

## TC ABSTRACT

### I. Basic Project Data

▪ Country/Region:	BARBADOS/CCB - Caribbean Group
▪ TC Name:	Expanded Support for the Sustainable Energy Framework for Barbados (SEFB) and Development of New Technologies: Energy Storage, Electric Mobility, OTEC and Deployment of Renewable Energy
▪ TC Number:	BA-T1057
▪ Team Leader/Members:	PRADO, VERONICA RODRIGUES DO (INE/ENE) Team Leader; GISCHLER BLANCO, CHRISTIAAN (INE/ENE) Alternate Team Leader; SNYDER, VIRGINIA MARIA (INE/ENE); CARVALHO METANIAS HALLACK, MICHELLE (INE/ENE); JOHNSON NAVEO, ODILE IVETTE (INE/ENE); FRANKLIN, ROCHELLE (CCB/CBA); ARCHER-HEADLEY, JANETTE (CCB/CBA); PADILLA, MARIA CAMILA (VPC/FMP); SUBER, STEPHANIE ANNE (INE/ENE); PAREDES, JUAN ROBERTO (INE/ENE); MOJICA, CARLOS HERNAN (INE/TSP); PEREZ JARAMILLO, DANIEL (INE/TSP)
▪ Taxonomy:	Operational Support
▪ Number and name of operation supported by the TC:	Deployment of Cleaner Fuels and Renewable Energies in Barbados-BA-L1012 - 3.Support for the Execution  Public Sector Smart Energy (PSSE) Program-BA-L1025 - 3.Support for the Execution
▪ Date of TC Abstract:	27 Jul 2018
▪ Beneficiary:	Government of Barbados
▪ Executing Agency:	INTER-AMERICAN DEVELOPMENT BANK
▪ IDB funding requested:	\$ 200,000.00
▪ Local counterpart funding:	\$ 0.00
▪ Disbursement period:	24 months
▪ Types of consultants:	Not applicable
▪ Prepared by Unit:	Infrastructure & Energy
▪ Unit of Disbursement Responsibility:	Infrastructure & Energy
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Environmental sustainability

### II. Objective and Justification

- 2.1 This Technical Cooperation will continue to support the implementation of the Sustainable Energy Framework for Barbados (SEFB). The SEFB is a comprehensive framework aiming to unlock viable investments in Renewable Energy (RE) and Energy Efficiency (EE) to reduce energy costs, reduce dependency on imported fossil fuels, improve energy security, promote an enabling legal and regulatory framework for the deployment of RE and EE, and enhance environmental sustainability. Two loan operations currently under execution are an integral part of the SEFB (BA-L1012 and BA-L1025), and one operation under preparation BA-L1043 Sustainable Energy Investment Program II. The Public Sector Smart Energy (PSSE) (BA-L1025) program aims at replacing all street lights in Barbados with energy-saving lamps and retrofitting government buildings to generate energy savings, and The Deployment of Cleaner

Fuels and Renewable Energies in Barbados (BA-1012) operation has the objective to enhance Barbados' energy security and sustainability by diversifying its energy matrix through promoting the use of cleaner fuels for power generation including Natural Gas, and increasing the use of Renewable Energy (RE) sources. This TC will also support the execution of the Smart Fund II (currently under preparation) (BA-L1043) which has a main objective to expand the financial instrument designed and implemented under (BA-L1020) to support small businesses acquire state-of-the-art RE and EE equipment,, promote electromobility, the applicability of energy storage, and institutional strengthening. These operations have been and still are an integral part of the government's strategy to reduce its dependency on imported fossil fuels for electricity generation and turn to a sustainable energy matrix. This TC will contribute to the execution and evaluation of the Smart Fund and the execution of the PSSE.

- 2.2 It is expected that implementing the SEFB would allow the country to reduce its reliance on fossil fuels from 98 percent to 63 % of electricity generation, reduce energy consumption by 25%, reduce monthly electricity bills by 40 to 50%, and generate a net benefit of US\$685 million in electricity cost savings. Also, the GOBA has embarked in an effort to prepare a Nationally Appropriate Mitigation Actions (NAMA) document to consolidate all actions that reduce CO2 emissions relative to 'business as usual' emissions in 2020 and present it to the United Nations Framework Convention on Climate Change (UNFCCC) to include it in the NAMA Registry.
- 2.3 Continuing the implementation of the SEFB will require additional efforts by the GOBA regarding policy and regulation, development of EE and RE projects and implementation of new technologies in support of SEFB goals. For example, the development of new technologies such as Smart Grids (SG) has the potential of enhancing the results sought by the SEFB by facilitating the inclusion of more intermittent electricity generation and deepening the effect of EE measures.

### **III. Description of Activities and Outputs**

- 3.1 Component I. Support to the SEFB Program. This component will finance services to support the further development of the legal, and regulatory framework including: (a) the design of a regulatory framework that promotes competitiveness and innovation in the energy sector including a tariff assessment; (b) technical and market studies to support the development of an energy storage policy; and (e) support for the introduction of ongoing studies to facilitate investment in Ocean Energy proposed under the ongoing PSSE program.
- 3.2 Component II. Sustainable Electric Mobility Policy Development and Cutting edge technologies Strategy. This component will focus on the development of a Sustainable Electric Mobility Policy which is consistent with the objectives of the Barbados National Energy Policy 2017-2037. Activities under this component will include (a) studies to assess the most viable technologies and models for Barbados (b) A social, environmental and economic assessment of viable options (c) An assessment of the current fiscal and regulatory environment for sustainable electric mobility and (d) Integration with cutting-edge technologies and trends.
- 3.3 Component III. Capacity Building, Institutional Strengthening & Public Awareness. This component support capacity building, institutional strengthening and public awareness as required for the implementation of the SEFB. It will finance the following activities (a) training session for the ETD and other sector institutions; (b) workshop/seminar and an event to disseminate relevant knowledge (c) a public awareness event to promote the deployment of RE and EE technologies. The outputs of this component are (i) ETD staff strengthened and trained (ii) local private and public sector intuitions sensitized and trained.

- 3.4 **Component I: Component I. Support to the SEFB Program..** This component will finance services to support the further development of the legal, and regulatory framework
- 3.5 **Component II: Component II Sustainable Electric Mobility Policy Development and Cutting edge technologies Strategy.** . This component will focus on the development of a Sustainable Electric Mobility Policy which is consistent with the objectives of the Barbados National Energy Policy 2017-2037
- 3.6 **Component III: Component III Capacity Building, Institutional Strengthening & Public Awareness.** . This component support capacity building, institutional strengthening and public awareness as required for the implementation of the SEFB

#### **IV. Budget**

**Indicative Budget**

<b>Activity/Component</b>	<b>IDB/Fund Funding</b>	<b>Counterpart Funding</b>	<b>Total Funding</b>
Component I. Support to the SEFB Program.	\$ 90,000.00	\$ 0.00	\$ 90,000.00
Component II Sustainable Electric Mobility Policy Development and Cutting edge technologies Strategy.	\$ 75,000.00	\$ 0.00	\$ 75,000.00
Component III Capacity Building, Institutional Strengthening & Public Awareness.	\$ 35,000.00	\$ 0.00	\$ 35,000.00

#### **V. Executing Agency and Execution Structure**

- 5.1 The Energy Division will execute the Technical Cooperation by hiring individual consultants and consulting firms.
- 5.2 The Energy Division will execute the Technical Cooperation

#### **VI. Project Risks and Issues**

- 6.1 There are no envisioned environmental or social risks associated to this technical cooperation.

#### **VII. Environmental and Social Classification**

- 7.1 The ESG classification for this operation is "undefined".