



PROJECT PREPARATION FACILITY

# Project Concept Development Training

March 28 – 30th



# Contents

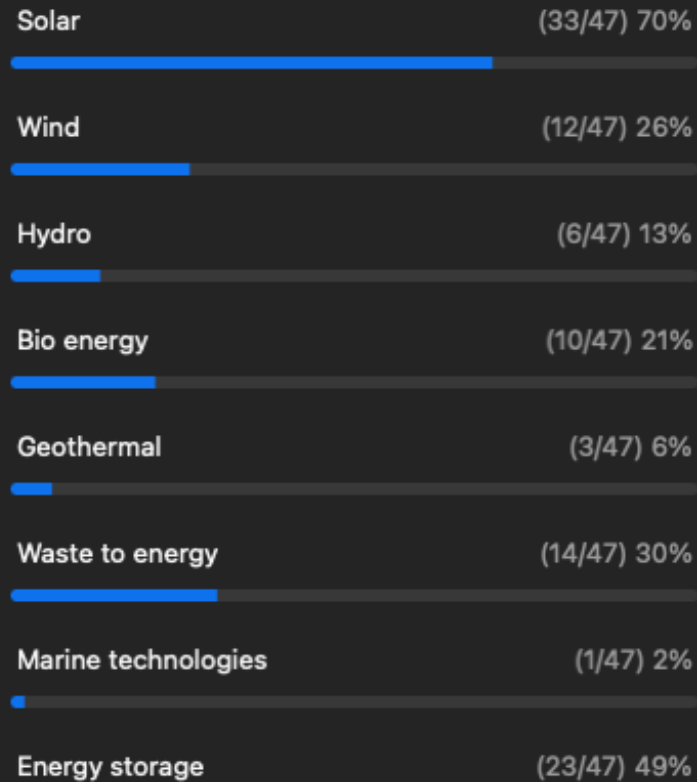
- Understanding templates
- Section 1. Project Status and Experience
- Section 2. Project description & details
- Section 3. Investment information & risks
- Wrapping up a proposal

# Reference materials

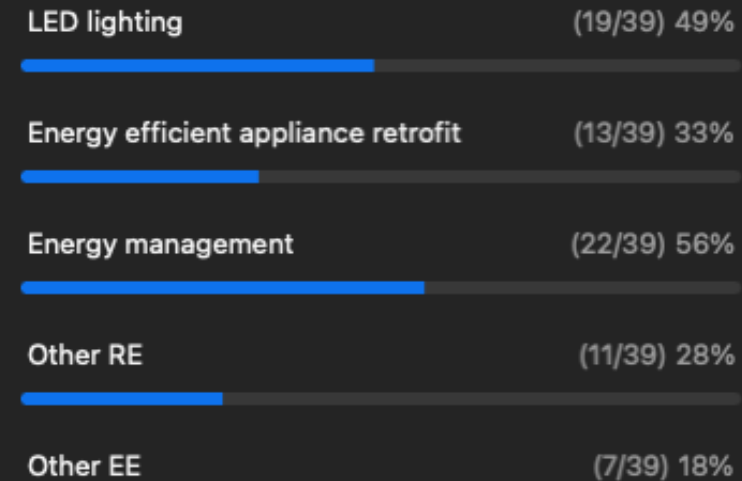
- Proposal writing template
- Case study

# Profile & sectors represented

1. What renewable energy or energy efficiency technology(ies) are you considering for your project?  
(Multiple Choice)



2. What renewable energy or energy efficiency technology(ies) are you considering for your project?  
(continued) (Multiple Choice)





# Section 1. Project summary

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# Poll. 4 Project status

# Project development status

	<b>Scoping:</b> The project owner is in the process of developing a project or concept.
	<b>Pre-feasibility study:</b> The project owner is researching the feasibility of the project.
	<b>Structuring:</b> The project owner has developed a project plan but has not begun implementation.
	<b>Implementation:</b> The project has started implementation (execution).
	<b>Operation:</b> The project is in full operation and looking to expand.

# Poll 5 & 6. Experience & Team



# 1. Experience

- Briefly describe your organization, including your team's composition.
- Describe any experience your organization has in managing projects of a similar nature.
  - Examples of this include selecting, procuring, and installing equipment (inverters, photovoltaic panels, charge controller, etc.), selling energy management services, site selection, obtaining permits, and applying to grants or loans from public, private, and international institutions.

# 1. Challenges

- Please describe the challenges you face and potential avenues to tackle them.
- Consider the following questions as you craft your response:
  - What are the main challenges you face with regards to project implementation?
  - What is hindering your project from moving forward?
  - What specific assistance would your organization be looking for from the CCREEE?

# Section 2. Project description

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## 2. Context

- Please describe briefly how this project inserts into the local and national context and how it contributes to energy security, energy affordability, and/or energy sustainability via the implementation of energy efficiency and/or renewable energy measures.
- Guiding questions:
  - Does the project entail decentralized grids or does it reduce energy costs compared to conventional sources of energy?
  - Does the project contribute to your country's climate commitments?
  - Does it generate jobs?
  - What are the environmental and social benefits of your project?



# 2. Context:

## Major Energy Challenges in the CARICOM Region



Source: Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS)



# 2. Context: Energy Report Cards for CARICOM Countries



	Antigua and Barbuda →		Bahamas →
	Barbados →		Belize →
	Dominica →		Grenada →
	Guyana →		Haiti →
	Jamaica →		Montserrat →
	St. Kitts & Nevis →		St. Lucia →
	St. Vincent & The Grenadines →		Suriname →
	Trinidad & Tobago →		CARICOM →

## ERC Energy Report Cards

Welcome to the CCREEE Energy Report Card (ERC) Page.

Stored here are the most recent ERCs available for each CARICOM Member State. The ERC provides an overview of energy sector performance in each country and includes energy efficiency, projects, technical assistance, workforce, training and capacity building information, subject to the availability of data.

The data and information contained was provided by government ministries, agencies or departments with responsibility for energy, utilities, and statistical offices. The data collected was supplemented by internet research, author calculations and inferences.

This data is a collection from a variety of public sources and as such, is for general information only. It is not intended for decision-making purposes and therefore reliance placed on the information herein is strictly at the user's risk.



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# Poll 7. Social and environmental impacts

## 2. Partnerships and agreements (optional)

- Please describe any partnerships or agreements that are related to the project.
- Guiding questions:
  - Have you had preliminary discussions with contractors?
  - Have you defined the operation modality for the project?
  - Is this a project envisaged as a concession or public private partnership?

# Poll 8. Project details

## 2. Project details

- Please state briefly the details of your project, considering fundamental project components to bring it to fruition.
- It is important to introduce preliminary information to substantiate the scale and appropriateness of the project.
  - Examples of this include a solar photovoltaic systems installed as a ground-mounted system, with a nameplate capacity of 1.5 MW, located on site X (state location) a street lighting project replacing 250 lamps, an electric vehicle (EV) fleet transition to include installing and servicing RE-powered EV charging stations, among others. Please add as much detail as possible based on your project's stage.
  - Brief example points are provided under each section below.



## 2. Project details

- **Project objective:**
- **Project description:**
- **Project metrics:**
- **Project site:**
- **Key activities:**

## 2. Project details

- **Technology providers:**
- **Permits and licensing:**
- **Team composition:**
- **Project duration:**
- **Gender balance:**

# Section 3. Investment information

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# 3. Financial sustainability

- Please describe your approach to cover costs associated with the project.
- What is the long-term strategy to cover capital and operational costs of the project?

### 3. Does your project generate money by selling services or energy?

	Our project generates money by selling electricity to the grid
	Our project generates money by selling excess (not used) electricity to the grid
	Our project generates money by displacing electricity consumption from the grid with our own generation capacity (solar, wind, hydro, etc.)
	Our project reduces energy consumption with energy efficiency measures
	Our project reduces energy consumption with on-site renewable energy
	Other:



# 3. Investment breakdown

- Please provide a breakdown of the expected costs of your project using the following table.
- Under this section you can provide details of the technology and equipment expected to be operated, as well as foreseen maintenance costs.
- The breakdown should include the total initial costs and provide an overview of your project's cost structure.
- If you are unsure about certain aspects, you may leave these cells blank and indicate your project would require support to determine these elements. Please provide any further narrative deemed necessary.

# 3. Investment breakdown

Costs	USD
Equipment	
Maintenance	-
Labor	
Detailed engineering	
Land lease/ acquisition	
Permits, inspection & interconnection	
Management fees	
Loans and financing	
Taxes	
<b>Total Costs</b>	

# 3. Potential funding

- Please describe any potential funding or financing that is expected to contribute to cover capital and operative costs of the project.
- Please provide any further narrative deemed necessary.

# 3. Potential funding

Entity	Resources
Investors:	
Commercial financing:	
Private financing:	
Other:	
Secured investment:	
Total investment required:	

# 3. Investment breakdown

RE-technologies performance profiles – specific cost, payback period, lifetime

RE technology and trend of investment costs	Average investment cost in Cariforum (domestic/ utility scale) [USD/kW]	Average LCOE in Cariforum [USD/kWh]	Operation & maintenance cost [% of investment cost]	Payback period (depending on compensation model) [years]	Contribution to national electricity demand	Resource assessment requirements	Average technical lifetime [years]
Solar PV	1,500 to 3,000	0.04 to 0.10	< 3	6 to 10	moderate (scalable)	Irradiation data available	20 to 25
Wind	1.500 to 2.000	0.08 to 0.10	> 5	10	moderate to high	Minimum 12 months	20
Hydro	2.000 to 5.000	0.05 to 0.10	3 to 5	> 20	moderate to high	Preferably flow data (20 years)	50 +
Biomass	3.000 to 8.000	0.08 – 0.15	> 5	>20	moderate to high (scalable)	Resource mapping	20 +
Geo-thermal	5.000 to 10.000	0.10 to 0.15	> 5	>20	high (baseload)	Exploratory drills & data analysis required	50 +

Sources: Current international and Caribbean renewable energy costs: <https://www.iea.org/reports/projected-costs-of-generating-electricity-2020> and <https://www.irena.org/publications/2020/Jun/Renewable-Power-Costs-in-2019>



# Poll 9. Project risks

# 3. Project risks

- Please describe the (potential) risks to the success of the project. There are multiple risks that affect the success of a project.
- Risks can be classified as economic, technological, political, social, and natural, and others.
- It is important to identify what sort of risks the project faces, understand their impact, and identify cost-effective mitigation measures.

# 3. Project risks

Risk	Type	Impact	Risk mitigation measures
	Nat	Med	
	Econ	Low	
	Tech	Low	

# Thanks!

Contact:

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<https://www.ccreee.org/ppf/>

# Project summary



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# Help Desk

- Responding to questions aimed at finalizing project concepts
- Technical assistance on finishing up templates:
  - Renewable energy and energy efficiency data & resources
  - Review on applicable business models
  - Business environment and opportunities
- Available from March 28 to April 1
  - Please contact the Help Desk at: [ppf@ccreee.org](mailto:ppf@ccreee.org)
  - Further guidance can be found at: <https://www.ccreee.org/ppf/>

# Next steps

# Thanks!

Contact:

[ppf@ccreee.org](mailto:ppf@ccreee.org)

<https://www.ccreee.org/ppf/>