

SCALING UP THE DEPLOYMENT OF INTEGRATED UTILITY SERVICES TO SUPPORT ENERGY SECTOR TRANSFORMATION IN THE CARIBBEAN (PHASE I) PROGRAMME

CONSULTANCY SERVICES FOR DESIGN AND FEASIBILITY WORK AND PREPARATION OF A GREEN CLIMATE FUND FUNDING PROPOSAL AND ANNEXES

DRAFT TERMS OF REFERENCE

1. BACKGROUND

Renewable Energy and Energy Efficiency in the Caribbean

1.01 The energy sectors in Barbados, Belize, Guyana and Jamaica are characterised by a continued dependence (to varying degrees) on imported fossil fuels. Despite recent efforts to reduce this dependency, fossil fuels remain an important element of each country's electricity generation mix. As a result, electricity generation is responsible for a significant proportion of total annual greenhouse gas (GHG) emissions in these four countries.

1.02 Barbados, Belize, Guyana, and Jamaica are also champions for aggressive international action on climate change – a challenge that constitutes a fundamental threat to their prospects for sustainable development, and although their GHG emissions are miniscule in the global context, they recognise the importance of decarbonising their own economies and energy sectors in concert with the international community. All four countries have made ambitious commitments in this regard. To deliver on these commitments, it is of paramount importance that these countries scale up the use of renewable energy (RE) and energy efficiency (EE) measures. The need for such investments is reinforced by the fact that electricity demand in these countries is expected to increase over the coming decades as their economies grow and they work toward decarbonising (and thus likely electrifying) other sectors such as transport and buildings.

1.03 Increased adoption of RE/EE is not only needed to pursue low-emissions development pathways that are consistent with the objectives of the Paris Agreement, but can also play a key role in enhancing the resilience of the energy sectors in these countries. Indeed, there are numerous ways in which climate change is affecting energy systems and energy security – dynamics that are expected to become more pronounced over time as climate change impacts mount. These impacts can be categorised as follows: (a) climate change impacts on (energy) resource endowment; (b) climate change impacts on energy supply and generation capacity (including assets/facilities on or close to the coasts which are exposed to sea-level rise and/or storm surge in the event of hurricanes); (c) impacts on transmission, distribution and transfers; (d) impacts on design and operations; and (e) impacts on energy demand. Given the observed and projected changes in key climatic variables in the Caribbean region, energy sector stakeholders (including utilities, regulators, consumers and others) in the four participating Borrowing Member Countries (BMCs) will have to contend with many of these impacts. This confluence of factors points to the need to scale up investment in RE/EE, including by supporting households, businesses and other stakeholders to invest in distributed energy resources (DERs) as part of a broader process of decentralising and democratising the energy systems in these countries.

The Green Climate Fund

1.04 The Green Climate Fund (GCF) is an operating entity of the Financial Mechanism of the United Nations Framework Convention on Climate Change. The GCF was established to contribute to the

collective efforts of the international community to combat climate change. With over 150 programmes and projects approved as at April 1 2021, and a successful replenishment process that concluded in late 2019 with over USD9 billion in new pledges, the GCF is the world's largest fund dedicated to the fight against climate change. Designed to be an important part of the effort to mobilise USD100 billion in climate finance per year by 2020, the GCF has a central role to play in addressing the pressing mitigation and adaptation needs of developing countries.

1.05 The GCF aims to support developing countries to achieve a paradigm shift to low-emission and climate-resilient development pathways. This is to be achieved by funding innovative and transformative mitigation and adaptation projects, and programmes developed by the public and private sectors to contribute to the implementation of national climate change priorities in developing countries.

1.06 The Caribbean Development Bank (CDB) was accredited to the GCF in 2016, and signed its Accreditation Master Agreement in 2018. CDB now aims to expand its support to BMCs to access and utilise GCF funding to increase investment in climate change adaptation and mitigation. This is aligned with key CDB policies and strategies, including its Climate Resilience Strategy, two central pillars of which are to mobilise concessional resources and build technical capacity to support BMCs' climate action ambitions and work programmes.

The Proposed GCF Programme

1.07 In response to BMCs' needs and requests for support, CDB is developing a programme on *Scaling Up the Deployment of Integrated Utilities Services (IUS) to Support Energy Sector Transformation in the Caribbean*. The programme will be implemented in two phases. Phase I of the programme (hereafter referred to as "the programme") will support an initial group of BMCs (Barbados, Belize, Guyana and Jamaica) to mitigate GHG emissions and enhance resilience by increasing uptake of distributed RE, EE and other DERs among customers of the countries' electric utilities (mostly residential and commercial customers, as well as some industrial customers and public sector entities). To do so, the programme will support the utilities namely: Barbados Light and Power (BL&P), Belize Electricity Limited (BEL), Guyana Power and Light (GPL), and the Jamaica Public Service (JPS) Company Limited – to successfully establish the IUS model and administer it at scale, thereby expanding their business operations to facilitate the adoption of distributed RE, EE and other DERs among a wide range of customers, and do so in a manner that minimises risks and other barriers for end-users. The programme will therefore:

- (a) directly enable widespread investment in distributed RE, EE and other DERs among a broad segment of the utilities' customers, while also promoting more equitable access to such technologies, thereby significantly reducing energy related GHG emissions and enhancing climate resilience; and
- (b) equip the partner electric utilities to continue applying the IUS model after programme closure, empowering them to become leaders in the broader process of transforming their electricity systems and energy sectors.

1.08 CDB has finalised a concept note (CN) for Phase I of this programme and submitted it to the GCF Secretariat, working in collaboration with relevant national counterparts, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the CARICOM Secretariat. The proposed programme builds directly on the ongoing IUS Pilot Programme being implemented in Barbados, Belize, Guyana and Jamaica with support from GIZ and the CARICOM Secretariat. This Pilot Programme provides a solid foundation for the proposed CDB-GCF programme, and will also generate data/information (e.g. about the baseline scenario) that can be used to inform the design and development of the proposed CDB-GCF programme (as occasionally referenced below in Section 3 of these Terms of Reference [TORs]). The purpose of the

consultancy assignment described in these TORs is to support CDB, national counterparts and key international/regional technical partners (e.g. GIZ, the CARICOM Secretariat) to develop the current CN into a high-quality funding proposal (FP) with all relevant annexes. CDB therefore seeks the services of suitably qualified consulting firm (the Consultant) to provide the aforementioned services

2. OBJECTIVE

2.01 The principal objective of this consultancy is the completion of a high-quality GCF FP and all relevant annexes for Phase I of the *Scaling up the Deployment of IUS to Support Energy Sector Transformation in the Caribbean* Programme. The Consultant will bear overall responsibility for producing the deliverables listed in Section 5 of these TORs, and must also ensure they are coherent with one another and fully aligned with GCF policies, standards and expectations, as well as those of CDB and the participating BMCs.

2.02 When working to achieve the aforementioned objective, the Consultant will operate under the overall supervision of CDB, and work in close collaboration with representatives of BL&P, BEL, GPL, the JPS Company Limited., as well as representatives of GIZ, the CARICOM Secretariat, and officials from the Governments of Barbados, Belize, Guyana and Jamaica. Activities are to be completed in sufficient time to allow appraisal by CDB staff before formal submission of the FP to the GCF Secretariat.

3. SCOPE OF SERVICES

3.01 The Consultant will lead the process of developing a high quality and approvable GCF FP (and all supporting annexes) for the aforementioned programme, building on the CN developed by CDB, national counterparts and other partners (e.g. GIZ, CARICOM Secretariat). To do so, the Consultant will work with CDB (and all other stakeholders listed in Paragraph 2.02 of these TORs) to implement the seven (7) programme preparation activities included in the Project Preparation Facility (PPF) application submitted to the GCF Secretariat.

3.02 The aforementioned programme preparation activities are described in more detail below.

Activity 1: Assess baseline conditions, and current and projected climate change challenges and impacts in the energy sector in each BMC, and articulate the ‘high-level vision’ for a low-emissions and climate-resilient energy sector in each country.

3.03 Under this Activity, the Consultant will lead the process of assessing baseline conditions in the participating BMCs, as well as defining the medium/long-term process of transforming the energy sector and electricity system in each country. To accomplish this, the Consultant will implement the following sub-activities: (a) assess baseline conditions in the energy sector (with a particular focus on the electricity system) in each participating BMC, including at ground level, policy and legislative/regulatory level, institutional level and project level; (b) develop the climate change rationale for the programme, including by assessing current and projected GHG emissions from the energy sector in each participating BMC and by identifying and assessing relevant climate change risks and vulnerabilities; (c) develop/articulate each BMC’s ‘high-level vision’ for a low-emissions and climate-resilient energy sector (with a particular focus on the electricity system), including how the IUS model would operate at scale and fit into this ‘high-level vision’; and (d) prepare a consolidated and detailed baseline assessment report that includes a ‘country profile’ for each participating BMC.

3.04 In carrying out the above-described sub-activities for PPF Activity 1, the Consultant will produce one (1) deliverable: a consolidated baseline assessment report, including a country profile for each participating BMC.

Activity 2: Identify eligible distributed RE, EE and other DER technologies, practices and IUS arrangements, assess market demand in each country, and develop the consolidated feasibility study.

3.05 Under this Activity, the Consultant will lead the process of defining key technical and operational elements of the programme. To accomplish this, the Consultant will implement the following sub-activities: (a) identify suitable distributed RE, EE and other DER technologies and practices that will be eligible under the IUS scheme in each country, and use this information as a basis for producing a series of ‘types of sub-projects’ that are likely to be financed in each BMC; (b) assess market (supply-demand) dynamics in each BMC for the ‘types of sub-projects’ identified for each BMC; (c) define the implementation arrangements in each BMC and assess their operational feasibility; (d) identify the technical assistance (TA) and capacity-building activities needed to reinforce operational feasibility of the programme; (e) develop a full set of sub-project eligibility criteria, including methods, guidance and tools to facilitate assessments of compliance with/performance against these criteria; and (f) produce a consolidated feasibility study for the programme.

3.06 In carrying out the above-described sub-activities for PPF Activity 2, the Consultant will produce one (1) deliverable: a consolidated feasibility study for the programme.

Activity 3: Develop an Environmental and Social Management Framework for the programme.

3.07 The proposed programme will support a series of customer-level sub-projects that will invest in new distributed RE, EE and other DERs, and may entail environmental and social risks and impacts if/when such sub-projects are implemented. The sub-projects to be supported have not yet been selected, the dimensions and designs and their specific locations are not yet defined, and a detailed assessment of potential environmental and social impacts is thus not feasible at this time. An Environmental and Social Management Framework (ESMF) (as opposed to an Environmental and Social Impact Assessment [ESIA]) will therefore be prepared to inform the approach to environmental and social management issues to be adopted under the programme. In particular, the ESMF will provide technical guidance for environmental and social assessment and management during preparation and implementation of customer-level sub-projects that will invest in distributed RE, EE and other DERs.

3.08 Under this PPF Activity, the Consultant will lead the process of defining how the proposed programme will ensure adherence to good international practices and CDB and GCF environmental and social (E&S) policies and standards for all sub-projects, while taking into consideration national legislation as far as applicable. To accomplish this, the Consultant will develop the ESMF for the proposed programme, including the collection/preparation of all required data, information and materials. The ESMF shall provide clear, comprehensive and practical guidance to participating utilities and BMCs on integrating environmental/social due diligence into programme implementation. The ESMF will at a minimum:

- (a) identify all relevant potential environmental risks and social concerns that may arise as a result of the proposed programme and the types of sub-projects (as defined under PPF Activity 2) that it is likely to support;
- (b) specify appropriate roles and responsibilities of involved actors and parties;
- (c) develop a screening and assessment methodology for potential sub-projects, that will allow an environmental/social risk classification and the identification of appropriate E&S instruments;

- (d) develop a criterion on environmental and social risk management to be included in the broader set of sub-project eligibility criteria (developed under sub-activity 2.e) that will be used to screen and prioritise individual sub-projects;
- (e) outline the required procedures for managing and monitoring environmental risks and social concerns related to the sub-projects, and develop the TORs for appropriate E&S instruments (e.g. ESIA, ESMPs, Resettlement Action Plans, Indigenous Peoples Plan and/or strategic or sectoral studies) as appropriate and required;
- (f) determine the training, capacity building and TA needed to successfully and effectively develop and implement the required E&S instruments;
- (g) estimate the funding required to implement the ESMF requirements; and
- (h) provide practical information resources for implementing the ESMF.

3.09 In carrying out the above-described sub-activities for PPF Activity 3, the Consultant will produce one (1) deliverable: a detailed ESMF, including a stakeholder engagement plan, information on the programme-specific grievance redress mechanism (as well as the CDB and GCF grievance redress mechanisms/processes), and records of all in-country consultations (including attendance records).

Activity 4: Develop a Gender Assessment and Gender Action Plan for the Programme.

3.10 Under this Activity, the Consultant will lead the process of defining how the programme will ensure that gender considerations are properly mainstreamed in all projects and sub-projects. To accomplish this, the Consultant will implement the following sub-activities: (a) conduct a Gender Assessment of the gender-differentiated needs, challenges and opportunities in the participating BMCs, with a particular focus on gender and other social dynamics in the energy sector; (b) develop an initial draft of the Gender Action Plan (GAP) that will be applied during programme implementation to ensure gender-differentiated challenges, barriers and opportunities are properly addressed; (c) organise socially-inclusive and gender-focused consultations to further discuss, learn more about, and ultimately validate the information gathered for the gender assessment; and (d) draft the consolidated Gender Assessment and GAP for the programme, building on the results of sub-activities 4.a-c.

3.11 In carrying out the above-described sub-activities for PPF Activity 4, the Consultant will produce one (1) deliverable: a consolidated Gender Assessment and Gender Action Plan (GAP), including records of all in-country consultations.

Activity 5: Prepare the Integrated Financial Model for the Programme.

3.12 Under this Activity, the Consultant will lead the process of developing an integrated financial model for the programme, which will involve financially structuring the programme, estimating its impacts, and assessing its financial and economic benefits. To accomplish this, the Consultant will implement the following sub-activities: (a) develop an initial costing/budgeting for the programme, including information on the expected size of the lines of credit to be extended to the electric utilities and the level of concessionality needed; (b) building on sub-activity 5.a, develop estimates of the impact potential of the programme based on reasonable assumptions about the number of different types of sub-projects likely to be financed through the programme; (c) conduct a financial analysis of the programme to demonstrate the financial viability of the programme and its projects, as well as of the envisaged 'types of sub-projects'; and (d) conduct an economic analysis to demonstrate the incremental net economic benefits of the programme and its projects.

3.13 In carrying out the above-described sub-activities for PPF Activity 5, the Consultant will produce four (4) deliverables: (a) an initial programme costing; (b) impact potential estimates (Excel file and

associated written explanation); (c) financial analysis (Excel-based modelling and associated written explanation); and (d) economic analysis (Excel-based modelling and associated written explanation).

Activity 6: Prepare the Monitoring and Reporting Framework for the Programme.

3.14 Under this Activity, the Consultant will lead the process of designing and developing a suitable framework through which results will be monitored and reported on, as well as the indicators to be included in the logical framework for the programme. To accomplish this, the Consultant will implement the following sub-activities: (a) define appropriate standards and procedures to be applied for monitoring and reporting during programme implementation; (b) consult with the electric utilities to refine the draft monitoring and reporting standards and procedures; (c) draft the full monitoring and reporting framework for the programme, which should capture monitoring and reporting standards, responsibilities and procedures at the programme, project and sub-project levels; (d) prepare the programme-level logical framework; and (e) validate the monitoring and reporting framework.

3.15 In carrying out the above-described sub-activities for PPF Activity 6, the Consultant will produce one (1) deliverable: a consolidated monitoring and reporting framework, including all relevant templates and associated guidance materials. Note that the monitoring and reporting framework should also include: (a) the programme Theory of Change; (b) the programme logical framework (in line with the GCF Integrated Results Management Framework, or “IRMF”); (c) the monitoring and reporting plan (GCF Annex 11); and (d) other elements of the GCF IRMF as relevant.

Activity 7: Formulate the Programme Funding Proposal and All other Relevant Annexes.

3.16 Under this Activity, the Consultant will lead the process of developing a high-quality FP for the programme, ensuring it is developed in a manner that is consistent with (and draws/builds on) the deliverables from PPF Activities 1-6. While preparing the FP, the Consultant will also produce the following deliverables and ensure they are coherent and consistent with the FP and all other elements of the programme package: the programme operations manual; a detailed programme budget; a procurement plan covering at least the first 18 months of programme implementation; a timetable of programme implementation; and a draft of the term sheet for the programme.

3.17 The Consultant is also expected to provide targeted support to CDB (on an as-needed basis), estimated to be up to a maximum of five (5) working days per Key Expert, during the GCF review/approval process. Specifically, the Consultant will assist CDB to respond to GCF comments and questions during the first two stages of the GCF review process, namely: (a) during the GCF Secretariat review; and (b) during the review by the independent Technical Advisory Panel (iTAP). CDB will take the lead in responding to all comments and questions from the GCF Secretariat and iTAP, but may request specific contributions and inputs from the Consultant as needed (i.e. comments/questions that relate to specific elements of the work done by the Consultants, or assumptions that underpin this work).

3.18 In carrying out the above-described sub-activities for PPF Activity 7, the Consultant will produce eight (8) deliverables: (a) the FP (using the GCF template); (b) the Programme Operations Manual; (c) the detailed programme budget (using the GCF template); (d) a Procurement Plan covering at least the first 18 months of programme implementation; (e) a timetable of programme implementation (in Excel format using the GCF template); (f) a draft of the term sheet for the programme; (g) the multi-country programme information sheet; and (h) contributions to CDB responses in the GCF Secretariat comment/review sheet and independent Technical Advisory Panel comment/review sheet.

4. DELIVERABLES

4.01 The Consultant is required to produce one operational deliverable (an Inception Report and Work Plan¹ for this consultancy assignment), as well as the following seventeen (17) technical deliverables that will collectively comprise the GCF FP package (i.e. the FP and all annexes), by the end of the consultancy.

- (a) Consolidated baseline assessment report, including a country profile for each participating BMC.
- (b) Consolidated feasibility study.
- (c) Consolidated ESMF, including a stakeholder engagement plan, programme-specific grievance redress mechanism and records of all in-country consultations.
- (d) Consolidated gender assessment and GAP, including records of all in-country consultations.
- (e) Initial programme costing (Excel file).
- (f) Impact potential estimates (Excel file and associated written explanation).
- (g) Financial analysis (Excel-based modelling and associated written explanation).
- (h) Economic analysis (Excel-based modelling and associated written explanation).
- (i) Monitoring and reporting framework, including all relevant templates.
- (j) GCF FP (using the GCF template).
- (k) Programme Operations Manual.
- (l) Detailed programme budget (using the GCF template).
- (m) Procurement Plan covering at least the first 18 months of programme implementation.
- (n) Timetable of programme implementation (using the GCF template).
- (o) Draft term sheet.
- (p) Multi-country programme information sheet.
- (q) Contributions to CDB responses in the GCF Secretariat comment/review sheet and iTAP comment/review sheet.

5. IMPLEMENTATION AND SUPERVISION OF THE CONSULTANCY

5.01 CDB will facilitate the work of the Consultant. CDB will have overall responsibility for coordinating the administrative arrangements for this consultancy, where the places of work will be Barbados, Belize, Guyana, Jamaica and the home base(s) of the consultants. In addition to paying for the personnel costs of the Consultant, CDB will fund the cost of, air travel from the consultants' home base(s) to the partner countries, the related airport transfers, ground transportation, hotel accommodation and providing an allowance for meals and incidentals. Support for the administrative and logistical arrangements will be provided by both CDB and the electric utilities, and will include support to arrange meetings, site visits, liaising with public and private sector and non-governmental organisations in the partner countries, as well as assistance with arranging meetings with relevant government and non-government stakeholders. The electric utilities will also arrange to provide working space in their respective countries for the consultants if/when needed. CDB (with support from the utilities) will also assist with any operational issue(s) that may arise. CDB and the utilities will further provide background information that is relevant to the completion of the assignment.

¹The Work Plan should be developed at the sub-activity level to ensure the Consultant has a clear plan for delivering all of the sub-activities that are expected to be needed to complete the seven (7) PPF activities and produce the required technical deliverables.

5.02 The Consultant will be required to carry out the duties listed in Section 3 of these TORs. The Consultant will report to CDB. The Consultant is required to work collaboratively with the staff of CDB, the participating electric utilities (BL&P, BEL, GPL, and the JPS Limited) and other relevant stakeholders in each of the partner countries (Barbados, Belize, Guyana and Jamaica).

5.03 In relation to computing and related equipment, software and supplies required for the implementation of this assignment, the Consultant will be responsible for providing and/or covering the cost for these items.

6. QUALIFICATIONS AND EXPERIENCE

6.01 The ideal Consultant (as a firm) will have considerable experience working on (distributed) RE, EE and other distributed energy resources (preferably in the Caribbean) with a strong track record of designing demand-side energy initiatives and/or sustainable financing and implementation mechanisms for DERs, as well as experience formulating quality investment programmes/projects. Experience working on other approved GCF programmes/projects is considered to be a particular asset. The ideal Consultant will also have a proven track record of producing high-quality (clear, succinct) written outputs.

6.02 The Consultant (notably the proposed Key Experts and non-Key Experts) is required to possess the following.

- (a) Key personnel must have Master's degrees (or higher) and/or at least ten years of work experience in fields directly relevant to this programme (e.g. distributed RE, EE and other distributed energy resources, demand-side energy programme development and evaluation) and/or the programme preparation process (e.g. E&S risk management, gender).
- (b) The Consultant must be able to demonstrate that its staff have the expertise necessary to implement PPF Activities 1-7 and produce all required deliverables as outlined in these TORs (or be able to recruit such individuals through sub-contracting on a limited basis if needed), covering at least the following areas: distributed RE, EE and other DERs; Energy Service Company (ESCo) management and service delivery; electric utility operations/management; environmental and social safeguards/risk management; gender and social inclusion; financial and economic modelling; monitoring and evaluation; and project coordination/management).
- (c) The Consultant (as a firm) must have at least eight years of experience working on investment programme/project development, with a strong track record of producing high quality programmes/projects – particularly for Multilateral Development Bank.
- (d) Key personnel must have knowledge of international climate finance funds/mechanisms, including GCF.
- (e) Key personnel must have knowledge of the areas/sectors targeted by this programme, ideally in Barbados, Belize, Guyana, Jamaica and/or the broader Caribbean context.

6.03 The Consultant (notably the proposed Key Experts and non-Key Experts) are also required to demonstrate the following:

- (a) Good communications skill in English (oral and written).

- (b) An ability to present information in a clear, concise and well-articulated manner.
- (c) An ability to solicit useful information from a broad range of stakeholders.

7. DURATION

7.01 The duration of the consultancy is 13 months of a total of 16 months to implement the PPF Activities. The overall PPF implementation period includes: three months to procure a qualified Consultant (Months 1-3 of the PPF implementation period); nine months for the Consultants to complete and deliver the GCF FP and other annexes needed for submission to the GCF (Months 4-12 of the PPF implementation period); and four months for the Consultants to contribute to the GCF review process after submission of the FP (Months 13-16 of the PPF implementation period).