



**PUBLIC UTILITIES
COMMISSION
BELIZE**

CONSULTATIVE PAPER

BEL PROPOSED ADDITIONAL
CUSTOMER CLASSIFICATIONS &
ASSOCIATED TARIFFS

Submission Deadline Extended:
Tuesday, October 10, 2023

Original Issue Date: August 18, 2023

Consultation Procedure

The PUC invites and welcomes written submissions and comments from interested parties in the subject matter for this Consultative Paper.

Submission of Comments

The written submissions and comments should be submitted to the PUC before **4:30 PM, Tuesday, October 10, 2023**, either:

- by hand to: Public Utilities Commission, 2nd Floor Marina Towers, Princess Margaret Drive, Belize City, Belize. ***Re: Responses to the Consultative Paper – BEL Proposed Additional Customer Classifications & Associated Tariffs;***
- by email to: info@puc.bz;
- by mail to: P.O. Box 300, Belize City, Belize.

Confidentiality

The PUC intends to publish the responses to this Consultative Paper on its website. If a commenting party's response contains any information that is confidential in nature, a clearly marked "Public Version," redacted to delete the confidential information, should be provided together with a complete version that is clearly marked as the "Confidential Version."

The "Confidential Version" should highlight the information that has been redacted. The PUC requires for the respondent to provide an explanation justifying the needs to submit a response in confidential basis. The PUC has the sole discretion to determine whether to publish any submission marked as confidential.

Redactions should be strictly limited to "confidential information," meaning a trade secret, information whose commercial value would be diminished or destroyed by public disclosure, information whose disclosure would have an adverse effect on the commercial interests of the commenting party, or information that is legally subject to confidential treatment.

Consultative Paper – Proposed Additional Customer Classifications & Associated Tariffs

1. BACKGROUND TO THE CONSULTATION PROCESS

The Belize Electricity Limited (“BEL”), on April 2, 2023, made an application to the Public Utilities Commission (“the Commission” or “PUC”) to:

- a. determine the Regulated Values, Mean Electricity Rates, Tariffs, Fees and Charges in its Annual Review Proceedings Submission for the remaining Annual Tariff Period of the Full Tariff Period from July 1, 2023 to June 20, 2024;
- b. to approve new customer classifications and associated tariff schedules for Distributed Generation, Electric Vehicle charging, Spanish Lookout and Tourism;
- c. to adopt/approve the Least Cost Expansion Plan (LCEP) filed on March 22, 2023 and refiled on April 28, 2023; and
- d. to adopt/approve BEL' s new Connection Policy

On June 30, 2023, in the matter of the Final Decision of the Annual Review Proceedings 2023 for BEL, the Commission made its decision for the requests captured in Paragraph 1 a. above and deferred its decision for the requests captured in Paragraphs 1 b. to 1 d., both inclusive.

This consultative paper, seeks written comments from interested Parties on the BEL submission for the items in Paragraph 1 b. above.

Interested parties can view the BEL application in its entirety by accessing the following link:

<https://www.puc.bz/bels-submission-for-arp-2023/>

This consultative document does not constitute legal, commercial or technical instruction. It is intended to garner input from Interested Parties as the Commission moves ahead to a decision on the BEL application.

2. THE PRESENT RATE SETTING METHODOLOGY

The PUC is mandated to regulate the tariffs, charges and fees to be charged for the provision of electrical services by licencees in Belize. The PUC utilizes a globally accepted regulatory model for the rate setting. The model provides for a Tariff Basket Revenue (TBR). The TBR is the total revenues derived from sales of electricity that BEL must receive from its customers in order to cover the cost of purchasing electricity from approved suppliers, BEL operating costs, capital recovery & financing costs, statutory charges in addition to also earning a reasonable return (profit). The TBR, once divided by the metered energy used by all the consumers results in the Mean Electricity Rate (MER) which presently stands at BZ 39.99 cents.

A Tariff Schedule is then developed. The Tariff Schedule consists of different Customer Classes and associated rates. Presently, the following Customer Classes are provided for:

- Social
- Residential
- Commercial 1 and 2
- Industrial 1 and 2
- Street Lights

The MER is spread throughout the different Customer Classes. At the end, the revenue received from the electricity sales across all Customer Classes must add to the calculated TBR.

In distributing the MER among the Customer Classes, the following is taken into consideration:

- The Social class customers enjoy of a lowest rate but are restricted to very small consumptions.
- The Residential and Commercial 1 class customers have rates that are very close to the MER, and as the consumption escalates the rate increase in order to incentivise energy savings.
- Commercial 2 customers have a rate slightly higher than the MER. The concept is that the electricity consumed by these commercial customers is part of their product and generates a profit for the customer. In this customer class the rate decreases with increased use in order to promote the growth of commercial activities in Belize.
- Industrial class customers are those large industries in the country that use power from the grid that are connected at a High Voltage level. This connection reduces losses in the system and avoids the cost of the distribution of energy, that is, they utilize less resources from the Utility. The Industrial rates are designed as an incentive for the efficient use of electricity.

- The Street Light class rate is paid by the Government of Belize and it includes all the operation, maintenance and replacement of the street lights throughout the country of Belize.

The introduction of additional Customer Classes, can have an impact on the redistribution of charges associated with the existing Customer Classes. The TBR needs to be recovered across all Customer Classes, an incentive to one group, may represent an increased cost allocation to another, and vice-versa.

3. THE BEL APPLICATION

3.1. GRID-TIED DG PROPOSED RATE

BEL stated:

“The rate design for grid-tied DG should reflect the cost structure – a variable price component for the variable energy costs and a fixed price component for the fixed reliability costs. This is based on the cost of service and cost reflectivity principle, and it ensures that customers contribute to the utility’s fixed cost regardless of their level of consumption. Otherwise, the non-DG customers will disproportionately bear the cost of operating and maintaining the grid that DG customers depend upon for reliability of supply. Table 5 below shows BEL’s proposed rate for grid-tied DG consumers.

Table 5: Proposed Grid-Tied DG Rates

Category	Rate
Demand Charge (per KVA per month)	30.00
Peak Energy Charge (per kWh)	0.3500
Off-Peak Energy Charge (per kWh)	0.3000
Feed-in Tariff	0.1300

“

Consultation Questions – please give reason(s) to your response(s).

DG1: Could you briefly describe your understanding of the BEL proposed rate structure?

DG2: Do you agree with the utility’s approach to setting the Grid-Tied Distributed Generation (DG) Rate?

DG3: Which approach do you consider most appropriate for estimating renewable energy pricing for exchanging energy with the grid?

DG4: Are there alternative rate-setting methodologies that should be considered [Buy-All/Sell-All, net-metering]?

DG6 – Are there specific elements of the rate structure design that you would like to provide feedback on? For example, demand charges, time-of-use periods, Feed-in Tariff

DG7 – Should time-of-use be considered for the already existing tariff structures?

DG8 – What provisions should be considered to prevent anti-competitive behaviour or barriers to entry?

3.2. ELECTRIC VEHICLES [EV]

BEL stated:

“The proposed tariff structure for EVs assume that the capital costs of the charging stations are absorbed into VAD and distributed across all customers and not recovered from charging station owners/users only. This is a reasonable proposal since the network is anticipated to benefit all customers as the technology gradually becomes ubiquitous. At the outset, BEL intends to track associated costs separately to be able to segment in the future if a different pricing structure is to be implemented.

The actual retail charges to final consumers by the charging point owners/operators (CPO) could be subject to further regulation or left unregulated and subject to competitive tactics of the CPOs. Table 6 below shows BEL proposed rate for Electric Vehicles.

Table 6: Proposed EV Rates

Category	Rate
Demand Charge (per KVA per month)	30.00
Peak Energy Charge (per kWh)	0.3500
Off-Peak Energy Charge (per kWh)	0.3000

“

Consultation Questions – please give reason(s) to your response(s).

EV1: Could you briefly describe your understanding of the BEL proposed rate structure?

EV2: What are your views on the utility participating in the charging market as owners of the EV charging infrastructure?

EV3: What in your view, would be the advantages or disadvantages of the utility’s participation in the EV charging market?

EV4: Do you consider the current electricity regulatory framework as facilitating or hindering the private ownership and deployment of the EV charging infrastructure?

EV5: What are your views on the regulation of EV charging activities?

EV6: Kindly express your views on the effects of large-scale EV adoption on the electricity supply system.

EV7: What do you think of charging EVs at home, work and/or commercial places?

EV8: Do you think a high adoption of EVs will lead to a reduction of your electricity bill?

EV9: How should the utility plan for increased uptake of EVs?

EV10 – Are there specific elements of the rate structure design that you would like to provide feedback on? For example, demand charges, time-of-use periods.

3.3. SPECIAL RATE TO INTERCONNECT SPANISH LOOKOUT

BEL stated:

“Electricity services within the Spanish Lookout Community (SPLC) represent a legal and economic anomaly that needs to be corrected. BEL is proposing a wholesale rate structure for Spanish Lookout in the first instance. This rate approximates the current industrial rate with a demand charge of \$25 per KVA per month and two-part energy charge of 30 cents per kWh during peak hours and 26 cents per kWh during off-peak hours. The effective all-in per kWh rate under this arrangement is approximately 35.86 cents per kWh. BEL proposes to keep this rate in place for the first 10 years along with a take-or-pay power purchase agreement to ensure recovery of the capital cost of the dedicated substation. Thereafter, there will be a reduction of the demand charge by 66.7% to \$8.33 per KVA per month, effectively reducing the all-in rate to 30 cents per kWh; alternatively, the rate could be changed to a flat energy charge of 30 cents with demand charge beyond threshold limits. Interconnecting the community at a PUC-approved whole rate is a first step in regularizing electricity services in the SPLC and ensuring equal access to sustainably priced energy solutions throughout all services areas in the country.

Table 7 below shows BEL proposed wholesale rate to interconnect SPLC.

Table 7: Proposed SPLC Tariff

Category	First 10 Years	After 10 Years
Demand Charge (per KVA per month)	25.00	8.33
Peak Energy Charge (per kWh)	0.3000	0.3000
Off-Peak Energy Charge (per kWh)	0.2600	0.2600

“

Consultation Questions – please give reason(s) to your response(s).

SL1: Could you briefly describe your understanding of the Utility proposed rate structure?

SL2: Do you agree with the reasoning of the Utility to introduce a client-specific special rate? Can you suggest any improvements or modifications to the proposed rate change that would better address the concerns and needs of the specific client?

SL3: Are there alternative approaches or rate structures that could achieve the same objective more effectively or efficiently?

SL4: How should the effectiveness of the proposed rate structure be measured over time? What metrics or indicators would you suggest to be used in evaluating its impact?

SL5: – Are there specific elements of the rate structure design that you would like to provide feedback on? For example, demand charges, time-of-use periods.

SL6: Do you believe that the proposed rate change treats all customers fairly and equitably? Are there any concerns about potential cross-subsidization or cost shifting between customer classes?

3.4. TOURISM TARIFF

BEL stated:

“Service providers in the Tourism Industry, especially resorts, who cater to visitors from developed countries are already proactively responding to the “green energy” trend and making a case to market Belize as a “green country.” Through the provision of an incentivised tourism rate to attract sales, BEL anticipates that this new class of customers will account for 17% of BEL’s revenues over 2023-2027. Improved performance in this sector will translate to greater indirect and induced benefits to complementary services in the economy and support BEL’s growth strategy.

Table 8: Proposed Tourism Tariff

Category	Rate
Demand Charge (per KVA per month)	30.00
Peak Energy Charge (per kWh)	0.3500
Off-Peak Energy Charge (per kWh)	0.3000

“

Consultation Questions – please give reason(s) to your response(s).

TT1: Could you briefly describe your understanding of the Utility proposed rate structure?

TT2: Do you agree with the reasoning of the Utility to introduce a sector-specific incentive rate? Can you suggest any improvements or modifications to the proposed rate change that would better address the concerns and needs of the specific sector?

TT3: Are there alternative approaches or rate structures that could achieve the same objective more effectively or efficiently?

TT4: How should the effectiveness of the proposed rate structure be measured over time? What metrics or indicators would you suggest to be used in evaluating its impact?

TT5: How do you think this new rate structure will impact the other rate payers? Are there potential positive or negative consequences that haven't been addressed in the proposal?

TT6: Do you believe that the proposed rate change treats all customers fairly and equitably? Are there any concerns about potential cross-subsidization or cost shifting between customer classes?

TT7: Are there specific elements of the rate structure design that you would like to provide feedback on? For example, demand charges, time-of-use periods.

TT8: Do you agree that the proposed rate structure will incentivise the desired behavior and support the Utility's goals?

4. CONCLUSION AND NEXT STEPS

BEL is requesting the approval of four new customer classifications and associated tariff schedules for Distributed Generation, Electric Vehicle charging, Spanish Lookout and Tourism. The PUC has set out specific issues on which Interested Parties are invited to comment. However, Interested Parties should make any other comment(s) that they wish, which may not have been covered by the issues raised in the consultative paper.

The submissions will be taken into consideration in making an appropriate determination on the BEL requested tariff schedule amendments. The views of Interested Parties are hereby invited.

END