# DIRECTORY

# Financing and Technical Support for the Implementation of CARICOM NDCs

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# BIBLIOGRAPHY

# LIST OF ACRONYMS AND ABBREVIATIONS

ADFD	Abu Dhabi Fund for Development
ACP	African Caribbean Pacific
ADA	Austrian Development Agency
AOSIS	Alliance of Small Island States
BEIS	Department for Business, Energy and Industrial Strategy
BaU	Business-As-Usual
BMUB	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
CBIT	Capacity Building Initiative for Transparency
CARICOM	Caribbean Community
CARCEP	Caribbean Clean Energy Program
CDB	Caribbean Development Bank
CCREEE	Caribbean Center For Renewable Energy And Energy Efficiency
CEFF-CCA	Clean Energy Finance Facility for the Caribbean and Central America
CEP	Caribbean Energy Policy
COTED	Council For Trade And Economic Development
СОР	Conference of Parties .
CTCN	Climate Technology Centre and Network
C-SERMS	Caribbean Sustainable Energy Roadmap and Strategy
CSES-C	Canadian Support to the Energy Sector in the Caribbean
CSEF	Caribbean Sustainable Energy Forum
DAC	Development Assistant Committee (of the OECD)
DOMLEC	Dominica Electricity Services Limited

ECOWAS	Economic Community of West African States
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency
EDF	European Development Fund
ElectriFi	Electrification Financing Initiative
EE	Energy Efficiency
EKFM	Danish Ministry of Energy, Utilities and Climate
EUR	Euro ( European Monetary Unit)
EU	European Union
GCF	Green Climate Fund
GHGE	Green House Gas Emissions
GEF	Global Environment Facility
GHG	Green House Gas
GIZ	German Society for International Cooperation, Ltd.)
GNI	Gross National Income
HOG	Heads of Government
IDB	Inter American Development Bank
INDC	Intended Nationally Determined Contribution
IRENA	International Renewable Agency
J-CCCP	Japan-Caribbean Climate Change Partnership
LDC	Less Developed Countries
LEDS	Low-Emission Development Strategies
MFA	Danish Ministry of Foreign Affairs
MRV	Measuring Reporting And Verification
Mt CO <sub>2eq</sub>	Metric Tons of Carbon Dioxide equivalent

MW	Megawatts
NAMA	Nationally Appropriate Mitigation Action
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NDCs	Nationally Determined Contributions
NEP	National Energy Policy
NFO	Notice for Funding Opportunity
NGO	Non Governmental Organization
ODA	Official Development Assistance
OECS	Organization Of Eastern Caribbean States
OECD	Organization For Economic Cooperation And Development
OLADE	Latin American Energy Organisation
PCREEE	Pacific Centre For Renewable Energy And Energy Efficiency
RE	Renewable Energy
REETA	Renewable Energy and Energy Efficiency Technical Assistance
SEAP	Sustainable Energy Action Plan
SEEC	Sustainable Energy for the Eastern Caribbean
SEF	Sustainable Energy Facility (SEF)
SIDS	Small Island Development States
TAPSEC	Technical Assistance Programme for Sustainable Energy in the Caribbean
TBD	To Be Determined
TEI	Trade and Economic Integration
UAE	United Arab Emirates
UN	United Nations
UNIDO	United Nations Industrial Development Organization

UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Program
USAID	United States Agency for International Development
USAID	United States Agency For International Development
USD	United States Dollars
USTDA	U.S. Trade and Development Agency

# **EXECUTIVE SUMMARY**

This Report was commissioned to prepare a catalogue/directory of finance and investment support for energy related activities in CARICOM member states that could support implementation of countries' Nationally Determined Contributions (NDCs) submitted under the Paris Agreement.

The development of the catalogue was to be informed by:

- An overview of regional policy coherence on matters related to mitigation of greenhouse gases and development of energy efficiency and renewable energy;
- An assessment of the national planning status for NDC implementation to map out where countries are at in this process;
- A mapping of financing and technical support initiatives that are available to countries in the region; and
- Identification of possible approaches to leverage climate finance

# MAIN FINDINGS AND CONCLUSIONS

### **Overview of Regional Policy Coherence Between NDCs and CEP/C-SERMS**

The NDCs are broadly coherent with the national and regional energy policies. Their mitigation components have a common focus, inter alia, on renewable energy and energy efficiency. One-to -one comparison of the absolute renewable energy and energy efficiency targets in the NDCs with the regionally approved C-SERMS targets are not possible because of the variations in information content of the submitted NDCs and the information used to develop the C-SERMS targets.

The specific findings from the research were:

- a) The NDCs of the CARICOM members vary with respect to sectoral focus, levels of ambition, relative scale and transparency of targets, approaches to renewable energy, extent of attention to energy efficiency, anticipated use of carbon markets to finance investment, extent of conditionality, and, importantly, the level of specificity with respect to how the targets may be achieved.
- b) Of the 14 countries reviewed, seven (7) utilized energy policies, low-carbon development strategies and/or climate policies as a basis for producing the mitigation components of their NDCs. In this sense these seven (7) NDCs can all be considered highly coherent

with national climate and energy policies. Two (2) countries refer to such policies in their NDCs and three (3) mention the existence of such policies. Only two (2) of the fourteen (14) countries make no mention of energy or climate policies in their NDCs.<sup>1</sup>

c) One-to -one comparison of the absolute renewable energy and energy efficiency targets in the NDCs with the C-SERMS targets are not possible because of the variations in information content of the submitted NDCs.

# **Status of NDC implementation**

The majority of countries have not initiated structured approaches to NDC implementation. The majority of them, however, are involved in the implementation of activities that have been identified in their NDCs. These activities were either ongoing activities, or previously planned activities which were included in the NDCs.

Countries also identified support needs in a range of areas that were all consistent with the C-SERMS goals. These included support for the development of national MRV frameworks to track NDCs, support for the development of policies and strategies related to energy development and support in developing national implementation plans for their NDCs.

The specific findings from the research were:

- a) Only two (2) countries have reported the development of formal implementation plans for their NDCs. Others have requested assistance with developing national implementation plans.
- b) Eight (8) of the countries 67% of those reporting have started formal implementation of their NDCs, defined as having commenced formal programming on activities identified within their NDCs. Many of these activities were either ongoing activities or previously planned activities which were included in the NDCs.
- c) Support needs identified by countries were consistent with the C-SERMS Goals, with multiple countries requesting support on each of the goals, viz:
  - i. *Information and Data Gathering* Six (6) countries indicated a need for support for the development of national MRV frameworks to track NDCs. This included developing the systems for data collection, reporting, monitoring and evaluation and/or verification at the national as well as the sub-national level. Two (2) countries also requested support to conduct feasibility studies.

<sup>&</sup>lt;sup>1</sup> "Policy brief on NDC mitigation targets of the CARICOM member states," Swedish Energy Agency, March 2017.

- Policy Five (5) countries indicated a need for assistance with the development of policies and strategies related to energy development, with one (1) country indicating a need for a Technology Strategy and Roadmap. Two (2) countries requested support for project development and two (2) indicated a need for a legislative review.
- iii. Capacity Building Five (5) countries indicated a need for support on capacity building. This included assistance on institutional arrangements in two (2) countries, support for the conduct of baseline studies and scenarios in two (2) countries, development of skills in the use of market mechanisms in one (1) country and development of technical and technological skills in one (1) country.
- iv. *National Implementation Plans* Five (5) countries requested support in developing national implementation plans.

# **Available Financing and Technical Support Initiatives**

The main sources of finance that have been used by countries are bilateral arrangements with friendly governments and multilateral agencies operating in the region. The rationale behind the choice of sources included familiarity with the sources due to their presence in the region, as well as the extent to which the source was willing to work with the country based on its national circumstances and needs.

There are a number of agencies and programs providing financial and technical support, that are active in the region. The services provided are consistent with the C-SERMS goals and the needs identified by the countries. This research identified twenty five (25) such sources of support.

The total financing available from these sources is difficult to quantify as most of the agencies that have the potential to provide investment finance indicate that financing will be based on needs identified during the project preparation process. It has been estimated that the Caribbean needs at least USD 15 billion in financing to achieve the target of 47 percent renewable power capacity by 2027.

The specific findings from the research were:

- a) The main sources that have been used by countries to finance ongoing renewable energy initiatives include:
  - i. bilateral arrangements with friendly governments including Norway, Japan, Sweden, Canada, Germany, New Zealand and Germany.

- ii. multilateral agencies including IRENA, UNEP, IDB, OLADE, World Bank and the GEF.
- iii. local and international private sector players.
- b) The rationale behind the choice of sources varied among the countries and included:
  - i. Familiarity with the source due to their presence in the region;
  - ii. Concessionality of the financing available;
  - iii. Willingness to support concrete action/outcomes and provide on the ground technical support;
  - iv. Willingness to support direct access and hands-on project management to maximise ownership and sustainability of the outcome; and
  - v. Willingness to undertake the upfront risks involved, especially with regards to geothermal developments.
- c) Planned sources of finance for NDC implementation include:
  - i. The national public sector and bilateral partners six (6) countries (67%) plan to use these sources.
  - ii. Green Climate Fund five (5) countries (55%) plan to use the Green Climate Fund, while three
  - iii. NAMA Facility (3) countries (33%) plan to use the NAMA Facility.
  - iv. National Private Sector three (3) countries (33%) planned to source funding from their national private sector.
- d) This research identified twenty five (25) financing and technical support programs that are active in the region, providing services that were consistent with the C-SERMS goals and expressed country needs. The distribution of programs as per the C-SERMs goals/country needs are as follows:
  - i. Investment Finance 13 programs
  - ii. Early stage project development 3 programs
  - iii. Information and data gathering 12 programs
  - iv. Policy 16 programs
  - v. Capacity Building 17 programs
  - vi. Implementation Planning 2 programs
- e) The total financing available from the programs that have specified available financing is in excess of US\$300M. This does not include the programs that indicated that financing will be based on needs identified during project preparation process. This latter is applicable to eight (8) of the thirteen (13) programs that provide investment finance.

- A significant amount of the specific finance over US\$160M is available through the CDB, primarily for early stage geothermal development. CDB also has over US\$20M available for sustainable development in the Eastern Caribbean.
- The EU TAPSEC program has also specified the availability of EUR9.2 million for activities related to the implementation of C-SERMS including Regulatory frameworks for renewable energy and energy efficiency, energy information, the identification of financing mechanisms for renewable energy projects and strengthened technical capacity among players in renewable energy and energy efficiency.
- f) The financing available has to be viewed in the context where it has been estimated that the Caribbean needs at least USD 15 billion in financing to achieve 47 percent renewable power capacity by 2027. (CDB at CSEF IV).

# Identification of possible approaches to leverage finance

Leveraging of finance is at an embryonic stage in the region and is used primarily by the CDB and the EU. It has the potential to expand the reach and effectiveness of the financing that is available and should be pursued by regional agencies and governments. The report identifies a number of ways in which this can be done including pooling of resources, co-financing arrangements, strategic partnerships, investment grants, technical assistance, provision of risk capital and use of guarantees.

### RECOMMENDATIONS

### a) Alignment of NDCs with C-SERMS

There is a need at the national and regional levels to align the NDCs and their targets with the C-SERMS and its targets and develop one set of objectives for the region. This alignment has to take into account the fact that countries have to report on their NDCs as part of the transparency process of the Paris Agreement.

Such alignment will clarify the goals that the region is seeking to achieve on renewable energy and energy efficiency. It will also enable the region to speak with a consistent and noncontradictory voice on matters related to energy efficiency and renewable energy.

This will also facilitate the interaction with potential sources of finance and enable implementation to proceed in a seamless manner.

This alignment process should be led at the regional level by the CARICOM Energy Unit and CCREEE, and should be addressed as a matter of priority, so that countries can have a clear pathway forward for structuring their NDC implementation.

To facilitate this, it is important that CCREEE becomes fully operational as soon as possible.

# b) Accessing Technical and Financial Assistance and Supports

Countries should be reminded/made aware of the support that is already available for initiating work in the areas that they have identified as priority needs. Regional agencies like the CARICOM Energy Unit and CCREEE could facilitated the countries in establishing contacts and developing relationships with these agencies, including an understanding of the requirements for accessing support from these agencies.

This report can be used to initiate such a process through the following activities:

- Initiation of a process to validate the contents of this report, especially the Directory of support agencies in Annex 2. This could include sending the report to the countries and agencies for review and feedback by a stipulated time.
- Online publication of the validated Directory of sources of financial and technical assistance on relevant regional websites including CCREEE, CARICOM Secretariat and the 5Cs.
- Convening of a regional event that brings together countries and agencies/programs to share the results of this research and discuss how best to work together. This event should provide an opportunity for interaction between countries and agencies, and result in initial contacts that can be followed up after the event.
- Coordination of the follow-up activities by CCREEE in the form of a support facility/renewable energy exchange that countries can draw upon to assist with implementation of their NDCs, challenges being experienced, identification of new partnerships and the like.

#### 1. BACKGROUND

#### 1.1. Objective/Purpose

This Report was commissioned to prepare a catalogue/directory of finance and investment support for energy related activities in the Caribbean that could support implementation of countries' Nationally Determined Contributions (NDCs) submitted under the Paris Agreement.

#### 1.2. Scope

The development of the catalogue was to be informed by:

- An overview of regional policy coherence on matters related to mitigation of greenhouse gases and development of energy efficiency and renewable energy;
- An assessment of the national planning status for NDC implementation to map out where countries are at in this process;
- A mapping of financing and technical support initiatives that are available to countries in the region; and
- Identification of possible approaches to leverage climate finance.

#### 1.3. Methodology

#### 1.3.1. Analytical Framework

The assignment was conducted in the context of the existing regional policy framework with analysis at three (3) levels, viz:

- a) Assessment of the coherence of the NDCs with the national and regional energy policies;
- b) Assessment of the coherence between the needs expressed in the NDCs and the regional priorities and goals expressed in the regional policy framework; and
- c) Assessment of the available financing and technical support initiatives and their coherence with the needs expressed in the NDCs and the regional priorities and goals expressed in the regional policy framework.

#### 1.3.2. Methodological Approaches

The methodological approaches used consisted of the following:

a) *Desk research* - was extensively used, including sourcing of information from the internet. A listing of sources used is contained in the Bibliography.

- b) *Questionnaires* to national focal points to solicit the information on the national planning status for NDC implementation and on country needs. Responses were received from twelve (12) of the fourteen (14) member states a 85.7% response rate.
- c) *Interviews* with key informants in regional institutions, to supplement the information generated by the desk review, especially as regards the existing institutional framework for energy development in the region. A listing of persons interviewed is contained in Appendix1.

# 2. THE INSTITUTIONAL FRAMEWORK FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY

# 2.1. Regional Institutional Framework

The institutional framework for renewable energy and energy efficiency programming in the CARICOM region consists of three central agencies - CARICOM Energy Unit, The Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE) and SIDS Dock - which are mandated to manage the interface with national authorities and regional and international partners.

# 2.1.1. CARICOM Energy Unit

The Energy Unit of the Caribbean Community Secretariat is located within the Secretariat's Directorate of Trade and Economic Integration (TEI). It is responsible for implementing a programmatic approach to energy sector developments in the Region, including through the implementation of the regional energy policy and sustainable energy strategy<sup>2</sup> as approved at the ministerial and Heads of Government (HOG) levels.

Its prime role within the institutional framework is to be the interface between the ministerial/ HOG levels and the operational levels and ensure consistency of operational programming with the ministerial and HOG mandates.

# 2.1.2. CCREEE

The Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE) was approved by the CARICOM Heads of Government in July 2015 with a formal CARICOM and SIDS DOCK mandate to promote renewable energy and energy efficiency investments, markets and industries in the Caribbean<sup>3</sup>.

It is designed to operate within the decision and policy framework of CARICOM as illustrated in Fig. 1. It is not yet fully operational as the CARICOM legal agreement to facilitate its operationalisation is still under preparation.

When operational, CCREEE is expected to function as a regional renewable energy and energy efficiency promotion agency rather than an implementer on micro- and grass-root levels. The Centre is designed to perform only up to the level of programme/project development, fund raising, oversight, quality assurance as well as coordination, monitoring and evaluation of project/programme implementation. The execution of specific assignments or services is in many cases delegated to national institutions and/or the private sector

<sup>&</sup>lt;sup>2</sup> http://caricom.org/energy-programme/. Accessed February 19, 2017

<sup>&</sup>lt;sup>3</sup> http://www.ccreee.org/content/institutional-structure. Accessed on February 19, 2017



# Fig. 1 - CCREEE in the CARICOM Context<sup>4</sup>

The Centre will function under the SIDS DOCK framework and will closely work with the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) and the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) on common SIDS sustainable energy issues and solutions. The centres are part of a wider Global Network of Regional Sustainable Energy Centres which was created in cooperation with regional organizations and communities.

What this means in practical terms is that CCREEE will focus on the mobilisation of finance and technical support to facilitate the implementation of the national and regional energy policies, strategies and plans, by the national authorities.<sup>5</sup> In that role, CCREEE is expected to work closely with the CARICOM Energy Unit and with SIDS DOCK.

CCREEE has received technical and financial support of from the United Nations Industrial Development Organisation (UNIDO) and financial assistance from the Austrian Development Agency (ADA) and the Government of Spain and US\$ 2.5 million are available from these sources for the first operational phase of the centre (2015 to 2019).

<sup>&</sup>lt;sup>4</sup> http://www.ccreee.org/content/institutional-structure. Accessed on February 19, 2017

<sup>&</sup>lt;sup>5</sup> Interview with Dr. Al Binger, Interim Executive Director of CCREEE, February 08, 2017

# 2.1.3. SIDS DOCK<sup>6</sup>

SIDS Dock is an institutional mechanism developed by the Alliance of Small Island States (AOSIS) to connect the energy sector in SIDS (Small Island Developing States) with the global market for finance, sustainable energy technologies and with the European Union (EU) and United States carbon markets to facilitate trading avoided carbon emissions in those markets.

The mechanism has been formalised as an intergovernmental organisation vested with the full powers of the United Nations (UN) under the SIDS DOCK Treaty, which was signed on September 30, 2015.

SIDS DOCK has four (4) principal functions<sup>7</sup>, viz:

- Assisting SIDS with developing a sustainable energy sector, increasing energy efficiency and development of renewable energy resources;
- Providing a vehicle for mobilizing financial and technical resources to catalyze clean economic growth;
- Provide SIDS with a mechanism for connecting with the global carbon market and taking advantage of the resource transfer possibilities that will be afforded, and;
- A mechanism to help SIDS generate the financial resources to invest in climate change adaptation.

Through the execution of these functions, SIDS DOCK is expected to play a pivotal role in the mobilisation of finance for the implementation of energy sector reform and development in Caribbean and the SIDS.

### 2.1.4. Summary

The foregoing regional institutional framework is still at the embryonic stage of its formalisation, with some aspects e.g. CCREEE not yet fully operational. When fully operational, partners wishing to do business with the region are expected to interface and collaborate through this framework.

### **2.2. National Institutions**

Renewable energy and energy efficiency work at the national levels is coordinated through a variety of institutional forms and agencies, with fragmented responsibility for various aspects of energy sector governance. In most countries, there is a need for a transparent, simple, effective

<sup>&</sup>lt;sup>6</sup> http://sidsdock.org/. Accessed on February 19, 2017

<sup>&</sup>lt;sup>7</sup> The Small Island Developing States (SIDS) Sustainable Energy Initiative - SIDS DOCK BRIEFING NOTE

system with precisely defined roles for participating energy sector agents under one clear mainstreamed strategy.

# 2.3. Other Institutional Players

There are a number of other agencies and organisations providing support for renewable energy and energy efficiency in the region. These include the Caribbean Development Bank (CDB), the United States Agency for International Development (USAID), the United Nations Development Program (UNDP), the Latin American Energy Organisation (OLADE), the GIZ and the European Union (EU). They interface with countries either on a bilateral basis, or as part of regional programmes. The specific support provided by these agencies and organisations are elaborated in Annex 2 of this report.

# 3. THE POLICY FRAMEWORK FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY

# 3.1. CARICOM Energy Policy(CEP)<sup>8</sup>

The CARICOM's approach to renewable energy and energy efficiency is grounded in the CARICOM Energy Policy that was adopted by CARICOM in 2013 after more than a decade of development.

The Vision of the CARICOM Energy Policy is the "Fundamental transformation of the energy sectors of Member States of the Community through the provision of secure and sustainable supplies of energy in a manner which minimises energy waste in all sectors, to ensure that all CARICOM citizens have access to modern, clean and reliable energy supplies at affordable and stable prices, and to facilitate the growth of internationally competitive Regional industries towards achieving sustainable development of the Community."

# 3.1.1. Policy Objectives

The Policy includes 15 objectives that will be pursued at the regional level, including a focus on renewable energy and energy efficiency expressed through the following objectives, viz:

- a) Sustainable and secure energy supplies through diversification of energy sources;
- b) accelerated deployment of renewable and clean sources of energy supplies towards increased energy supply diversification and affordability; and
- c) increased energy efficiency and conservation in all sectors, including the transportation sub-sector.

The full listing of objectives is included in Box 1 at the end of this section.

# 3.1.2. Policy Actions

This Vision and accompanying objectives would be achieved through the implementation of fifteen (15) policy actions<sup>9</sup>.

At least nine (9) of these policy actions - (c), (d), (e), (f), (g), (i), (j), (l) and (m) - are applicable to NDC implementation focused on renewable energy and energy efficiency.

<sup>&</sup>lt;sup>8</sup> CARICOM Energy Policy

<sup>&</sup>lt;sup>9</sup> CARICOM Energy Policy, Pg. 18 - 19

There is therefore a high level of congruence between the provisions of the CARICOM Energy Policy and actions, in general, on renewable energy and energy efficiency.

The full listing of policy actions is included in Box 2 at the end of this section.

3.1.3. Guiding Principles

The actions outlined in the Policy are guided by five (5) principles<sup>10</sup>, which will inform the approaches to implementation at the regional and national levels, viz:

- a) *The Community Mandates on Energy and Revised Treaty of Chaguaramas* including the Liliendaal Declaration on Climate Change, mandates of the Special Council for Trade and Economic Development (COTED), Energy Held March 24, 2011 and outcome of Retreat of Heads of Government in May 2011.
- b) *Focus on the Regional Level Energy Sector Challenges and Opportunities* and creating solutions to the major issues affecting the regional energy sector by providing a menu of actions to be implemented collectively, or individually by Member States.
- c) Recognition that Member States' energy resources and level of energy sector development vary - and that Member States will only commit to take individual actions where relevant and feasible. There is no binding commitment of any Member State to implement any action proposed in the CEP that is not relevant, or feasible, for that particular Member State.
- d) *Consistency, Complimentarity And Collaboration* with the national energy policies of CARICOM Member States, particularly where synergies could be attained.
- e) *Principle of Subsidiarity* which emphasize regional level treatment of those actions which have comparative advantage by being implemented at the regional level. This includes regional level coordination of national actions, in which case the complete action is not carried out at a regional level but in Member States while being coordinated at the Regional level.

It is clear from the foregoing that the CEP is intended to provide a framework for development of the energy sector, with actions contemplated at both the national and regional levels. Regional action would be taken where comparative advantages and synergies exist. However, individual Member States also have discretion over which actions they implement, or participate in. These

<sup>&</sup>lt;sup>10</sup> CARICOM, Energy Policy, pg. 20 - 21

latter will be guided by the provisions of the National Energy Policies of the individual Member States.

It therefore means that the primary policy focus of the individual member states will be that which is provided by their National Energy Policies, and not by the CARICOM Energy Policy. Member States are therefore free to participate in the regional initiatives only where positive benefits can be identified.

	BOX 1
	<b>OBJECTIVES OF CARICOM ENERGY POLICY</b>
a)	sustainable and secure energy supplies through diversification of energy sources;
b)	accelerated deployment of renewable and clean sources of energy supplies towards increased energy supply diversification and affordability;
c)	sustained growth of intra-Community trade in energy;
d)	increased energy efficiency and conservation in all sectors, including the transportation sub-sector;
e)	establishment and enforcement of labeling and standards for the importation of electrical appliances as well as standards for vehicles importation;
f)	increased investment in production, transformation and distribution of viable energy resources;
g)	strengthening and enhancement of the human and institutional capacities in the Community energy sector;
h)	programmed expansion of electricity generation, transmission, distribution and trade;
i)	improved access to affordable energy by the poor and vulnerable;
j)	greater use of renewable energy for electricity generation as well as in the transportation, industrial and agricultural sectors;
k)	coordinated approach to exploring and establishing an institutional framework for leveraging financing mechanisms for the development of viable energy resources;
1)	increased technology transfer and information sharing;
m	) established regional and national targets for emissions reduction with corresponding mitigation actions;
n)	strategies for maintenance of adequate energy reserves in the event of disasters; and
o)	strengthened research, development and innovation efforts in energy sector especially in areas of clean and renewable energy sources and technologies.

#### BOX 2

#### POLICY ACTIONS FOR IMPLEMENTATION OF CARICOM ENERGY POLICY

- a) Ensure increased energy security through timely access to adequate, reliable and affordable supplies of energy by all Member States of CARICOM.
- b) Secure least cost hydrocarbon resources for each Member State and ensure that appropriate standards for petroleum and petroleum related products are introduced and enforced.
- c) Diversify the energy sources through increased use of renewable energy in a manner that assures optimization with other sectors.
- d) Ensure the sustainability of the electricity sector through increased use of renewable energy, improved legislative and regulatory framework and cross border trade of electricity generated from indigenous renewable energy sources.
- e) Promote energy savings efforts in all sectors
- f) Promote fuel switching in the transportation sector to cleaner energy sources and encourage greater efficiency of energy use in the transportation sector.
- g) Undertake the necessary reforms in a timely manner to encourage greater investment in the energy sector.
- h) Ensure fair pricing and access to hydrocarbon resources by all Member States to improve the competitiveness of regional industries.
- i) Ensure that energy is supplied and consumed in a manner that creates minimal adverse impact on the environment.
- Build and strengthen the human capacity and skills as well as institutional capacity within the Region, encourage research and development and increase public education and awareness to ensure energy sector development.
- k) Eliminate energy poverty and ensure access to clean, affordable and reliable energy supplies by all citizens of the Region poverty.
- 1) Encourage sustainable energy practices within all other sectors and areas where there is linkage to energy use such as agriculture, youth and culture, etc.
- m) Establish regional and national targets for the reduction of greenhouse gas emissions in the energy sector and implement appropriate mitigation actions relevant to the energy sector.
- n) Develop strategies to ensure the availability of energy supplies and products and a strategic response to any oil spill and sustainability of energy services during any crisis.
- o) Develop strategies to take advantage of opportunities for trade in energy services regional and internationally.

#### 3.2. C-SERMS

The Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) was developed in response to mandates received from the CARICOM Heads of Government<sup>11</sup> and the Council for Trade and Economic Development<sup>12</sup>. It was designed to build on existing efforts in the region and to provide CARICOM member states with a coherent strategy for transitioning to sustainable energy<sup>13</sup>. It was conceptualised as an updateable sustainable energy planning, management and implementation framework. It was also intended to serve as a communication tool to be developed under the CARICOM Energy Programme in collaboration with CARICOM Member States and other partners. One of its tasks was to establish "... realistic regional level sustainable energy targets and strategies for the short, medium and long term horizons ..."<sup>14</sup>.

#### 3.2.1. Policy Frameworks

The C-SERMS Baseline Report, assessed the existing sustainable energy policy frameworks<sup>15</sup> in the region and identified the presence of regulatory policies, fiscal incentives and public financing. It identified a number of opportunities for strengthening these policy frameworks, in the areas of renewable energy and electricity, energy efficiency and sustainable transport, based on international best practice in these areas.

#### **Opportunities in Renewable Energy and Electricity**

- Reform of national laws and regulations to allow for independent power producers;
- Opening of markets to independent generation;
- Establishment of Renewable Portfolio Standards to obligate a share of supplied energy from renewables;
- Introduction of Feed-in Tariffs;
- Use of fiscal incentives e.g. tax credits, or incentives;
- Use of green financing; and
- Use of tenders and auctions.

#### **Opportunities in Energy Efficiency**:

- Strengthening of Government regulations;
- Use of fiscal incentives;
- Strengthening of building codes e.g. temperature insulation, solar water heaters;
- Use of energy labeling;
- Use of appliance efficiency standards; and
- Conduct of energy audits.

<sup>&</sup>lt;sup>11</sup> At the 20th Meeting of the Heads of Government of the Caribbean Community held in Belize City, in March 2009, it was agreed that: "a regional sustainable energy roadmap should be developed and implemented to guide, encourage and expedite the increased use of renewable energy and energy efficiency, as a key climate change mitigation strategy".

<sup>&</sup>lt;sup>12</sup> The 3rd Joint Meeting of the Council for Trade and Economic Development (COTED) and the Council for Human and Social Development (COHSOD) held in September 2010 agreed that the "Roadmap" will be complemented by a "Strategy".

<sup>&</sup>lt;sup>13</sup> C-SERMS Baseline Assessment and Report, pg. 10

<sup>&</sup>lt;sup>14</sup> CARICOM Energy Policy, pg. 14

<sup>&</sup>lt;sup>15</sup> For greenhouse gas emissions reductions, renewable energy and energy efficiency

#### **Opportunities in Sustainable Transport:**

- Introduction of fuel efficiency standards;
- Use of tax incentives; and
- Use of bio-fuel blending.

3.2.2. Governance and Administrative Structures

The C-SERMS Baseline Report also reviewed the governance and administrative structures in place to support the development of sustainable energy. It concluded that many countries in the CARICOM region display a vast array of agencies and structures responsible for various aspects of energy sector governance rather than a transparent, simple, effective system with precisely defined roles for participating energy sector agents under one clear mainstreamed strategy<sup>16</sup>.

It identified specific areas in need of strengthening, including:

- a) Streamlined and rationalised institutional responsibilities;
- b) Availability of knowledgeable individuals;
- c) Data access, responsibilities;
- d) Independent regulators;
- e) Facilitating administrative procedures;
- f) Coordination of regional initiatives; and
- g) Development of national implementation plans.

3.2.3. CARICOM Targets for Renewable Energy, Energy Efficiency, and GHG Emissions

C-SERMS contains regionally approved targets for renewable energy penetration in the electricity sector, improvements in energy efficiency and greenhouse gas emissions reductions for the electricity sector.

<sup>&</sup>lt;sup>16</sup> C-SERMS Baseline Report, pg. 84

#### a) Renewable Energy Penetration

The agreed C-SERMS target for share of renewables in installed generating capacity across the region is 20% by 2017, 28% by 2022 and 47% by 2027. The share of renewable energy in electricity generation in the base year 2012 is 7.6%.<sup>17</sup> The targets for the individual member states are detailed in Table 1.

Country	National Target
Antigua and Barbuda	51%
Bahamas	55%
Barbados	67%
Belize	76%
Dominica	56%
Grenada	70%
Guyana	84%
Haiti	46%
Jamaica	40%
Montserrat	34%
Saint Lucia	69%
St. Kitts and Nevis	St. Kitts - 57%;
	Nevis - 67%
St. Vincent and the Grenadines	59%
Suriname	52%
Trinidad and Tobago	52%

Table 1Proposed National Renewable Share of Installed PowerCapacity to Meet Regional Target of 48% by 2027

Source: C-SERMS Baseline Report, pg. 92

#### b) Energy Efficiency

The C-SERMS target for energy efficiency is expressed in energy intensity terms - a reduction in energy intensity of 33% from 2012 levels by 2027, to be applied evenly across all CARICOM member states.

#### c) Greenhouse Gas Emissions Reduction

C-SERMS has developed greenhouse gas emissions reduction targets for the electricity sector only and notes that "... data is often lacking and not publicly available, making it impossible o assess the full potential of emissions reductions in all energy sub-sectors"<sup>18</sup>. The agreed regional target for the electricity sector is 18% reduction in greenhouse gas emissions by 2017, 32%

<sup>&</sup>lt;sup>17</sup> C-SERMS Baseline Report, pg. 91

<sup>&</sup>lt;sup>18</sup> C-SERMS Baseline Report, pg. 102

reduction in greenhouse gas emissions by 2022 and 46% reduction in greenhouse gas emissions by 2027, against 2012 business as usual. The targets for the individual member states are detailed in Table 2.

Targets for Individual CARICOM Member States		
in 2027 against 2012 business as usual		
Country	National Target	
Antigua and Barbuda	62%	
Bahamas	53%	
Barbados	61%	
Belize	62%	
Dominica	100%	
Grenada	100%	
Guyana	82%	
Haiti	44%	
Jamaica	51%	
Montserrat	100%	
Saint Lucia	100%	
St. Kitts and Nevis	100%	
St. Vincent and the Grenadines	78%	
Suriname	43%	
Trinidad and Tobago	29%	

Table 2		
Proposed Power Sector CO2 Emissions Reduction		
Targets for Individual CARICOM Member States		
in 2027 against 2012 business as usual		

Source: C-SERMS Baseline Report, pg. 103

### 3.2.4. Regional Strategy and Work Program

The C-SERMS Strategy and Work program is build around four strategic goals<sup>19</sup>, viz:

- Information: Improve the region's energy information network by strengthening existing
  information systems and building awareness of renewable energy, including conduct of
  renewable resource assessments; energy audits; assessment of grid capacities and storage
  facilities; feasibility studies; development of key indicators; national tracking systems;
  and educational programming;
- *Finance*: Identify innovative financing mechanisms for renewable energy projects, including regional loan structures and technical assistance to banks;
- *Policy*: Support the implementation of regulatory frameworks that enable renewable energy development; and

<sup>&</sup>lt;sup>19</sup> C-SERMS Baseline Report, pg. 104

• *Capacity*: Build technical capacity among players in the renewable energy field, including project developers, financiers, engineers and technicians, policymakers, and planners.

On the question of finance, the focus of this study, it recommends priority initiatives in four areas<sup>20</sup>, viz:

- Coordinate international finance;
- Develop innovative financing mechanisms for renewable energy projects;
- Develop targeted financing tools to support key high-impact areas; and
- Utilise government resources to promote renewable energy.

The work program recognises the importance of transportation, the regional energy trade and the water-energy food nexus as focus areas of particular importance to member states<sup>21</sup>, which would be addressed in pursuit of these four (4) goals.

It also emphasises the need for coordinated efforts on both the national and regional levels and the necessity for "a robust coordinating mechanism" given the "varied agencies, resources, programs, activities and events" that are focusing on the region's challenges<sup>22</sup>.

<sup>&</sup>lt;sup>20</sup> C-SERMS Baseline Report, pg. 111

<sup>&</sup>lt;sup>21</sup> C-SERMS Baseline Report, pg. 114

<sup>&</sup>lt;sup>22</sup> C-SERMS Baseline Report, pg. 122

# 4. NDC CHARACTERISTICS AND POLICY COHERENCE

# 4.1. Status of NDCs<sup>23</sup>

Of the 15 Caribbean Community (CARICOM) members, all except Montserrat, a British Overseas Territory, submitted their INDCs to the UNFCCC in the latter part of 2015 and subsequently signed the Paris Agreement.<sup>24</sup>

CARICOM Countries	Ratified Paris Agreement	NDC registered
Antigua and Barbuda	Y	Y
Bahamas	Y	Y
Barbados	Y	Y
Belize	Y	Y
Dominica	Y	Y
Grenada	Y	Y
Guyana	Y	Y
Haiti	Ν	Ν
Jamaica	Ν	Ν
St. Kitts and Nevis	Y	Y
St. Lucia	Y	Y
St. Vincent and the Grenadines	Y	Y
Suriname	Ν	Ν
Trinidad and Tobago	Ν	N

 Table 3 - CARICOM Ratification of the Paris Agreement

Table 3 above shows the current status of ratification of the Paris Agreement for these countries that have deposited their instruments of ratification, acceptance, approval or accession and the consequent transition of their Intended Nationally Determined Contribution (INDC) to Nationally Determined Contribution (NDC)<sup>2526</sup>.

The resulting NDCs are commitments under the Paris Agreement. However, it should be noted that: of the CARICOM countries, only Belize submitted a modified INDC as an NDC (the others

<sup>&</sup>lt;sup>23</sup> This section is based on "Policy Brief on NDC mitigation targets of the CARICOM member states", Swedish Energy Agency, March 2017.

<sup>&</sup>lt;sup>24</sup> As a British Overseas Territory, Montserrat is not a Party to the Paris Agreement and therefore did not submit an INDC. Therefore, Montserrat is not included in this study.

<sup>&</sup>lt;sup>25</sup> Considering the period of ongoing transition from INDCs to NDCs, the rest of the report will use the acronym NDC as a generalized chapeau, while acknowledging that four countries have not yet ratified the Paris Agreement and therefore do not yet have formal NDCs.

<sup>&</sup>lt;sup>26</sup> "Policy brief on NDC mitigation targets of the CARICOM member states," Swedish Energy Agency, March 2017.

re-submitted identical copies of their INDCs) upon ratification and; the 'obligations'/ 'commitments' made in most of the NDCs are, often to a significant extent, conditional upon the receipt of international support, i.e. only a portion of their 'commitments' are unconditional.<sup>27</sup>

# 4.2. Characteristics of NDCs<sup>28</sup>

The NDCs of the CARICOM members are as diverse as the countries themselves. They vary with respect to sectoral focus, levels of ambition, relative scale and transparency of targets, approaches to renewable energy, extent of attention to energy efficiency, anticipated use of carbon markets to finance investment, extent of conditionality, and, importantly, the level of specificity with respect to how the targets may be achieved. For example, all but one of the countries express a quantified RE target, but the targets are not easily compared. Some are expressed as a percentage of the overall energy mix, some as a percentage of the electricity and/or peak power mix, and some in megawatts (MW) of installed capacity. <sup>29</sup>

There is a wide range of specificity in the NDCs with respect to how the intended emission reduction (ER) targets are expected to be achieved: some are very general, some provide indications of required investments, measures and tools, and one (Dominica) ties emission reductions to specific activities.

Most, but not all, of the countries express their emission-reduction targets as percentages of a BaU scenario for 2030. Some provide the physical emissions (in Mt  $CO_{2eq}$ ) associated with the BaU scenario. The percentage-based targets are not as comparable as the numbers would appear to indicate. How "ambitious" the targets are and their "significance" with respect to quantities of avoided emissions depends on several things, including: the quantities of emissions in the countries; the base year chosen for the BaU scenario, and; the conservativeness of the BaU scenario calculations projecting 2030 emissions. They are not comparable with respect to the inherent challenge of achieving the targets either, which is influenced by a number of things including: how well developed their policy environment is; their institutional capacity to promote and support mitigation efforts; their natural resource base; their level of economic development, and; the strength of their private sector and its technical expertise<sup>30</sup>.

# 4.3. NDC Coherence with CEP<sup>31</sup>

Of the 14 countries reviewed, seven utilized energy policies, low-carbon development strategies and/or climate policies as a basis for producing the mitigation components of their NDCs. In this

 <sup>&</sup>lt;sup>27</sup> "Policy brief on NDC mitigation targets of the CARICOM member states," Swedish Energy Agency, March 2017.
 <sup>28</sup> This section is based on "Policy Brief on NDC mitigation targets of the CARICOM member states", Swedish Energy Agency, March 2017.

<sup>&</sup>lt;sup>29</sup> "Policy brief on NDC mitigation targets of the CARICOM member states," Swedish Energy Agency, March 2017.

 <sup>&</sup>lt;sup>30</sup> "Policy brief on NDC mitigation targets of the CARICOM member states," Swedish Energy Agency, March 2017.
 <sup>31</sup> This section is based on "Policy Brief on NDC mitigation targets of the CARICOM member states", Swedish Energy Agency, March 2017.

sense these seven NDCs can all be considered highly coherent with national climate and energy policies. Two countries refer to such policies in their NDCs and three mention the existence of such policies. Only two of the 14 countries make no mention of energy or climate policies in their NDCs.

# 4.4. NDC Coherence with C-SERMS

One-to -one comparison of the absolute renewable energy and energy efficiency targets in the NDCs with the C-SERMS targets are not possible for the reasons cited in Section 4.2. above.

A comparison of the renewable penetration targets for the seven (7) of the member states which provided that data in their NDCs is contained in Table 4. The table shows that, even after allowance is made for the different time frames, five (5) of the seven (7) countries show significantly lower NDC penetration targets for 2030, as compared with their 2027 C-SERMS targets.

Capacity - C-SERVIS VS. TDC			
Country	National C-SERMS	(I)NDC Target	
	Target		
Bahamas	55%	30% by 2030	
Belize	76%	85% by 2030	
Haiti	46%	47% by 2030	
Jamaica	40%	20% by 2030	
Saint Lucia	69%	35% by 2025	
St. Vincent and the Grenadines	59%	50% by 2025	
Suriname	52%	25% by 2025	

 Table 4

 Comparison of Proposed National Renewable Share of Installed Power

 Capacity - C-SERMS vs. NDC

# 4.5. NDC Implementation Status

The status of NDC implementation in the twelve (12) responding countries is summarised in Table 5 below.

<b>a</b>	-		C Implementation Sta	
Country	Formal Startup	Formal Implementation Plan	No Formal Startup	Comments
Antigua and Barbuda	<b>~</b>	Y (in process)		<ul> <li>Wind and solar project funded by IRENA and ADFD</li> <li>UNEP - Sustainable Pathways - Protected Areas and Renewable Energy</li> </ul>
Bahamas				Information not available on status of formal NDC programming
Barbados	~	N		<ul> <li>Commenced dialogue with key stakeholders</li> <li>Initiated work on an MRV system</li> </ul>
Belize	~			<ul> <li>Has initiated work on multiple tracks</li> </ul>
Dominica	~	N		<ul> <li>Has initiated work on multiple initiatives in the NDC e.g. geothermal, solar PV, LED street lights</li> </ul>
Grenada		Ν	✓ - No formal implementation started	<ul> <li>Some initiatives planned by the utility are on stream</li> </ul>
Guyana	~	N		<ul> <li>Need to revise the NDC to reflect include more realistic targets</li> </ul>
Haiti	✓	Ν		<ul> <li>In the planning stage</li> </ul>
Jamaica		Ν	✓ - No formal implementation started	Need to revise the NDC to     include transport and forestry
Saint Lucia		N	✓ - No formal implementation started	Some mitigation efforts are     ongoing
St. Kitts & Nevis				
St. Vincent and the Grenadines	~	N		<ul> <li>Strong focus on geo-thermal and developing a NAMA for the transport sector under J-CCP project</li> </ul>
Suriname				
Trinidad and Tobago	~	Y		<ul> <li>Developed an MRV system and an implementation plan; rolled out fuel switching for the transport sector</li> </ul>

Table	5 - NDC	Implei	nenta	tion S	Statı	IS
_	-					

The table shows that eight  $(8)^{32}$  of the countries - 67% of those reporting - have started formal implementation of their NDCs, defined as having commenced formal programming on activities identified within their NDCs. Many of these activities were either ongoing activities or previously planned activities which were included in the NDCs.

There were two countries which reported that they had not taken any action on implementing activities in their NDCs. Two countries also indicated a need to revise their NDCs - one to make the targets more realistic, and another to include missing sectors, namely transport and forestry.

Notwithstanding the significant number reporting commencement of implementation activities, only two countries have reported the development of formal implementation plans. In fact, assistance with developing formal implementation plans was one of the major needs identified, as discussed in the next section.

# 4.6. Identification of Support Needs Other Than Investment Finance

The support needs were grouped into categories reflecting the C-SERMS goals. In all cases, support needs were identified in each category by at least five (5) of the twelve (12) countries, viz:

- Information and Data Gathering Six (6) countries<sup>33</sup> indicated a need for support for the development of national MRV frameworks to track NDCs. This included developing the systems for data collection, reporting, monitoring and evaluation and/or verification at the national as well as the sub-national level. Two (2) countries<sup>34</sup> also requested support to conduct feasibility studies.
- *Policy* Five (5) countries<sup>35</sup> indicated a need for assistance with the development of policies and strategies related to energy development, with one (1) country indicating a need for a Technology Strategy and Roadmap. Two (2) countries<sup>36</sup> requested support for project development and two (2)<sup>37</sup> indicated a need for a legislative review.
- *Capacity Building* Five (5) countries<sup>38</sup> indicated a need for support on capacity building. This included assistance on institutional arrangements in two (2) countries<sup>39</sup>, support for the conduct of baseline studies and scenarios in two (2) countries<sup>40</sup>, development of skills in the

<sup>&</sup>lt;sup>32</sup> Antigua and Barbuda, Barbados, Belize, Dominica, Guyana, Haiti, St. Vincent and the Grenadines, Trinidad and Tobago

<sup>&</sup>lt;sup>33</sup> Barbados, Belize, Dominica, Grenada, Haiti, St. Lucia

<sup>&</sup>lt;sup>34</sup> Belize, Grenada

<sup>&</sup>lt;sup>35</sup> Antigua and Barbuda, Dominica, Grenada, Haiti, St. Lucia

<sup>&</sup>lt;sup>36</sup> Grenada, Haiti

<sup>&</sup>lt;sup>37</sup> Dominica, St. Lucia

<sup>&</sup>lt;sup>38</sup> Barbados, Belize, Grenada, St. Lucia, Trinidad and Tobago

<sup>&</sup>lt;sup>39</sup> Barbados, Grenada

<sup>&</sup>lt;sup>40</sup> Belize, St. Lucia

use of market mechanisms in one (1) country<sup>41</sup> and development of technical and technological skills in one (1)  $country^{42}$ .

National Implementation Plans - Five (5) countries<sup>43</sup> requested support in developing national implementation plans.

Table 6 contains the detailed information on the support needs that were identified by each country.

 <sup>&</sup>lt;sup>41</sup> Belize
 <sup>42</sup> Trinidad and Tobago
 <sup>43</sup> Barbados, Dominica, Grenada, Haiti, Jamaica

Country	Information and	Policy	Capacity Building	National	General Comments
Country	Data Gathering	2 01109		Implementation Plans	
Antigua and	8	- Technology		• •	
Barbuda		Strategy and			
		Roadmap			
Bahamas					
Barbados	- MRV Framework		- Institutional	- Implementation	
	- Public Awareness		arrangements	Plans	
Belize	- MRV Framework		<ul> <li>Project Development</li> </ul>		
	- Feasibility		<ul> <li>Baseline studies and</li> </ul>		
	Studies		scenario development		
			- Use of market		
			mechanisms		
Dominica	- MRV	<ul> <li>Legislative Reviews</li> </ul>		- Implementation	
Casada	Frameworks - MRV Framework	<ul> <li>Policies and</li> </ul>	In stitution of	Plans	
Grenada			– Institutional	<ul> <li>Implementation</li> <li>Plans</li> </ul>	
	<ul> <li>Feasibility studies</li> </ul>	<ul><li>strategies</li><li>Project development</li></ul>	arrangements	Plans	
Guyana	studies	- Floject development			Preparing an Energy Transition Plan
Guyana					which will identify supports needed
Haiti	– MRV Framework	<ul> <li>Policies and</li> </ul>		– Implementation	Includes assistance for NAMA on
11anti	WIK V I Tallie work	Strategies		Plans	transport and for Waste Management
		- Project		<b>Trans</b>	d'ansport and for thase thanagement
		Development			
Jamaica		1		- Implementation	Need assistance to complete forestry
				Plans	and transport components of NDC
Saint Lucia	- MRV Framework	<ul> <li>Policies and</li> </ul>	- Baseline studies and		Focus on: Transport, Energy Policy
		Strategies	scenario development		and Capacity Building
		<ul> <li>Legislative review</li> </ul>			
St. Kitts & Nevis					
St. Vincent and					Updating National Energy Policy and
the Grenadines					developing a national climate change
					policy
Suriname					
Trinidad and			- Technology		
Tobago			- Technical and		
		_	technological skills		
Total	6	5	5	5	

#### Table 6 - Identification of Support Needs



#### 5. SUPPORT INITIATIVES AND SOURCES OF FINANCING

#### 5.1. Current Sources of Mitigation Financing

The countries in the region are collectively using a variety of financing sources for their ongoing greenhouse gas reduction and renewable energy initiatives. These sources vary by individual country and include:

- bilateral arrangements with friendly governments including Norway, Japan, Sweden, Canada, Germany, New Zealand and Germany..
- multilateral agencies including IRENA, UNEP, IDB, OLADE, World Bank and the GEF.
- local and international private sector players.

Table 7 contains a summary of the sources as reported by the individual countries and show that the most widely used source is from bilateral relationships and multilateral agencies. Five (5) countries<sup>44</sup> (42%) reported using bilateral sources, five (5) countries (42%) reported using multilateral sources<sup>45</sup>, two (2) countries (17%) reported using the IRENA/Abu Dhabi Foundation partnership<sup>46</sup> and one (1) country (8%) reported using the Clinton Foundation/Carbon War Room partnership<sup>47</sup>.

The rationale behind the choice of sources varied among the countries and included:

- Familiarity with the source due to their presence in the region;
- Concessionality of the financing available;
- Willingness to support concrete action/outcomes and provide on the ground technical support;
- Willingness to support direct access and hands-on project management to maximise ownership and sustainability of the outcome; and
- Willingness to undertake the upfront risks involved, especially with regards to geothermal developments.

### 5.2. Planned Sources of NDC Financing

Table 8 contains a summary of the sources which countries are planning to use for NDC implementation. One of the responding countries indicated that they were still in the planning stage and had not yet determined relevant sources<sup>48</sup>, while another provided a generic response stating that it will use grants<sup>49</sup>.

<sup>&</sup>lt;sup>44</sup> Belize, Grenada, Guyana, St. Lucia, St. Vincent and the Grenadines

<sup>&</sup>lt;sup>45</sup> Barbados, Belize, Dominica, Grenada, St. Lucia

<sup>&</sup>lt;sup>46</sup> Antigua and Barbuda, St. Vincent and the Grenadines

<sup>&</sup>lt;sup>47</sup> St. Lucia

<sup>&</sup>lt;sup>48</sup> Haiti

<sup>&</sup>lt;sup>49</sup> St. Lucia
For the remaining nine (9) countries, the table shows that countries planned to use multiple sources and that the most referenced sources were the national public sector and bilateral partners. Six (6) countries each (67%) plan to use these sources<sup>50</sup>,<sup>51</sup>. Five (5) countries (55%) plan to use the Green Climate Fund<sup>52</sup>, while three (3) countries (33%) plan to use the NAMA Facility<sup>53</sup>. Another three (3) countries (33%) planned to source funding from their national private sector<sup>54</sup>. One (1) country indicated a specific need for funding for forestry-related activities<sup>55</sup>.

<sup>&</sup>lt;sup>50</sup> Antigua and Barbuda, Barbados, Grenada, Guyana, Haiti, St. Vincent and the Grenadines plan to use bilateral sources. .
<sup>51</sup> Antigua and Barbuda, Barbados, Belize, Guyana, St. Vincent and the Grenadines, Trinidad and Tobago plan to use the national public sector

<sup>&</sup>lt;sup>52</sup> Antigua and Barbuda, Dominica, Grenada, Haiti, Trinidad and Tobago

<sup>&</sup>lt;sup>53</sup> Grenada, Haiti, St. Vincent and the Grenadines

<sup>&</sup>lt;sup>54</sup> Dominica, Grenada, St. Vincent and the Grenadines

<sup>55</sup> Belize

#### **Table 7 - Current Sources of Financing**

Country	GCF	NAMA Facility	CTCN	Bilateral	Multilateral Agencies	National Public Sector	National Private Sector	IRENA	International Private Sector	Foundations and Civil Society	Forest Carbon Partnership
Antigua and Barbuda								✓/ADFD			
Bahamas											
Barbados					GEF, IDB, EU, UNDP		√				
Belize				J-CCP	UNEP, IDB, OLADE, WORLD BANK, GEF						
Dominica	✓				GEF		$\checkmark$		✓		
Grenada				Canada, South Korea, Germany, Sweden, Japan, New Zealand	OLADE, USAID, World Bank, GEF, UNEP, CDB						
Guyana				Norway							
Haiti											
Jamaica											
Saint Lucia				Italy, Taiwan	GEF, World Bank					Carbon War Room, Clinton Foundation	
St. Kitts and Nevis											
St. Vincent and the Grenadines				J-CCP			~	~	V		
Suriname											
Trinidad and Tobago						√					
TOTAL	1	0	0	5	5	1	2	2	2	1	0



No response from country



No information provided on sources of finance

Country	GCF	NAMA Facility	CTCN	Bilateral	Multilateral Agencies	National Public Sector	National Private Sector	IRENA	Grants	Loans	Forest Carbon Partnership	Comments
Antigua and Barbuda	•			~	~	V		~				ADFD (National - SIRF)
Bahamas												
Barbados				✓		$\checkmark$			$\checkmark$	✓		
Belize					<ul> <li>✓ (UNEP; IDB, OLADE; GEF; World Bank)</li> </ul>	√					$\checkmark$	
Dominica	✓				✓ (GEF)		✓					
Grenada	✓	✓	✓	✓			~					
Guyana				~		$\checkmark$						International funding needed
Haiti	~	√		~								Still in the planning stage
Jamaica												To be determined
Saint Lucia									✓			
St. Kitts and Nevis												
St. Vincent and the Grenadines		~		~		V	V					
Suriname												
Trinidad and Tobago	~					~						
TOTAL	5	3	1	6	3	6	3	1	2	1	1	

#### Table 8 - Planned Sources of Financing for NDC Implementation



No response from country



No information provided on planned sources of financing for NDC implementation

#### 5.3. Financing and Technical Support Programs

This study identified twenty five (25) financing and technical support programs that are active in the region, with the services provided grouped according to the C-SERMS goals/country needs.<sup>56</sup> Twelve (12) of these programs are based in the region and are accessible through the CDB, USAID, UNDP (J-CCP), OLADE, GIZ and EU. The other thirteen (13) are internationally accessible programs through the GCF, GEF, IRENA, CTCN, Clinton Initiative and the NAMA facility, all of which are active in the region.

A profile of each of these programs, providing information *inter alia* on countries targeted, types of interventions supported, consistency with C-SERMS goals/country needs, quantum of financing where available, eligibility criteria and evaluation criteria where available, and contact information, is attached in the Annex to this Report.

All of these programs can be accessed to provide financing and technical assistance for the implementation of NDCs to some, or all, of the CARICOM member states. The distribution of programs as per the C-SERMs goals/country needs are as follows:

- Investment Finance 13 programs
- Early stage project development 3 programs
- Information and data gathering 12 programs
- Policy 16 programs
- Capacity Building 17 programs
- Implementation Planning 2 programs

#### 5.3.1. Investment Finance

The programs that provide finance for investing in actual renewable energy and energy efficiency initiatives are summarised in Table 9. It shows that the main sources are the Green Climate Fund, the CDB, the GEF, the UAE and the initiatives through IRENA.

<sup>&</sup>lt;sup>56</sup> This is not an exhaustive listing and there may be others. It is based on individual research and feedback received from countries and agencies.

Table 9	- Sources	of Investment	Finance
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Program	Investment	Funding Available
	Finance	-
1. Clinton Climate Initiative and partners	$\checkmark$	Based on need
2. CDB Climate Action Line of Credit	$\checkmark$	Under negotiation
3. CDB GeoSMART (focus on geothermal)	$\checkmark$	US\$80M; EUR 12M
4. CDB Sustainable Energy for the Eastern Caribbean	$\checkmark$	EUR 21 M
5. CDB Sustainable Energy Facility	$\checkmark$	US\$71M
6. EU Caribbean Investment Facility	$\checkmark$	Not available
7. Global Environment Facility	$\checkmark$	Based on need
8. Green Climate Fund	$\checkmark$	Based on need
9. IRENA - Abu Dhabi Fund for Development	$\checkmark$	Based on need - projects from USD5M-
		100M
10. IRENA - SIDS Lighthouse Initiative	$\checkmark$	Based on need
11. IRENA - Sustainable Energy Marketplace	$\checkmark$	Based on need
12. NAMA Facility	$\checkmark$	Based on need
13. UAE - Caribbean Renewable Energy Fund	$\checkmark$	Based on project proposal
TOTALS	13	

#### 5.3.2. Early Stage Project Development

The programs that provide finance for early stage project development are summarised in Table 10. It shows that the main sources are the CDB, the EU and the USAID. It should be noted that all of these funds are for limited durations and are intended to assist with bottlenecks during project development e.g. addressing regulatory issues, institutional frameworks and capacity building. The USAID Clean Energy Finance facility, for example, envisages that funded activities will be completed within six months of disbursement.

	Program	Early Stage Project Development	Funding Available
1. CDB Geo	SMART (focus on geothermal)	$\checkmark$	US\$80M; EUR 12M
2. EU Electr	riFi	$\checkmark$	EUR 10M per project
3. USAID C	Clean Energy Finance Facility	$\checkmark$	US\$10 M
TOTALS		3	

These funds will have to be complemented by investment funds to bring the projects to full operations.

#### 5.3.3. Information and Data Gathering

The programs that provide support for Information and Data Gathering initiatives are summarised in Table 11.

Program	Information and Data	Funding Available
	Gathering	_
1. CTCN	$\checkmark$	No finance; TA only
2. EU TAPSEC	✓	EUR 9.2M
3. GCF Readiness Support	✓	US\$1M per country/year
4. Global Environment Facility	✓	Based on need
5. GEF Capacity Building Initiative for	✓	US\$40M for national US\$10M for regional
Transparency for developing countries		in all developing countries
6. Green Climate Fund	✓	Based on need
7. International Renewable Energy Agency	✓	No independent finance
8. IRENA - SIDS Lighthouse Initiative	✓	Based on need
9. Japan-Caribbean Climate Change Partnership	✓	US\$15M
10. OLADE	✓	
11. Renewable Energy and Energy Efficiency	✓	EUR 4.5M
Technical Assistance (REETA)		
12. UAE - Caribbean Renewable Energy Fund	✓	US\$ 50M
TOTALS	12	

#### Table 11 - Information and Data Gathering

It shows that there are a variety of sources available, ranging from the Readiness Funds available through the Green Climate Fund, to technical assistance support from the CTCN and OLADE. Support is also available from the TAPSEC project and the REETA project.

#### 5.3.4. Policy

The programs that provide support for Policy and Strategy initiatives are summarised in Table 12

#### Table 12 - Policy

Program	Policy	Funding Available
1. Clinton Climate Initiative and partners	$\checkmark$	Based on need
2. CDB Canadian Support to Energy Sector	$\checkmark$	CAD\$ 5M
3. CDB GeoSMART (focus on geothermal)	$\checkmark$	US\$80M; EUR 12M
4. CDB Sustainable Energy Facility	✓	US\$71M
5. CTCN	✓	No finance; TA only
6. EU TAPSEC	✓	EUR 9.2M
7. GCF Readiness Support	✓	US\$1M per country/year
8. Global Environment Facility	✓	Based on need
9. Green Climate Fund	✓	Based on need
10. International Renewable Energy Agency	✓	No independent finance
11. IRENA - SIDS Lighthouse Initiative	✓	Based on need
12. Japan-Caribbean Climate Change Partnership	✓	US\$15M
13. NAMA Facility	✓	Based on need
14. OLADE	✓	
15. Renewable Energy and Energy Efficiency Technical Assistance (REETA)	$\checkmark$	EUR 4.5M
16. USAID Caribbean Clean Energy Program	✓	US\$15M
TOTALS	16	

It shows that there are a variety of sources available, including the Green Climate Fund, the CDB, the EU TAPSEC program, IRENA and OLADE.

#### 5.3.5. Capacity Building

The programs that provide support for Capacity Building initiatives are summarised in Table 13.

Program	Capacity	Funding Available
	Building	
1. Clinton Climate Initiative and partners	$\checkmark$	Based on need
2. CDB Canadian Support to Energy Sector	$\checkmark$	CAD\$ 5M
3. CDB GeoSMART (focus on geothermal)	$\checkmark$	US\$80M; EUR 12M
4. CDB Sustainable Energy for the Eastern Caribbean	$\checkmark$	EUR 21 M
5. CDB Sustainable Energy Facility	$\checkmark$	US\$71M
6. CTCN	$\checkmark$	No finance; TA only
7. EU TAPSEC	$\checkmark$	EUR 9.2M
8. Global Environment Facility	$\checkmark$	Based on need
9. GEF Capacity Building Initiative for	$\checkmark$	US\$40M for national US\$10M for regional in
Transparency for developing countries		all developing countries
10. Green Climate Fund	$\checkmark$	Based on need
11. IRENA - SIDS Lighthouse Initiative	$\checkmark$	Based on need
12. Japan-Caribbean Climate Change Partnership	$\checkmark$	US\$15M
13. NAMA Facility	✓	Based on need
14. OLADE	✓	
15. Renewable Energy and Energy Efficiency	✓	EUR 4.5M
Technical Assistance (REETA)		
16. USAID Caribbean Clean Energy Program	$\checkmark$	US\$15M
17. UAE - Caribbean Renewable Energy Fund	$\checkmark$	US\$ 50M
TOTALS	17	

#### Table 13 - Capacity Building

It shows that there are a variety of sources available, including the Green Climate Fund, the CDB, the EU TAPSEC program, IRENA and OLADE.

#### 5.3.6. Implementation planning

Only two programs indicated specific support for implementation and transition planning - the CTCN and the Clinton Initiative/carbon War Room partnership - Table14.

#### Table 14 - Implementation

	Program	National Implementation Plans	Funding Available
1.	Clinton Climate Initiative and partners	$\checkmark$	Based on need
2.	CTCN	$\checkmark$	No finance; TA only
TC	DTALS	2	

#### 5.3.7. Summary

A consolidated summary of the sources of financing and support is contained in Table 15. It shows the inter-linkages between the providers of support for the various goals/needs and highlights the fact that many of the programs target multiple goals/needs. This may be helpful to countries in selecting a program or agency to work with.

#### **5.3.8. Financing Available**

The total financing available from the programs that have specified available financing is in excess of US\$300M. This does not include the programs that indicated that financing will be based on needs identified during project preparation process. This latter is applicable to eight (8) of the thirteen (13) programs that provide investment finance.

A significant amount of the specific finance - over US\$160M - is available through the CDB, primarily for early stage geothermal development. CDB also has over US\$20M available for sustainable development in the Eastern Caribbean.

The EU TAPSEC program has also specified the availability of EUR9.2 million for activities related to the implementation of C-SERMS including Regulatory frameworks for renewable energy and energy efficiency, energy information, the identification of financing mechanisms for renewable energy projects and strengthened technical capacity among players in renewable energy and energy efficiency.

The financing available has to be viewed in the context where it has been estimated that the Caribbean needs at least USD 15 billion in financing to achieve 47 percent renewable power capacity by 2027. (CDB at CSEF IV).

# Table 15 - Summary of Financing and Technical Support Programs

Program	Investment Finance	Early Stage Project Development	Information and Data Gathering	Policy	Capacity Building	National Implementation Plans	Funding Available
1. Clinton Climate Initiative and partners	✓			✓	✓	✓	Based on need
2. CDB Climate Action Line of Credit	✓						Under negotiation
3. CDB Canadian Support to Energy Sector				✓	✓		CAD\$ 5M
4. CDB GeoSMART (focus on	✓	✓		✓	✓		US\$80M
geothermal)							EUR 12M
5. CDB Sustainable Energy for the Eastern Caribbean	~				~		EUR 21 M
6. CDB Sustainable Energy Facility	$\checkmark$			$\checkmark$	$\checkmark$		US\$71M
7. CTCN			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	No finance; TA only
8. EU Caribbean Investment Facility	√						Not available
9. EU ElectriFi		✓					EUR 10M per project
10. EU TAPSEC			$\checkmark$	✓	✓		EUR 9.2M
11. GCF Readiness Support			√	✓			US\$1M per country/year
12. Global Environment Facility	✓		√	✓	✓		Based on need
13. GEF Capacity Building Initiative for			√		✓		US\$40M for national US\$10M for
Transparency for developing countries							regional in all developing countries
14. Green Climate Fund	✓		√	✓	✓		Based on need
15. International Renewable Energy Agency			√	✓			No independent finance
16. IRENA - Abu Dhabi Fund for	✓						Based on need - projects from
Development							USD5M-100M
17. IRENA - SIDS Lighthouse Initiative	$\checkmark$		$\checkmark$	$\checkmark$	✓		Based on need
<ol> <li>IRENA - Sustainable Energy Marketplace</li> </ol>	~						Based on need
19. Japan-Caribbean Climate Change Partnership			$\checkmark$	✓	~		US\$15M
20. NAMA Facility	✓			✓	✓		Based on need
21. OLADE			√	✓	✓		
22. Renewable Energy and Energy Efficiency Technical Assistance (REETA)			$\checkmark$	~	~		EUR 4.5M
23. UAE-Caribbean Renewable Energy Fund	✓		~		~		US\$50M
24. USAID Caribbean Clean Energy Program				<b>√</b>	~		US\$15M
25. USAID Clean Energy Finance Facility		$\checkmark$					US\$10 M
TOTALS	13	3	12	16	17	2	US\$256M;CAD\$5M;47M EUR

### 6. POSSIBLE APPROACHES TO LEVERAGE FINANCE

Leveraging of financial resources is a practice used to extend the reach and impact of the financing that is being provided<sup>57</sup>. It provides a sustainable and affordable way to tap into significant additional financing for national development priorities and is also a useful approach for mitigating the risks associated with investing in new markets and sectors<sup>58</sup>.

Leveraging is a practice already in use in the region e.g. by the CDB, and can be expected to grow, given the multiple partners that are operating in the region, their differing capacities and expertise and the overlapping nature of their programming, as illustrated in the previous section.

The main approach being used by the CDB is to blend sources, whereby a grant is combined with loan resources to create a concessional loan product with a lower interest rate than would have been possible under the original loan.

Other approaches that can be used by agencies operating in the region include pooling of resources, cofinancing arrangements, strategic partnerships, investment grants, technical assistance, provision of risk capital and use of guarantees.

#### **6.1.** Pooling of resources

Leveraging using this option would result in multiple agencies agreeing to combine their resources to work on the same program or project. Using such an approach would enable the implementation of a much larger program or project that would be the case if each agency worked on its own.

#### 6.2. Co-financing arrangements

This is a variant of the pooling theme, where multiple agencies come together to support the same program or project. Under the pooling option, the agencies will jointly fund the project with responsibilities for the entire project. Under the co-financing option, individual agencies will provide the funding for specific components of the program or project - usually in areas where they have the specific expertise. Monitoring of project implementation will be a joint responsibility of all the co-financiers through an agreed administrative arrangement.

#### 6.3. Strategic Partnerships

This is another variant of the pooling theme where multiple agencies come together to support the same program or project. Under the strategic partnership, the agencies do not all contribute money as in the case of the co-financing arrangement. Different agencies will contribute different inputs based on their capabilities and expertise e.g. one may contribute finance, another may contribute technical assistance and the like. The key factor is that the combined inputs from the partnership are sufficient to meet the needs of the project.

 <sup>&</sup>lt;sup>57</sup> Interview with Tessa Williams-Robertson, CDB, February 07, 2017
 <sup>58</sup> http://ec.europa.eu/europeaid/policies/innovative-financial-instruments-blending\_en

#### **6.4. Investment grants**

Under this option, the available funds are used as an investment grant. This funds available would be provided as a grant to be used to reduce the amount of monies that the country has to provide for initial investment. This would make it easier for the country to get the investment off the ground and would reduce the overall project cost for the partner country.

#### **6.5. Technical assistance**

Another option for leveraging financing is to provide technical assistance to support the utilisation of the finance being provided. The purpose of the technical assistance support is to ensure the quality and efficiency of the use of the funds, thereby ensuring that it achieves the objectives for which it was provided. It can focus on advisory or preparatory services, assistance, and training to facilitate private investment in high-impact projects and enterprises in order to supplement the capacity of investees and more generally lower the transaction costs.<sup>59</sup>

#### 6.6. Risk Capital

Under this approach, the funds provided are used as risk capital to attract additional financing e.g. equity financing. The provision of the initial capital to meet startup costs, for example, may make the project more attractive to other investors, who may be concerned about the startup costs, or initial risk involved in a project.

This is one of the challenges currently being experienced with the geo-thermal projects, for example. Availability of risk capital to meet the initial drilling and exploration costs, may make the project more attractive to equity investors, once the geothermal potential is proven.

#### 6.7. Guarantees

Provision of guarantees as security for project investments is another option for leveraging capital. Such guarantees provide the funder with the comfort that they have a recourse to receive their monies (or a portion thereof) if the project fails or does not perform at the level expected. In the region, such guarantees are normally provided by a government, but there are also development agencies and philanthropists that provide such guarantees.

#### 6.8. Summary

Leveraging of financial resources is an area which has the potential for further development in the region and additional work needs to be done to determine the most viable approaches for the region.

<sup>&</sup>lt;sup>59</sup> OECD and World Economic Forum (2015). Blended Finance Vol. 1: A Primer for Development Finance and Philanthropic Funders

#### 7. SUMMARY OF CONCLUSIONS

The main conclusions from the foregoing analysis are as follows:

#### 7.1. Overview of Regional Policy Coherence Between NDCs and CEP/C-SERMS

The NDCs are broadly coherent with the national and regional energy policies. Their mitigation components have a common focus, inter alia, on renewable energy and energy efficiency. One-to -one comparison of the absolute renewable energy and energy efficiency targets in the NDCs with the regionally approved C-SERMS targets are not possible because of the variations in information content of the submitted NDCs and the information used to develop the C-SERMS targets.

#### 7.2. Status of NDC implementation

The majority of countries have not initiated structured approaches to NDC implementation. The majority of them, however, are involved in the implementation of activities that have been identified in their NDCs. These activities were either ongoing activities, or previously planned activities which were included in the NDCs.

Countries also identified support needs in a range of areas that were all consistent with the C-SERMS goals. These included support for the development of national MRV frameworks to track NDCs, support for the development of policies and strategies related to energy development and support in developing national implementation plans for their NDCs.

#### 7.3. Available Financing and Technical Support Initiatives

The main sources of finance that have been used by countries are bilateral arrangements with friendly governments and multilateral agencies operating in the region. The rationale behind the choice of sources included familiarity with the sources due to their presence in the region, as well as the extent to which the source was willing to work with the country based on its national circumstances and needs.

There are a number of agencies and programs providing financial and technical support, that are active in the region. The services provided are consistent with the C-SERMS goals and the needs identified by the countries. This research identified twenty four (24) such sources of support.

The total financing available from these sources is difficult to quantify as most of the agencies that have the potential to provide investment finance indicate that financing will be based on needs identified during the project preparation process. It has been estimated that the Caribbean needs at least USD 15 billion in financing to achieve the target of 47 percent renewable power capacity by 2027.

#### 7.4. Identification of possible approaches to leverage finance

Leveraging of finance is at an embryonic stage in the region and is used primarily by the CDB and the EU. It has the potential to expand the reach and effectiveness of the financing that is available and should be pursued by regional agencies and governments. The report identifies a number of ways in which this can be done including pooling of resources, co-financing arrangements, strategic partnerships, investment grants, technical assistance, provision of risk capital and use of guarantees.

#### 8. RECOMMENDATIONS

#### 8.1. Alignment of NDCs with C-SERMS

There is a need at the national and regional levels to align the NDCs and their targets with the C-SERMS and its targets and develop one set of objectives for the region. This alignment has to take into account the fact that countries have to report on their NDCs as part of the transparency process of the Paris Agreement.

Such alignment will clarify the goals that the region is seeking to achieve on renewable energy and energy efficiency. It will also enable the region to speak with a consistent and non-contradictory voice on matters related to energy efficiency and renewable energy.

This will also facilitate the interaction with potential sources of finance and enable implementation to proceed in a seamless manner.

This alignment process should be led at the regional level by the CARICOM Energy Unit and CCREEE, and should be addressed as a matter of priority, so that countries can have a clear pathway forward for structuring their NDC implementation.

To facilitate this, it is important that CCREEE becomes fully operational as soon as possible.

#### 8.2. Accessing Technical Assistance and Supports

Countries should be reminded/made aware of the support that is already available for initiating work in the areas that they have identified as priority needs. Regional agencies like the CARICOM Energy Unit and CCREEE could facilitated the countries in establishing contacts and developing relationships with these agencies, including an understanding of the requirements for accessing support from these agencies.

This report can be used to initiate such a process through the following activities:

- Initiation of a process to validate the contents of this report, especially the Directory of support agencies in Annex 2. This could include sending the report to the countries and agencies for review and feedback by a stipulated time.
- Online publication of the validated Directory of sources of financial and technical assistance on relevant regional websites including CCREEE, CARICOM Secretariat and the 5Cs.
- Convening of a regional event that brings together countries and agencies/programs to share the results of this research and discuss how best to work together. This event should provide an opportunity for interaction between countries and agencies, and result in initial contacts that can be followed up after the event.

• Coordination of the follow-up activities by CCREEE in the form of a support facility/renewable energy exchange that countries can draw upon to assist with implementation of their NDCs, challenges being experienced, identification of new partnerships and the like.

# ANNEX

# Detailed Listing of Financing and Technical Support Programs

The Clinton Climate Initiative/Rocky Mountain Institute Carbon War Roc	om
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1. Name of initiative	Clinton Climate Initiative; Rocky Mountain Institute Carbon
	War Room
2. Responsible agency or country	Joint Partnership Initiative
3. Type of financing provided	<ul> <li>Financing for clean energy projects as part of a design, financing and implement process</li> </ul>
4. Financing available (US\$)	Based on needs
5. Co-financing requirements	Dependent on partner
6. Other types of support provided	<ul> <li>National Energy Transition Planning</li> <li>Project Design and Implementation</li> <li>Renewable Energy Community of Practice</li> </ul>
7. Time frame of initiative	Ongoing
8. Targeted countries	<ul> <li>Participating Caribbean countries - Anguilla, Aruba, Bahamas, Belize, Colombia (San Andres and Providencia), Grenada, Montserrat, Saint Lucia, Saint Vincent and the Grenadines, Turks and Caicos, and the Seychelles.</li> </ul>
9. Types of interventions supported	<ul><li>Solar PY, Geothermal, Wind</li><li>Energy Strategy development</li></ul>
10. Contribution to C-SERMS Goals	<ul> <li>Policy - removing economic and other market barriers</li> <li>Investment finance</li> <li>Capacity</li> </ul>
11. Sectoral focus - Public vs. Private	Public and private
12. Eligibility criteria for applying for support	<ul> <li>Partner country</li> </ul>
13. Criteria for evaluating proposals	Not available
14. Proposal submission procedures	Not available
15. Website or internet link	<ul> <li>http://www.rmi.org/Content/Files/RMI_4pagers- Islands_Digital.pdf</li> </ul>
	<ul> <li>http://carbonwarroom.com/sites/default/files/mails/ cwr_eshot_clintonannounce_may15_large_amended.html</li> </ul>

## **Climate Action Line of Credit**

1. Name of initiative	Climate Action Line of Credit
2. Responsible agency or country	Caribbean Development Bank (CDB)
3. Type of financing provided	<ul> <li>Concessional loan finance for capital infrastructure projects which improve climate change resilience of contribute to climate change mitigation</li> </ul>
4. Financing available (US\$)	<ul> <li>Under negotiation (current line of US\$65.3 million expired in 2016)</li> </ul>
5. Co-financing requirements	Not available
6. Other types of support provided	<ul> <li>Not available.</li> </ul>
7. Time frame of initiative	<ul> <li>Under negotiation</li> </ul>
8. Targeted countries	<ul> <li>All CDB Borrowing Member Countries</li> </ul>
9. Types of interventions supported	<ul> <li>Energy efficiency</li> </ul>
	<ul> <li>Renewable energy</li> </ul>
	<ul> <li>Transportation</li> </ul>
	<ul> <li>Low carbon technologies, development and innovation</li> </ul>
10. Contribution to C-SERMS Goals	<ul> <li>Investment finance</li> </ul>
11. Sectoral focus - Public vs. Private	Public and Private
12. Eligibility criteria for applying for support	Not available
13. Criteria for evaluating proposals	<ul> <li>Not available</li> </ul>
14. Proposal submission procedures	<ul> <li>Not available</li> </ul>
15. Website or internet link	http://www.caribank.org

# Canadian Support to the Energy Sector in the Caribbean (CSES-C)

1. Name of initiative	Canadian Support to the Energy Sector in the Caribbean (CSES-C)
2. Responsible agency or country	Caribbean Development Bank (CDB)
3. Type of financing provided	• Not available .
4. Financing available (US\$)	CAD \$5 million
5. Co-financing requirements	• Not available .
6. Other types of support provided	Technical assistance
7. Time frame of initiative	■ n.a.
8. Targeted countries	<ul> <li>All CDB Borrowing Member countries</li> </ul>
9. Types of interventions supported	<ul> <li>Strengthen regulatory frameworks</li> </ul>
	<ul> <li>Capacity building</li> </ul>
	<ul> <li>Project preparation - Energy Efficiency and Renewable</li> </ul>
	Energy
	<ul> <li>Pre-feasibility studies</li> </ul>
10. Contribution to C-SERMS Goals	Policy
	Capacity
11. Sectoral focus - Public vs. Private	Public and Private
12. Eligibility criteria for applying for support	Not available
13. Criteria for evaluating proposals	<ul> <li>Not available</li> </ul>
14. Proposal submission procedures	Not available
15. Website or internet link	• www.caribank.org

## GeoSMART

1. Name of initiative	GeoSMART Initiative (special geothermal facility)
2. Responsible agency or country	Caribbean Development Bank (CDB)
3. Type of financing provided	Concessional financing
5. Type of financing provided	<ul> <li>Contingently Recoverable Grant</li> </ul>
	<ul> <li>Investment Financing (in combination with SEF)</li> </ul>
4. Financing available (US\$)	<ul> <li>US\$80 million - GCF/IDB</li> </ul>
4. Financing available (05\$)	<ul> <li>EUR 12 million - EU CIF for Geothermal</li> </ul>
	- EOK 12 minion - EO Ch' for Geomerinar
5. Co-financing requirements	Not available
6. Other types of support provided	<ul> <li>Technical Assistance (through Carbon War Room and</li> </ul>
	partnerships with the Government of New Zealand and
	the Japan International Cooperation Agency)
	<ul> <li>Capacity building</li> </ul>
7. Time frame of initiative	• n.a.
8. Targeted countries	Dominica, Grenada, St. Kitts and Nevis, St. Lucia and St.
	Vincent and the Grenadines.
9. Types of interventions supported	<ul> <li>Early stage project geothermal development in four SEF</li> </ul>
	countries
	<ul> <li>Address the financial, technical and institutional barriers</li> </ul>
	to geothermal energy - regulatory frameworks,
	institutional strengthening and capacity building
10. Contribution to C-SERMS Goals	<ul> <li>Investment finance</li> </ul>
	Capacity
	Policy
11. Sectoral focus - Public vs. Private	<ul> <li>Public and private</li> </ul>
12. Eligibility criteria for applying for	<ul> <li>Not available</li> </ul>
support	
13. Criteria for evaluating proposals	Not available
14. Proposal submission procedures	Not available
15. Website or internet link	http://www.caribank.org/

# Sustainable Energy for the Eastern Caribbean (SEEC)

1. Name of initiative	Sustainable Energy for the Eastern Caribbean (SEEC)
2. Responsible agency or country	Caribbean Development Bank (CDB)
3. Type of financing provided	Concessional loan
4. Financing available (US\$)	<ul> <li>EUR 21 million - blended loan/grant facility with grants from EU-CIF and DIFD and loan resources from CDB</li> </ul>
	<ul> <li>Investment finance</li> </ul>
5. Co-financing requirements	• Nil
6. Other types of support provided	<ul> <li>Technical assistance e.g. energy audits</li> </ul>
	<ul> <li>Project preparation</li> </ul>
	<ul> <li>Pilot lines of credit with development banks</li> </ul>
7. Time frame of initiative	• 4 years
8. Targeted countries	• Six independent OECS countries - Antigua and Barbuda,
	Dominica, Grenada, St. Kitts and Nevis, St. Lucia and St.
	Vincent and the Grenadines.
9. Types of interventions supported	<ul> <li>Energy efficiency and renewable energy investments in</li> </ul>
	the public sector of OECS countries
10. Contribution to C-SERMS Goals	<ul> <li>Investment Finance</li> </ul>
	Capacity
11. Sectoral focus - Public vs. Private	Public
12. Eligibility criteria for applying for	<ul> <li>Member of the OECS</li> </ul>
support	
13. Criteria for evaluating proposals	<ul> <li>Not available</li> </ul>
14. Proposal submission procedures	<ul> <li>Not available</li> </ul>
15. Website or internet link	http://www.caribank.org/seec

# Sustainable Energy Facility (SEF)

Sustainable Energy Facility (SEF)
Caribbean Development Bank (CDB)
Contingently recoverable grant or loan resources
• US\$71 million, with funding from CDB, IDB, CTF and
GEF
Not available
<ul> <li>Investment finance for energy efficiency</li> </ul>
<ul> <li>Regulatory frameworks, institutional strengthening and</li> </ul>
capacity building
<ul> <li>Renewable energy - intermittent and baseload</li> </ul>
<ul> <li>Not available</li> </ul>
<ul> <li>Eastern Caribbean - Antigua and Barbuda, Dominica,</li> </ul>
Grenada, St. Kitts and Nevis, St. Lucia and St. Vincent
and the Grenadines.
Special focus on geothermal under GeoSMART initiative
<ul> <li>Investment finance</li> </ul>
Policy
Capacity
Public and Private
Not available
<ul> <li>Not available</li> </ul>
<ul> <li>Not available</li> </ul>
http://www.caribank.org

1. Name of initiative	Climate Technology Centre and Network (CTCN)
2. Responsible agency or country	UNFCCC/CTCN
<ol> <li>Type of financing provided</li> </ol>	<ul> <li>Nil (but may undertake match-making with other funding sources)</li> </ul>
4. Financing available (US\$)	• Nil
5. Co-financing requirements	• Nil
6. Other types of support provided	<ul> <li>Provides technical assistance in response to requests submitted by developing countries via their nationally- selected focal points, or <u>National Designated Entities</u> (NDEs) up to a value of US\$250,000.</li> </ul>
7. Time frame of initiative	Ongoing
8. Targeted countries	<ul> <li>All who have communicated a National Designated entity</li> </ul>
9. Types of interventions supported	<ul> <li>Technical assessments, including technical expertise and recommendations related to specific technology needs, identification of technologies, technology barriers, technology efficiency, as well as piloting and deployment of technologies.</li> <li>Technical support for policy and planning documents, include strategies and policies, roadmaps and action plans, regulations and legal measures</li> <li>Trainings</li> <li>Tools and methodologies</li> <li>Implementation plans</li> </ul>
10. Contribution to C-SERMS Goals	<ul> <li>Policy</li> <li>Capacity</li> <li>Information</li> <li>Implementation Planning</li> </ul>
11. Sectoral focus - Public vs. Private	Public and private
12. Eligibility criteria for applying for support	Communication of NDE to CTCN
13. Criteria for evaluating proposals	<ul> <li>Demonstrated country need, consistent with national climate plans</li> </ul>
<ul><li>14. Proposal submission procedures</li><li>15. Website or internet link</li></ul>	<ul> <li>Requests for technical assistance are submitted by CTCN National Designated Entities (NDE). NDEs are selected by each country to coordinate requests from local/national governments, NGOs, and/or the private sector for capacity building and technical assistance.</li> </ul>
15. Website of internet link	https://www.ctc-n.org/technical-assistance/introduction

# Climate Technology Centre and Network (CTCN)

1. Name of initiative	EU Caribbean Investment Facility
2. Responsible agency or country	European Union
3. Type of financing provided	<ul> <li>Regional blending facility aiming at mobilising funds for development projects by combining grants from the <u>European Development Fund (EDF)</u> with other public and private resources such as loans from European and Regional Financial Institutions to leverage additional financing and achieve investments in infrastructure and support to the private sector.</li> </ul>
4. Financing available (US\$)	<ul> <li>Not available</li> </ul>
5. Co-financing requirements	Blended facility
6. Other types of support provided	Technical assistance
	• Risk capital and other risk sharing instruments.
7. Time frame of initiative	• 2014 - 2020 (11th EDF)
8. Targeted countries	<ul> <li>15 Caribbean countries, signatories of <u>ACP-EU</u> <u>Partnership Agreement</u>, which are: Antigua &amp; Barbuda, Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St Kitts &amp; Nevis, St Lucia, Saint-Vincent and the Grenadines, Suriname and Trinidad &amp; Tobago.</li> </ul>
9. Types of interventions supported	<ul> <li>National projects that create better transport and energy infrastructures which promote interconnectivity, safety, security and efficiency.</li> <li>Regional operations covering two or more of the above countries.</li> </ul>
10. Contribution to C-SERMS Goals	Investment Finance
11. Sectoral focus - Public vs. Private	Public and Private
12. Eligibility criteria for applying for support	Member of ACP Group of countries
13. Criteria for evaluating proposals	Not available
14. Proposal submission procedures	Not available
15. Website or internet link	<ul> <li>http://ec.europa.eu/europeaid/regions/latin- america/caribbean-investment-facility_en</li> </ul>

# EU Caribbean Investment Facility

1. Name of initiative	Electrification Financing Initiative (ElectriFi)
2. Responsible agency or country	The European Commission
3. Type of financing provided	<ul> <li>Risk capital - development finance, debt, quasi-equity, equity and guarantees. It is a financing scheme to bridge the gaps in structuring and financing, stimulate the private sector, and mobilise financiers. Its mission is to grow viable businesses and projects that create <u>new</u> connections to reliable and sustainable energy in emerging and developing countries.</li> </ul>
4. Financing available (US\$)	<ul> <li>Maximum EUR 10 million per project; Minimum EUR 0.5 million</li> </ul>
5. Co-financing requirements	ElectriFI funding may not exceed 50% of total amount of equity; nor 50% of total project costs.
6. Other types of support provided	• Nil
7. Time frame of initiative	• The maximum term of funding will be 7 years
8. Targeted countries	<ul> <li>Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago</li> </ul>
9. Types of interventions supported	<ul> <li>Renewable energy (excluding first generation biofuels)</li> </ul>
10. Contribution to C-SERMS Goals	<ul> <li>Finance - bridging finance to assist projects to maturity</li> </ul>
11. Sectoral focus - Public vs. Private	Private
12. Eligibility criteria for applying for support	<ul> <li>Provide new connections to electricity; financially sustainably in the near-term (2-3 years); must be in the active stage of development; led by an experienced management team</li> </ul>
13. Criteria for evaluating proposals	<ul> <li>Sponsor's equity; Track Record; Impact; Geographical Coverage; Sector; Technology; Viability; Type of financial instrument; Pricing and returns; Sustainability; Leverage; Additionality; Active development stage; Replicability; Scalability</li> </ul>
14. Proposal submission procedures	<ul> <li>Register online at http://electrifi.org/applications/submit- an-investment-proposal/</li> </ul>
15. Website or internet link	<ul> <li>http://electrifi.org/applications/quickscan/;</li> <li>http://electrifi.org/applications/submit-an-investment-proposal/</li> </ul>

# **Electrification Financing Initiative (ElectriFi)**

1. Name of initiative	Technical Assistance Programme for Sustainable Energy in
	the Caribbean (TAPSEC)
2. Responsible agency or country	European Development Fund, through delegated cooperation
	agreement with GIZ
3. Type of financing provided	<ul> <li>Development Aid</li> </ul>
4. Financing available (US\$)	EUR9.2 million
5. Co-financing requirements	Nil
6. Other types of support provided	<ul> <li>Implementation of the CARICOM Energy Policy (CEP)</li> </ul>
	and the Caribbean Sustainable Energy Road Strategy
	(C-SERMS), as well as the "National Energy" of the
	Dominican Republic
7. Time frame of initiative	• 48 months - 2016 - 2020
8. Targeted countries	<ul> <li>All CARICOM member states</li> </ul>
9. Types of interventions supported	<ul> <li>Regulatory frameworks for renewable energy and energy</li> </ul>
	efficiency
	<ul> <li>Energy information</li> </ul>
	<ul> <li>Identify financing mechanisms for renewable energy</li> </ul>
	projects
	<ul> <li>Strengthened technical capacity among players in</li> </ul>
	renewable energy and energy efficiency
10. Contribution to C-SERMS Goals	<ul> <li>Information</li> </ul>
	<ul> <li>Policy</li> </ul>
	Capacity
11. Sectoral focus - Public vs. Private	<ul> <li>Public, Private, NGO</li> </ul>
12. Eligibility criteria for applying for	<ul> <li>Participating member state</li> </ul>
support	
13. Criteria for evaluating proposals	<ul> <li>Not available (TBD)</li> </ul>
14. Proposal submission procedures	<ul> <li>Not available (TBD)</li> </ul>
15. Website or internet link	• N.A.

# Technical Assistance Programme for Sustainable Energy in the Caribbean (TAPSEC)

#### 1. Name of initiative GCF Readiness Support Green Climate Fund 2. Responsible agency or country Type of financing provided Grant 3. 4. Financing available (US\$) Up to USD 1 million per country per year. Of this amount, NDAs or focal points may request up to USD 300,000 per year to help establish or strengthen a NDA or focal point to deliver on the Fund's requirements. 5. Co-financing requirements . Nil Other types of support provided **Technical Assistance** 6. 7. Time frame of initiative Ongoing 8. Targeted countries GCF focuses its readiness support on particularly vulnerable countries, including Least Developed Countries (LDCs), Small Island Developing States (SIDS), and African States – a minimum of 50% of country readiness funding is targeted at supporting these countries. Strategic frameworks, including the preparation of 9. Types of interventions supported country programs e.g. Identifying strategic investment priorities and taking stock of existing strategies, policies, and needs assessments, including intended nationally determined contributions, low-emission development strategies and nationally appropriate mitigation actions. In the context of country programmes, formulating concept notes, drawing on intended nationally determined contributions and other climate strategies and plans; Enabling private sector participation, including by supporting the preparation of preliminary studies, tender documents or advisory services for the establishment of public-private partnerships 10. Contribution to C-SERMS Goals Policy Information 11. Sectoral focus - Public vs. Private Public and Private 12. Eligibility criteria for applying for All developing countries ٠ support 13. Criteria for evaluating proposals Not available . 14. Proposal submission procedures The readiness template should be completed by the NDA or focal point with support from their delivery partner where relevant. The completed template should be submitted to countries@gcfund.org. https://www.greenclimate.fund/funding/readiness-15. Website or internet link support

#### **Green Climate Fund Readiness and Preparatory Support Program**

#### 1. Name of initiative Global Environment Facility (GEF) GEF or designated partner institution 2. Responsible agency or country 3. Type of financing provided The GEF is an operating entity of the financial mechanism for the United Nations Framework Convention on Climate Change (UNFCCC). GEF provides grant resources in keeping with guidelines and priorities established by the UNFCCC Conference of Parties (COP). Dependent on country needs 4. Financing available (US\$) . 5. Co-financing requirements GEF financing is to be used only for the agreed incremental costs on measures to achieve global environmental benefits 6. Other types of support provided Enabling activities to prepare a plan, strategy or report to fulfill commitments under a Convention. 7. Time frame of initiative Ongoing Targeted countries All Parties to the UNFCCC 8. 9. Types of interventions supported Energy efficiency - energy policy; demand-side and • supply-side measures; energy tariff regulations; power sector reform; energy efficiency policies, laws, targets and plans; establishment of energy efficiency agencies; and promotion of energy efficiency audits • Renewable energy - Investments in renewable technologies including wind and solar to hydroelectric, tidal, geothermal and biomass 10. Contribution to C-SERMS Goals Investment finance Policv Capacity Information 11. Sectoral focus - Public vs. Private Public, Private, NGO 12. Eligibility criteria for applying for Eligible country: Countries may be eligible for GEF funding in one of two ways: a) if the country has ratified support the conventions the GEF serves and conforms with the eligibility criteria decided by the Conference of the Parties of each convention; or b) if the country is eligible to receive World Bank (IBRD and/or IDA) financing or if it is an eligible recipient of UNDP technical assistance through its target for resource assignments from the core (specifically TRAC-1 and/or TRAC-2). National priority: The project must be driven by the country (rather than by an external partner) and be consistent with national priorities that support sustainable development. GEF priorities: The project has to address one or more

#### **Global Environment Facility (GEF)**

	<ul> <li>of the <u>GEF focal area strategies</u> (Biodiversity, International Waters, Land Degradation, Chemicals and Waste, and Climate Change Mitigation, as well as cross- cutting issues like sustainable forest management).</li> <li>Financing: The project has to seek GEF financing only for the agreed incremental costs on measures to achieve global environmental benefits.</li> <li>Participation: The project must involve the public in project design and implementation, following the Policy on Public Involvement in GEF-Financed Projects and the respective guidelines.</li> </ul>
13. Criteria for evaluating proposals	Guided by GEF Project and Program Cycle Policy
14. Proposal submission procedures	<ul> <li>Guided by specific templates available at</li> </ul>
	https://www.thegef.org/about/funding
15. Website or internet link	https://www.thegef.org/about/funding

1. Name of initiative	Canaaity Duilding Initiative for Transporter of (CDIT)
	Capacity Building Initiative for Transparency (CBIT)
2. Responsible agency or country	GEF or designated partner institution
3. Type of financing provided	<ul> <li>Grants for capacity building activities</li> </ul>
4. Financing available (US\$)	US\$40 million for national programs in all developing
	countries
	US\$10 million for regional and global programs and
	coordination
5. Co-financing requirements	Not available
6. Other types of support provided	• Nil
7. Time frame of initiative	• Until the end of GEF-6 to be replenished in future
	replenishment cycles
8. Targeted countries	<ul> <li>All developing countries, upon request</li> </ul>
9. Types of interventions supported	<ul> <li>Activities to strengthen national institutions for</li> </ul>
	transparency-related activities in line with national
	priorities;
	<ul> <li>Activities to provide relevant tools, training, and</li> </ul>
	assistance for meeting the provisions stipulated in the
	Paris Agreement
	<ul> <li>Activities to assist with improvement of transparency</li> </ul>
	over time.
10. Contribution to C-SERMS Goals	Information
	Capacity
11. Sectoral focus - Public vs. Private	Public and Private
12. Eligibility criteria for applying for	All developing countries, upon request
support	
13. Criteria for evaluating proposals	Not available
14. Proposal submission procedures	<ul> <li>Guided by specific templates available at</li> </ul>
	https://www.thegef.org/about/funding
15. Website or internet link	http://thegef.org/topics/capacitybuildinginitiative-
	-transparencycbit

# **Global Environment Facility - Capacity Building Initiative for Transparency (CBIT)**

## Green Climate Fund

1. Name of initiative	Green Climate Fund	
2. Responsible agency or country	Green Climate Fund	
3. Type of financing provided	Grants, Concessional Loans, Guarantees, Equity	
4. Financing available (US\$)	Based on needs	
5. Co-financing requirements	Based on content of proposal	
6. Other types of support provided		
7. Time frame of initiative	Ongoing	
8. Targeted countries	<ul> <li>All developing countries</li> </ul>	
9. Types of interventions supported	<ul> <li>Shifting to low-emission sustainable development pathways through:         <ol> <li>Low-emission energy access and power generation</li> <li>Low-emission transport</li> </ol> </li> </ul>	
	3 Energy efficient buildings, cities and industries 4 Sustainable land use and forest management	
10. Contribution to C-SERMS Goals	<ul> <li>Investment Finance</li> <li>Policy</li> <li>Capacity</li> <li>Information</li> </ul>	
11. Sectoral focus - Public vs. Private	Public and Private	
12. Eligibility criteria for applying for support	• Applications can be submitted by accredited entities at any time	
13. Criteria for evaluating proposals	<ul> <li>Impact potential</li> <li>Paradigm shift potential</li> <li>Sustainable development potential</li> <li>Needs of the recipient</li> <li>Country ownership</li> <li>Efficiency and effectiveness</li> </ul>	
14. Proposal submission procedures	<ul> <li>Documented in GCF Proposal Approval Process at https://www.greenclimate.fund/funding/proposal- approval/fine-print</li> </ul>	
15. Website or internet link	<ul> <li>https://www.greenclimate.fund/funding/proposal- approval</li> </ul>	

# The International Renewable Energy Agency (IRENA)

1. Name of initiative	International Renewable Energy Agency	
2. Responsible agency or country	Intergovernmental Organisation	
3. Type of financing provided	<ul> <li>Finance in partnership with ADFD</li> </ul>	
4. Financing available (US\$)	See ADFD	
5. Co-financing requirements	See ADFD	
6. Other types of support provided	<ul> <li>Platform for international cooperation including advice on best practices and policy development, capacity building programs, renewable energy data and statistics, insights on financial mechanisms</li> <li>Networking and Knowledge Products</li> </ul>	
7. Time frame of initiative	Ongoing	
8. Targeted countries	<ul> <li>Members of IRENA</li> </ul>	
9. Types of interventions supported	<ul> <li>Development of bankable projects</li> <li>Access to information and capacity building</li> <li>Networking on finance with ADFD and SIDS Lighthouse Initiative and Sustainable Energy Marketplace</li> </ul>	
10. Contribution to C-SERMS Goals	<ul> <li>Information</li> <li>Capacity Building</li> <li>Finance in partnership with ADFD</li> </ul>	
11. Sectoral focus - Public vs. Private	See ADFD	
12. Eligibility criteria for applying for support	See ADFD	
13. Criteria for evaluating proposals	See ADFD	
14. Proposal submission procedures	<ul> <li>See ADFD</li> </ul>	
15. Website or internet link	http://www.irena.org/Menu/index.aspx?PriMenuID=53&mnu=Pri	

#### 1. Name of initiative Abu Dhabi Fund for Development 2. Responsible agency or country United Arab Emirates (UAE) 3. Type of financing provided Soft, concessionary loans Manages grants given by the UAE government to fund projects in recipient countries Loan amounts vary, (5 - 100) million USD, depending on the 4. Financing available (US\$) • project and the country's per capita income. Loan rates vary between 2-5 % per annum. Loan durations vary, 15 - 20 year, including a grace period ranging from 3-5 years. Final terms and conditions of the loan will be set by ADFD. Partnership program with IRENA- US\$350 million concessionary loans towards the development renewable energy projects in several developing countries across seven loan cycles from 2012 The loan amount for each project shall not exceed 50 % of the 5. Co-financing requirements project cost. • Subject to approval of the Board of Directors, ADFD may extend its participation up to 80 % of the project cost for projects not exceeding \$20 million in cost. 6. Other types of support None provided 7. Time frame of initiative Ongoing 8. Targeted countries Developing country included in the OECDs "DAC List of ODA recipients" Funded projects in 70 countries and plans to increase to 90 in next five years Infrastructure - water, energy, transportation, education, housing 9. Types of interventions supported and health care 10. Contribution to C-SERMS **Investment Finance** Goals 11. Sectoral focus - Public vs. Public Private 12. Eligibility criteria for applying Government entities for support Semi-government bodies or private companies, with a government guarantee Project falls within government's development priorities 13. Criteria for evaluating Project has a positive socio-economic impact in the country proposals 14. Proposal submission Official submissions should come from a government entity, specifically through the ministry in charge of international procedures borrowing. All requests should indicate that the project is within development priorities. The request for funding should be supported by an economic

#### Abu Dhabi Fund for Development (ADFD)

	feasibility study, projected cash flow and the financing plan.
15. Website or internet link	https://www.adfd.ae/english/Projects/ProjectCycle/Pages/Home.aspx

## SIDS LIGHTHOUSE INITIATIVE

1. Name of initiative	SIDS LIGHTHOUSE INITIATIVE	
2. Responsible agency or country	IRENA	
3. Type of financing provided	<ul> <li>Based on identified needs and match-making with development partners</li> </ul>	
4. Financing available (US\$)	<ul> <li>Based on identified needs and match-making with development partners</li> </ul>	
5. Co-financing requirements	Dependent on partner	
6. Other types of support provided	<ul> <li>Technical expertise and analytical support to develop bankable proposals in the context of a structured approach to energy sector transition through a series of structured activities.</li> <li>Initial activities - QuickScan to identify needs and Development of Roadmaps</li> <li>Match-making with development partners</li> </ul>	
7. Time frame of initiative	• 2015 - 2020	
8. Targeted countries	<ul> <li>SIDS, who are members of IRENA</li> <li>11 CARICOM states are eligible; 9 have joined the initiative</li> <li>36 islands have joined</li> </ul>	
9. Types of interventions supported	<ul> <li>Renewable energy roadmaps</li> <li>Investments in hydropower, wind, solar, geothermal, hydropower and marine technology projects</li> </ul>	
10. Contribution to C-SERMS Goals	<ul> <li>Information</li> <li>Policy</li> <li>Capacity</li> <li>Investment Finance</li> </ul>	
11. Sectoral focus - Public vs. Private	Public and Private	
12. Eligibility criteria for applying for support	<ul> <li>Membership in IRENA</li> <li>Small island developing states and stakeholder organizations can submit a letter of request to join the initiative.</li> </ul>	
13. Criteria for evaluating proposals	Dependent on partner	
14. Proposal submission procedures	Dependent on partner	
15. Website or internet link	<ul> <li>http://www.sids2014.org/index.php?page=view&amp;type=1006&amp;nr= 2716&amp;menu=1507</li> <li>http://www.irena.org/quickscan/</li> </ul>	

The Sustain	nable Ene	ergy Marl	<b>ketplace</b>
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1. Name of initiative	Sustainable Energy Marketplace		
2. Responsible agency or country	International Renewable Agency (IRENA)		
3. Type of financing provided	<ul> <li>Matching based on needs</li> </ul>		
4. Financing available (US\$)	<ul> <li>Based on needs opportunity identified for US\$20B</li> </ul>		
	over next 10 years <sup>60</sup>		
5. Co-financing requirements	Dependent on partner		
	1 1		
6. Other types of support provided	Project screening		
	<ul> <li>Project development</li> </ul>		
	<ul> <li>Interaction with market players - Project owners,</li> </ul>		
	Governments and Financiers, Service Providers and		
	Technology Suppliers		
7. Time frame of initiative	Ongoing		
8. Targeted countries	Caribbean SIDS		
9. Types of interventions supported	<ul> <li>Renewable energy</li> </ul>		
10. Contribution to C-SERMS Goals	<ul> <li>Investment Finance</li> </ul>		
11. Sectoral focus - Public vs. Private	Public and Private		
12. Eligibility criteria for applying for	Member of IRENA		
support			
13. Criteria for evaluating proposals	Dependent on partner		
14. Proposal submission procedures	<ul> <li>Market stakeholders – project owners, financiers and</li> </ul>		
_	service/technology providers – can register by submitting		
	the required information on themselves		
15. Website or internet link	http://caribbean.marketplace.irena.org/		

<sup>&</sup>lt;sup>60</sup> http://caribbean.marketplace.irena.org/
# Japan-Caribbean Climate Change Partnership (J-CCCP)

1. Name of	Japan-Caribbean Climate Change Partnership (J-CCCP)
initiative	supun currobean chinate change rathership (s eeer)
2. Responsible agency or country	United Nations Development Program (UNDP) and National Governments
3. Type of financing provided	Grant
4. Financing available (US\$)	USD 15 million
5. Co-financing requirements	Not available
<ol> <li>Other types of support provided</li> </ol>	<ul> <li>Strengthening institutional and technical capacities for iterative development of comprehensive NAMAs in selected Caribbean countries</li> </ul>
7. Time frame of initiative	<ul> <li>May 2015 to December 2017</li> </ul>
8. Targeted countries	<ul> <li>Countries in CARICOM whose income are classified as category (iii) or category (iv) as per World Bank's Operational Manual, except those counties whose GNI per capita is over US\$12,275 (Antigua and Barbuda, Bahamas, Barbados, St Kitts and Nevis and Trinidad and Tobago)</li> <li>Belize, the Commonwealth of Dominica, Grenada, the Republic of Guyana, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, and the Republic of Suriname</li> </ul>
9. Types of interventions supported	<ul> <li>Country-driven processes leading to the identification of opportunities for the design of low-emission development strategies (LEDS) in a context of national priorities</li> <li>GHG inventory management systems</li> <li>Establish business-as-usual GHG emission baselines and identify mitigation options in selected sectors relevant for the region</li> <li>Facilitating the design and adoption of mitigation actions in selected priority sections in the Caribbean.</li> <li>Design and implement NAMAs</li> <li>Establish MRV systems and registries for monitoring of the proposed actions to reduce greenhouse gas (GHG) emissions</li> <li>Exchange lessons learned and knowledge through South-South and North-South cooperation on effective adaptation and mitigation planning</li> </ul>
10. Contribution to C-SERMS	<ul> <li>Information</li> <li>Capacity</li> </ul>
Goals	Policy
<ul><li>11. Sectoral focus</li><li>Public vs.</li><li>Private</li></ul>	
12. Eligibility criteria for	Not available

applying for	
support	
13. Criteria for	Not available
evaluating	
proposals	
14. Proposal	Not available
submission	
procedures	
15. Website or	http://www.bb.undp.org/content/barbados/en/home/operations/projects/
internet link	environment_and_energy/japan

### NAMA Facility

1. Name of initiative	NAMA Facility
2. Responsible agency or country	Joint Initiative of <u>German Federal Ministry for the</u> Environment, Nature Conservation, Building and Nuclear
	Safety (BMUB); UK's Department for Business, Energy and
	Industrial Strategy (BEIS); Danish Ministry of Energy,
	Utilities and Climate (EFKM); Danish Ministry of Foreign
	Affairs (MFA); European Commission
3. Type of financing provided	Grants
4. Financing available (US\$)	Based on needs
5. Co-financing requirements	Based on needs
6. Other types of support provided	Project development
7. Time frame of initiative	<ul> <li>Based on needs</li> </ul>
8. Targeted countries	<ul> <li>Developing countries and emerging economies</li> </ul>
9. Types of interventions supported	<ul> <li>NAMAs (nationally appropriate mitigation actions) are</li> </ul>
	considered to be voluntary climate protection measures
	taken by developing countries and emerging economies,
	which are embedded within their plans for national
	development.
10. Contribution to C-SERMS Goals	<ul> <li>Investment finance</li> <li>Dalisation</li> </ul>
	Policy     Consoity
11. Sectoral focus - Public vs. Private	<ul><li>Capacity</li><li>Public and Private</li></ul>
12. Eligibility criteria for applying for	
support	• Formal requirements (timely submission, completeness, documents in English)
	<ul> <li>Envisaged implementation duration of 3-5 years</li> </ul>
	<ul> <li>Envisaged Detailed Preparation Phase duration of max</li> </ul>
	18 months
	• ODA-eligibility of the country throughout the entire
	NAMA Support Project (NSP) implementation period
	• Qualification of the NAMA Facility funding as ODA
	finance
	<ul> <li>Funding volume requested from the NAMA Facility for</li> </ul>
	implementation EUR 5-20 million
	• NAMA Facility funding not used for the generation of
	GHG emission allowances or, if generated, verifiable
	cancellation
	• Eligibility of the applicant
13. Criteria for evaluating proposals	<ul> <li>NAMAs should be country-driven and anchored in</li> </ul>
	national development strategies and plans.
	• NAMAs should strive to be sector-wide programmes that
	are national in scope, even if regional or municipal
	elements could form part of the overall design.

	•	NAMAs should consist of a combination of policies and financial mechanisms. Policies should serve to create an enabling environment and channel financial flows into low-carbon investments. Financial mechanisms should serve to address potential barriers for investment and leverage potential public support for mitigation activities. International support for NAMAs needs to be flexible in order to provide tailor-made solutions that are appropriate for the circumstances and capabilities of different countries. International funds should be used to enable the implementation of NAMAs and leverage additional public and/or private capital investment. A strategy for self-sustained implementation at national level should be envisaged. NAMAs should be ambitious and demonstrate potential for transformational change
14. Proposal submission procedures		NAMA Support Projects (NSPs) submitted in response to calls - four annual calls made 2013 to 2016. Guidelines in NAMA Facility General Information Document
15. Website or internet link		http://www.nama-facility.org/

1. Name of initiative	OLADE - Latin American Energy Organisation
2. Responsible agency or country	OLADE
3. Type of financing provided	• Nil
4. Financing available (US\$)	• Nil
5. Co-financing requirements	Nil
6. Other types of support provided	<ul> <li>Technical assistance</li> </ul>
	<ul> <li>Energy statistics through its Energy-Economic</li> </ul>
	Information System,
7. Time frame of initiative	Ongoing
8. Targeted countries	<ul> <li>8 CARICOM member states Barbados, Cuba, Grenada,</li> </ul>
	Guyana, Haiti, Jamaica, Trinidad &
	Tobago and Suriname.
9. Types of interventions supported	Technical assistance to small member countries of Latin
	America and the Caribbean with respect to their energy
	policies and appropriate regulatory frameworks
	<ul> <li>Promotes specific studies that help to accomplish actions</li> </ul>
	to reduce emissions
	<ul> <li>Develop of an Energy Planning Manual and its use to</li> </ul>
	develop National Energy Plans
10. Contribution to C-SERMS Goals	<ul><li>Provision of energy statistics</li><li>Information</li></ul>
10. Contribution to C-SERIVIS Goals	
	<ul><li>Capacity Building</li><li>Policy</li></ul>
11. Sectoral focus - Public vs. Private	<ul> <li>Public and Private</li> </ul>
12. Eligibility criteria for applying for	Membership in OLADE
support	
13. Criteria for evaluating proposals	Not applicable
14. Proposal submission procedures	<ul> <li>Not applicable</li> </ul>
15. Website or internet link	http://www.olade.org/progproy/ongoing-projects/?lang=en
	indp:// www.ondoc.org/prosprog/ongoing projects/ indig-on

### **OLADE - Latin American Energy Organisation**

# The Renewable Energy and Energy Efficiency Technical Assistance (REETA)

1. Name of initiative	The Renewable Energy and Energy Efficiency Technical
	Assistance (REETA)
2. Responsible agency or country	CARICOM Secretariat/GIZ (Government of Germany)
3. Type of financing provided	Grant
4. Financing available (US\$)	• EUR 4.5 million
5. Co-financing requirements	• Nil
6. Other types of support provided	Technical assistance
7. Time frame of initiative	<ul> <li>2012 - 2016 (4 years)</li> </ul>
8. Targeted countries	<ul> <li>All CARICOM member states and the Dominican</li> </ul>
	Republic
9. Types of interventions supported	<ul> <li>Strengthen CARICOM Energy Unit</li> </ul>
	<ul> <li>Regional energy information system</li> </ul>
	<ul> <li>Regional energy strategy</li> </ul>
	<ul> <li>Capacity Building to create regional expertise including</li> </ul>
	training courses at universities and technical schools
	<ul> <li>Regional institutional support</li> </ul>
	<ul> <li>Private sector cooperation through networking</li> </ul>
	<ul> <li>Pilot projects at the local level</li> </ul>
10. Contribution to C-SERMS Goals	<ul> <li>Information</li> </ul>
	<ul> <li>Policy</li> </ul>
	<ul> <li>Capacity Building</li> </ul>
11. Sectoral focus - Public vs. Private	Public and Private
12. Eligibility criteria for applying for	Not available
support	
13. Criteria for evaluating proposals	<ul> <li>Not available</li> </ul>
14. Proposal submission procedures	<ul> <li>Not available</li> </ul>
15. Website or internet link	https://www.giz.de/en/worldwide/29362.html

1. Name of initiative	UAE-Caribbean Renewable Energy Fund
2. Responsible agency or country	Government of the United Arab Emirates (UAE)
3. Type of financing provided	Grants
4. Financing available (US\$)	<ul> <li>USD 50 million, with country allocations based on project</li> </ul>
5. Co-financing requirements	• Nil
6. Other types of support provided	<ul> <li>Funding can support project development/preparation and feasibility studies for committed projects with secured financing.</li> <li>Funding can be blended to support projects that are financed by ADFD outside the Fund.</li> </ul>
7. Time frame of initiative	<ul> <li>4 - 6 countries per year, with each country eligible to receive funding one time from the fund</li> </ul>
8. Targeted countries	<ul> <li>All United Nations Member States classified as Caribbean SIDS are eligible under the Fund: Antigua &amp; Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago</li> </ul>
9. Types of interventions supported	<ul> <li>Development of new renewable energy capacity</li> <li>Support for distribution and transmission systems can be considered when tied to committed generation projects</li> </ul>
10. Contribution to C-SERMS Goals	<ul> <li>Investment finance</li> <li>Information</li> <li>Capacity Building</li> </ul>
11. Sectoral focus - Public vs. Private	Public and Private
12. Eligibility criteria for applying for support	<ul> <li>United Nations Member States classified as Caribbean SIDS</li> </ul>
13. Criteria for evaluating proposals	<ul> <li>A national government is the counterparty for the cooperation agreement (which can in turn assign implementing entities).</li> <li>The project corresponds with the applicant government's strategic energy priorities, facilitates achievement of the SDGs, and supports women's empowerment.</li> <li>The applicant government undertakes to exempt all</li> </ul>
	<ul> <li>goods and services related to execution of the project from all forms of custom duties, taxes and fees that may be imposed under the laws of country.</li> <li>The applicant government is committed to sharing relevant data with the Steering Committee on energy resource assessments, cost competitiveness, and policy frameworks, as well as assisting in cataloguing of project implementation experience and best practices, which may in turn be shared with relevant international</li> </ul>

### The UAE-Caribbean Renewable Energy Fund

	organizations, such as IRENA.
	• An appropriate monitoring and evaluation framework is
	in place.
14. Proposal submission procedures	<ul> <li>Thereafter, applications will be prioritized using the following criteria:</li> <li>The project scope is achievable within a reasonable amount of time and with existing or imminent financial resources; site selection and land ownership are secured.</li> <li>The project concept maximises the socio-economic and environmental benefits of the grant for the country and as large a share of the population as possible.</li> <li>The project fits into existing or emerging renewable energy roadmaps and strategies endorsed at the highest levels. Moreover, the project is linked to other concrete efforts and expands the country's renewable energy sector.</li> <li>Project proponent and execution teams, especially in decision-making positions, are gender balanced, and gender analyses are taken into account for project planning, design and operations.</li> <li>The application period is typically open each year for up to six months. An official letter, affirming the government's interest and enclosing the application form, can be submitted directly to the Steering Committee via</li> </ul>
	the email address caribbeanfund@mofaic.gov.ae. Please
	also highlight the shortlist of project ideas in the official letter.
15. Website or internet link	caribbeanfund@mofaic.gov.ae
	canoocantunu e moraic.gov.ac

UDAID CARIDDEAN	USAID CARIBBEAN CLEAN ENERGY PROGRAM (CARCEP)		
1. Name of initiative	USAID Caribbean Clean Energy Program (CARCEP)		
2. Responsible agency or country	USAID		
3. Type of financing provided	Grant		
4. Financing available (US\$)	US\$15 million		
5. Co-financing requirements	• Nil		
6. Other types of support provided	• Nil		
7. Time frame of initiative	<b>•</b> 2015 - 2020		
8. Targeted countries	<ul> <li>Jamaica, St. Kitts &amp; Nevis, Barbuda, Antigua, Dominica, St. Lucia, Barbados, Grenada., St. Vincent and the Grenadines</li> </ul>		
9. Types of interventions supported	<ul> <li>Establishing effective policy, legislative and regulatory environments as well as incentives for energy efficiency and low-emission growth in the energy sector and working closely with the private sector to drive investments in clean energy development.         <ul> <li>a. Policy formulation</li> <li>b. Strengthening enabling environment for clean energy development</li> <li>c. Greening the grid</li> <li>d. Private sector leverage in clean energy investment</li> <li>e. Energy efficiency</li> </ul> </li> </ul>		
10. Contribution to C-SERMS Goals	<ul><li>Capacity Building</li><li>Policy</li></ul>		
11. Sectoral focus - Public vs. Private	Public and Private		
12. Eligibility criteria for applying for support	Not available		
13. Criteria for evaluating proposals	Not available		
14. Proposal submission procedures	<ul> <li>Not available</li> </ul>		
15. Website or internet link	<ul> <li>https://www.usaid.gov/jamaica/our-work/caribbean- clean-energy-program</li> </ul>		

#### USAID CARIBBEAN CLEAN ENERGY PROGRAM (CARCEP)

	the Caribbean and Central America (CEFF-CCA)
1. Name of initiative	Clean Energy Finance Facility for the Caribbean and Central America (CEFF-CCA)
2. Responsible agency or country	Four U.S. government partners collaborating in the Facility are the U.S. Department of State, U.S. Agency for International Development (USAID), U.S. Trade and Development Agency (USTDA), and the Overseas Private Investment Corporation.
3. Type of financing provided	<ul> <li>Grant</li> </ul>
4. Financing available (US\$)	• US\$10 million
5. Co-financing requirements	• Nil
6. Other types of support provided	<ul> <li>Project development support</li> <li>Open doors to OPIC loans and guarantees, political risk insurance and investment fund support</li> </ul>
7. Time frame of initiative	<ul> <li>2 years, starting in 2016. Notice for Funding Opportunity (NFO) will remain open until March 31, 2017 and all activities should be completed within 3 - 12 months.</li> </ul>
8. Targeted countries	<ul> <li>Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago.</li> </ul>
9. Types of interventions supported	<ul> <li>Public and private sector clean energy development</li> <li>Provides grant support for <u>early-stage project</u> <u>development</u> and helps under-capitalised projects address key planning and feasibility issues that are critical to successful financing and implementation.</li> </ul>
10. Contribution to C-SERMS Goals	<ul> <li>Investment finance</li> </ul>
11. Sectoral focus - Public vs. Private	Public and private
12. Eligibility criteria for applying for support	<ul> <li>Clean and renewable energy projects in the following categories:</li> <li>Power generation: Projects involving construction and operation of renewable energy power generation facilities for connection to the national grid, local utilities, or distribution companies. Projects must use commercially proven technologies.</li> <li>Market-based solutions Projects involving sales and distribution of small-scale clean energy systems and products that provide access, or extend the hours of access, to electricity. Examples include off -grid distributed generation systems, self-contained solar home kits, pay-as-you-go access systems, etc.</li> <li>Renewable Energy Infrastructure Catalyzers: Projects that introduce or expand essential infrastructure or provide additional resources to a specific market, which renewable energy sector actors may then leverage to expand renewable energy offerings to a target market. Examples include financing and leasing facilities.</li> <li>Energy efficiency: including electricity grid loss</li> </ul>

# Clean Energy Finance Facility for the Caribbean and Central America (CEFF-CCA)

	mitigation and other smart grid activities, energy efficiency building solutions and activities that mitigate the need for new power generation
13. Criteria for evaluating proposals	<ul> <li>Have clear social and economic benefits, with processes in place to monitor and evaluate these benefits.</li> <li>Positive impact on energy access, security, poverty alleviation, gender inclusion, and consistency with the USAID program in the country where the project is located.</li> <li>Support low emissions development in Central America and the Caribbean.</li> </ul>
14. Proposal submission procedures	<ul> <li>Application forms available at http://www.ceff- cca.org/apply.html</li> </ul>
15. Website or internet link	<ul> <li>https://www.ustda.gov/program/regions/latin-america- and-caribbean/ceff-cca</li> </ul>

## **APPENDIX 1**

# Listing Of Persons Interviewed/Providing Information

Names	Organisations	
Dr. Al Binger	Interim Executive Director, CCREEE	
Ms. Tessa Williams-	Head, Renewable Energy/Energy Efficiency Unit, Caribbean Development Bank,	
Robertson	Barbados	
Dr. Hugh Sealey	Professor, Department of Public Health and Preventive Medicine, St. George's	
	University, Grenada	
Sharon Lindo	Policy Adviser, Caribbean Community Climate Change Centre	
Lia Nicholson	Project Consultant, Department of the Environment, Ministry of Health and the	
	Environment Antigua and Barbuda	
Phillip Weech	Director, The Bahamas Environment Science and Technology Commission	
	(BEST), Bahamas	
Rickardo Ward	National Focal Point, Barbados	
Ann Gordon	National Coordinator, National Climate Change Office, Belize	
Lloyd Pascal	National Focal Point, Dominica	
Martina Duncan	National Climate Change Focal Point, Grenada	
Christopher Joseph	Energy Officer, Ministry of Finance, Grenada	
Janelle Christian	Head, Office of Climate Change, Guyana	
Moise Jean-Pierre	UNFCCC National Focal Point, Haiti	
UnaMay Gordon	Principal Director   Climate Change Division, Ministry of Economic Growth and	
	Job Creation, Jamaica	
Crispin D'Auvergne	Chief Sustainable Development & Environment Officer, St. Lucia	
Nyasha Hamilton	Sustainable Development Unit, Ministry of Economic Planning, Sustainable	
	Development, Industry, Information and Labour, St. Vincent and the Grenadines	
Kishan Kumarsingh	Head, Multilateral Environmental Agreements Unit, Trinidad and Tobago	
Judith Ephraim	Programme Coordinator, Sustainable Energy Unit (SEU), OECS Commission	

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