



# WATER SECTOR RESILIENCE NEXUS FOR SUSTAINABILITY IN BARBADOS (WSRN S-BARBADOS) PROJECT

**PRE-BID MEETING HELD ON TUESDAY MARCH 10<sup>TH</sup> 2020 AT THE BWA'S TRAINING ROOM**

Design, Supply, Installation and Commissioning of 4.5 MW Solar PV and 2.0 MW Micro-Turbine and other Components for the Barbados Water Authority Pumping Stations: *ICB No. Contract # 13/2020/WSRN S-Barbados/GCF/CCCC*

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# WELCOME

Donor:

Accredited Entity:

Project Partner:

Beneficiary:

Ministry:

Green Climate Fund

Caribbean Community Climate Change Centre

Caribbean Centre for Renewable Energy and Energy Efficiency

Barbados Water Authority

Ministry of Energy and Water Resources

# Meeting Agenda

1. Welcome 10:00 – 10:05
2. Overview of the Bidding Documents 10:05 – 10:20
3. Questions and answers on the procurement aspects 10:2-- 10:45
4. Overview of the Evaluation Criteria 10:45 – 11:15
5. Questions and answers on the Evaluation Criteria 11:15 – 11:30
6. Presentation on the technical aspects of the Bidding Documents 11:30 – 11:45
7. Questions and answers on all the technical aspects 11:45 – 12:30
8. Closing remarks and housekeeping matters on the site visits 12:30 – 13:15

# 1. Welcome and Housekeeping

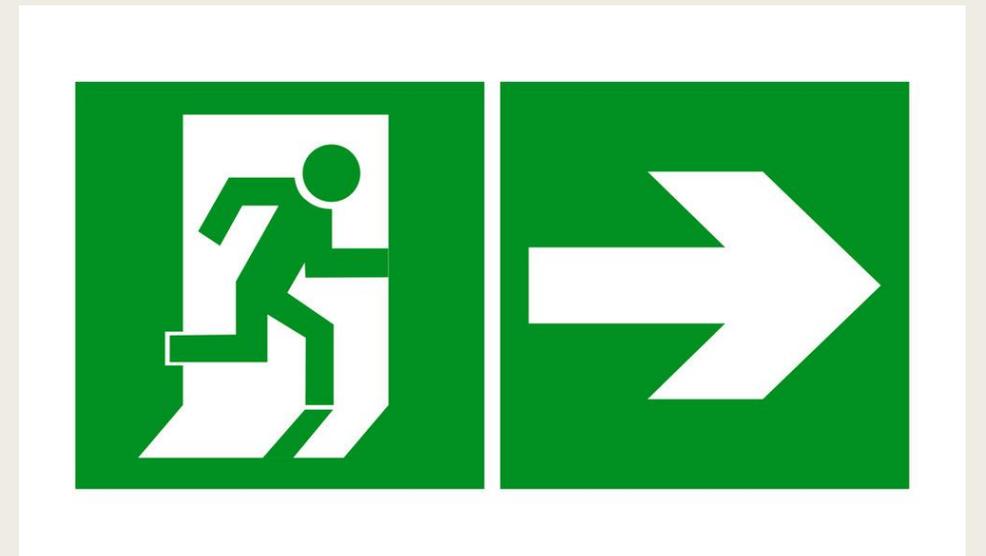
## ■ Conduct of Meeting:

- Cell phones
- Q&A procedure



## ■ Facilities:

- Emergency Exits
- Bathrooms



# Team Introductions

## CCCCC

Ms. Nestor  
Dr. Cadogan  
Mrs. Hunte



Caribbean Community  
Climate Change Centre

## CCREEE

Dr. Jackson  
Mr. Lindo



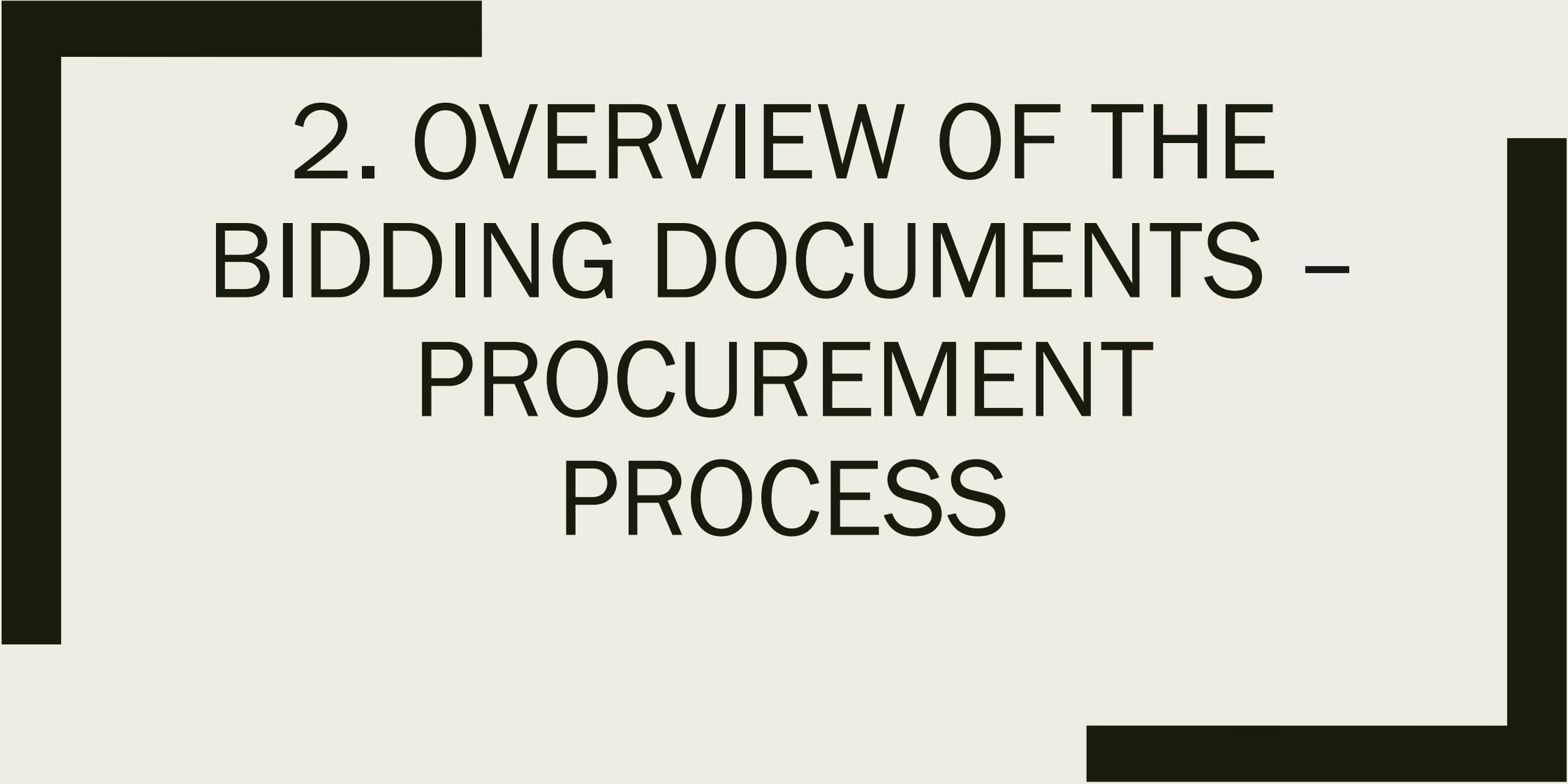
## BWA

Ms. Harewood  
Mrs. Parris  
Mr. Harte  
Ms. Jordan



## BWA

Mr. Kirton  
Mr. Franklyn  
Mrs. Browne-Boyce  
Mrs. Newsam

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# 2. OVERVIEW OF THE BIDDING DOCUMENTS – PROCUREMENT PROCESS

# DISCLAIMER

- Bidders are asked to note that the purpose of this Pre-Bid Meeting is to: (i) provide an overview of the bidding process and technical specifications; and (ii) give Bidders a further opportunity to seek any clarification and familiarize themselves with the project sites.
- These sessions offer only a general overview on the Agenda matters. The information presented does not constitute legal or technical advice to Bidders or any person in receipt of such information. Bidders are required to review the information contained in the Bidding Documents, any Addenda to the Bidding Documents and Clarification documents thoroughly in order to complete their Bid.
- Attendees will NOT be identified by name or company in the Minutes / Report of the Pre-Bid Meeting / Site Visits.

# OUTLINE OF BIDDING DOCUMENTS

- The Bidding Documents comprise of **ten (10) Sections**, omitting the Invitation to Bid that was published on February 17<sup>th</sup> 2020.
- **Section I – Instructions to Bidders**: This section includes critical information to guide Bidders in developing their Bid. It covers matters such as Bid Submission, opening, evaluation and award of Contracts.
- **Section II – Bid Data Sheet (BDS)**: Contains information that supplements selected requirements or information provided in Section I.
- **Section III – Evaluation and Qualification Criteria**: This Section details the criteria that will be applied during the evaluation stage to determine the **Most Advantageous Bid(s)** *((i) substantially responsive; and (ii) having the lowest evaluated price)*.
- **Section IV – Bidding Forms**: The Section include Forms that must be completed and submitted by Bidders as part of their Bid submission.

# OUTLINE OF BIDDING DOCUMENTS

- **Section V – Eligible Countries:** This section is relevant to the nationality of Bidders, Sub-Contractors and origin of the components of the Power Systems. No specific country has been disqualified. Only general provision that any country which the UNSC has imposed sanctions will be disqualified.
- **Section VI – Fraud & Corruption:** This Section outlines internationally acceptable ethical standards that bidders and persons involved in the process must adhere to. There are sanctions, including disqualification, if any bidder engages in fraudulent or corrupt practices that seek to undermine or jeopardize the integrity of the procurement process.

# OUTLINE OF BIDDING DOCUMENTS

- **Section VII – Employer's Requirements:** The sections covers the Scope for the required Power Systems, including technical specifications and required Installation Services.
- **Section VIII – General Conditions of Contract:** This section contains general clauses applicable to the EPC Contract(s) to be negotiated with selected Bidder(s).
- **Section IX – Particular Conditions of Contract:** This section contains specific conditions that will supersede or modify general conditions of contract.
- **Section X – Contract Forms:** This Section includes templates for Notification of Award, an outline of important contractual terms that will be negotiated with the selected Bidder(s), as well as forms for the Performance Security and Advance Payment Security, backed by a reputable financial institution acceptable to the Employer that the selected Bidder(s) must provide within a specified period after issuance of the Notice of Award.

# Key Highlights – Section I

## ■ *Who can bid?*

- *A privately incorporated firm;*
- *State-owned entity that are legally and financially autonomous of Governmental oversight and operate as commercial enterprise;*
- *Maximum of 3 entities in a joint venture (JV Agreement or Letter of Intent to be submitted).*

## ■ *Under what Circumstances can a Bidder be disqualified?*

- *Conflict of Interest arises – Clause 4.2;*
- *Participates as both an Individual Bidder and Joint Venture Member (exception: a firm may participate as an Bidder and Subcontractor in another Bid or Subcontractor in more than one Bids);*
- *Currently Debarred by the Green Climate Fund, BWA or the CCCCC.*

## ■ **What documentation should comprise the Bid?**

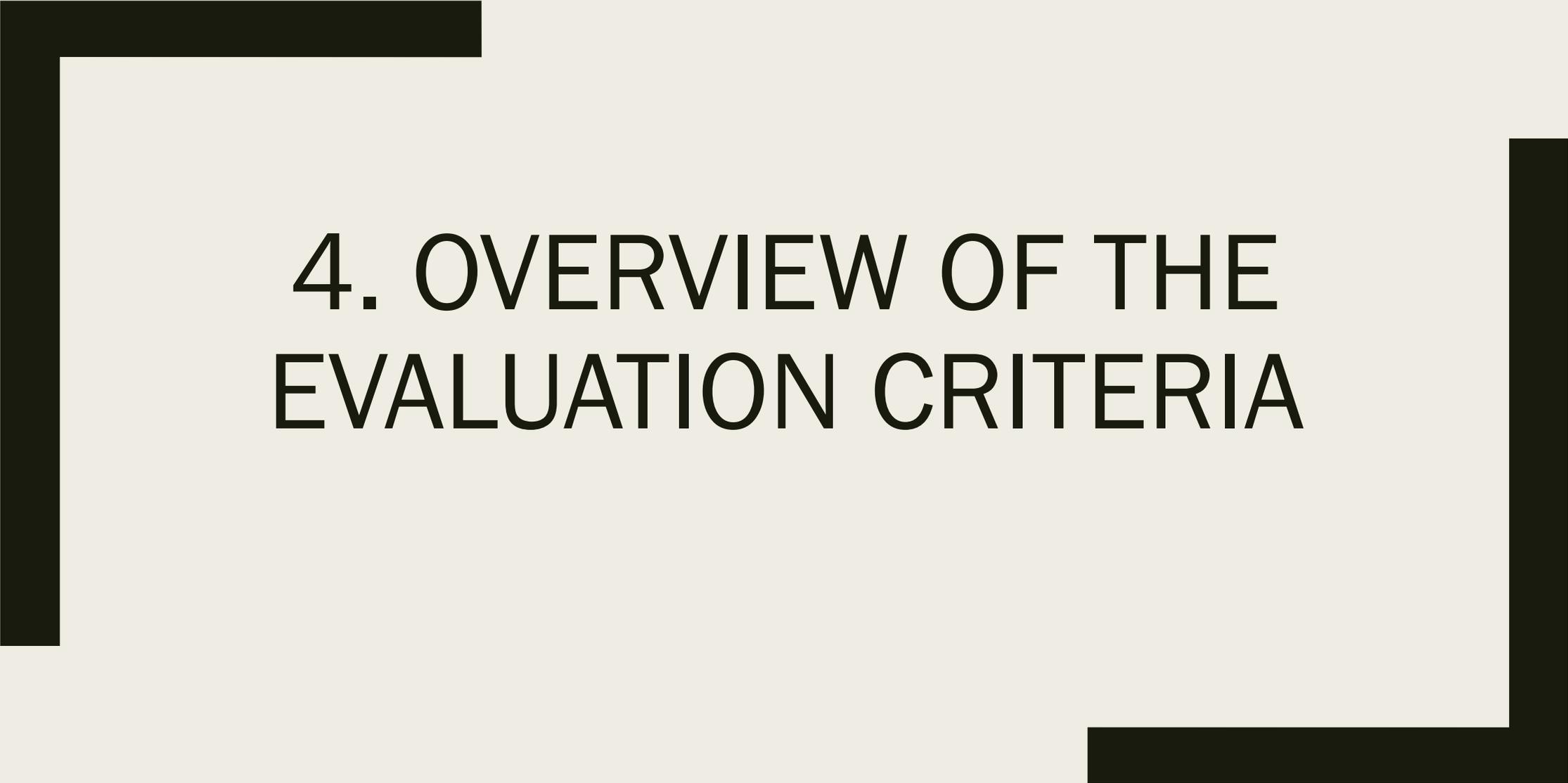
- *Letter of Bid - duly signed by authorized representative and written confirmation of such authorization submitted;*
- *Price Schedules – broken down according to the 6 Schedules - Clause 17.3;*
- *Bid Securing Declaration (no Bid Security required);*
- *Documentary evidence to establish country of origin for system components and related services to be performed, including nationality of Bidders and Subcontractors;*
- *Documentary evidence to establish that offers conform to technical specifications and Employer's Requirements;*
- *Details, including nationality of all Subcontractors and manufacturers and their major items of supply or service – letter of intent to be submitted and they will be evaluated for acceptability;*
- *Documentation to establish legal establishment of Bidder (e.g. certificate of incorporation, JV Agreement or letter of intent etc.);*
- *All information required for pre-qualification, in accordance with forms provided in Section III;*
- *All information stipulated in Forms contained in Section IV;*
- *Bid validity for 91 days from bid submission deadline.*

## ■ What is the process for Bid Submission / Opening/Evaluation?

- Bids must be submitted in single sealed envelope and properly marked (**electronic bids are NOT allowed**);
- Original and 4 copies. In addition, Bids must be submitted on external storage device;
- Deadline for submission is **EXTENDED TO THURSDAY APRIL 16<sup>TH</sup> 2020 at 10:00 AM** – deposited in the tender box in the lobby at the BWA'S Office. **Late bids will be rejected**;
- Bids will be opened immediately after the deadline at the BWA's office;
- Opening will be public – Bidders may be represented;
- Evaluation will commence immediately after bid opening;
- **Confidentiality:** Bidders are **NOT** to make contact with anyone or seek information from anyone in relation to their bid or bidding process. Any Bidder wishing to make contact in relation to the bidding process, prior to issuance of an award must do so in writing **ONLY** to email address: [procurement@caribbeanclimate.bz](mailto:procurement@caribbeanclimate.bz);
- Clarification may be sought from any bidder during evaluation process, by written request **ONLY** from an authorized representative of the CCCCC.

# 3. QUESTIONS AND ANSWERS ON THE PROCUREMENT ASPECTS



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# 4. OVERVIEW OF THE EVALUATION CRITERIA

# What is the Employer Looking For?

- The to attract Bidders who have a strong track record in the development of renewable power generation projects.
- We want **qualified bidders**, with **good technical capabilities** who can deliver projects at an **economically beneficial price**.

# Stage 0: Responsiveness

- **Objective:** to check if the bid is sufficiently responsive to what was requested, meeting all requirements without material deviation, reservation or omission
- **Rationale:** to ensure that the evaluation can proceed and that the bidder and the employer are on the same basic page

## What will be checked:

- ✓ Completeness
- ✓ Deviations, reservations or omissions
- ✓ Arithmetic accuracy (high level) and discrepancies

# Stage 1: Pre-Qualification

**Objective:** to filter applicants for basic eligibility criteria, on a **pass/fail basis**.

**Rationale:** to ensure only qualified and financially healthy Bidders are evaluated.

## **What will be evaluated:**

1. **Eligibility** – nationality; conflict of interest; employer’s ineligibility, State-owned enterprises
2. **Historical Contract Non-Performance** – history of non-performing contracts; suspension; pending litigation; litigation history
3. **Financial Situation** – financial capabilities; average annual turnover; financial resources
4. **Experience** – general experience; specific experience

# Stage 2: Technical Evaluation Criteria

**Objective:** to assess the technical ability of the bidder to execute a contract. Bidders must score **at least 80 out of 100 points** to advance.

**Rationale:** the bidders must have the human resources, organizational experience, and technical know-how to execute the contract(s).

## What will be evaluated:

1. **Project team (20):** qualifications, certification; experience
2. **Project management capability (30):** Scale of operations; energy experience; renewable energy experience; years of experience; company accreditations
3. **Bid (45):** quality of design; quality of execution plan; generation estimate/financial model; use of local labour; equipment; guarantee/warranty; maintenance
4. **Safety, Environmental and Climate Safeguards (5)**

# Stage 3: Economic Evaluation Criteria

**Objective:** to compare the economic benefits of each bid to the beneficiary, having established that a bidder is qualified and technical capable

**Rationale:** bidders who reach this stage should be capable, so now the cost will be evaluated, to choose the most economically beneficial bid

## What will be evaluated:

1. Capital cost (25)
2. Levelized cost of energy (30)
3. Net present value (30)
4. Cost risk assessment (15)

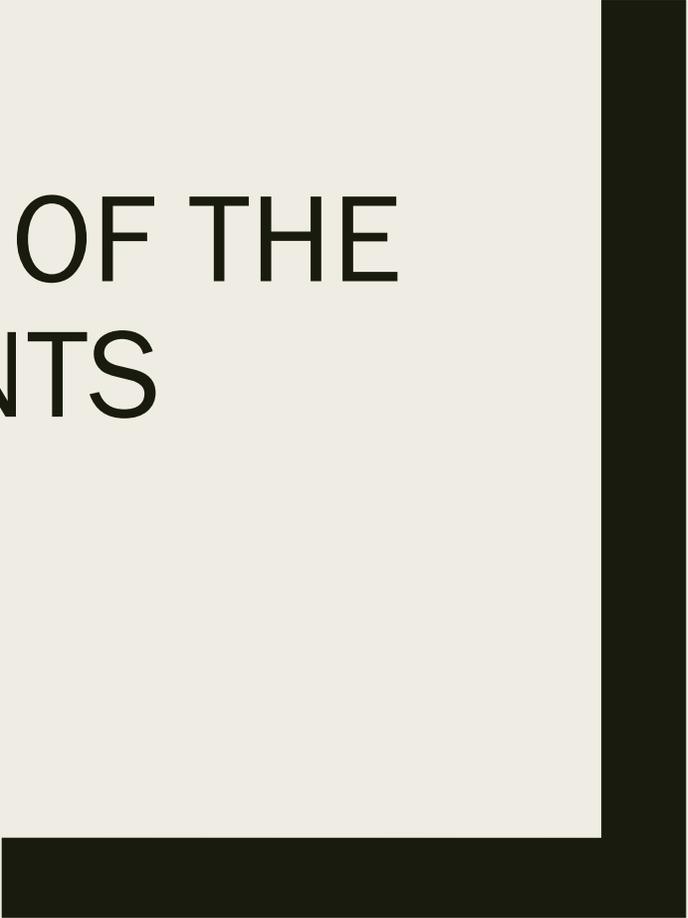
**THE MOST ADVANTAGEOUS BID WILL BE DETERMINED ON THE BASIS OF  
A 60% TECHNICAL / 40% ECONOMIC WEIGHTING**

# 5. QUESTIONS AND ANSWERS ON THE EVALUATION CRITERIA





# 6. TECHNICAL ASPECTS OF THE BIDDING DOCUMENTS



## Section VII – Employer’s Requirements: 100 Scope of Works

<b>LOT: LOCATION: Proposed Timeline:</b>	<b>1 (solar PV) Belle PS June 2020 - Aug 2021</b>	<b>2 (solar PV) Hampton PS May 2021 - May 2022</b>	<b>3 (solar PV) Bowmanston PS Mar 2022 - Oct 2022</b>	<b>4 (Natural gas MT) Belle PS Jun 2020 - Feb 2021</b>
Power output (AC):	2 MW	2 MW	0.5 MW	2 MW Natural gas MT
Equipment:	solar module ground-mounted structures Switchgear Transformer Fence Inverter housing	solar module ground-mounted structures Switchgear Transformer Fence Inverter Housing	solar module ground-mounted structures Switchgear	Microturbine Six modules: 2x0.6MW & 4x0.2MW Switchgear
Structure integrity:	Stable foundation Cat. 3 Hurricane min.	Stable foundation Cat. 3 Hurricane min.	Stable foundation Cat. 3 Hurricane min.	Stable foundation Cat. 3 Hurricane min.
Studies:	Geotechnical, etc	Geotechnical, etc	Geotechnical, etc	
Approvals:	TCPDO, GEED, MEWR, etc	TCPDO, GEED, MEWR, etc	TCPDO, GEED, MEWR, etc	TCPDO, GEED, MEWR, etc
Responsibilities:	Engineering, Procurement, Construction Training, commissioning	Engineering, Procurement, Construction Training, commissioning	Engineering, Procurement, Construction Training, commissioning	Engineering, Procurement, Construction Training, commissioning

# Section VII – Employer’s Requirements: 100 Scope of Works (cont’d)

LOT: LOCATION:	1 Belle PS	2 Hampton PS	3 Bowmanston PS	4 Belle PS
Pre-installation works	<ul style="list-style-type: none"> <li>• Inception report</li> <li>• Financial model</li> <li>• system schematic design layout</li> <li>• Advance Payment Security</li> <li>• Performance Guarantee</li> <li>• material characteristics</li> <li>• project schedule</li> <li>• Procurement</li> <li>• licenses and permits</li> </ul>	<ul style="list-style-type: none"> <li>• Inception report</li> <li>• Financial model</li> <li>• system schematic design layout</li> <li>• Advance Payment Security</li> <li>• Performance Guarantee</li> <li>• material characteristics</li> <li>• project schedule</li> <li>• Procurement</li> <li>• licenses and permits</li> </ul>	<ul style="list-style-type: none"> <li>• Inception report</li> <li>• Financial model</li> <li>• system schematic design layout</li> <li>• Advance Payment Security</li> <li>• Performance Guarantee</li> <li>• material characteristics</li> <li>• project schedule</li> <li>• Procurement</li> <li>• licenses and permits</li> </ul>	<ul style="list-style-type: none"> <li>• Inception report</li> <li>• Financial model</li> <li>• system schematic design layout</li> <li>• Advance Payment Security</li> <li>• Performance Guarantee</li> <li>• material characteristics</li> <li>• project schedule</li> <li>• Procurement</li> <li>• licenses and permits</li> </ul>
Installation works	<ul style="list-style-type: none"> <li>• Material transportation</li> <li>• Construction/installation</li> <li>• Testing &amp; pre-commissioning</li> <li>• Clean up &amp; storage</li> </ul>	<ul style="list-style-type: none"> <li>• Material transportation</li> <li>• Construction/installation</li> <li>• Testing &amp; pre-commissioning</li> <li>• Clean up &amp; storage</li> </ul>	<ul style="list-style-type: none"> <li>• Material transportation</li> <li>• Construction/installation</li> <li>• Testing &amp; pre-commissioning</li> <li>• Clean up &amp; storage</li> </ul>	<ul style="list-style-type: none"> <li>• Material transportation</li> <li>• Construction/installation</li> <li>• Testing &amp; pre-commissioning</li> <li>• Clean up &amp; storage</li> </ul>
Post-installation works	<ul style="list-style-type: none"> <li>• Certification and approvals</li> <li>• Commissioning</li> <li>• Acceptance &amp; Handover</li> <li>• Training</li> <li>• O&amp;M contract</li> <li>• Warranty contract</li> </ul>	<ul style="list-style-type: none"> <li>• Certification and approvals</li> <li>• Commissioning</li> <li>• Acceptance &amp; Handover</li> <li>• Training</li> <li>• O&amp;M contract</li> <li>• Warranty contract</li> </ul>	<ul style="list-style-type: none"> <li>• Certification and approvals</li> <li>• Commissioning</li> <li>• Acceptance &amp; Handover</li> <li>• Training</li> <li>• O&amp;M contract</li> <li>• Warranty contract</li> </ul>	<ul style="list-style-type: none"> <li>• Certification and approvals</li> <li>• Commissioning</li> <li>• Acceptance &amp; Handover</li> <li>• Training</li> <li>• O&amp;M contract</li> <li>• Warranty contract</li> </ul>

# Highlights from Section 500

- 501 – Specific technical requirements
  - *Site info: energy consumption, current electrical supply, climate*
  - *“Only commercially certified proven module and power conversion technology must be used.”*
    - Use approved, recognised and listed equipment
    - Note performance requirements, incl. conversion rate; grounding; remote monitoring; data logging; security considerations
- 502 – PV Modules and Arrays
  - *Standards*
  - *Labelling*
  - *Spacing*
  - *Shading*
  - *Wind loading*

# Highlights from Section 500

- 503 – Inverter / PCU
- 504 – Metering
- 505 – Test and Test Reports
- 506 – Certification
  - *Note standards compliance requirements*
  - ***NEED test certificates from manufacturer!***
- 507 – Manuals
- 508 - Spares

# Highlights from Section 500

- 509 - *Special Tools*
- **510 - Submittals**
- 511 - *Installation, Testing and Commissioning*
- **512 - Minimum Warranty**
- 513 - *Quality Assurance*
- 514 - *Shipping*
- 515 - *Inspection*
- **516 - Training**
- 517 *Reference Standards*

# Highlights from Section 600

- 600 – Micro-turbine System
- 601 – General requirements
  - *Note that this MT is for backup power*
- 602 – Codes and Standards
- 603 – Testing
- 604 – Engine
  - *note the **environmental sensitivity** of the site!*
- 605 - Generator

# Highlights from Section 600

- 606 – Engine Starting System
- 607 – Generator Set Controller
- 608 – Housing
- 609 – Exhaust System
- 610 – Suppression, Transient Voltage Surge
- 611 – Accessories
- 612 – Manuals
- 613 – Spares and Special Tools

# Highlights from Section 600

- **614 – Warranty**

- 615 – Quality Assurance

- **616 – Submittals**

- **617 – Training**

# Section VII - Employer's Requirements

## Technical Specifications

### ■ 500 Photovoltaic Systems

- Lots 1 – Design, Supply, Installation and Commissioning of 2MW grid tied PV system, including switchgear, transformer at Belle pumping station
- Lots 2 – Design, Supply, Installation and Commissioning of 2MW grid tied PV system, including switchgear, transformer at Hampton pumping station
- Lot 3- Design, Supply, Installation and Commissioning of 0.5MW grid tied PV system, including switchgear at Bowmanston pumping station

### ■ 600 Micro-turbines Systems

- Lot 4 – Design, supply, Installation and Commissioning of 6 microturbines with an aggregate capacity of 2MW including switchgear at Belle pumping station

# Section VII - Employer's Requirements

## Technical Specifications (500 & 600)

Sets the minimum acceptable design and performance standards for each component within the systems

- ❖ -Quality, reliability, robustness

Outlines the additional expectations for the continual O&M of the system

- ❖ -Online monitoring/SCADA, warranties, tools, spares, training

Specifies benchmarking for the systems

- ❖ -Standards, Inspections

# Section X - Contract Forms

## Appendix 6. Scope of Works and Supply by the Employer and Beneficiary

- *1. The land will be made available to the Contractor to conduct their works;*
- *2. The site will be cleared by the Beneficiary (removal of vegetation, except leveling, grading, geotechnical etc.);*
- *3. The Owner's/Operator's license to operate a power system and any contractual arrangement with the **Barbados Light and Power** will be obtained by the Beneficiary;*
- *4. Qualified Project Manager and Project Engineer to oversee all operations;*
- *5. Environmental Health and Safety Officer to offer oversight;*
- *6. Any necessary historical data on the operations on pumping stations;*
- *7. Valued added tax, customs and other local duties.*
- *8. **Facilitate the acquisition** of local work permits and any other requirements that Contractor must fulfill pursuant to local laws and regulations.*

# 7. QUESTIONS AND ANSWERS ON ALL THE TECHNICAL ASPECTS





# 8. CLOSING REMARKS AND HOUSEKEEPING MATTERS ON THE SITE VISITS



# 7. Closing remarks and housekeeping matters on the site visits

- LOT 2 - Hampton Pumping Station (St. Philip)
  - Onsite Registration **14:00 – 14:15**
  - Site briefing (inc. 10 min walk) 14:15 – 15:00
  - Question and Answer (Bidder Feedback) 15:00 – 15:15
  
- LOT 3 - Bowmanston Pumping Station (St. John)
  - Onsite Registration **15:45 – 16:00**
  - Site briefing 16:00 – 16:15
  - Questions and Answer (Bidder Feedback) 16:15 – 16:30
  
- LOT 1 - Belle Pumping Station (St. Michael)
  - Onsite Registration **17:00 – 17:15**
  - Site briefing 17:15 – 17:45
  - Questions and Answer (Bidder Feedback) 17:45 – 18:00



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# THANK YOU