

# A New Paradigm for Caribbean Development: *Transitioning to a Green Economy*



*“Regional Perspective  
of the Renewable Energy Dimension of GE”*

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# Objectives

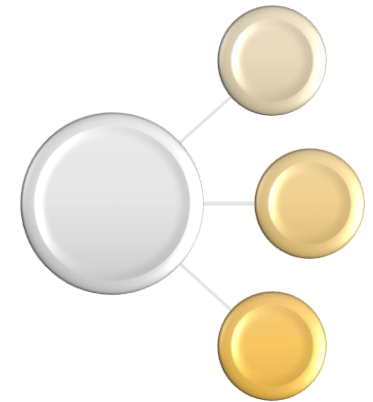
**To provide regional perspective on:**

1. The utility of GE Paradigm for advancing RE in Caribbean Region
2. Possible Areas where Caribbean Development Bank can catalyze RE development in Caribbean



# Context of Green Economy Paradigm for RE

1. GE one of many vehicles: *GE, Green growth, Low Carbon, Carbon Neutral, Clean Energy, Climate Resilience, SEFA*
2. BMCs need must catch any vehicle heading home!
3. BMCs have special opportunity for GE to become a useful vehicle for advancing RE and EE – these fulfill multiple objectives:
  - *Energy security, long term affordability, energy diversification, energy and environmental sustainability, energy access, economic sub-sector, empowerment; democratization energy production;*

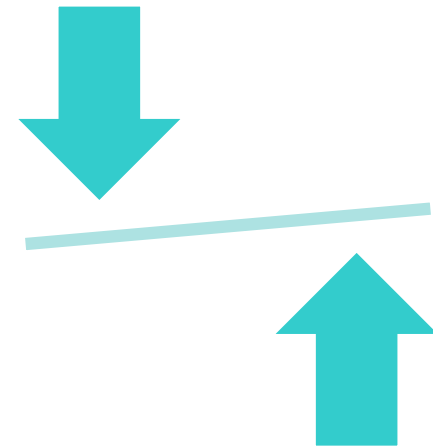




# Renewable Energy in the Green Economy

Extent to which GE is vehicle for advancing RE & EE impacted by:

1. Lack of regional consensus: precise role of GE & priority areas **(-ve)**
2. Absence of Global consensus on GE and its role in future  
Outcome of RIO+20 Process, weak **(-ve)**
3. RE and EE (key elements of GE) identified as priority for BMCs and Region, for energy security & sustainability, reasons **(+ve)**  
Therefore provides opportunity:
  - To achieve the GE objective
  - For Caribbean countries to lead in this area.





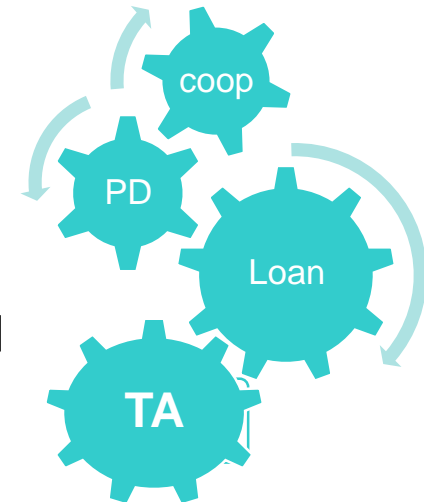
# Regional Perspective

1. **Regional approach to GE must bring added value** beyond national efforts such that:  
$$A > \sum_1^n (a_i)$$
 ie, *the whole is greater than sum of parts*  
Eg – Interconnection of electricity system to expand markets
2. **Challenge: Implementation at Regional level is weak**; eg even when *Regional approaches are agreed, countries ignore them*
3. **Value-add could come from:**
  - i) **coordination** among the various institutions promoting and pursuing RE Projects; among governments in relation to competing options like natural gas
    - Eg – Environment ministries and climate change agencies are establishing NAMA, which may not be coordinated with energy ministries plan for sustainable energy, planning is not integrated and comprehensive
  - ii) **Knowledge sharing** and Learning for other countries in Region



# Advancing Implementation of RE in Caribbean:

1. **Capacity support** in specific areas via **TA**
2. **Provide incentives thru innovative financing mechanisms** line with broader objectives
  - To incentivize establishment and achievement of targets
  - Encourage coordination of regional projects
3. **Structured Policy Dialogue** to overcome deadlocks and slow progress, plus policy based loans to assist the process
4. **Innovative mechanisms** to address issue of “*stranded assets*”, where exists
5. Innovative instruments to support *de-risking* of early stage RE project development
6. **Working closely with Donors and regional organizations** to translate initiatives into investment opportunities eg – systematic resource assessment





# Key Opportunities

1. **Legislative and Regulatory Reforms – supported**
2. **Public Sector Energy Transformation thru use of ESCo Mechanism :**
  - Serves multiple objectives – cost savings, fiscal improvement, leadership for private sector, public procurement to stimulate market, sizeable potential impact, good candidate for concessional financing
3. **Regional level approaches:**
  - Regional programmes – resource assessments
  - Regional based studies to trigger investments
  - Integration of infrastructure
  - Regional approach to capacity development





# Regional RE Potential Impact

| BMCs              | Peak Demand MW | Main RE Opts & Potential    | Current RE | Quality     | Net (15 yrs)         |
|-------------------|----------------|-----------------------------|------------|-------------|----------------------|
| <b>10 EC BMCs</b> | 300            | Solar, Wind, <b>GE (VH)</b> | <5 %       | Firm, Inter | <b>Large Excess;</b> |
| T/Bahamas         | 250            | Solar, Wind (H)             | <1%        | Inter       | Deficit              |
| Barbados          | 163            | Solar, Wind (M)             | < 5%       | Inter       | Deficit              |
| Belize            | 80             | Bio-energy, Hydro (M)       | 40%        | Firm, Inter | Deficit              |
| Cayman            | 60             | Solar, wind (M)             | <1%        | Inter       | Deficit              |
| Guyana            | 104            | Bio-energy, Hydro (VH)      | <1%        | Firm        | <b>Large Excess</b>  |
| Haiti             | 237            | Solar, Wind (M)             | 20%        | Inter       | Deficit              |
| Jamaica           | 707            | Wind, Solar, Hydro (M)      | 9%         | Inter       | Deficit              |
| Suriname          | 196            | Bio-energy, Hydro (VH)      | 65%        | Inter; Firm | <b>Large Excess</b>  |
| <b>Sub Total</b>  | <b>2,097</b>   |                             |            |             | <b>Excess</b>        |
| T&T               | 1,183          | Solar, Wind (M)             | <1%        | Inter       | Large deficit        |
| <b>TOTAL</b>      | <b>2,280</b>   |                             | <b>8%</b>  | Inter       | Large deficit        |

Key: EC-Eastern Caribbean, GE-geothermal energy H-High, VH-very high, M-Medium, Inter-intermittent



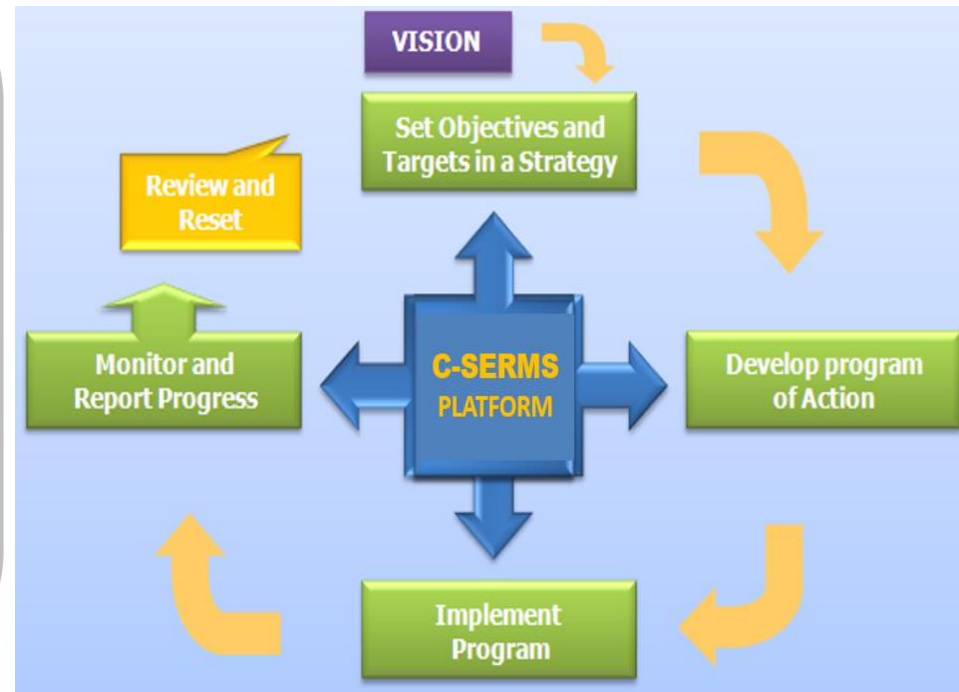


# CARICOM Energy Policy and Caribbean Sustainable Energy Roadmap & Strategy (C-SERMS) Framework

## The Goal/ Vision of the CARICOM Energy Policy

*Fundamental transformation of the energy sectors of the Member States of the Community through the provision of secure and sustainable supplies of energy in a manner which minimizes 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*

## Strategic Approach thru C-SERMS



**CARICOM Targets for Renewable Energy: 20%-2017 (short ); 28%-2022 (med), 47%-2027 (long)**



# Policy Instruments in NEPs for Increased RE & EE in BMCs (MS of CARICOM)

|                              | Renewable Energy |                      |           |                |             |                         |                     | Energy Efficiency        |                                      |             |                         |                      | Transportation                               |                              |               |                                 |
|------------------------------|------------------|----------------------|-----------|----------------|-------------|-------------------------|---------------------|--------------------------|--------------------------------------|-------------|-------------------------|----------------------|--|------------------------------|---------------|---------------------------------|
|                              | Feed-in Tariff   | Net Metering/Billing | RPS/Quota | IPPs Permitted | Tax Credits | Tax Reduction/Exemption | Public Loans/Grants | Green Public Procurement | National Energy Efficiency Standards | Tax Credits | Tax Reduction/Exemption | Public Demonstration | Prohibited Use/ Import of Incandescent Bulbs | Appliance Labeling Standards | Blend Mandate | Import Tax Exemption/ Reduction |
| Antigua & Barbuda            |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| The Bahamas                  |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Barbados                     |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Belize                       |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Dominica                     |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Grenada                      |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Guyana                       |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Haiti                        |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Jamaica                      |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Montserrat                   |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| St. Kitts & Nevis            |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| St. Lucia                    |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| St. Vincent & the Grenadines |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Suriname                     |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |
| Trinidad & Tobago            |                  |                      |           |                |             |                         |                     |                          |                                      |             |                         |                      |  |                              |               |                                 |

\* Note that only self-generation from wind and solar PV is permitted through NEVLEC.



# Implementation of Recommendations of GE Study: Possible Specific Actions of CDB in context of ESPS\*

| Selected Recommendations Per GE Study                     | Possible Actions by CDB in context of ESPS being devlp            | Level |
|---|---|-------|
| <b><i>Appropriate Policy and Regulatory Framework</i></b> | <b><i>Structured Policy Dialog with Package of Incentives</i></b> |       |
| #1: Develop strategic packages of Incentives . . .        | Earmarked as strong potential for CDB's ESPS                      | H     |
| #2: Make Climate Change mitigation a priority . .         | CDB could enhance; - in role intermediary for GCF                 | H     |
| #4: Assess impact of policies on other sectors . .        | CDB can support this thru C/strategy & implemt PBL                | M     |
| #5: Ensure policy stability as much as possible .         | CDB can influence by incentives and conditionalities              | L     |
| #9 & 13: Develop EE Policies and Instruments              | CDB can influence by incentives and conditionalities              | H     |
| #10: Establish tailored grant & concessnl Loan ..         | Earmarked as strong potential for CDB's ESPS                      | H     |
| #11: Pool funding - for scale & jump constraints          | Earmarked as strong potential for CDB's ESPS                      | H     |
| #20: Improve dissemin'tn of relevant studies              | CDB can serve as knowledge centre – best practice                 | M     |
| #22: Assess the scale at which RE                         | CDB can support strategically                                     | M     |



The End

***Thank you***