

Supporting Regulatory Capacity for the use of Natural Gas and Energy Diversification in the Caribbean

RG-T2694

CERTIFICATION

I hereby certify that this operation was approved for **the Knowledge Partnership Korea Fund for Technology and Innovation (KPK)** through a communication dated **September 25, 2015** and signed by **Chang Yeon You**. Also, I certify that resources from said fund are available for up to **US\$300,000** in order to finance the activities described and budgeted in this document. This certification reserves resource for the referenced project for a period of **four (4) calendar months** counted from the date of eligibility from the funding source. If the project is not approved by the IDB within that period, the reserve of resources will be cancelled, except in the case a new certification is granted. The commitment and disbursement of these resources shall be made only by the Bank in US dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except in the case of local consultants working in their own borrowing member country who shall have their remuneration defined and paid in the currency of such country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this operation. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, i.e. represent a risk that will not be absorbed by the Fund.

Original Signed

03/21/2016

Sonia M. Rivera

Date

Chief

Grants and Co-Financing Management Unit

ORP/GCM

Approved:

Original Signed

03/22/2016

Rigoberto Ariel Yepez

Date

Division Chief

Energy Division

INE/ENE

TECHNICAL COOPERATION DOCUMENT

I. BASIC INFORMATION FOR TC

Country/Region:	Caribbean Region
TC Name:	Supporting Regulatory Capacity for the use of Natural Gas and Energy Diversification in the Caribbean
TC Number:	RG-T2694
Team Leader/Members:	Malaika Masson (INE/ENE), Team Leader; Carlos Echeverria (ENE/CGY); Christiaan Gischler (INE/ENE); Joel Hernández (INE/ENE); Javier García (INE/ENE); Kamchan Kang (INE/ENE); Betina Henning (LEG/SGO); Stefan Wright (SCF/CFI); and Stephanie Suber (INE/ENE)
Indicate if: Operational Support, Client Support, or Research & Dissemination:	Research and Dissemination
Date of TC Abstract:	November 25, 2015
Beneficiary:	Jamaica and Suriname
Executing Agency:	Inter-American Development Bank (IDB) through the Energy Division (INE/ENE)
Donors providing funding:	Knowledge Partnership Korea Fund for Technology and Innovation (KPK)
IDB Funding Requested:	US\$300,000
Local counterpart funding, if any:	N/A
Disbursement period:	24 months
Required start date:	May 2016
Types of consultants:	Firms and individual consultants
Prepared by Unit:	Energy Division (INE/ENE)
Unit of Disbursement Responsibility:	Country Office Jamaica (CCB/CJA)
Included in Country Strategy (y/n);	N/A
TC included in CPD (y/n):	N/A
GCI-9 Sector Priority:	Ensuring Sustainable Development; Addressing Sustainable Energy and Climate Change; and Promoting regional Integration

II. OBJECTIVES AND JUSTIFICATION OF THE TC

- 2.1 Electricity generation accounts for the largest portion of fossil fuel use in eight Caribbean countries,¹ and high electricity prices (over US\$0.30/kWh in many countries) have hindered the region's competitiveness. Given declining renewable technology costs, maturing renewable energy technologies and the fact that the Caribbean is rich in wind, solar biomass and small hydropower resources, there is an unprecedented opportunity for diversification away from

¹ In reference to the eight IDB-borrowing countries as The Bahamas, Barbados, Belize, Dominican Republic, Guyana, Haiti, Jamaica and Suriname.

heavy fuel oil imports.² Furthermore, an updated study by the IDB showed that by switching to Liquefied Natural Gas (LNG), Caribbean countries could, even in this low oil-price period, reduce the cost of electricity generation by up to 26 percent, compared to the continued use of oil products and that these savings could then be passed onto consumers as lower tariffs.³ Taking this into account, and given the recent fall in oil prices, it is clear that the Caribbean region has a window of opportunity to ensure that investments in a diversified, less volatile energy matrix can result in lower tariffs to end-consumers.

- 2.2 Investment in cleaner energy in the Caribbean has been growing in recent with several countries having completed projects or made commitments. For example: wind and solar generation investments in Jamaica, Dominican Republic, Suriname and Aruba; biomass developments in Guyana, and commitments towards geothermal development in the Eastern Caribbean states. With regards to LNG, New Fortress Energy has an agreement with Jamaica Public Service Company (JPS) to supply gas to its 120MW power plant at Bogue in Montego Bay and the same company is also expected to develop gas infrastructure and supply JPS' Old Harbour plant with LNG once it is built. Discussions are ongoing similarly, for the NG distribution in Suriname and Bahamas as well.
- 2.3 However, realizing the full potential of these cleaner energy investments and ensuring the shift to lower electricity bills for consumers is not as straightforward as it seems. Whilst renewable and LNG investments have been growing in recent years, the associated institutions and regulatory framework are yet to meet with the same momentum and evolution. With new sources of generation, demands on regulatory regimes and institutions are more complex than in the past, risks and stakeholders expectations are diverse, and the tools available to achieve sector oversight are wide and varied. It is crucial that energy planners and regulators have a good understanding of the challenges associated with the diversification of the country's energy matrix.
- 2.4 In the Caribbean, regulatory institutions and frameworks have been developed to different levels and the Caribbean Community and Common Market (CARICOM) has identified the need for its members to support effective administrative processes and governance structures for implementing and revising their energy policies. For example, Jamaica's National Energy Policy is in its sixth year and the programs and legal framework associated with the policy are still evolving. The regulatory framework, institutional arrangements and human capacity for managing NG and renewable energy penetration is still very weak in many of the countries in the Caribbean region. Whether NG or renewables are used for generation or how clean energy is distributed within the country, the corresponding national institutions will need to build the capacity, expertise and regulatory framework to oversee that savings using these new technologies are

² Flavin, Gonzalez, Majano, Ochs, da Rocha and Tagwerker (2014) "Study on the Development of the Renewable Energy Market in Latin America and the Caribbean" Working Paper OVE/WP-02/14 November 2014, Inter-American Development Bank.

³ Castalia Strategic Advisors, (2015) "Natural Gas in the Caribbean – Feasibility Studies", Report for the Inter-American Development Bank, June 2015. The study noted that the countries that would benefit by importing LNG are: The Bahamas, Barbados, Dominican Republic, Guyana, Haiti, Jamaica, and Suriname.

passed onto consumers in the form of lower electricity bills and that electricity provision is reliable.

- 2.5 The TC is a continuation of the Bank's efforts in the Caribbean region to support energy matrix diversification and reduction in GHGs emissions. Whilst previous IDB studies in the Caribbean focused on the investment needs in clean energy infrastructure and the feasibility of a commercial supply chain in NG, this TC focuses more narrowly on institutional and regulatory capacity issues related to promoting a sustainable energy matrix through improved planning and regulatory oversight. The TC complements on-going work in the region, but delves deeper into the particular context of a limited number of countries (Jamaica and Suriname), to assess in detail the institutional and regulatory gaps and actions necessary to bolster oversight of a diversified energy mix in those countries so that final consumers receive the benefit of lower-cost and reliable electricity. The overall aim is to support a wider agenda of institutional strengthening and regulatory reform as it relates to ensuring reliable and affordable energy for all.
- 2.6 This TC will support 'Institutional Assessments' and 'Action Plans' that will lay out the interventions a country importing NG could follow to set up and strengthen the human, institutional and regulatory capacities across the sector. Participating countries will be those that have already undertaken significant steps to diversify their energy matrix, including through the import of NG and with renewable energy, and have started to revise the scope and functions of their regulatory institutions to improve oversight to the sector. Given the current stage of dialogue and technical assistance, it is envisioned that Jamaica and Suriname will be the first beneficiaries of this technical assistance and each Assessment and Action Plan will be tailored to the specific country context. Given national and regional efforts (e.g the BRIDGE program and OCCUR) to encourage capacity building within the energy sector, this TC will align with existing initiatives, to disseminate best practice and share-knowledge on energy sector oversight.
- 2.7 This TC is aligned with the Ninth Capital Increase (GCI-9) since it contributes to the goals of: (i) supporting development in small and vulnerable countries; (ii) assisting borrowers with mitigation and adaptation to climate change; and (iii) increasing regional cooperation and integration by supporting investments in NG in the Caribbean. The project is also aligned with the Infrastructure Strategy (GN-2710-5), by supporting the development of infrastructure for good quality service and sustainable growth; and with the Caribbean Strategic Agenda on Integration (SAI), by supporting the diversification of a regional country's energy matrix.
- 2.8 The objective of this Technical Cooperation is to continue supporting Caribbean countries in diversifying their energy matrices, by identifying institutional and regulatory interventions that will strengthen energy planning, coordination and sector oversight.

III. DESCRIPTION OF ACTIVITIES, COMPONENTS AND BUDGET

- 3.1 **Component I. Development of 'Institutional and Regulatory Action Plans'.** This component will support an Assessment of the institutional and regulatory

framework within Jamaica and Suriname, as well as an Action Plan to detail specific interventions required to supervise the use of natural gas and renewable energy in the country. The Assessments and recommended Action Plans are expected to improve understanding of the current situation and required future changes in the institutional, legal and regulatory environment in a way that aligns strategies towards lower tariffs and reliable electricity provision to end-consumers. The Plans will feed into wider energy supervision/planning and institutional strengthening in the energy sector, in each country. In particular, this component will finance: (i) An Assessment of the existing energy sector's legal and institutional framework and expertise with regards to energy sector regulation and supervision; (ii) an Action Plan for the adaptation of the institutional and regulatory framework and capacity building plan to develop the human capital/expertise required of the regulation & planning authorities to meet minimum international standards required for public sector supervision of the energy sector in the country. The consultants hired to undertake the Assessments and Action Plans will need to consult with local and regional stakeholders to understand existing initiatives that seek to build capacity or improve integrated energy planning.

- 3.2 **Component II. A Seminar on Best-Practice in Energy Sector Supervision and Regulation.** This component will finance a seminar to bring together energy regulators and planners to discuss and share best practice on supervision and regulation of the energy sector. The seminar will align with, or build on ongoing capacity building or knowledge-sharing efforts at the national or regional level, providing for experts to share regional/international experiences. The consultant hired will propose a methodology to accomplish the objectives of this Component, including agenda topics and experts to be identified for the seminar according to the energy sector needs articulated by the interested countries. The consultant will also facilitate and deliver (in coordinating with local stakeholders) the seminar and final report to stakeholders.

Indicative Result Matrix

Component	Output	Unit	Target	Target year	Outcome	Source of Verification/ Comments
Component I. (a) Development of 'Institutional and Regulatory Action Plans'	Institutional and Regulatory Assessment and Action Plan	#	2	2018	Adaptation of regulatory strategies for the energy sector given new and diversified sources of generation, and additional resources committed to promote the supervision of the energy sector.	Corporate Business Plans & Budget of the benefiting agency (Supervisory & Regulatory authority)
Component II. (a) Knowledge-Sharing &	Seminar to share best practice on supervision	#	1	2018	Strengthen knowledge among Caribbean	Survey following seminar

Dissemination Seminar	and regulation of the energy sector				energy planners and regulators regarding practice in energy sector regulation.	
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- 3.3 The total cost of this TC is US\$300,000 to be financed by the Knowledge Partnership Korea Fund for Technology and Innovation (KPK).

Indicative Budget (US\$)

Component / Activity	Description	IDB/Fund Funding	Counterpart Funding	Total Funding
Component I	Institutional and Regulatory Assessments and Action Plans	260,000	0	260,000
Component II	Seminar on best practice in energy sector supervision	20,000	0	20,000
Project Management	Coordination of activities between the selected countries	20,000	0	20,000
Total		300,000	0	300,000

IV. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 4.1 Given its regional nature and the need to ensure the dissemination of information, the program will be executed under the supervision of the project team leader within the Energy Division with the unit of disbursement responsibility being CCB/CJA. Prior to commencing activities in the participating countries, the Team Leader will ensure the receipt of letters of non-objection from the relevant authorities.⁴ The program includes the hiring of a Project Manager who will be in charge of following up with the project's activities, reports and required stakeholder consultations.
- 4.2 The Bank will contract individual consultants, consulting firms and non-consulting services in accordance with the Bank's current procurement policies and procedures.

V. MAJOR ISSUES

- 5.1 There is a medium risk that countries who are interested in promoting cleaner energy investments may not be interested in pursuing regulatory actions. This TC mitigates against this risk by ensuring that participating countries provide letters of No-Objection to the IDB in advance of the commencement of activities outlined in this TC.

⁴ Please see [Letter of non-objection](#) received from Government of Jamaica

VI. EXCEPTIONS TO BANK POLICIES

6.1 No exceptions to Bank's policies are requested.

VII. ENVIRONMENTAL AND SOCIAL STRATEGY

According to the Environment and Safeguards Compliance Policy (OP-703), this TC has been classified as category C. No environmental assessment studies or consultations are required for Category "C" operations (see [Safeguard Policy Filter Reports \(SPF\)](#) and [Safeguard Screening Form \(SSF\)](#)).

Required Annexes:

Annex I: [Terms of Reference](#)

Annex II: [Procurement Plan](#)