Board of Executive Directors
Short Procedure
Expires on 13 October 2017

PR-4510
5 October 2017
Original: English
Public
Simultaneous Disclosure

To: The Executive Directors

From: The Secretary

Subject: Jamaica. Proposal for nonreimbursable investment financing for the "Energy Management and Efficiency Programme"

Basic Information:

Operation type ..... Investment Grant Operations (IGR)

Beneficiary ..... Jamaica

Amount ..... up to €9,170,000

Source ..... European Union Caribbean Investment Facility

Inquiries to: Malaika Masson (telephone Country Office in Jamaica 876-764-0823) or Christiaan Gischler (extension 3411)

Remarks: The attached operation is being submitted according to the new rules and procedures established pursuant to Resolution DE-103/14, approving the "Proposal to Modify the Procedures for Approval of Nonreimbursable Operations. Approved version" (document GN-2752-4).

The Directors are requested to inform the Secretary, in writing, no later than **13 October 2017**, if they wish to interrupt this procedure. If no such communication is received by that date, the attached resolution will be considered approved by the Board of Executive Directors, and a record to that effect will be made in the minutes of a forthcoming meeting.

Reference: DR-398-17(1/15), CS-3953-3(6/17), GN-2469-2(3/08), DE-44/08, GN-2470-2(3/08), DE-45/08, OP-219-3, GN-2752-4(8/14), DE-103/14, PR-4467(11/16), DE-136/16

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

JAMAICA

EUROPEAN UNION CARIBBEAN INVESTMENT FACILITY (EU-CIF)
ENERGY MANAGEMENT AND EFFICIENCY PROGRAMME
NON-REIMBURSABLE INVESTMENT FINANCING

(JA-G1003)

GRANT PROPOSAL

This document was prepared by the project team consisting of: Malaika Masson (ENE/CJA) Team Leader; Christiaan Gischler (INE/ENE) Alternate Team Leader; Javier Cuervo, José Antonio Urteaga, Veronica R. Prado, Javier Garcia, Stephanie Suber (INE/ENE); Pilar Jiménez (LEG/SGO); Alejandra Boibo, Matheus de Paula (LEG/CLA); Ileana Pinto (VPC/FMP); Steven Collins (VPS/ESG); Kai Hertz, Dimas Tejero (ORP/GCM); Rene Herrera, Naveen Jainauth (FMP/CJA); Anaitée Mills (CSD/CCS); Jodykay Maxwell and Sheries Ruddock Simpson (CCB/CJA).

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2. Monitoring and Evaluation Arrangements
3. Environmental and Social Management Report (ESMR)
4. Procurement Plan

OPTIONAL

1. Technical Design – Selecting Government Facilities for EE and RE Retrofits: Methodology
2. Technical Design – Investment Grade Audits (IGAs)
3. Technical Design – Capacity Building in the Ministry of Science, Energy and Technology
4. Cost Benefit Analysis
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ABBREVIATIONS	
BAU	Business-As-Usual
BOE	Barrels of Oil Equivalent
CO_2	Carbon Dioxide
CBA	Cost Benefit Analysis
CORE	Co-financing of Renewable Energy and Energy Efficiency
GHG	Green House Gas
GDP	Gross Domestic Product
GOJ	Government of Jamaica
GWh	Gigawatt-hour
EA	Executing Agency
EE	Energy Efficiency
EEC	Energy Efficiency and Conservation
EECTA	Energy Efficiency and Conservation Technical Assistance Report
EMEP	Energy Management and Efficiency Programme loan (3877/OC-JA)
EMEPCC	Energy Management and Efficiency Project Coordination Committee
ESA	Environmental and Social Assessment
ESMR	Environmental and Social Management Report
EU-CIF	European Union Caribbean Investment Facility
FMM	Facility Maintenance and Management
HEPA	Health, Education and Public Agency
IDB	Inter-American Development Bank
INDC	Intended Nationally Determined Contribution
IGAs	Investment Grade Audits
IGR	Investment Grant
IMF	International Monetary Fund
IRP	Integrated Resources Plan
JICA	Japan International Cooperation Agency
JPSCo	Jamaica Public Service Company Limited
LED	Light-Emitting Diode
LNG	Liquefied Natural Gas
MSET	Ministry of Science, Energy and Technology
MW	Megawatt
NECEP	National Energy Conservation and Efficiency Policy
NEP	National Energy Policy
OC	Ordinary Capital
OM	Operation Manual
PAGODA	Pillar Assessed Grant or Delegation Agreement
PCJ	Petroleum Corporation of Jamaica
PCR	Project Completion Report
PEU	Project Executing Unit
RE	Renewable Energy
kWh	Kilowatt-hour
UNFCCC	United Nations Framework Convention on Climate Change

PROJECT SUMMARY
JAMAICA
EUROPEAN UNION CARIBBEAN INVESTMENT FACILITY (EU-CIF)
ENERGY MANAGEMENT AND EFFICIENCY PROGRAMME
NON-REIMBURSABLE INVESTMENT FINANCING
(JA-G1003)

<table>
<tr><th colspan="5">Financial Terms and Conditions</th></tr>
<tr><td colspan="3" rowspan="2">Beneficiary: Government of Jamaica</td><td>Amortization Period:</td><td>N/A</td></tr>
<tr><td>Original WAL:</td><td>N/A</td></tr>
<tr><td colspan="3" rowspan="2">Executing Agency: Petroleum Corporation of Jamaica (PCJ)</td><td>Disbursement Period:</td><td>4 years</td></tr>
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<tr><td>Source</td><td>Amount (US$)</td><td>%</td><td>Supervision and Inspection Fee:</td><td>N/A</td></tr>
<tr><td rowspan="2">IDB (EU-CIF) in Euros (€):</td><td rowspan="2">9,170,000</td><td rowspan="2">100</td><td>Interest Rate:</td><td>N/A</td></tr>
<tr><td rowspan="2">[US$ equivalent]</td><td rowspan="2">10,000,000[a]</td><td rowspan="2">100</td><td>Credit Fee:</td><td>N/A</td></tr>
<tr><td rowspan="2">Currency of Approval:</td><td rowspan="2">N/A</td></tr>
<tr><td>Total in €:</td><td>9,170,000</td><td>100</td></tr>
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<tr><td colspan="5">Special Contractual Conditions prior to the first disbursement: (i) the Government of Jamaica (GOJ) shall provide evidence that the Project Executing Unit (PEU) of the EMEP loan, as well as its Programme Manager, Financial Specialist and Procurement Specialist have the authority to execute this operation; (ii) the project Operation Manual of the EMEP loan has been updated to include the execution of this operation, including Annex B of the Environmental and Social Management Report (ESMR); and (iii) an agreement between the Beneficiary and the Executing Agency (EA) for the transfer of the resources of this operation together with project implementation obligations has entered into effect (¶3.8).</td></tr>
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[a] The exchange rate used on May 1st, 2017 was 0.917 to one US Dollar. The EU PSG contribution payments will be made in Euros (€), and immediately converted to US Dollars when received by the Bank’s Finance Department. The Finance Department will inform the Project Team of the exchange rate at which each contribution is converted.

[b] SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

[c] 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, Justification

1.1 In December 2016, the Board of Directors of the Inter-American Development Bank (IDB) approved a US$30 million loan operation for Jamaica entitled "Energy Management and Efficiency Programme" (EMEP, 3877/OC-JA or "EMEP loan"), which comprises US$15 million resources from the Ordinary Capital (OC) of the Bank and the remaining US$15 million to be financed by the Japan International Cooperation Agency (JICA) on a parallel co-financing basis, through the Co-financing of Renewable Energy and Energy Efficiency (CORE)[1] mechanism. The current document proposes the approval of a non-reimbursable investment operation ("Investment Grant operation" or "IGR") to complement the EMEP loan, for EUR (€) 9.17 million (approximately US$10 million) to be granted by the European Union Caribbean Investment Facility (EU-CIF).[2] The resources would be transferred to the IDB, as administrator, by means of a project specific grant subject to the Framework Administrative Agreement between the European Union and the IDB dated June 10, 2015 (the EU-IDB Framework Agreement).[3] The EMEP loan and this IGR will together be referred to as "the Programme".

1.2 Jamaica is the third largest island in the Caribbean region with an area of 11,000 square kilometers and a population of 2.72 million people. Jamaica is a small, open economy, characterized by low growth and high debt.[4] Between 2003-2015, Gross Domestic Product (GDP) growth rates averaged 0.5%. Like many Caribbean countries, Jamaica produces very little energy from indigenous resources, relying on fossil fuels imports that averaged 20.4 million Barrels of Oil Equivalent (BOE) per annum between 2010-2015.[5] The state-owned company Petrojam, (a subsidiary of the Petroleum Corporation of Jamaica (PCJ), imports and operates a crude oil refinery of 35,000 BOE per day, to produce heavy and light refined products.[6] Between 2010-2015, the import of petroleum products cost an annual

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1 CORE is a co-financing mechanism established in March 2012 and amended in March 2014 and April 2016 where by JICA commits to provide Latin America and the Caribbean region with highly concessional loans of up to US$3 billion as a co-financing resource with the Bank to support RE and EE projects, aiming at expanding high quality infrastructure in the region. The resources will be provided by JICA on a joint co-financing basis, which means that the IDB will act as project administrator but the funds will not be channeled through the IDB.

2 The EU-CIF is a European Union regional financing blending facility aimed at mobilizing resources for development projects by combining grants from the European Development Fund with other resources, such as loans, to leverage additional financing and achieve investments in infrastructure.

3 The Framework Agreement amends, supplements and interprets the EU standard contractual conditions, known as the Pillar Assessed Grant or Delegation Agreement (PAGODA), to adapt them to the specificities of the IDB. Approved by document GN-2610-2, it determines the applicability of certain procurement rules (see ¶3.11) as well as additional rules on eligibility of expenses, budget modification, reporting and the integration of a communications and visibility plan, among others. In accordance with the Framework Agreement, the IDB will act as project administrator and the funds will be channeled from the EU to the Beneficiary through the IDB.

4 Over the last three decades, the debt-to-GDP ratio has rarely been below 100 percent. More recently, debt-to-GDP peaked at over 140 percent in 2013. As a result of the IMF-supported fiscal consolidation started in 2013, debt-to-GDP is on a downward trajectory, standing at 115.2 percent as of March 2017.

5 Ministry of Science, Energy and Technology (MSET) Petroleum Import statistics online. http://mset.gov.jm/petroleum-imports.

6 2015, Petrojam imported 8.8 million barrels of crude oil for refining into petroleum products, at a cost to the government of US$414.3 million. The refinery also imported 7.5 million barrels of refined products (inclusive of anhydrous ethanol) at a cost of US$476.3 million.

average of US$1.9 billion or 13.5% of the GDP.[7] Oil imports represent more than one-third of Jamaica's total import bill, and more than 125% of the country's total merchandise exports.

1.3 The electricity sector (28%) is the second highest end consumer of energy after the road and rail (30%); bauxite and alumina processing (14%); aviation and shipping (21%); residential (4%) with the remaining 2.8% in petroleum refining, sugar and other manufacturing. The Jamaica Public Service Company Limited (JPSCo) sits at the heart of the electricity generation sector and has legal responsibility for the transmission, distribution and dispatch of electricity. Generation activities were liberalized in 2001, and JPSCo facilitates the production of electricity by Independent Power Producers for sale to the company through Power Purchase Agreements. Around 94% of JPSCo's 902.8MW installed capacity is sourced from imported petroleum products. Despite the decrease from 0.39 to 0.27US$/kWh, between 2012-2015 Jamaica's average electricity tariff remained high, compared to other countries in the region.[8] Electricity bills reflect high tariffs because fuel costs to generate electricity represent approximately 50% of the tariff, there are significant system losses on the national grid[9] and electricity generation depends on old, inefficient diesel generators.[10]

1.4 The national inventory data for Green House Gas (GHG) Emissions in Jamaica[11] (base year 2012) shows a total of 14.3 million tons of Carbon Dioxide (CO2) emissions, with 19.8% produced by electricity and heat production, followed by transportation contributing 12.4%. As a party to the United Nations Framework Convention on Climate Change (UNFCCC), Jamaica signaled its commitment to reduce emissions, as described in its Intended Nationally Determined Contribution (INDC).[12] This commits the country to mitigate the equivalent of 1.1 million metric tons of CO2 per year by 2030 versus the Business-As-Usual (BAU) scenario. The reduction target is based on the government's National Energy Policy (NEP) focusing particularly on Energy Efficiency (EE) initiatives in the electricity and transportation sectors.

1.5 **Strengthening Electricity Planning.** Jamaica is seeking an energy sector that is economically and environmentally sustainable, charting a new path to energy security, based on more efficient systems and with the inclusion of domestic Renewable Energy (RE) sources. With regards to electricity planning, the new Electricity Act (2015), which replaced the 1890 Electric Lighting Act, transferred electricity planning from the Office of Utilities Regulation to the Ministry of Science, Energy and Technology (MSET). The PCJ, a separate legal entity from the Executive Branch, is mandated to develop and promote Jamaica's energy resources including facilitating RE and EE in the public sector. Estimates project

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7 MSET Petroleum Import statistics online. http://mset.gov.jm/petroleum-imports.

8 Despite the decrease from 0.39 to 0.27US$/kWh, between 2012-2015 Jamaica's average electricity tariff remained high, compared to other countries in the region (i.e. Barbados and Trinidad and Tobago with 0.24 and 0.06 US$/kWh, respectively).

9 Overall and non-technical losses were 26.9% and 18.3%, respectively, as of February 2015.

10 About 40% of the generation capacity is over 30 years and the conversion efficiency of old steam generation plants is less than 30%.

11 Dr. C. J. Dore (2015) "National GHG Emissions Inventory report of Jamaica, 2006-2012", November 2015.

12 INDC of Jamaica - Communicated to the UNFCCC, 2015. 1.1 million metric tons CO_2 is a reduction of 7.8% of emissions versus BAU. Jamaica will conditionally increase its ambition to a reduction of GHG emissions of 10% below the BAU scenario, subject to the provision of international support.

that by the end of 2019 the energy matrix will consist of Liquefied Natural Gas (LNG) 14.7%, renewables 2.54% (1.16% wind, 0.47% solar and 0.91% hydro) and petroleum products 83%. As new RE and LNG investments are proposed, one of Jamaica's key energy challenges will be managing this influx in the medium-term, integrating initiatives in EE into estimations on load forecasting.

1.6 Whilst Jamaica has been one of the most active countries in the Caribbean from an energy policy perspective, there is currently no government-led electricity plan to operationalize EE/RE targets. Supervision and regulation is constrained by a lack of clarity of roles and responsibilities as well as limited capacity to implement the new legislation.[13] As of July 2017, the MSET had not processed new EE/RE investment projects based on their own Integrated Resources Plan (IRP).[14]

1.7 Given this newly expanded mandate within the Electricity Act, the MSET will need to follow through with its mandate to produce and implement an IRP with a predictable regularity (i.e. updated at least every three years) which could provide investors' confidence that supply and demand-side resources will meet forecasted demand reliably, and at a lower cost for consumers. An IRP clarifies a way towards achieving energy targets. For any given generation portfolio and load forecast, the model within the IRP will indicate whether there is more demand than supply and whether the given reserve margins are adequate for planning purposes. The IRP processes is not static and requires updates by the final users in order to respond to the dynamic and evolving energy sector. The IDB is currently supporting the MSET's IRP Planning Team with its first IRP but, as was highlighted in the Capacity Building Study in the MSET commissioned by the Bank, under the EMEP loan, there is limited technical expertise, knowledge and Information and Communications Technology capacity within the MSET to implement and update their IRP including with regard to EE/RE targets.[15]

1.8 **Promoting Energy Conservation and Efficiency.** The vision of the energy sector as articulated by the NEP 2009-2030 is to create "a modern, efficient, diversified and environmental sustainable energy sector providing affordable and accessible energy supplies with long term energy security and support by informed public behavior on energy issues and an appropriate policy regulatory and institutional framework". This vision is harmonized with Vision 2030 Jamaica: National Development Plan which seeks to achieve, among other outcomes, improved energy conservation and efficiency, RE development and institutional reform. As a subset to the NEP, the National Energy Conservation and Efficiency Policy (NECEP),[16] 2010-2030 seeks to prioritize EE interventions as follows: (i) continued adoption by households and businesses of energy conservation and efficiency practices towards reducing Jamaica's carbon footprint; (ii) creating an enabling

[13] J. Bailey (2016) "Contextual Report for the Governance Framework for OUR", Report to IDB; DNV-GL (2016) "Capacity Building in Ministry of Science, Energy and Technology", Report to the IDB.

[14] The IRP is currently in development and is expected to be completed by Q4 2017.

[15] Whilst the planning team of seven staff, have science, engineering and project management profiles, there is limited experience with electricity system planning and a lack of knowledge in three key areas: EE and demand-side management; electricity rate analysis, and transmission and distribution systems.

[16] This document is yet to be promulgated.

legislative and regulatory environment; (iii) government institutions leading; and (iv) modernization of the energy sector.[17]

1.9 The NEP quantifies the possible outcome of implementing its objectives. With regards to the implementation of an Energy Efficiency and Conservation (EEC) programme, the NEP projects (under a BAU scenario) a reduction in energy demand or "savings potential" of two million BOE in 2015 and by six million BOE in 2020. The resulting reduction in the energy import bill is estimated at US$129 million in 2015 rising to US$555 million by 2020.[18]

1.10 Supporting this goal, in 2011 the IDB commissioned an "Energy Efficiency and Conservation Technical Assistance Report" (EECTA) based on a review of 36 government facilities. The EECTA Report indicated that an investment of US$113 million had the potential of saving 101GWh/year (US$30.8 million annually), or 25% of the electricity consumption of the Jamaican public sector at the time (estimated at 411GWh/year).

1.11 **Reducing Electricity Consumption in Public Facilities.** The potential savings from energy efficiency investments are particularly important given the current Government of Jamaica (GOJ) commitments within the International Monetary Fund (IMF) stabilization program which call for a strict focus on fiscal policy measures and growth-promoting programs. Under this fiscal consolidation program, the country is targeting a reduction in debt-to-GDP to 90% by 2020 and 60% by 2026. As a result, primary surpluses are expected to remain at 7% of GDP for the short to medium term. The fiscal consolidation is currently being supported by a precautionary Stand-By Arrangement with the IMF, but is also engrained in a legally binding Fiscal Rule.

1.12 The BOE imports utilized for electricity generation and the electricity bills associated with government facilities contribute to GOJ fiscal expenses. In 2015, approximately 25% of total energy imports was used to generate 5,344GWh. Of this, 393GWh (7.4% or 750,660 BOE as fuel oil) were consumed by Public Sector Facilities, costing the GOJ around US$36 million in BOE, and an estimated US$102 million in electricity bills (which reflect oil costs passed through via the tariff). Of this total, approximately 88GWh (22.3%) of electricity was consumed by Health, Education and Public Agency (HEPA) government facilities, representing 1.6% of total electricity consumed in Jamaica. HEPA government facilities cost the GOJ US$23.7 million in electricity bills and 168,591 in BOE, which in 2015 average prices cost to US$8.09 million to import. Additionally, Public Sector facilities emitted over 400,000 tons CO2 equivalent in 2015, with HEPA's electricity consumption implying over 96,000 tons of CO2 equivalent (CO2e) released into the atmosphere. HEPA's estimated emissions are some 2.2% of the total tons CO2 equivalent emitted in Jamaica.

1.13 **The Significance of the Health Sector.** The Public Health Sector (25 government funded hospitals and 318 health centers) consumed approximately 30.6GWh of electricity in 2015, representing 7.8% of public sector facilities' electricity

[17] Supporting this goal, in 2011 the IDB-commissioned an EECTA Report based on a review of 36 government facilities.

[18] NEP pg.18.

consumption and therefore costs. Not only is GOJ paying for the cost of oil imports, but it is also paying for the electricity bill for these facilities.

1.14 With regards to the health sector, "Vision 2030" emphasizes the need for greater cost-effectiveness of government spending and identifies the need to strengthen primary health care as a necessary outcome to support the health and wellbeing of the Jamaican society. In 2008, user fees at public health facilities were abolished to facilitate the population's access to care. This measure led to greater use of the services (e.g. immediately following this directive between 2008-2009, approximately 93% of all births took place in a public hospital and 5% in other facilities), but it became difficult for the government to meet the growing demand, and funding fell short despite the subsidies provided to compensate for loss of revenue. Facing limited fiscal space, the GOJ has been constrained with respect to investments in hospital infrastructure, equipment, supplies, and human resources.[19] The Ministry of Health's Strategic Business Plan 2015-2018 shows that whilst the government is taking steps to address the lack of resources allocated to maintenance of physical infrastructure, there are still funding gaps with regards to the delivery of health services that are proposed to be supplemented by bilateral and multilateral funding.[20]

1.15 **Identification of the problems.** High electricity prices affect the amount of cash available to the government as it relates to operating and maintenance costs for government-owned or rented facilities thus impacting government expenditure management and the effectiveness of public services. This is particularly relevant in the public health sector given its 24-hour/7-day, high energy use and the required investment to support the GOJ's Vision 2030. A more efficient use of energy resources would free public funds through lower government electricity bills and reduced oil imports which would support GOJ commitments within the IMF programme.

1.16 Moreover, with regards to electricity planning, as noted in the 2016 study,[21] there is a continued decline in the cost of generating electricity from solar technology and other renewables, bringing them into close competition with natural gas combined-cycle plants. This puts more pressure on planning units as they need to keep updated with the implications of the dynamic changes and trends in technologies to understand appropriate incentives, policy and regulation for increasing energy investments and/or promoting conservation. Therefore, the EMEP loan provides MSET with targeted expertise and systems capacity to support the implementation and update of the IRP, but on-going technical studies are needed to provide in-depth evidence to policymakers on investment options that maximize cost, reliability and security in line with GOJ directives.

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19 An Infrastructure & Equipment Needs Report (2012) funded by the IDB for the Ministry of Health, revealed that hospital infrastructure on average exceeds 40 years, and equipment ten years on average.

20 A review of the budget estimates for 2015/2016 for the Southern Regional Health Authority (SRHA) shows an example of the capital expenses need for that region. The SRHA region encompasses the parishes of St. Elizabeth, Manchester and Clarendon, and is served by 76 Health Centres and five Hospitals, with a bed capacity of approximately 638. The SRHA's procurement plan, shows that the Authority projected a capital equipment and infrastructure need of approximately US$1.1 million (J$139 million).

21 Lazard (2016) "Levelized Cost of Energy Analysis 10.0" Lazard's annual study compares the cost of generating energy from conventional and alternative technologies.

1.17 **Justification and Programme Strategy.** As stated above, to address these challenges, the IDB approved on December 14, 2016 the EMEP loan (3877/OC-JA), which comprises US$15 million financing from the IDB OC and US$15 million to be provided as parallel co-financing by JICA, with the objective of promoting EEC as one approach to reduce the GOJ fuel bill, mitigate oil prices volatility[22] and contribute to GHG emissions reduction. The EMEP loan targets EEC primarily in the electricity generation sector that consumes over 25% of energy used in Jamaica. Given the government's commitment to lead by example, the focus of the EMEP loan is on retrofitting outdated equipment and inefficient systems in HEPA government facilities, demonstrating the attractive economic and environmental benefits of the retrofit investments. In March 2017, the GOJ confirmed to the IDB its interest to extend and complement the retrofit activities in the EMEP loan by obtaining non-reimbursable co-financing resources from the EU-CIF.[23] Since over the last three decades, the debt-to-GDP ratio in Jamaica has rarely been below 100%, the current focus of GOJ within the context of the IMF stabilization program is on strict fiscal policy measures and growth-promoting programs. Given this situation, it is challenging for the GOJ to take on additional reimbursable funding. Furthermore, with respect to the health sector, the eradication of user fees in 2008 has resulted in an increase in patient use of public health facilities and a reduction in revenues to the Ministry of Health, placing additional strain on facilities. Each year, health expenditures have struggled to meet operating expenses of the healthcare facilities' network, without providing much for capital improvements and facilities maintenance. Therefore, given the potential savings and contribution to hospital facility efficiency from the EEC retrofits, this non-reimbursable investment operation extends the number of government funded hospitals participating in the retrofit activities within EMEP from 4 to 11 out of total number of 25 covering 37% of all hospital beds in Jamaica.[24]

1.18 **Extension of the EMEP Hospital List.** The extension takes into consideration the energy vision articulated in NEP and NECEP and builds on the EECTA Report. It also utilizes the same methodology for building selection as was undertaken for the EMEP loan operation. In 2016, after reviewing 106 existing audits and energy data for over 4,000 government facilities, the Bank, in collaboration with GOJ, identified a list of 73 government facilities whose electricity consumption (31.4GWh) represents 36% of HEPA and 8% of public sector facility consumption. The 2016 review process as part of the EMEP loan operation divided the selected building list into 23 HEPA facilities for deep[25] retrofits and 50 HEPA facilities for lighting retrofits to optimize a wider reach of facilities using a "deep" and "broad"[26] retrofit approach. The deep retrofit approach was applied to four hospitals, ten schools and nine public agencies in line with Investment Grade Audits (IGAs) that

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22 The price of a barrel of oil fluctuated in US$/(year) as follows: 61 (2009), 94 (2011), 97 (2013) and 48 (2015).

23 The EU-CIF is a regional financing blending facility aimed at mobilizing resources for development projects by combining grants from the European Development Fund with other resources, such as loans, to leverage additional financing and achieve investments in infrastructure.

24 The overall objective of the whole program (i.e. the EMEP) is to retrofit 30 public buildings, of which 11 are expected to be public hospitals. The GOJ may, however, adjust the final number and type of buildings to be retrofitted by the program.

25 Deep retrofits combines EE measures such as energy efficient equipment, air sealing, moisture management, controlled ventilation, insulation, and solar control so that dramatic energy savings are achieved alongside optimal building performance.

26 Broad refers to outreach. In this case, the single EE lighting intervention is designed to have a wide/broad reach among public facilities and is in contrast to the "deep" retrofits affecting a smaller set of facilities.

would provide guidance as to the appropriate type of EE and RE technologies suited to each building, along with the capital investment required and simple payback.

1.19 The four hospitals selected within the EMEP loan, supply 31% (1,450) of the total 4,800 hospital beds and consume 13.4GWh (43.7% of the Health Sector, 14.8% of HEPA, 3% of government electricity consumption). With EEC retrofits they could save GOJ up to US$1.84 million or 6.5GWh annually by switching to more energy efficient equipment such as high efficiency rated central air systems, Light-Emitting Diode (LED) lighting and solar PV, in addition to measures that optimize conservation. This is important in terms of the efficiency of electricity use per hospital bed in the country. Whereas in the United States, one hospital bed uses an average of 6,000kWh electricity per year, in Jamaica, this average is 8,200KWh per bed, annually.[27]

1.20 The seven additional hospitals cover the eastern through central parishes of the country, complementing the other four hospitals which cover central through to the western parishes. With these added seven hospitals the reach of EEC activities is now extended to an additional 1,785 hospital beds (37% of total) and 16.7GWh (54.5% of the Health Sector, 17% of HEPA and 4% of total government electricity consumption). EE measures[28] were approximated based on kwh/bed calculations, using the comparable estimates provided by the IGAs from the four original hospitals. The projected savings from Solar PV, were projected based on the load matched options used in the IGAs and assuming the recommended cost per watt. The methodology projected reduction of electricity consumption of between 20%-30% resulting from more efficient technology and processes. The direct beneficiary of this operation is the GOJ who pays the electricity bills and will get savings of approximately US$2 million annually.[29] However, other indirect beneficiaries will be patients in the 1785 hospital beds and health staffing impacted by quality of the environment within the facilities.

1.21 **Complementing MSET's IRP.** This IGR operation complements the EMEP loan by promoting institutional capacity of the MSET through complementary technical studies supporting strategic planning to affect sustainability of the electricity sector. Technical studies that feed into the IRP such as: grid cost studies to estimate renewable integration; infrastructure estimates to understand the implications of a fuel switch in transport, and regulations that incentivize technological advances in energy management systems, can help MSET have a more informed position when reviewing energy investment proposals and the likely influence on cost, reliability and environmental impacts.[30] The technical studies can support a

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27 IDB-funded study 2016 IGAs of four hospitals.

28 These measures cover: HVAC and Lighting retrofits, Chiller Fans and Pumps upgrades, Building Envelope interventions which are directly related to Energy Efficiency Solutions and Solar PV installations. Other costs associated with EE/EC retrofits include Grid Connection Fees, Equipment Clearance charges and RFP advertising costs.

29 Supposing average 2015 tariff of 0.268 US$/kWh. Considering low fuel prices at the moment, this figure will increase and so will the savings obtained.

30 See: R. Wilson and B. Biewald (2013) "Best Practices in Electric Utility Integrated Resource Planning Examples of State Regulations and Recent Utility Plans" Synapse, Energy Economic Inc; the Brattle Group (2015) "Integrating Renewable Energy into the Electricity Grid: Case studies showing how system operators are maintaining reliability."

consideration of LNG investments, additional EE or RE initiatives in sectors other than HEPA (such as industry, mining and transport) at the time of updating its IRP.

1.22 **Bank experience and lessons learned.** Between 1973-2011 in Jamaica, the Bank approved and disbursed approximately seven loans (US$200 million) and eight technical co-operations (US$1.3 million) covering EE, rural electrification, hydrocarbon exploration, hydroelectricity generation and private sector participation in energy development. In 2009, the IDB-funded EECTA Report (ATN/MC-11651-JA; US$349,030) supported implementing energy audits in buildings and the preparation of an investment loan (2629/OC-JA; US$20 million) entitled “Energy Efficiency and Conservation Programme” (EECP).

1.23 The EECP was approved in 2011 and over a 2.5-year period with US$3.6 million invested in solar control film application, cool roof solutions, air-conditioning retrofits, the programme achieved 1.076GWh/year or cost-savings of US$341,516/year, 666 BOE/year and 857 tons of avoided CO2 emissions per year. Nevertheless, after four years, the programme experienced extensive delays in staffing and procurement, and additional procurement challenges, and was eventually cancelled. The key lessons learned from the EECP (2629/OC-JA) that have shaped the design of the EMEP loan and this IGR operation to ensure higher levels of execution are the following: (i) the Project Execution Unit (PEU) is now located within the PCJ which has greater experience with EE investment projects and is the authorized implementation agency of MSET; (ii) the PEU has a dedicated budget of 10% of EMEP loan funds (as opposed to only 4.7% in EECP) as well as support from an Operational Support Technical Cooperation (OS-TC): “Support to the EMEP” (ATN/OC-15617-JA) that will be used to retain experts in critical functions such as procurement, finance and programme management whilst providing expert support with other related issues such as monitoring and evaluation, environmental management, communications and training, electrical compliance; (iii) the overall programme will engage and train facilities personnel to ensure their participation in the EE retrofit programme; and (iv) the IDB will provide additional training and mentoring capacity for the PEU in the EU policies and procedures particularly with regards to fiduciary and reporting requirements, ensuring quality control at every key point during implementation - from preparing bidding templates, evaluating tenders, to monitoring and reporting on progress.

1.24 With regards to the EE retrofit programmes, the IDB has carried out several projects across the Latin American and Caribbean region that provide complementary lessons-learned for the current project. Key lessons learned from other Bank programs include: (i) the need for early staffing of PEU; (ii) the establishment of a Project Steering Committee to assist in the retrofitting process as well as to communicate to stakeholders how the project is meeting their expectations (2748/OC-BA); (iii) contracting a company to undertake technical specifications and a workplan for the PEU (GRT/FM-15083-AR); and (iv) providing a flexible implementation plan that allows adaptation to new technologies and the changing needs of stakeholders (1435/OP-NI and GRT/FM-15208-RG) (see Lessons Learned).

1.25 **Strategic alignment.** This IGR operation is consistent with the Update to the Institutional Strategy 2010-2020 (AB-3008) and is strategically aligned with productivity and innovation, as Component 1 supports the efficient management

of public expenditure via the reduction of electricity costs in public hospitals. The project is also aligned with the cross-cutting issues of: (i) Climate Change & Environmental Sustainability through avoided GHG emissions and by contributing to Jamaica's INDC; and (ii) Institutional Capacity and the Rule of Law as it will enhance institutional capacity through supporting strategic planning of the MSET to affect sustainability of the electricity sector. Government agencies which benefited from projects that strengthen technological and managerial tools to improve public service delivery. Additionally, this IGR operation will contribute to the Corporate Results Framework 2016-2019 (GN-2727-6) by: (i) reducing carbon emissions; and (ii) by strengthening institutional capacity through strategic planning.

1.26 This IGR operation aligns with the strategic objective of improved public-sector management of the IDBG's Country Strategy with Jamaica 2016-2021 (GN-2868) in that it will reduce government expenditure on electricity through a reduction (between 15%-30%) of GWh consumed in the seven health facilities targeted. The net saving from the investment will reduce fiscal expenses of the public sector. Additionally, the grant operation is consistent with the Bank's Climate Change Sector Framework Document (GN-2835-3) as the main component of the operation will contribute to avoid approximately 9,000 tons CO2e annual emissions in Jamaica and therefore to IDB's climate finance-mitigation goals. According to the joint MDB approach on climate finance tracking, 97.82% of total EU-CIF funding for this project is invested in climate change mitigation EE activities. This contributes to the IDBG's climate finance goal of 30% of combined IDB and IIC operational approvals by year's end 2020. In addition, this IGR operation is included in the Country Program Document 2017.

1.27 This IGR operation is consistent with the Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy (GN-2710-5) and with the Energy Sector Framework Document (GN-2830-3), in that it: (i) promotes EE, and the diversification and sustainability of energy supply; and (ii) promotes good governance by supporting technical expertise for strategic electricity planning.

1.28 **Gender Additionality.** Whilst this operation does not finance gender activities it benefits from the training of facilities personnel (funded by the EMEP loan) and contributes to achieving the target of 25% of participants trained being women, as it will be extended to all Facility Maintenance and Management (FMM) personal in buildings being retrofitted under both operations. This is important as the EE/RE industry is a sector that could potentially offer job opportunities and improve women's economic opportunities in Jamaica. Within the EE/RE sector women are under-represented in that they are not in technical or decision-making positions, and they earn between 8%-17%[31] less than men. Approximately 350 Facility FMM employees from 80 buildings will receive training with EMEP loan funds, of which an estimated 28 FMM personnel from the seven hospitals are expected to attend training events (see Gender Annex).[32] These training opportunities will allow more

[31] Bellony, Annelle; Hoyos Alejandro; and Nopo, Hugo (2010). Gender Earning Gaps in the Caribbean: Evidence from Barbados and Jamaica. IDB: Washington DC.

[32] Other energy programmes financed by the Bank have promoted the inclusion of women in the sector by encouraging their participation in training. For example, the training objective in energy projects in Ecuador (3187/OC-EC,3188/CH-EC and 3494/CH-EC,3494/OC-EC) set up a gender target of 40% and 10% respectively of the total number of employees trained.

women in Jamaica to gain new skills, develop their professional networks, and be exposed to new technologies and practices, resulting in better job opportunities in the EE/RE sector.

B. Objective, Components and Cost

1.29 This non-reimbursable investment operation complements the Energy Management and Efficiency Programme loan (3877/OC-JA) with the general objective of promoting a more efficient use of energy resources that would free up public funds through the reduction of oil imports. The specific objectives and expected results of this operation are: (i) reduced electricity consumption in public buildings resulting in avoided GHG emissions; and (ii) support to capacity building for energy planning.

1.30 **Component 1. Retrofitting of Public Buildings (€8,740,750 equivalent US$9,531,897).**[33] In coordination with the Ministry of Health, this component will finance: (i) the purchase and installation, of EEC technologies (such as more efficient air-conditioning units, lights, solar PV, upgrades to chiller fans and pumps and building envelope measures) in seven[34] public hospitals covering the eastern through to central parishes in Jamaica. It will also provide funds for associated activities such as grid connection fees, equipment, clearance changes and advertising costs. The component will also finance the implementation of a Communications and Visibility Plan for the whole EMEP program to raise awareness among targeted stakeholders regarding EEC and RE, with respect to building codes, equipment standards, solar PV connection charges and net-billing implementation guidelines.

1.31 **Component 2. Support to Capacity Building for Energy Planning**[35] **(€229,250 equivalent US$250,000)**[36] will finance up to two technical studies that support strategic planning within the MSET, utilizing the IRP to affect sustainability of the electricity sector. The technical studies to be financed will be complementary to the resources already provided under EMEP loan to update MSET's IRP. The studies are intended to provide MSET with the evidence-base for considering LNG proposals or additional EE, RE initiative in sectors other than HEPA (such as industry, mining and transport) at the time of updating its IRP. These technical studies could focus on fuel switching options, RE/EE investment options, infrastructure, policy and regulation and will complement the support provided under the loan, therefore, enhancing MSET's strategic planning capacity.

C. Key Results Indicators

1.32 **Expected results.** As it is indicated in Annex II, the expected outcomes at the end of this IGR operation are: (i) an annual reduction of electricity consumption in seven public hospitals of 8.25GWh (approximately US$2.2 million in electricity cost savings annually), which translates to 9,000 tons of CO2 equivalent emissions avoided a year; and (ii) two complementary technical studies to support MSET's

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33 The Euro equivalent is €8,740,750. The exchange rate used on May 1st, 2017 was 0.917 to one US$.

34 Depending on the euro: US dollar exchange rate, and therefore availability of US$ funds, the number of buildings retrofitted could be revised.

35 This Component´s activities corresponds to EMEP loan (3877/OC-JA) Component III.

36 The Euro equivalent is €229,250 The exchange rate used on May 1st, 2017 was 0.917 to one US$.

IRP at the time of its update to enable the consideration of at least one additional EE/RE initiative proposal and/or investment.

1.33 The total scope of the overall EMEP program therefore moves from 23 deep retrofit buildings to 30. The implied total reduction in electricity consumption from EE/RE retrofits is estimated at 19.72GW (from an original of 11.5Whr), total electricity cost savings annually of US$5.3 million (from an original of US$3.2 million) and total CO2 equivalent avoided becomes 21,512 tons (from original of 12,512 CO2 equivalent).

Cost Benefit Analysis (CBA). The benefits of retrofitting seven hospitals consist of electricity savings (direct effect) and the reduction of CO2 emissions (externality). Considering a 20-year reference period to capture the overall economic life of the project assets, the Economic Net Present Value is US$5,353,832 and the results for the base case show an Economic Internal Rate of Return of 23.4%. A sensitivity analysis was done for two scenarios: (i) increase/decrease 20% of the investment costs; and (ii) increase/decrease 20% of the electricity price, and the programme still proved to be economically robust. Note that the base case scenario does not include a monetary valuation of the CO2 emissions reduction (9,003 tons CO2eq/year).

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing Instruments

2.1 The budget for this operation is €9,170,000 (inclusive of fees) equivalent to US$10,000,000, using the exchange rate 0.917€/ per US$ used on May 1st, 2017. This is an IGR operation with funds to be provided by the EU-CIF. EU contribution payments will be made in Euros (€), and immediately converted to US Dollars when received by the Bank's Finance Department.[37] The Finance Department will inform the Project Team of the exchange rate at which each contribution is converted.

[37] By means of a project specific grant, EU-CIF will transfer the funds to the Bank, as administrator. The Bank will then transfer them to the Beneficiary by means of a non-reimbursable financing agreement.

Table 1. Budget

# Comp.	Output	Product/ Deliverable	Milestone Activity	JA-G1003	
				EUR (€)	US$ Equivalent
Component 1 Retrofitting of Public Buildings				8,740,750.00	9,531,897.49
Output 1.1 Identified public sector facilities to be retrofitted with appropriate EE/RE technologies				8,740,750.00	9,531,897.49
1.1	7 hospitals retrofitted with EE/RE	EE/RE building envelope equipment replaced and installed	Works completed in 7 hospitals	8,557,350.00	9,331,897.49
			Communications and visibility Plan developed for raising awareness of EE/RE measures in targeted buildings (workshops and multimedia campaigns)	183,400.00	200,000.00
Component 2: Support to Capacity Building for Energy Planning				229,250.00	250,000.00
Output 2.1 Complementary technical studies				229,250.00	250,000.00
2.1	MSET Capacity for planning and policy Management completed	Electricity and Energy Planning in MSET/Complementary Technical Studies	Complementary Technical Studies to support electricity and energy planning	229,250.00	250,000.00
TOTAL				**8,970,000.00**	**9,781,897.49**
EU-CIF FEES				200,000.00	218,102.51
TOTAL+FEES				9,170,000.00	10,000,000.00

2.2 **Disbursement period.** It is expected that all resources will have a four-year disbursement period. Loan resources are to be fully disbursed within 72 months from the effective date of the loan agreement. Table 2 shows total disbursements over the four-year period as follows:

Table 2: Projected IGR Operation Disbursements to Government of Jamaica

Component	Currency	2018	2019	2020	2021	TOTAL
COMP 1 - Retrofitting Public Buildings	EUR (€)	-	2,852,450	2,852,450	3,035,850	8,740,750
COMP 2 – Support to Capacity Building for Energy Planning	EUR (€)	64,190	-	-	165,060	229,250
EU-CIF Administrative Fee*	EUR (€)	200,000	-	-		200,000
TOTAL	**EUR (€)**	**264,190**	**2,852,450**	**2,852,450**	**3,200,910**	**9,170,000**
TOTAL %	%	3%	31%	31%	35%	100%

* The EU-CIF administrative fee represents 2% of requested IGR amount with a minimum cap of €200,000, as agreed in the EU-IDB Framework Agreement.

B. Environmental and Social Safeguard Risks

2.3 In accordance with OP-703 and the Bank's safeguard filters, and drawing from the analysis conducted for the EMEP loan, this IGR operation project has been classified as Category "B" as it will have net positive environmental effects due to

the potential impacts in GHG emission reductions, substitution of fossil fuel based electricity generation and climate change mitigation brought by the implementation of EE measures. It is anticipated that this IGR operation is likely to cause mostly local negative environmental and social impacts for which effective mitigation measures should be implemented. Construction and retrofitting activities will generate relevant quantities of solid (scrap wood, concrete, glass, and cardboard, etc.) and hazardous waste (mercury from fluorescent light bulbs and thermostats, hydrofluorocarbons and other refrigerant gases from air conditioning units, used oils, asbestos containing materials, etc.). Additional impacts may relate to operational health and safety (OHS), general construction activities, and natural disaster risk; however, all impacts can be adequately mitigated through the implementation of specific management plans and mitigation measures.

2.4 Therefore, medium environmental and social risks identified in the project's risk analysis are: (i) contamination to environmental receptors due to inadequate handling and disposal of materials and equipment during the upgrade of facilities; mitigated by a specific Waste Management Plan funded through EMEP loan funds, that will cover the overall Programme (combined EMEP loan and Grant operation) and that will be developed by the Executing Agency (EA)[38]; and (ii) natural disasters that could affect the government's facilities to be retrofitted under Component 1 due to its location along Jamaica's coast line; mitigated by ensuring that there are contractual obligation for contractors to install EE/RE equipment according to international standards, and using the EMEP loan funds for annual inspections of equipment installed.

2.5 This IGR operation is considered to have the same environmental and social safeguards risk needs as the EMEP loan operation, and therefore the same studies will be used. In compliance with OP-703, an Environmental and Social Assessment (ESA) was carried out for the EMEP loan and an Environmental and Social Management Report (ESMR) was produced for this grant operation that mirrors the requirements under the EMEP loan retrofit activities. The ESA has been disclosed according to OP-102 and a public consultation meeting was conducted on 22 September 2016 at the PCJ auditorium. The public meeting was advertised in the local newspaper and a presentation was prepared and delivered in accordance with the Bank's Policies.[39]

C. Fiduciary Risk

2.6 Lessons learned from previous experiences indicate that it is necessary for PCJ, the EA of the Programme, to be strengthened in project management. To minimize that risk, the measures described in (¶1.23) will be implemented. This IGR operation will benefit from the same PEU project management resources allocated

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[38] Contractors will be required to transport waste to designated storage or disposal sites as described within GOJ guidelines. The overall Programme funds will enable the PEU to contract a company to support the handling and management of waste in collaboration with, and under the supervision of the National Environment Protection Agency and National Solid Waste Management Authority and Ministry of Economic Growth and Job Creation.

[39] The public meeting was attended by 40 people and it was organized in accordance with the Bank's ESG B.6 Policy on Public Consultations which is part of OP-703. The main objective of the public consultation meeting was to enhance the project's stakeholder engagement process and to better inform the general public. For further details please refer to the Public Consultation Report.

under the EMEP loan operation and the experts and funds in critical functions this provides.[40] There is an additional risk identified related to dealing with multiple sources of funding (IDB, JICA and EU) and to specific implementation requirements. As stated above, the use of EU-CIF resources determines the applicability of certain procurement rules (¶3.11) as well as specific requirements on eligibility of expenses, budget modification, reporting and timing of reports and the integration of a communications and visibility plan, among others, with which the EA will need to comply. Therefore, in addition to frequent Bank training and capacity building for the PEU in fiduciary and program management, additional technical cooperation resources from the IDB (JA-T1147)[41] will be provided for the PEU to ensure the smooth integration of this IGR operation into the overall Programme. To limit the risk of weak financial management capacity within the PEU, key financial expertise has been recruited before first disbursement and personnel will be suitably skilled and qualified with experience in managing donor funded projects.

D. Other Key Issues and Risks

2.7 In addition to the environmental and fiduciary risks noted above, the overall risk analysis conducted for the retrofit activities under the EMEP loan, classifies the main risks associated with this grant operation as “medium”. Risks classified as medium and the corresponding mitigation areas are the following: (i) on public management and governance there may be limited coordination among government agencies participating in the Programme that could slow down the execution; to mitigate this risk, the PEU has established an Energy Management and Efficiency Project Coordination Committee (EMEPCC) with senior representatives from government agencies to help guide strategic decision making and keep updated on project progress; (ii) similarly, on public management and governance a lack of coordination among donors and government participating in the project could slow down the execution of the project; to mitigate this risk, the PEU will ensure that the EMEPCC will be represented by beneficiary government Ministries/agencies and EMEP donors to help guide strategic decision making and keep updated on the overall Programme’s progress; (iii) from the economic perspective, as a small, open economy, Jamaica remains vulnerable to external economic and natural shocks that can have negative consequences on the balance of payment, fiscal space and project implementation priority; which will be mitigated by the fact that fiscal savings will keep the attractiveness of the overall Programme, validated by annual Monitoring & Evaluation reports on the savings provided; (iv) exchange rate fluctuation between the Euro and the US dollar can influence final funds available for retrofitting buildings; to mitigate this risk, the project will reduce the number of facilities to be retrofitted in accordance with the available budget. In addition, IDB will request that the first disbursement from the EU represents a high percentage of their overall contribution; and (v) on development of the project, a high risk is that EE capacity building could result in trained staff leaving posts for better positions; which will be mitigated by seeking

[40] Such as programme management, procurement, finance, monitoring and evaluation, environmental management, and electrical compliance and administration. Additionally, these PEU resources under the EMEP loan cover annual financial audits for the overall Programme and mid and final year Programme evaluation.

[41] The TC seeks to support the execution activities of the grant as it integrates with the loan and will provide targeted assistance on procurement and financial management as it relates to donor requirements.

to establish agreements with beneficiary ministries/agencies to consider performance incentives for staff who complete training.

2.8 **Sustainability.** The prime contractors (together with their sub-contractors) responsible for implementing the retrofit plan in selected government facilities, will be tasked with ensuring that all purchased EE equipment have associated operational and maintenance contract guarantees. Once these initial contracts expire, facility managers and maintenance personnel that have been trained throughout the implementation of the Programme with EMEP loan funding, will be able to effectively take over these activities. With regards to electricity planning in MSET, the capacity to update and deepen the IRP will allow the government to manage the inclusion of additional EE and RE in HEPA and other sectors in line with wider objectives of least cost, grid reliability and positive environmental impacts.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of Implementation Arrangements

3.1 **Beneficiary and EA.** The Beneficiary of this IGR operation will be Jamaica and, as is the case of the EMEP loan, the EA responsible for the execution of the entire Programme will be PCJ, a separate legal entity from the Executive Branch. From the ICAS review conducted for the loan PCJ is reported to be well managed, with strong systems for internal control, compliance and financial reporting.

3.2 The PCJ will be the sole EA and PCJ's Board of Directors through its Group General Manager and will execute the Programme through a specially created PEU which will report to PCJ's Group General Manager. The governance arrangements between the PEU, government entities and the donors (JICA and EU), and the General Manager of PCJ who also chairs the EMEPCC will be detailed in the Operational Manual (OM) that will describe the overall Programme execution. For Component 1, in accordance with the IGAs prepared in advance, the PEU will contract prime contractors (who together with their subcontractors) will be responsible for the seven hospitals with respect to the purchase, installation, of the EE retrofits. The Ministry of Finance and Public Services who own/rents the facilities, and representatives from Health Ministry on the EMPECC will provide additional support and strategic guidance to ensure access to facilities and smooth implementation of this component. A consultant firm will be contracted to design and implement the Communications and Visibility Plan that will provide support for the overall Programme with a particular focus on the donor's requirements for the retrofitting of seven hospitals. For Component 2, with technical and operational assistance from the MSET sub-project officer and utilizing guidance from the MSET Capacity Building Plan, the PEU will contract consulting firms and/or individuals to provide IRP execution support to the MSET. The PEU will be required to ensure timely implementation and progress against stated objectives and milestones.

3.3 Annually, only one set of reports and one audit covering the entire Programme will be conducted. The same applies to progress reports and project evaluations. However, given that the disbursement period for the EU grant is less than for the

IDB loan, in the case of final payment request (IDB-EU), the IDB will seek agreement with the EU to have a program annual report which will be used for the final disbursement request; and an annual financial audit report will be considered the EU final audit report. IDB will share its final overall report with EU for information purposes. Given that the Project Completion Report (PCR) of the Bank includes information from the programs final evaluation, it entails richer data and information than the one available at the end of the grant execution period.

3.4 The coordination between government entities for the entire Programme will be centralized within the EMEPCC and this Committee will also be used as an opportunity for donors (JICA and EU local delegations) to interact with the stakeholders of Programme, allowing for at least quarterly updates between GOJ and the donor agencies funding the Programme. The Bank will manage requests of payments and reporting the progress of the project according to the terms agreed in the EU-IDB Framework Agreement.

3.5 The PEU will be in charge of coordinating overall Programme activities with participating government ministries/agencies, procurement execution (including the hiring of external auditors), contract supervision, internal control and financial management, including the submission of disbursement requests, preparation and submission of audited financial statements, compliance with local and IDB environmental and consultation requirements in the implementation of Programme activities, and risk management. The inter-institutional agreement between the EA and the MSET will detail: (i) the role of the MSET sub-project officer within the PEU regarding technical, procurement, logistical, coordination, and administrative support to ensure successful implementation of Component 2; (ii) the role of the PEU in supporting the MSET to achieve the implementation of Component 2; and (iii) the role of MSET in supporting the successful implementation of the Programme via its role on the EMEP Coordinating Committee.

3.6 As noted in ¶2.7 budget assignment for contracting specialists for the PEU is provided within the EMEP loan (from which this operation will benefit) given that the scope of activities covers capital investment in buildings, as well as activities for electricity planning, and that there are donor reporting requirements.

3.7 The PEU is governed by the Financial Administration and Audit Act and International Financial Reporting Standards for financial management. The Central Government uses the Financial Management software for accounting purposes; this is fairly new and still in its implementation stage. The PEU will use a dedicated Microsoft Dynamics system for independent programme accounting purposes. This facilitates both a US$ and J$ transactions and general ledger; budgeting; reporting and other core accounting functions.

3.8 **Prior to the first disbursement of the resources of this grant operation, the following conditions shall have been met: (i) the GOJ shall provide evidence that the PEU of the EMEP loan, as well as its Programme Manager, Financial Specialist and Procurement Specialist, have the authority to execute this operation. This condition is necessary to assure that, once disbursement occurs, the EA is in a position to execute the operation; (ii) the project OM of the EMEP loan has been updated to include the execution of this operation. This condition is necessary to assure that the OM provides the**

guidelines for the execution of this operation, including specific EU requirements and the conditions set forth in Annex B of the ESMR applicable to this operation (see ESMR); (iii) an agreement between the Beneficiary and the EA for the transfer of the resources of this operation together with project implementation obligations has entered into effect. Given that EA is a separate legal entity, this agreement is necessary, either as a new agreement or an amendment of the agreement executed under the EMEP loan.

3.9 **Procurement.** The procurement of works, goods, services and consultancy services for activities and contracts shall be done in accordance with Bank Policy for the procurement of Goods and Works (GN-2349-9) and for the selection and contracting of consultants (GN-2350-9), as well as in accordance with the EU-IDB Framework Agreement (GN-2610-2, ¶4.13 and ¶4.14) which determines that: (i) all procurement processes under the Programme will be open to suppliers, consultants, contractors and service providers from IDB member countries and, also, from countries recognized by the European Union as eligible (countries included in the list published by the EU as an annex to the "Practical Guide to Contract. Procedures for EU External Actions"); and (ii) the borrower or beneficiary shall retain relevant documentation during project implementation for a period of at least five years from the last disbursement date. Additionally, the Bank Policy for use of country systems, as may be amended from time to time applies. The Procurement Plan includes details on procurement for the first 18 months of execution. Activities may be amended accordingly, by agreement between the EA and the Bank. The EA will update the Procurement Plan at least once every 12 months. The Procurement Supervision method will be determined by the Bank.

3.10 Every year during the implementation of the Programme, the PEU will present an Annual Operation Plan (AOP) to the Bank for its no-objection. The AOP will detail the Programme's progress and execution of activities including goals, results, budget and implementation schedule for the year ahead. The Pluriannual Execution Plan (PEP) details the Programme's progress and implementation schedule for the outstanding years of the loan. An initial AOP and PEP were prepared for the first year of Programme execution.

3.11 **External control and reporting.** The external audit of the Programme will be done by independent public accountants that are acceptable to the bank and will follow the guidelines set in the Bank's Financial Management Guidelines (OP-273-6) and Financial Reports and External Audits Handbook for Bank financed operations. Standard financial reporting requirements of the Bank will apply including: (i) Audited Financial Statements of the Programme which will be submitted to the EU within 120 calendar days following the end of each fiscal year of the EA though for the grant operation, this timing is 90 calendar days from the EA to the Bank and 30 calendar days from the Bank to the EU, 120 in total; and (ii) final audited financial statements:[42] which will be submitted to the EU within 120 calendar days after the final disbursement date as defined in the non-reimbursable financial agreement between the EA and the Bank. This timing is 90 calendar days from the EA to the Bank and 30 calendar days from the Bank to the EU, 120 in total. The

[42] Final financial statements submitted with the last disbursement from EU-CIF will not be the same as the final reports for the whole EMEP project, since this will last longer. Negotiations with the donor regarding reporting on the whole project will be carried out, as this is possibility is addressed in Articles 3.3 and 3.8 of the PAGODA.

costs for the audits will be financed with resources from the EMEP loan operation. These audited financial statements are a key input for the signing of the Management Declaration.

B. Summary of Arrangements for Monitoring Results

3.12 The Programme has a Monitoring and Evaluation Arrangements (M&E) which includes monitoring and reporting requirements as well as Programme evaluation mechanisms. Administrative monitoring and control will focus on the fulfillment of procedural regulations governing administrative, financial, accounting, and legal matters, in accordance with national guidelines, those of the Bank, and those specified in the Programme's OM. The budget for completing the Monitoring and Evaluation Plan for the Programme is US$350,000, and for auditing (IGA's) is US$300,000, which will be financed in its entirety with funds allocated under the 3877/OC-JA loan operation.

3.13 **Annual progress report.** The EA, through the PEU, will send the Bank semi-annual progress reports to be submitted no later than 30 days after the end of the reporting period defined in the Delegation Agreement. Semi-annual progress reports will explain the degree of fulfillment of the output indicators and progress toward the outcomes of the Results Matrix making it possible for the Bank to monitor these indicators using the Bank's Project Monitoring Report tool. Based on the semi-annual progress reports, an annual report will be prepared consolidating all information collected during the year, including audited financial statements, disbursement requests, the management declaration, the PEP, AOP and Procurement Plan and in accordance with EU reporting requirements. Also, the PEU will prepare annual reports concerning their environmental and social performance with respect to the Bank's policies and directives. The Bank will have the option to conduct supervision of the environmental and social performance of the overall Programme, throughout its duration.

3.14 **Project Evaluation.**[43] Within the context of the Programme, as detailed in the M&E the PEU will select and contract external consulting services to undertake a Mid-term Evaluation once 50% of the financing has been disbursed and justified, or after three years from the date of the first disbursement, whichever happens first. This evaluation will focus on analyzing progress achieved, aspects of coordination and execution, and recommendations to attain the proposed targets and investment sustainability. Also, a final evaluation to be submitted to the Bank no later than 120 days after the final disbursement justification. This evaluation will include: (i) the degree of fulfillment of the targets specified in the Results Matrix; (ii) an ex post CBA; (iii) an assessment of the performance of the EA; (iv) factors affecting implementation; and (v) lessons learned and recommendations for the design of future operations. The Final Evaluation will allow the Bank to finalize the PCR.

[43] This Final Report will be all-inclusive, as it should include information from the beginning of the project until the end.

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	**Yes**	
Development Challenges & Cross-cutting Themes	**-Productivity and Innovation -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law**	
Country Development Results Indicators	**-Reduction of emissions with support of IDBG financing (annual million tons CO2 e)* -Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)***	
2. Country Development Objectives	**Yes**	
Country Strategy Results Matrix	**GN-2868**	**Reduce government expenditure on electricity utility bills.**
Country Program Results Matrix	**GN-2884**	**The intervention is included in the 2017 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	**8.4**	
3.1 Program Diagnosis	**3.0**	
3.2 Proposed Interventions or Solutions	**2.4**	
3.3 Results Matrix Quality	**3.0**	
4. Ex ante Economic Analysis	**10.0**	
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	**4.0**	
4.2 Identified and Quantified Benefits	**1.5**	
4.3 Identified and Quantified Costs	**1.5**	
4.4 Reasonable Assumptions	**1.5**	
4.5 Sensitivity Analysis	**1.5**	
5. Monitoring and Evaluation	**6.6**	
5.1 Monitoring Mechanisms	**2.5**	
5.2 Evaluation Plan	**4.1**	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	**Low**	
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**	
IV. IDB´s Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	**Yes**	**Financial Management: Budget, Accounting and Reporting, External Control, Internal Audit.**
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Gender Equality	**Yes**	**The project will include a gender target aimed at promoting women's participation in the technical trainings in Energy Management and Planning in public buildings (hospitals). The gender target will aim at ensuring that al least 25% of people trained by this project are women.**
Labor		
Environment		
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**	**In addition to frequent Bank training and capacity building for the Project Execution Unit (PEU) in fiduciary and program management, additional technical cooperation resources (JA-T1147 and JA-T1120) are being considered to ensure the integration of this operation into the overall program. These technical operations will provide support to the managing, finance and procurement activities in the PEU.**
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan		

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

This non-reimbursable investment operation complements the EMEP loan (3877 / OC-JA). The overall objective is to promote a more efficient use of energy resources to liberate public funds through the reduction of oil imports. The specific objectives and expected results of this operation are: (i) to reduce electricity consumption in public buildings, resulting in avoided greenhouse gas emissions; and (ii) to support capacity-building for energy planning.

The loan proposal includes a solid diagnosis of the problems and their determinants, which allows it to define the proposed interventions: improvements in public buildings; and support of capacity building for energy planning. The loan proposal contains empirical data and lessons learned from other operations in the country, but does not have evidence (obtained through impact evaluations) on the effectiveness of similar interventions.

The results matrix has a clear vertical logic (derived from a correct description of the context) for the proposed components. All indicators are SMART, have baselines, goals, and means of verification.

The project includes a cost-benefit analysis of energy efficiency measures at the seven hospitals. It quantifies the economic benefits from saving electricity (direct effect) and reducing CO2 emissions (externality). The results show a positive net present value and an internal rate of return of more than 20%. The profitability of the operation is maintained under different sensitivity scenarios.

The monitoring plan is solid and details all the monitoring instruments that will be used. Total and annual costs are presented for all the products identified in the results matrix. The evaluation plan is based on an ex post economic analysis.

RESULTS MATRIX

Project objective:	This non-reimbursable investment operation complements the Energy Management and Efficiency Programme (EMEP) loan (3877/OC-JA and, together with this operation, the "programme") with the general objective of promoting a more efficient use of energy resources that would free up public funds through the reduction of oil imports. The specific objectives and expected results of this operation are: (i) reduced electricity consumption in public buildings resulting in avoided Green House Gas (GHG) emissions; and (ii) support to capacity building for energy planning.

Component 1 Retrofitting of Public Buildings Outcome Indicators	**Units**	**Base (2015)**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Final Target (EOP)**	**Source of Verification/ Comments**
Annual electricity consumed in the seven Public Hospitals	kWh	**16,735,882**	-	-	-	-	**8,484,121**	Annual Report from Petroleum Corporation of Jamaica (PCJ) M&E consulting firm report
Annual CO_2 equivalent emissions avoided resulting from kWh consumed in the seven Public Hospitals	Tons of CO_2 equivalent	**-**[1]	-	-	-	-	**9,003**[2]	Annual Report from PCJ M&E consulting firm report

[1] According to a 2015 baseline, tons of CO2 equivalent emissions stood at 19,679.68. This is an approximate value calculated using the emissions factor of Jamaica which is1.09 ton CO2eq per MWh, as published in the second national communication to the UNFCCC, December 2011. The formula is as follow: the electricity saving is multiplied by the emissions factor.

[2] Idem.

Component 1: Retrofitting of Public Buildings Output Indicators	Units	Base (2015)	Year 1	Year 2	Year 3	Year 4	Final Target (EOP)	Source of Verification/ Comments
Retrofit of seven Public Hospitals with Energy Efficiency (EE)[3] equipment replaced, installed and operating	# of public buildings	-	-	2	3	2	7	Annual reports from PCJ Investment Grade Audits will be completed to achieve these outputs.
Communication activities (workshops) completed to raise awareness on EE management & maintenance[4] in the seven public hospitals retrofitted	# of workshops	-	-	-	-	1	1	Annual reports from PCJ List of participant and follow-up monitoring to participants per workshop
Communication activities (multimedia campaigns) completed to raise awareness on EE management & maintenance[5] in the seven public hospitals retrofitted	# of multimedia campaigns	-	-	-	-	3	3	Annual reports from PCJ

[3] EE measures include HVAC, lighting, solar PV and building envelope measures.
[4] A minimum of 25% of personnel trained must be women.
[5] A minimum of 25% of personnel trained must be women.

Component 2 Support to Capacity Building for Energy Planning Result Indicator	Units	Base (2015)	Year 1	Year 2	Year 3	Year 4	Final Target EOP	Source of Verification/ Comments
Number of EE/Renewable Energy (RE) proposals received by the Ministry of Science, Energy and Technology (MSET) to further support the update of the Integrated Resource Plan (IRP) (2020)	# of proposals received	-	-	-	-	1	1	Annual report from MSET Independent M&E Report

Component 2: Support to Capacity Building for Energy Planning Output Indicators	Units	Base (2015)	Year 1	Year 2	Year 3	Year 4	Final Target EOP	Source of Verification/ Comments
Complementary technical studies to support Electricity Planning and Jamaica's IRP	# of studies	-	1	-	-	1	2	Annual report from MSET Independent M&E Report. Complementary technical studies will focus on fuel switching options, infrastructure, policy and regulation that can make a real difference to final energy cost, reliability and environmental externalities.

NOTES:

(1) Further details on how to calculate each of the indicators are provided in Appendix A of the Monitoring and Evaluation Plan.

(2) The targets in the results matrix are targets for each year, as opposed to cumulative targets up to the year.

FIDUCIARY ARRANGEMENTS

Country:	Jamaica
Project Name:	European Union Caribbean Investment Facility (EU-CIF) Energy Management and Efficiency Programme Non-Reimbursable Investment Financing
Project Number:	JA-G1003
Executing Agency:	Petroleum Corporation of Jamaica (PCJ)
Prepared by:	Naveen Jainauth-Umrao, Financial Specialist; Rene Herrera, Senior Procurement Specialist; Leon Ferguson, Procurement Consultant; and Martin Nesbeth, Financial Consultant (FMP/CJA)

I. EXECUTIVE SUMMARY

1.1 The fiduciary management evaluation of the Programme was performed during May 2016 using the Institutional Capacity Assessment System (ICAS) methodology, as well as through a series of interviews with the management team of the PCJ. The evaluation indicates that the Programme has a low fiduciary risk, and as such, it is believed that the PCJ; (i) based on the current structures and fiduciary systems in place; and (ii) once it has the Programme Executing Unit (PEU) established, will have the capacity to execute the Programme. The Procurement ex-ante reviews and capacity building exercises conducted with the current PEU which will execute the pending Programme, suggest that the requisite institutional capacity is present. However, considering the complex nature of the Programme and anticipated increase in funding and funding sources, there is need for an experienced team compliment.

1.2 The Government of Jamaica (GOJ) continues, with assistance from major donors, to address key improvements to its fiduciary systems. The donor community is committed to working with the GOJ to determine the extent to which the country fiduciary systems can be used for the administration of donor-financed projects.

1.3 For this Programme, in the area of financial management, the Bank is recommending the use of the Auditor General's Department (AuGD) the Government accounting institution for external control. Currently, the portfolio of the Bank is managed through the establishment of special PEU for the majority of the projects. In addition, the Bank conducts a close operational supervision on these PEU, and provides training as needed on Bank's policies and procedures. At the country's fiduciary management level the employment of the *Fin Man* accounting system is implemented for treasury and financial administration. However, the PEU will employ the Microsoft Dynamics software and other assisted software which satisfies the financial administration requirement of the Bank.

1.4 The Programme will be co-financed by Japan International Corporation Agency (JICA), and supported by non-reimbursable resources from the European Union Caribbean Investment Facility, and does not include local counterpart. No sub-executors are envisaged.

II. EXECUTING AGENCY'S FIDUCIARY CONTEXT

2.1 The PCJ is guided by the Financial Administration and Audit Act (FAAA) and International Financial Reporting Standards (IFRS) for financial management. The Central Government uses the *Fin Man* software for accounting purposes. The PEU uses the Microsoft Dynamics for the project accounting purposes. This facilitates both a US$ and J$ transactions and general ledger; budgeting; reporting and other core accounting functions.

2.2 The Executing Agency (EA) has a history of implementation of projects placed under their responsibility, including one currently financed by United Nations Development Programme. There are also in-house projects implemented by the PCJ as this tie with their main mandate to drive energy conservation and energy saving for Jamaica. The GOJ public procurement system has been undergoing intensive improvement and modernization toward harmonization with international standards and best practices. These improvements have been recognized by the Bank which entered into an Agreement with the GOJ in January 2017, for the Partial Use of the National/ Country Procurement Systems in Bank financed operations. *[See 5.1 (d)]*

2.3 With the addition of this Programme, it is anticipated that additional manpower would be required. Consequently, a Finance Specialist and Procurement Specialist will be contracted to provide the necessary institutional strengthening to the PEU.

III. FIDUCIARY RISK ASSESSMENT AND MITIGATING ACTIONS

3.1 The overall fiduciary risk of the Programme, which was evaluated using the ICAS methodology, is deemed to be low. The fiduciary evaluation was done mainly of the PCJ since the PEU for the Programme has not yet been established. Notwithstanding this, there were a few risks as outlined below that were deemed medium risk and which could have an impact on the programme. These risks however do not affect the overall risk of the Programme.

Table 1: Mitigation Risk and Rating

Risk	Risk rating	Mitigation measures
1. Weak financial management capacity of the PEU.	Low	The Procurement and Accounting personnel should be recruited and assigned to the programme in a timely manner. Personnel should be suitably skilled and qualified and preferably with experience in managing donor funded projects. **Responsibility for implementation:** PEU/Borrower **Timeline for implementation:** Prior to 1st disbursement of the loan
2. Lack of awareness of a multi-donor procurement, disbursements and financial reporting procedures.	Medium	Create capacity within the PEU through in house training on IDB's procurement, financial management procedures and requirements. **Responsibility for implementation:** IDB **Timeline for implementation**: During programme design and throughout programme execution.

IV. ASPECTS TO BE CONSIDERED IN THE SPECIAL CONDITIONS OF THE LOAN CONTRACT

4.1 In order to facilitate the negotiation of the operation, outlined below are agreements and requirements which will be incorporated into the special conditions:

a. **Rate of exchange agreed with the EA.** If the Programme's expenditures have been incurred in local currency, the EA and the Bank will agree on the exchange rate to be used in the justification and reimbursement. For purposes of the justification of expenditures to the Bank (including reimbursement/recognition of expenditures, and local counterpart) the equivalent amount to be reported in the project or disbursement currency will be determined using the effect exchange rate used to convert the funds denominated in the Programme's currency to the local currency.

b. **Financial Statements and Reports.** Annual Audited Financial Statements (AFS) of the Programme are to be submitted to the Bank within 90 days after the close of each fiscal period, in addition to Final AFS, which are due for submission to the Bank within 90 days of the close (last disbursement date) of the Programme. The AFS should report on the overall Programme, in the expressed currency of the loan. The AFS of the Programme should include, in addition to the basic financial statements, an internal control report.

V. REQUIREMENTS AND ARRANGEMENTS FOR EXECUTION OF PROCUREMENT

5.1 **Procurement execution.** Procurements for the proposed project will be carried out in accordance with the Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank (GN-2349-9) of March 2011, and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (GN-2350-9) of March 2011, with the provisions established in the Loan Contract and the procurement plan.

5.2 With the introduction of non-reimbursable resources from the European Union Caribbean Investment Facility to the Programme, the procurement of all works, goods, services and consultancy services for activities and contracts under the Programme (including resources from the JICA Loan) initiated after the signature of the respective non-reimbursable agreement (Delegation Agreement) between the Bank and the Borrower will be open, both to Bank Member Countries, and to the European Union list of eligible countries published in the European Commission website as an annex to its "Practical Guide to Contract Procedures for EU External Actions".

a. **Procurement of Goods, Works, and Non-Consulting Services.** The procurement plan for the Energy Management and Efficiency Programme (EMEP) covering the first 18 months of project execution will indicate the procedure to be used for the procurement of Goods, the contracting of Works and Non-Consulting Services. The review of technical specifications in all cases, during the process of selection is the responsibility of the sector specialist of the Programme.

b. **Procurement of Consulting Services.** The procurement plan for the EMEP covering the first 18 months of Programme execution indicates the procedure to be used for the procurement of Consultancy Services, and the method of

selecting Consultants. The EA is responsible for preparing and implementing the Programme, and therefore for preparing the Terms of Reference, short lists, selecting the Consultants, and awarding and subsequently administering the contract, with Bank supervision.

c. **Recurring Expenses.** Include payment of utilities and other office operating expenses of the PEU.

d. **Use of Country Procurement Systems:** The Bank has approved the use of the Jamaican Procurement Sub-system of Limited Tender/Restricted Bidding, for all contracts for works below the Bank's threshold for Price Comparison (up to US$150,000) and contracts for goods and non-consulting services that fall within the Bank's threshold for the said method (US$25,000).

Table 2. Country Threshold Table (US$Thousands) www.iadb.org/procurement

THRESHOLDS				
International Competitive Bidding Threshold*		**National Competitive Bidding Range** (Complex Works and non-common goods)**		**Consulting Services**
Works	**Goods**	**Works**	**Goods**	**International Short List**
≥1,500,000	≥150,000	150,000–1,500,000	25,000-150,000	≥200,000

* When procuring simple works and common goods and their amount is under the International Competitive Bidding thresholds, Shopping may be used.

** When procuring complex works and non-common goods with amounts under the NCB range, Shopping shall be used.

5.3 **Procurement Plan (PP).** The procurement plan indicates the procedure to be used for the procurement of Goods, the contracting of Works or Services, and the method of selecting Consultants, for each contract or group of contracts. It also indicates cases requiring prequalification, the estimated cost of each contract or group of contracts and the requirement for prior or post review by the Bank. The PP will be posted on the Bank's website and will be updated annually or whenever necessary, or as required by the Bank.

5.4 **Procurement Supervision.** The review method for all procurement actions will be ex ante as the PP is not available at the time of preparing Annex III. If a procurement activity is moved to ex-post, the ex-post procurement supervision should take place at least once every 12 months, in accordance with the supervision plan of the Programme.

5.5 **Records and Files.** All records and files will be maintained by the PEU, according EU-CIF requirements, and be kept for up to five years beyond the end of the operation's execution period, this understood as the final disbursement date.

VI. FIDUCIARY MANAGEMENT

6.1 **Programming and budget.** Each year, the Ministry of Finance and the Public Service (MOFPS) publishes a Budget Circular requesting the submission of estimates of income and expenditure from ministries and other agencies for inclusion in the National Budget for the following fiscal year, April 1 to March 31.

6.2 The PEU will prepare annual estimates in the required format for the review and approval by the Board of Directors (BoD) of the PCJ (or Group General Manager

in the absence of a governing BoD). The estimates will consider the total cost of financing required for execution of the Programme. The budget is presented to Parliament before the close of the fiscal year. Once the budget is approved, amendments are made through the submission of Supplementary Budget by the MOFPS.

6.3 The Borrower has committed to allocate, for each fiscal year of project execution, adequate fiscal space to guarantee the unfettered execution of the project; as determined by normal operative instruments such as the Annual Operating Plan (AOP), the Financial Plan and the PP.

6.4 Even though no counterpart resources are contemplated in the original project budget, the Borrower will undertake to provide all required resources for the total and effective completion of the project activities.

6.5 **Accounting and information systems.** Project accounting will be performed using Microsoft Dynamics accounting software, in accordance with the FAAA and IFRS; IDB's financial management requirements; the modified cash basis of accounting, which is a comprehensive basis of accounting other an IFRS. It is expected that the accounting system will facilitate the recording and classification of all financial transactions, provide information related to: planned vs. actual financial execution for the Programme; the financial execution plan for the next 180 days that will be attached to each request for Advance of Funds. Additionally, the list of commitments will also accompany any request for Advance of Funds.

6.6 **Disbursements and cash flow.** Whenever resources from the financing are requested through an Advance of Funds, they will be deposited into a Special Consolidated Fund Account at the Central Bank or a designated account at a commercial bank, denominated in US$.

6.7 The PEU commits to maintain strict control over the utilization of the Advance so as to ensure the easy verification and reconciliation of balances between the Executing Agency's records and IDB records (WLMS1).

6.8 According to EU-CIF policies, only those expenditures that have incurred after the signature of the delegation agreement will be eligible.

6.9 The project will provide adequate justification[1] of the existing Advance of Funds balance, whenever 70% of said balance has been spent. Advance of Funds will be made in accordance with Article 19 (Payments) of EU-CIF PAGODA. The following disbursement methodologies will be used for the Programme:

a. Reimbursement of Payments Made
b. Direct Payment to Supplier
c. Advance of Funds (to provide for the liquidity needs and facilitate the day to day operations).

6.10 Supporting documentation for Justifications of Advances and Reimbursement of Payments made will be kept at the office of the PEU. Supporting documentation for direct payments will be sent to the Bank for processing. In light of the

[1] According to PAGODA Article 19.1: "(…) provided that at least 70% of the immediately preceding instalment (and 100% of previous instalments if any) has been subject to a legal commitment between the Organization [IDB] or the Sub-delegates and a third party as proven by the relevant report".

experience garnered from the current and former operations the modality for disbursement will be ex-ante.

6.11 **Internal control and internal audit.** The management of the project, at the level of both the EA and the PEU, will assume the responsibility for designing and implementing a sound system of internal control for the EMEP in its entirety.

6.12 **External control and reports.** For each fiscal year during project execution, the PCJ will be responsible to submit AFS for the Programme. These Financial Statements will be audited by an independent public accounting firm approved by the Bank's country office. These financial audits will have to be delivered by the PCJ to the Bank[2] : (a) Annually: within 90 calendar days after the Jamaica's fiscal closing date; (b) Final Audit: within 90 calendar days after the final disbursement date as defined in the Non Reimbursable financial agreement; (c) Inputs to the Bank's Management Declaration[3]: within 30 calendar days after the Jamaica's fiscal closing date.

6.13 **Financial supervision plan.** Financial Supervision Plan will be developed by the IDB based on the initial and subsequent risk assessments carried out for the Programme. Financial, Accounting and Institutional Inspection visits will be performed at least once per year, covering, among other things, the following topics:

a. Review of the bank reconciliation and supporting documentation for Advances and Justifications.
b. Review of compliance with the Programme OM.
c. Conducting ex post Reviews.

6.14 **EU access to project documents.** The Bank will allow the EC, OLAF and the European Court of Auditors to conduct on-the-spot checks on the use made of EU contributions on the grounds of supporting accounting documents and any other documents related to the financing of the project. These desk-reviews and on-the-spot checks can occur at the Bank's offices and the Executing Agency. The European Commission shall inform the Bank of the planned on-the-spot missions by agents appointed by the European Commission in due time in order to ensure that adequate procedural matters are agreed upon in advance, and the Bank will communicate to PCJ. These verification visits may be conducted at Bank offices or PCJ Offices.

6.15 **Execution mechanism.** The Programme execution structure will be composed of the EA, a Programme Steering Committee (PSC) and a PEU which will be established within the PCJ and will execute the Programme. The PSC, chaired by the PCJ, and comprising representatives from PCJ, MSET, NWA, Ministry of Agriculture, Ministry of Education, Ministry of Health, National Environment and Planning Agency as well as representatives from statutory organizations, will be formed to provide strategic direction, and technical oversight of the Programme and the PEU.

6.16 The PEU will have three strategic positions: one Programme Manager, one Procurement Specialist and one Financial Specialist. The Programme Manager

[2] As agreed in the IDB-Eu Framework Agreement Section E.

[3] The objective of the Management Declaration is to inform the EC that the projects financed with EU resources are being implemented in accordance with the Bank's and EU policies and procedures, as stated in the FA. This Management Declaration doesn't need to be audited.

will enable smooth day-to-day operations of the Programme. The Programme OM further describes the recommended PEU composition and their responsibilities. The Borrower will be responsible for the administration of loan financing and procurement processes. Specific PEU duties include: (i) preparation of semi-annual progress reports; (ii) preparation, and implementation of the AOP; (iii) preparation of budgets, and disbursements; (iv) preparation of the PP; (v) financial administration of the Programme according to accepted accounting principles and presenting audited financial statements; (vi) ensuring the quality and efficacy of procurement processes and their compliance with both the policies of the Bank and that of the GOJ; (vii) ensuring the consistent alignment of expected Programme results with day-to-day Programme implementation as well as continuous data collection to enable the measurement of the indicators included in the Results Matrix; and (viii) being Programme liaison with the Bank.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/__

Jamaica. European Union Caribbean Investment Facility (EU-CIF)
Energy Management and Efficiency Programme
Nonreimbursable Investment
Financing GRT/ER-____-JA

The Board of Executive Directors

RESOLVES:

1. That the President of the Inter-American Development Bank ("Bank"), or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such agreement or agreements as may be necessary with Jamaica, for the purpose of granting it a nonreimbursable investment financing for a sum of up to €9,170,000, equivalent to US$10,000,000, per the exchange rate on May 1st, 2017, chargeable to the resources to be granted by the European Union Caribbean Investment Facility, pursuant to the agreement or agreements specified in paragraph 2 below, and to adopt any other measures as may be pertinent for the execution of the project proposal contained in document PR-____.

2. 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 agreement or agreements with the European Union as may be necessary to receive and administer resources, subject to the terms of the Framework Administrative Agreement between the European Union and the Bank dated June 10, 2015, for the purposes described in the project proposal specified in paragraph 1 above, and to adopt any other measures as may be pertinent for the execution of said agreement or agreements.

3. That the authorization granted in paragraph 1 above will be effective once the Bank and the European Union have entered into the corresponding agreement or agreements to which reference is made in paragraph 2.

(Adopted on ___ _____)