaints of High Electricity Bills](#)

² [JPS Denies Fault for Shocking Light Bills](#)

³ [Energy Minister Says It's "Unjust" For JPS To Bill Customers for Electricity Theft Losses](#)

⁴ [JPS sees 10 per cent decline in revenues as a result of COVID-19](#)

⁵ Some of the initiatives undertaken were energy audits and investigations to remove illegal connections, socio-economic intervention through their community renewable program to regularize customers, the deployment of smart technologies such as smart meters, check meters, and residential anti-metering infrastructures (RAMI), and voltage standardization program.

⁶ [JPS 2019-2024 Rate Case Application](#)

⁷ [JPS 2019-2024 Rate Case Application](#)

⁸ [STATIN, 2018 \(J\\$ 2,025,075M\) and JPS Annual Adjustment 2018\(J\\$2.04M\)](#)

⁹ Losses penalty (US\$16 per annum) as a percentage of JPS proposed capital investment (US\$504M) in the 2019-2024 Rate Case Application.

socially benefiting the distribution company and its customers due to an increase in transparency and trust ([IDB, 2017](#)).¹⁰

- I.4 Addressing electricity loss reduction requires a collaborative approach that includes the alignment of policy and investments by the Government, the utility, the regulator, customers, and other stakeholders.¹¹ Particularly, during the pandemic, the most vulnerable customers and communities can be disproportionately impacted given that they are unable to pay their bills, and when service is cut, the vicious circle of mistrust of the utility and apathy toward future payments sets in. JPS has posited proposals to the GOJ in a bid to lower electricity costs and increase efficiency during the pandemic¹² including specific measures to assist the disabled and elderly community to ensure reliable access to electricity. However, the pandemic exposes the underlying challenges in the system where electricity losses require not only a multi-stakeholder collaboration approach, but also a comprehensive approach, tackling both technical and non-technical losses. The IDB along with the USAID¹³ and related agencies are interested in continuing efforts to collaborate with the GOJ and key energy stakeholders in defining and identifying national loss reduction strategies and projects to reduce losses, increase energy efficiency and improve reliability. Amid covid-19, there are competing priorities at the MSET, the GOJ, and other stakeholders therefore, effective coordination is imperative to manage and facilitate workshops to achieve consensus on the critical initiatives with a multi-sector focus for early identification of projects to support vulnerable communities.
- I.5 With the onset of the pandemic, the Bank of Jamaica predicts that the unemployment rate will rise to 12%, which will result in widespread layoffs that would disproportionately affect vulnerable communities. JPS's high losses prone communities primarily include vulnerable communities, and the increase in unemployment will further compound these communities' ability to pay, thereby limiting their access to reliable electricity. JPS reported that commercial losses climbed to 26.68% in June 2020 in comparison to December 2019 (26.05%) due to the economic impact and realities of covid-19. Also, JPS is not offering wide-scale flexi-payment arrangements and encouraging all customers to pay on time. The development of the National Electricity Loss Reduction Plan is to tailor the activities to address commercial losses primarily for vulnerable communities to reduce losses, improve the quality of service and provide continuous access to reliable electricity. In this context improving effective response to reduce losses –whose costs are passed onto consumers— will allow cost reduction that make electricity services more affordable to the most vulnerable while ensuring electricity theft by consumers that can pay is completely reduced. In addition, reducing losses in a time where COVID has impacted demand and ability of consumers to pay, will be key to ensure that the financial sustainability of the electricity services provider is not damaged to appoint where continuity of services is put in danger.

¹⁰ The vertically integrated public electricity sector in Ecuador controlled electricity losses by establishing and implementing a National Loss Reduction Plan. Through training, focused investments, continuous monitoring and the involvement of the country's authorities at all levels, the implemented actions reduced electricity losses by 10% points in 7 years.

¹¹ [OUR defends anti-theft campaign](#)

¹² [JPS Working to Ease Burden On Customers During COVID-19 Outbreak](#)

¹³ USAID has collaborated with the GOJ and JPS on loss reduction projects that led to increase access to electricity in [low-income communities](#).

- I.6 The development of a National Electricity Loss Reduction Plan can provide a roadmap of initiatives and defining the role of key stakeholders with specific investments and targets over a defined period is crucial for the energy sector's recovery. Additionally, this will help to further facilitate the adaption of regulatory, legal and institutional framework and build the institutional capacity within the public and private sector to implement the National Electricity Loss Reduction Plan for Jamaica. Importantly, it will also provide targets on electricity loss reduction that can help in terms of future electricity planning and investments within the context of Jamaica's IRP¹⁴.
- I.7 **Strategic Alignment.** This TC is aligned with the Country Strategy with Jamaica 2016 - 2021 (GN-2868) in the strategic objective to of: (i) Improving Public Sector Management, by supporting the policy and planning to improve the financial sustainability of the country energy sector; and (ii) to Reinforce Human Capital protection and development by as it will analyze and address the access to reliable electricity service for the vulnerable communities. This TC is consistent with the Bank's Update to the Institutional Strategy 2010-2020, in the challenges of: (i) Social Inclusion and Equality with a support package to ensure reliable access to basic services such as electricity to vulnerable communities; and (ii) Productivity and Innovation by promoting the use of EE and RE technology. Furthermore, this TC is aligned with the cross cutting themes of: (i) Institutional Capacity and Rule of Law by providing support to policy and planning in the energy sector to achieve financial sustainability and improved efficiency in the sector; and (ii) Environmental Sustainability by addressing the climate change adaptation and mitigation through the work with vulnerable communities with solar PV and energy efficient technologies. This TC is aligned with the results framework of the Ordinary Capital Strategic Development for Infrastructure Program (GN-2919-1) for it support improvements in public policy design and dissemination of lessons learned, by financing high quality inputs for the Electricity Sector such as the National Electricity Loss Reduction Plan.

II. Description of Activities/Components and Budget

- II.1 **Component I: Development of a national electricity loss reduction plan (US\$150,000).** This component will provide a roadmap of: (i) key initiatives and goals to monitor the loss reduction targets, (ii) the role of stakeholders primarily, the Ministry of Science, Energy, and Technology (MSET), JPS, the Regulator (OUR), (iii) the investment and technologies needed, (iv) socio-economic and political initiatives to support the plan, (v) the adaption of the regulatory, legal and institutional framework over a defined period and (vi) communication plans for initiatives to implement. The plan aims to reduce commercial losses to improve the quality of service, affordability, and provide reliable electricity access, primarily to vulnerable communities¹⁵. The PLANREP will be presented to all key stakeholders (MSET, JPS, OUR) via a virtual conference and the national loss reduction strategies will be agreed by the Principal Director at the MSET.

¹⁴ [Jamaica's first IRP](#) established in 2018

¹⁵ The methodology used to identify vulnerable communities is based on the selection criteria defined in the JPS Five Year Business Plan 2019- 2024. JPS along with the GOJ will considered three targeted communities that will on-board at least 400 customers per community, approximately 0.2% of the JPS customer base.

II.2 Component II: Technical Assistance for Programme Coordination(US\$45,000).

This component will facilitate the technical support for the development and review of the PLANREP and the subsequent projects to be prioritized, associated with the PLANREP. The outputs for the component are: (i) Workshops between the government, utility, funds donors, and key stakeholders to provide technical assistance in order to identify projects and targets for vulnerable communities associated with PLANREP; and (i) identification of project aligned with the PLANREP.

II.3 The total cost and the amount that would be made available by the IDB for the proposed TC is US\$200,000 to finance the expected outputs by main component.

Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Counterpart Funding	Total Funding
Component I: Development of a National Electricity Loss Reduction Plan for Jamaica	National Electricity Loss Reduction Plan presented	\$150,000.00	-	\$150,000.00
Component II: Technical Assistance for Programme Coordination,	Workshops organized Identification of projects	\$45,000.00	-	\$45,000.00
Contingencies	Contingencies	\$5,000.00	-	\$5,000.00

II.4 Expected Results: The expected results of this TC are: (i) the presentation of the National Electricity Loss Reduction Plan for Jamaica by the Principal Director of Energy in MSET, and (ii) definition and therefore quicker identification of projects to support vulnerable communities associated with the National Electricity Loss Reduction Plan, once the Plan has been developed. The expected output of this TC is to set feasible targets/indicators on electricity loss reduction that will feed into the next revision of the IRP providing greater certainty on the level of investment required for new generation capacity and grid modernization¹⁶.

II.5 Reporting, Monitoring and Evaluation: Bi-monthly meetings will be carried out between the Bank and the consultants in coordination with the TC and will be monitored the progress of the expected results, as defined in the result matrix. The IDB team will be responsible for monitoring the evolution of these indicators and reports its physical and financial progress by output and component.

III. Executing Agency and Execution Structure

III.1 This Technical Cooperation will be executed by the IDB's Energy (ENE) division by hiring individual consultant(s) and consulting firm(s) that will support the GOJ (MSET) and the Jamaica Public Service (JPS) in developing the National Electricity Loss

¹⁶ [Jamaica's first IRP](#) established in 2018

Reduction Plan to reduce commercial losses, improve affordability and provide reliable electricity access to vulnerable communities in Jamaica, The TC will be led by Malaika Masson, Senior Regional Energy Specialist (CJA/ENE), malaikac@iadb.org, under the supervision of Ariel Yopez (INE/ENE) and Therese Turner (CCB/CJA).

III.2 The IDB is best placed to facilitate the role of coordinating the information and activities with a range of public and private stakeholders in the energy sector as well as potentially leveraging funds to support these activities. This is particularly the case, during an emergency such as the COVID-19 pandemic, in which public resources and personnel are stretched. The GOJ has requested the IDB's support in addressing commercial losses in Jamaica, and the requested information can be found in Annex I.

III.3 **Procurement.** The activities to be executed are included in the Procurement Plan (Annex IV) and will be contracted in accordance with the Bank's procurement policies and procedures. The Bank, through INE/ENE, will contract individual consultants and consulting firms in accordance with the Bank's current procurement policies and procedures as follows: (i) the individual consultants will be hired in accordance with the AM-650 Administrative Manual 'Complementary Workforce'; (ii) the procurement process for consulting firms will follow the Bank's Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-4) and the related Operational Guidelines (OP-1155-4) for hiring consulting services of intellectual nature; and (iii) the procurement of non-consultant services will follow the Bank's Corporate Procurement Policy (GN-2303-28). The initial procurement plan provides information on the contracts foreseen and their applicable monitoring and contracting methods.

IV. Major issues

IV.1 The main risk would be delayed as it relates to the capacity of the government to support this agenda during this emergency period (covid-19) and the lack of coordination with and among multiple stakeholders. For that reason, the IDB recommends that it be the Executing Agency and take on the role of stakeholder mediation and facilitation.

V. Exceptions to Bank policy

V.1 The TC presents no exceptions to the Bank's Policies.

VI. Environmental and Social Strategy

VI.1 Since this TC will finance intellectual products, mainly the development of the National Electricity Loss Reduction Plan, and no infrastructure will be financed, there should be no significant environmental or social risks or impacts and therefore has been classified as a Category C. However, the development of the Plan could lead to investments in energy infrastructure and decisions about which infrastructure projects to finance in the future. Therefore, the consultancies to be financed by the TC should consider environmental and social criteria in the development of the Plan, and the workshops that will discuss energy projects, in addition to other criteria being considered. If any technical studies will be financed by the TC related to energy infrastructure being considered as part of the Plan, they should include an

environmental and social criterion for rating and selecting that infrastructure. Also, the engagement of stakeholders in vulnerable communities described under Component 2 in the development of the Plan is a good practice to ensure the Plan addresses their needs as envisioned, and the level of participation of vulnerable stakeholders like the elderly and disabled is an indicator of the social sustainability and should be part of evaluations to be carried out of and by the TC.

Required Annexes:

[Request from the Client_27267.pdf](#)

[Results Matrix_63169.pdf](#)

[Terms of Reference_81291.pdf](#)

[Procurement Plan_27339.pdf](#)