

TECHNICAL COOPERATION (TC) ABSTRACT

I. BASIC PROJECT DATA

Country/Region:	Caribbean Region
TC Name:	Support for the implementation of Natural Gas in the Caribbean
TC Number:	RG-T2694
Team Leader/Members:	Malaika Masson (INE/ENE), Team Leader; Jorge Mercado (ENE/CDR); Christiaan Gischler (INE/ENE); Carlos Echeverria (ENE/CGY); Betina Hennig (LEG/SGO); Stefan Wright (SCF/CFI); Wilkferg Vanegas (INE/ENE); Kamchan Kang (INE/ENE); and Stephanie Suber (INE/ENE)
Indicate if: Operational Support, Client Support, or Research & Dissemination:	Research & Dissemination
If Operational Support TC, give number and name of Operation Supported by the TC:	N/A
Reference to Request (IDBDOCs #):	N/A
Date of TC Abstract:	July 15th, 2015
Beneficiary (countries or entities which are the recipient of the technical assistance):	The Caribbean countries, specifically Barbados, Bahamas, Guyana, Jamaica, Suriname and Trinidad and Tobago, as well as other identified potential gas markets in the Caribbean region
Executing Agency:	Inter-American Development Bank (IDB) through its 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 (which includes execution period):	18 months
Required start date:	1 October 2015
Types of consultants (firm or individual consultants):	Firms and Individual Contractual
Prepared by Unit:	Energy Division (INE/ENE)
Unit of Disbursement Responsibility:	Energy Division (INE/ENE)
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. OBJECTIVE AND JUSTIFICATION

- 2.1 **Objective:** The objective of this Technical Cooperation (TC) is to continue supporting Caribbean countries interested in implementing Natural Gas (NG) into their energy matrices.¹ This support will aim at preparing specific and detailed technical, institutional and regulatory assessments at a country level, as well as promoting knowledge exchange and capacity building.
- 2.2 **Justification:** Most Caribbean countries depend on oil products for electricity generation and other energy needs; this leads to high costs and high emissions. High electricity costs are a burden on residents and on businesses. Electricity

¹ Barbados, Jamaica and Suriname have already expressed their interest to analyze the option of bringing NG into their energy matrices.

prices in many Caribbean countries are at US\$0.30 per kWh or more, three or four times higher than prices in neighboring Florida. As electricity demand continues to grow in the region, more generation capacity must be added, and finding alternative fuel sources to oil products is essential for lowering prices and emissions.

- 2.3 One option that can help the Caribbean countries reduce electricity costs and emissions is to diversify their energy sources (including through the use of Renewable Energy (RE) and fossil fuel alternatives), and by integrating their energy sectors to increase economies of scale. In this regard, the IDB carried out a study to determine the feasibility of establishing a competitive commercial supply chain for NG in the Caribbean region. The study looked at the entire Caribbean region to examine the feasibility of using NG in a variety of market scenarios. The study concluded that in most countries introducing NG for electricity generation would reduce the cost of electricity generation by between 17% and 40%. The countries that would benefit by importing NG are the Bahamas, Barbados, Dominican Republic, Guyana, Haiti, Jamaica, and Suriname. Trinidad and Tobago has large indigenous supplies of NG, which it already uses to meet most its energy demand.² Some of these countries are already taking actions to explore the option of introducing NG for electricity generation.
- 2.4 Governments of Barbados and Suriname have expressed their interest in exploring the options for bringing NG, but also are considering other generation alternatives for electricity generation such as RE and coal. In response, the Bank is supporting both countries with their efforts to analyze the feasibility to implement NG into their energy matrixes, including the completion of action plans, information memorandums, and/or the models for costing NG. The IDB is also supporting the Government of Barbados to import Liquefied Natural Gas (LNG) in order to supply commercial and residential NG demand. That support includes the installation of a propane-air mix plant, the construction of a small-scale NG importation facility; and the installation of a 21-day storage system. Jamaica has explored the option of gas as part of a fuel diversification strategy to lower energy prices and is in the process of the design of an approach that will bring NG to the country in the near future. This move will not only provide fuel diversity, it will also play a large role in optimizing the renewables on the grid now and the significant supply coming on in 2016. Public sector energy and infrastructure agencies and the private utility Jamaica Public Service Company Limited (JPS) are in the process of exploring both the supply of gas and the necessary infrastructure need to support gas delivery. The IDB is entering into a dialogue with the Government of Jamaica towards developing a technical assistance program to support the country with its efforts to diversify its energy matrix.
- 2.6 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 Region. The project is also aligned with the Infrastructure

² In Belize, demand for NG would likely be too low to justify infrastructure investments needed to import NG.

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.

III. Description of Activities and Outputs

- 3.1 This TC has one main component: **Defining national strategies for the implementation of Natural Gas**. This component will support at least 2 countries in the Caribbean that show interest in introducing NG into their energy matrices in order to reduce electricity cost. This support is expected to improve understanding of the potential business structure, a projection of the business case and a deeper understanding of country specific issues that may need to be addressed to develop their NG supply chain. In particular, this component will finance: (i) completion of action plans that lay out the process the countries could follow to pursue its objective of importing NG at a competitive price³; (ii) NG costing models update⁴ to estimate an initial cost of importing NG and to serve as a solid basis to develop the financial model for the projects; and (iii) identification of technical, environmental, financial and legal and regulatory complementary studies at the country level that must be considered for investment projects.

IV. BudgetTable IV-1: Indicative Budget

Component / Activity	Description	IDB/Fund Funding (US\$)	Total Funding (US\$)
Component 1.	Defining national strategies for the implementation of Natural GAS	280,000	280,000
Management		20,000	20,000
Total		300,000	300,000

V. Executing Agency and Execution Structure

- 5.1 Given its regional nature the need to ensure the dissemination of information to all countries, the program will be executed and coordinated by IDB's Energy Division (INE/ENE). The program includes the hiring of a Project Manager who, together with INE/ENE, will be in charge of following up with all studies, trainings, including disseminating all reports/products to all stakeholders for their review prior to each meeting. The INE/ENE team will be responsible for all aspects related to the results, monitoring and evaluation.

VI. Project Risks and Issues

- 6.1 There are not major risks in the implementation of the program. Regarding the potential implementation of the identified solution, the major risk is that if oil prices continue dropping significantly, countries may lose momentum and abandon efforts to switch to NG. However, in the Caribbean Region, the oil dependence is considered a major barrier for the economic development;

³ The IDB has already action plans draft for Barbados and Suriname. Those action plans need to be completed and validated by these governments.

⁴ Under the Feasibility Studies on NG, a model for costing the import of NG to 9 countries in the Caribbean, including Jamaica was developed.

therefore Caribbean countries have strong incentives to hedge against volatile oil prices.

VII. Environmental and Social Classification

- 7.1 The TC is not expected to have negative social or environmental impact. The TC has been classified as Category “C” by the Safeguard [Policy Filter Report](#) and the [Safeguard Screening Form](#).

Approved by:

Original Signed

R. Ariel Yépez-García, Chief INE/ENE

July 24th, 2015

Date