



# TENDER DOCUMENT

FOR

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**ENERGY EFFICIENCY & CONSERVATION PROGRAM**

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**Prepared by:**

**Belize Electricity Limited**

Revenues & Customer Accounts

2½ Miles Philip Goldson Highway

Belize City, Belize

April 2024

Bidders will be required to submit a fixed price quotation via email to [bidsubmittal@bel.com.bz](mailto:bidsubmittal@bel.com.bz) no later than **3:00 p.m. on Friday, May 3, 2024**, and labelled:

**“BID #2024-2341 – ENERGY EFFICIENCY AND CONSERVATION PROGRAM”**

**IMPORTANT DATE:**

Bid Submittal Deadline - 3:00 p.m. on Friday, May 3, 2024

**EVALUATION CRITERIA**

- I. Technical Proposal – 70%
- II. Economic Proposal – 30%

## **1. BACKGROUND INFORMATION**

Belize Electricity Limited (BEL) is the primary distributor of electricity in Belize, Central America. The Company owns and operates the national electricity grid which includes approximately 2,000 miles of transmission and primary distribution lines. Additionally, the Company owns approximately 24 MW of installed generation capacity. The national electricity grid is supplied from multiple energy production sources including hydro, biomass, solar, and fossil fuels. Since 1998, the national electricity grid has been interconnected with Mexico's national electricity grid, allowing BEL to supplement its in-country power supply capacity. All major service areas are connected to the national electricity grid except for the island community of Caye Caulker, which is supplied independently by BEL. In 2023, the Company served a Customer base of 110,000 accounts with sales of 659.3 gigawatt-hours (GWh) of energy and met a peak power demand of 127.2 megawatts (MW).

The demand for electricity in Belize is surging following economic growth and the presumed effects of climate change causing more heat waves; peak demand increased by 20% from 105.6 MW in 2019 to 127.2 MW in 2023, however, exceeding in-country installed generation capacity. The Company, and by extension, the country, is over-reliant on energy imports from Mexico to supplement its in-country resources. As BEL's Mission is to deliver safe, reliable, and sustainable energy solutions to enhance the quality of life and the productivity of enterprise and to support national development, it must implement strategies to ensure sufficient, sustainable power supply to meet demand. This involves expanding generation but also must include energy conservation and energy efficiency strategies. To this end, the Company is seeking the support of a consultant or consulting firm to develop a comprehensive Customer Energy Conservation and Energy Efficiency Program (CECEP).

## **2. SCOPE OF WORK**

The Consultant will analyse Customer demographics, consumption trends, and high-bill complaints history by Customer classification, having regard for environmental and economic factors that may affect energy use patterns, and identify opportunities for energy conservation and energy efficiency interventions by Customer segment. Recommendations, whenever possible, should address common problem areas, be scalable from a few cases to wider Customer segments, and should reflect industry best practices and proven business models. Recommendations will be presented as a program with an achievable implementation plan, measurable targets, and required resources including budgetary, and expected impacts expressed as net savings to Customers.

## 2.1. Detailed Tasks

- I. Meet with key personnel in BEL's Customer Accounts and Revenue Protection department to discuss current approaches to managing Customer high bill complaints/concerns and any ongoing Customer energy conservation or energy efficiency support initiatives.
- II. Prepare a Study Plan that outlines an understanding of the consultancy requirements and the consultant's approach to doing the data analysis and Customer segmentation for review and approval.
- III. Conduct a thorough analysis of BEL's Customer base to understand general energy use patterns by Customer segments and discover any common explanatory factors for high-bill complaints. Identify key Customer groups that may benefit from energy conservation and/or energy efficiency services based on industry or nature of operations and other distinctive features or parameters that pertain to that class of Customer (such as frequently used equipment in households or weather patterns influencing operations on farms etc).
- IV. Define the range and scope of energy efficiency and energy conservation initiatives, presented by Customer segments, that address the issues and respond to the opportunities identified in the Task 1 analysis.
- V. Develop the initiatives in Task 2 as business solutions implementable by BEL, including, minimally, the required tools, technologies and personnel and associated costs, and the targeted benefits (savings to Company and Customers), possible pricing strategies/revenue models for each solution as well as operational constraints that may need to be addressed prior to or during implementation.
- VI. Develop an implementation strategy which prioritizes the business solutions by ease of implementation and level of impact, and which recommends an effective organization structure within the Company to deliver the solutions.

## 2.2 Deliverables

The key deliverables for this project are listed in the table below. The consultancy is expected to run for a period of 90 business days from the contract execution date.

Item	Description	Due on
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Customer Energy Use Patterns and Energy Savings Interventions Report	Summary report of findings as per Detailed Tasks 1, 2 & 3 of this Terms of Reference that should include assessment of key drivers of high bill complaints and/or concerns relating to energy use by Customer segments and possible interventions that can impactfully respond to those concerns.	30 business days after contract execution
BEL Feedback and Comments	BEL will provide feedback and comments on the report to be reflected in the ensuing tasks. Feedback is not limited to written submissions and may also involve discussion sessions.	40 business days after contract execution
Business Solutions Analysis	Report articulating the merits and demerits of the range of energy conservation and energy efficiency interventions as business solutions/services that can be marketed by BEL (as per Detailed Task 3 of this Terms of Reference)	60 business days after contract execution
BEL Feedback and Comments	BEL will provide feedback and comments on the report to be reflected in the ensuing tasks. Feedback is not limited to written submissions and may also involve discussion sessions.	70 business days after contract execution
Draft Customer Energy Conservation and Energy Efficiency Program (CECEP)	Final Recommendations presented as a Program with implementation strategy as described in Detailed Task 4 of this Terms of Reference.	80 business days after contract execution
BEL Feedback and Comments	BEL will provide feedback and comments on the report to be reflected in the ensuing tasks. Feedback is not limited to written submissions and may also involve discussion sessions.	85 business days after contract execution
Final Submission	Provide final Submission and presentation of BEL's Energy Efficiency and Energy Conservation Program incorporating feedback received.	90 business Day

### 2.3 Reporting

The Consultant will report to the Manager, Revenues and Customer Accounts in the Commercial and Retail Services Division at BEL.

### **3. MINIMUM QUALIFICATION REQUIREMENTS**

Bachelor's Degree in Mechanical or Electrical Engineering or related field.

A minimum of five (5) years' experience in energy conservation and efficiency consultancy services, preferably in a regulated market and/or similar years of experience in energy efficiency and conservation policy implementation, operations, and organizational development for public utilities (water, gas, telecommunications, or electricity).

### **4. INTELLECTUAL PROPERTY RIGHTS**

All documents, data, and reports produced by the Consultant as part of this consultancy will be the property of BEL, and the Consultant shall retain no rights over the same.

### **5. SUBMISSION AND EVALUATION OF PROPOSALS**

Proposals should demonstrate an understanding of the core issues, research approach, and qualifications to effectively deliver on the terms of reference.

#### **5.1. Specific information to be provided to BEL by the Consultant in their bid submission shall be as follows:**

- I. Technical Qualifications:** Relevant Experience of the Firm and Expertise of Key Members of the Team that will be assigned to the consultancy.
- II. Methodology:** The Consultant will specify the methods that will be applied to meet the objectives of the TOR. The methodology must include any frameworks and software that will be used to carry out the consultancy.
- III. Work Plan/Schedule:** The Consultant will submit a work plan outlining how the consultancy will be conducted in a systematic and thorough manner within the schedule provided above. The schedule submitted must include a timeline for meetings, surveys/interviews, data collection and analysis and completion of all reports. **The consultancy must stay within the schedule** and any changes must be mutually agreed upon without affecting the cost. The work plan must outline

all aspects including factors that may impact the consultancy and the deliverables and how they will be addressed.

- IV. Economic Proposal:** Applicable rates and fees, number of business days (hours), and total cost to allow the Consultant to carry out the scope of works as described further below.
- V. Exceptions and Clarifications:** The Consultant must clearly outline all concerns and exceptions to the TOR that may contribute to not fully meeting requirements within the TOR.
- VI. Additional Information:** The Consultant must include all additional information that must be provided by BEL to carry out the scope of works.
- VII. Comments by the Consultants:** The Consultant is invited to make comments on and suggest improvements to the TOR. The financial implications, if any, of these recommendations should be indicated separately in the financial proposal.

## **5.2. Proposals will be evaluated using the criteria below:**

### **A. Technical Proposal (70%):**

- I. Relevant Experience of the Firm [15%]
- II. Key Experts' Qualifications and Competence [20%]
- III. At least two Client references providing evidentiary support of the capacity to undertake an assignment of this nature and scope [10%].
- IV. Methodology [15%]:
- V. Work Plan & Schedule [10%]:

The maximum evaluation score for the Technical Proposal is 70%. If the evaluation score for a Technical Proposal is less than 45%, then the entire bid will be treated as unresponsive and will not be further evaluated.

### **B. Economic Proposal [30%]**

- I. The Economic Proposal will only be evaluated for bids that meet the 45% Technical Proposal evaluation score threshold and that fall within a pre-determined budget limit.
- II. The Economic Proposal with the lowest all-in cost will be called the Minimum Economic Proposal and will be allocated the maximum Economic Proposal evaluation score of 30%.

- III. The remaining proposals will each be given a score equal to  $30\% \times (\text{Cost of Minimum Economic Proposal}) / (\text{Cost of Economic Proposal being evaluated})$

The Consultant scoring the highest sum score of the Technical Proposal evaluation score and the Economic Proposal evaluation score will be selected as the Successful Bidder. The Successful Bidder shall be notified and offered an opportunity to negotiate a Contract with BEL to provide the services as stipulated in the TOR. If BEL is unable to reach a suitable agreement with the Successful Bidder within 15 business days from the date of notification by BEL to the Successful Bidder, then BEL may withdraw its offer to negotiate and agree on such contract and may begin negotiating with the next highest scoring Bidder.