



***Terms of Reference (ToR) for the Provision of Remote Information and Communication
Technology Solutions for the British Virgin Islands Electricity Corporation's COVID-19 Business
Continuity Support Project.***

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1. Background and Introduction

1.1. Background for BVIEC COVID-19 Business Continuity Support Project.

The COVID-19 pandemic has shown how vulnerable normal operations are to disruptions, particularly in the electricity generation and distribution industry. With the inclusion of natural disasters, these disruptions present the challenges of ensuring the supply of an essential service while maintaining the safety of the organization's employees. Electric utilities like the BVIEC must invest in innovative Information and Communication Technologies (ICTs) and develop business processes and policies to transition the industry to continue full operations and provide the essential service of electricity. Utilities in the Caribbean region will benefit from such initiatives, as they will be better equipped to maintain operations and serve the customer base, particularly during times of disruption.

In 2020, the effects from the COVID-19 pandemic which included illnesses, mandatory quarantines by employees, school and child-care service closings among other setbacks, caused employee production losses of up to 10% of the Corporation's monthly revenue within a single three-month period. The introduction of advanced ICT systems along with appropriate business processes and policies to deal with these issues can be justified based on our own internal analysis of the loss of hours of production due to effects of the pandemic. These systems will allow the employees of electric utilities to have the capability to operate remotely, should there be a future event similar to that of the months of April, May and June 2020, when most of the world was instructed to stay at home. The challenges the BVIEC faced during the periods where the BVI was under 24-hour curfew and shelter-in-place restrictions, include:

- Longer response times in dealing with customer faults.
- Inadequate means of assessing productivity of staff working remotely.
- Lack of a standard policy for the organization as it relates to remote operations or "work from home" to guide check-in policies, productivity updates, etc.
- Difficulty in engaging with the customer base.
- The challenge where stay-at-home instructions are given but not all staff were permitted to work from home, thus creating some disparity between staff.

In 2017, the Corporation suffered extensive damage to its facilities and assets due to the onslaught of hurricanes Irma and Maria. Approximately 95% of the electrical infrastructure throughout the territory of the British Virgin Islands was destroyed. Despite the extensive damage to the communications infrastructure suffered by the Internet Service Providers, they were among the first entities to reconstruct a minimum viable service that could support the essential communications needs of other essential services that was so critical at the time. Certainly, innovative ICTs would promote the efficiency of the restoration process for the supply of electricity. As the electrical supply was gradually restored throughout the territory, employees could *have worked* from remote locations by sharing information, providing service and support and planning restoration in a timely manner while blocked roads and driveways were being cleared and the main office was being repaired.

Similarly, the threat of a catastrophic earthquake is real in the region. The past few years have seen regular occurrences of tremors of varying magnitudes. Providing employees with the ability to conduct the affairs of the Corporation from remote locations fits into the strategy of continuing business in situations where an earthquake may limit the ability of employees to travel to the workplace due to inaccessible roadways or extensive damage to the workplace facilities.

These ICTs, business processes, and policies are intended to support the remote monitoring of BVIEC's generators and ancillary equipment, and the effective engagement of our customers such that the facility can continue to operate efficiently. We expect these ICTs to allow employees to access video and data using a mobile phone, tablet, or computer, which provides real-time information on the status of the generating engines and their auxiliaries including fluid levels and associated cooling systems along with the status of the electricity supply and related components of the network. These ICTs shall allow customers to use the same devices mentioned to contact the BVIEC with reports and requests as well as access to details about their consumption, rates, and the current state of the electricity supply at their location, including outages and maintenance work throughout the territory. To ensure the successful implementation and operation of the ICTs, along with mandatory training, the Corporation will re-engineer its business processes with the aim of extracting the maximum benefit from the features that the ICTs will offer.

1.2. BVIEC COVID-19 Business Continuity Support Project

The British Virgin Islands Electricity Corporation's mission is to provide the best possible service to its customers and to aid in the development of the Territory's electrical infrastructure by adequately supplying a reliable and continuous electrical supply to the entire population at an affordable cost. Given the national mandate to supply a broad level of services, relative to the significant number of investments and small customer base, and meagre resources available to accomplish its mission, the Corporation must operate as efficiently as possible.

In order to address the aforementioned challenges, the BVIEC has developed and submitted a Project Proposal with the name: ***BVIEC COVID-19 Business Continuity Support***. The project aim is to maintain the standard of living for the residents of the territory by strengthening the operations and increasing the resilience of the BVI Electricity Corporation to respond and adapt to pandemics or extreme and recurrent disasters.

This temporary endeavor will have several components to address relevant gaps and implement appropriate solutions. Through the introduction of specific ICTs, the development of business processes and policies, and raising the awareness of the employees, the Corporation will be equipped to maintain operations during those disruptions indicated. Listed below are the key outputs of the project:

- **Output 1:** A Gap Analysis Report completed that identifies specific areas of opportunity and specifies solutions such as remote monitoring software requirements, standard procedure changes, schedule changes, etc.

- **Output 2:** A Human Resources Telecommuting policy developed.
- **Output 3:** An electronic customer service center and customer engagement application installed.
- **Output 4:** Remote monitoring software for generators and ancillary equipment installed.
- **Output 5:** A pilot project executed, that demonstrated the effectiveness of the policies and procedures developed to achieve the objectives.
- **Output 6:** Standardized business processes introduced, that incorporate the use of the implemented ICTs.
- **Output 7:** Relevant staff trained on the use of remote monitoring and support software, and the remote customer engagement application.
- **Output 8:** Training manuals for the use of the remote monitoring software and the customer engagement application developed.

The Caribbean Overseas Countries and Territories (OCTs) Resilience, Sustainable Energy and Marine Biodiversity Programme (RESEMBID) supports the project, which is scheduled to start in November 2022 and has a duration of 15 months. The RESEMBID Programme is itself implemented by Expertise France and funded by the EU (see more information under <https://resembid.org/>).

To support the implementation of the project, the Corporation will solicit the services of a consultant or consulting firm with expertise and experience in software implementation projects including business process development, software selection, and user training and evaluation. The Consulting expert will provide support for the implementation and production of the outputs 1 and 3-8 indicated above.

This document presents the Terms of Reference (ToR) as a description of the expected scope of this assignment and the requirements for submission of technical and financial proposals.

2. Objective of the Assignment

2.1. Overall objective

To maintain the standard of living for the residents of the British Virgin Islands by strengthening the operations and increasing the resilience of the BVI Electricity Corporation to respond and adapt to pandemics or extreme and recurrent disasters.

2.2. Specific Objective

To improve the capacity of the BVI Electricity Corporation to maintain operations during pandemics or extreme and recurrent disasters.



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3. Expected Scope

3.1. Duration and location

The project will be executed on-site at the offices of the BVI Electricity Corporation in Tortola, British Virgin Islands. The Consultant is expected to conduct at least one site visit and thereafter will perform tasks remotely as required or wherever possible. To conduct the initiative efficiently, the project team will arrange to promote virtual opportunities throughout its duration.

The Corporation will provide funding for travel cost recovery upon prior approval by the project steering committee.

The completion date for the project is March 2024.

3.2. Responsibilities

The Consultant will be responsible for supporting the COVID-19 Business Continuity Project Team by providing technical assistance for assessment, implementation and evaluation in the areas described under sections 3.3.1 and 3.3.2.

Throughout the lifetime of the project, the project manager and the Consultant will gather and compile relevant data from the project activities to satisfy the requirements of the Monitoring Evaluation Accountability and Learning (MEAL) review meetings held by the steering committee.

In addition, the Consultant ensures timely answers to requests from the BVIEC Project Team and/or Steering Committee via email (maximum 2 days to respond) or phone.

3.3. Deliverables and Milestones

3.3.1. Schedule

The assignment includes the following tasks and deliverables that the Consultant will prepare and implement, along with estimated times.

	Task	Deliverable	Workdays
1	Assess the current functionality of the organization to identify current capabilities and gaps for remote operations	A Gap Analysis Report completed that identifies specific areas of opportunity that specifies solutions such as remote monitoring software requirements, standard procedure changes, schedule changes, etc.	21
2	Identify existing software solutions that fulfil project requirements	An electronic customer service center and customer engagement application installed.	23

3	Identify existing software solutions that fulfil project requirements	Remote monitoring software for generators and ancillary equipment installed	23
4	Develop business processes to complement the new ICTs	Standardized business processes introduced, that incorporate the use of the implemented ICTs	43
5	Execute Pilot Program of operating remotely with implemented ICTs	A pilot project executed, that demonstrated the effectiveness of the policies and procedures developed to achieve the objectives	45
Total			155

The Consultant will elaborate on each deliverable, which will be subject to a review process conducted by the BVIEC. The workdays are approximate and will be reviewed by the project team and the Consultant and adjusted with the approval of the steering committee. The indicated completion date of the project is final however.

Scope of key Deliverables

The following sections describe detailed requirements on the scope and quality of deliverables mentioned in the table under section 3.3.1. The last heading number corresponds to the task/deliverable number in the table. Note that tasks 2 and 3 may run concurrently with the total workdays being the sum of the two tasks, i.e. the total workdays for the completion of both tasks may amount to 60 workdays overall.

3.3.1.1. Gap Analysis Report

A Gap Analysis Report that identifies specific areas of opportunity and specifies solutions such as remote monitoring software requirements, standard procedure changes, schedule changes, and any other related factors. The Consultant will assess the BVIEC's operations to identify and make recommendations on the best-suited software and/or hardware solutions and the associated risks. The activities will address opportunities for the utilization of Information and Communication Technologies (ICT) for

- a) The remote monitoring of the generators and ancillary equipment within the Power Stations of Tortola and Anegada.
- b) The introduction of a remote customer service center, which will allow for quicker and seamless interaction with customer complaints, fault logging, etc., through the existing website or by way of a mobile application.
- c) The facilitation of employees to work efficiently from remote locations.

3.3.1.2. An electronic customer service center installed.

Based on the resulting recommendations referred to in section 3.3.2.1., the Consultant will support the BVIEC's evaluation and selection of an electronic customer service centre that will provide efficient and seamless interaction with the BVIEC's customer base. This will include the development if necessary, of an associated mobile application. The vendor will provide installation and training on the solution

selected. The consultant will play an integral part in the installation of the solution and will be required to support the following:

- a) Evaluation of the installed systems and recommendation of adjustments for efficiency based on employee and customer response to the new capabilities. These responses will be determined with interviews, surveys or questionnaires designed by the Consultant.
- b) Evaluation of the training of employees and customers on use of the new ICTs and their resulting performance. The Consultant will use surveys and questionnaires to gather this data and recommend adjustments to the software and/or supporting systems based on the feedback.

3.3.1.3. Remote monitoring software for generators and equipment.

The Consultant, working alongside the project manager, with the approvals of the steering committee, will evaluate and select remote monitoring ICTs to enable employees to monitor systems and take appropriate action where required. The responsibility of the consultant will be similar as that outlined in item 3.3.2.2 above.

3.3.1.4. Standardized business processes that incorporate the implemented ICTs.

The Consultant will review current business practices and processes and along with the project manager develop a re-engineering exercise to create appropriate workflows that will maximize the benefits offered with the implementation of the aforementioned ICT systems. The project manager will also identify metrics suggested by the Consultant for the monitoring and evaluation of the new business processes. The project team will record these metrics during the pilot project and use them to adjust the processes as required.

3.3.1.5. A pilot project executed.

Under the guidance of the steering committee, the project manager along with the Consultant will plan and execute a pilot project of operating remotely with the implementation of the recommended ICT hardware and software as previously mentioned. The pilot project must demonstrate the effectiveness of the policies and procedures developed to achieve the objectives.

4. Requirements on the Format of the Bid

The interested bidder is required to submit a bid comprising a technical and a financial proposal according to the instructions given in the following sections.

The proposal shall contain both the technical and financial aspects, and are to be submitted electronically. Both proposals are requested to be signed and stamped by the bidder.

The comprehensive technical proposal must be submitted by January 26, 2023, 11:59 pm AST via email to: bvieccovidbcs@bvielectricity.com.

Further questions related to this assignment and its procurement process can be addressed via email to: bviecce@bvielectricity.com.

Further requirements and provisions:

- The consultant must be available at the beginning of the contract.
- The consultant commits to not disclosing confidential information, neither before, during, nor after the delivery of the service.
- Publications and media contact where necessary will be agreed to in advance with BVIEC.
- All studies, digital outputs and documents elaborated within the contract will be made available to the project in digital form for discussion and approval.
- All results must be provided to the BVIEC in digital version and need to follow the BVIEC and RESEMBID design standards as necessary.
- Reasonable changes during the assignment will be agreed to in writing in advance, between the consultant and the BVIEC.

The Bidder shall bear all costs associated with the preparation and submission of its proposal and the finalization and execution of the procurement agreement. BVIEC shall under no circumstance be responsible or liable for these costs, regardless of the conduct or outcome of the RFP process. Documents submitted by the Bidders will not be returned.

4.1. Technical Proposal

The technical proposal is required to show how the objectives defined in Sections 2 and 3 of this Terms of Reference (ToR) are to be achieved. In addition, the bidder must demonstrate the company's capacity, expertise, and experience by providing a concept for quality assurance (company description), and respective references from similar assignments. Links to publicly available ITC-based products and platform, elaborated within previous assignments will be considered an additional asset.

The Technical Proposal must be legible (font size 11 or larger) and clearly formulated. The bid must be written in English (language).

The complete technical bid shall not exceed 30 pages (excluding CV's), including:

- Technical concept and a work plan
- Company Description (incl. Overview of staff/ team concept, financial statements of the past 3 years of the company, Backstopping Concept and Quality Assurance) and References related to similar assignments (i.e. the implementation of application software and business process redesign of customer relation applications)

The CVs must clearly show the position and job the proposed Expert held in the referenced project and for how long.

4.1.1. Expert Qualification

The proposed experts shall fulfil the following qualifications to comply with the required expertise as indicated below. Non-compliance with the minimum qualification criteria will exclude the proposal from further assessment.

a. Education/training

- Minimum academic requirement of a Master's degree, Certification or equivalent, in Business Analysis and Development, Software Engineering, Implementation, Development or a related area in Computer Science.
- Minimum academic requirement of a Master's degree, or equivalent, Human Resources Management or Development or a similar area

b. Language

- Excellent command of English language in speech and writing

c. General Professional experience

- Minimum of 10 years of professional working experience in the field of Business Analysis, Business Technology Development, and Software Solutions Implementation, preferably but not required for electric utilities

d. Specific professional experience

- Demonstrated knowledge and experience in the implementation of a readiness-assessment or gap analysis in a Caribbean jurisdiction regarding the introduction of new business processes and software services for electric utilities.
- Demonstrated knowledge and experience in the provision of technical assistance to the development of business models, business process and design.
- Demonstrated knowledge and experience in the software solution selection process, implementation and evaluation of the solution.

e. Regional experience

- Demonstrated working experience in Caribbean OCT's or CARICOM member countries

4.2. Financial Proposal

The financial proposal shall be based exactly on the requirements mentioned under Section 3.2.1. and the cost breakdown as provided in section 4.2.1.

4.2.1. Cost Breakdown

The cost breakdown of the financial proposal shall be provided as follows:

Deliverable ¹		Key Expert		Total Costs in EUR
		No of work days	Daily fee in EUR	
1.	A Gap Analysis Report completed that identifies specific areas of opportunity that specifies solutions such as remote monitoring software requirements, standard procedure changes, schedule changes, etc.	21		
2.	An electronic customer service center and customer engagement application installed.	23		
3.	Remote monitoring software for generators and ancillary equipment installed.	23		
4.	Standardized business processes introduced, that incorporate the use of the implemented ICTs.	43		
5.	A pilot project executed, that demonstrated the effectiveness of the policies and procedures developed to achieve the objectives	45		
TOTAL		155		

4.2.2. Costing Requirements

4.2.2.1. Assignment of personnel

The assignment is based in the home country according to the time schedule as mentioned. Applicants will be local or foreign-based depending on qualifications.

4.2.2.2. Travel

Funding for travel cost recovery will be provided by BVIEC upon prior approval by the Project Steering Committee.

4.2.2.3. Other costs

The Consultant will be responsible for providing their own communication, supplies, out-of-pocket expenses, equipment, and all other costs incurred in preparing the requisite reports as part of their financial proposal. These costs are to be included in the daily fees of the expert.