



**PUBLIC UTILITIES  
COMMISSION  
BELIZE**

**SUMMARY**

**Belize Electricity Limited Responses to the  
Public Utilities Commission Questions  
Re: Interim Order on  
Full Tariff Review Proceedings 2024 (FTRP 2024)**

On March 22, 2024, Belize Electricity Limited (BEL) entered into a Full Tariff Review Proceedings (FTRP) with the Public Utilities Commission (PUC) in accordance with the Electricity (Tariffs, Fees and Charges) Byelaws, S.I. 145 of 2005 as amended by S.I. 40 of 2024.

During the FTRP, the Regulated Values, mean Electricity Rate, Tariffs, Rates, Charges and fees to be applied over the next four-year tariff period are reviewed and determined by the Commission.

In order to finalize its Decision on the 2024-2028 FTRP, the Commission deemed it necessary for BEL to answer the questions outlined in the Schedule of the Interim Order [Interim Order of April 12, 2024](#)

**Ultimately, consumers are burdened with the cost incurred by BEL, and therefore the Company [BEL] has a duty to fully justify their 2024 – 2028 FTRP Filing, both to the consumers [customers] and the Commission.**

**PUC intends to issue the Final Decision on BEL's Filing by Friday, August 30, 2024.**

BEL's response to the questions were received on April 17, 2024 and can be viewed in its entirety here: [BEL Responses to Questions per PUC's Order of April 12, 2024](#)

For ease of reference, PUC questions and BEL's response have been compiled and can be viewed in this document.

**PUC Q1 - Assessment of the FTRP-2020|2024 Final Decision:**

In its Full Tarriff Review Proceedings 2020 (FTRP-2020) Final Decisions the Commission approved \$255MN in Capital Expense (CAPEX) including

- \$15MN for San Pedro-Caye Caulker submarine cable
- \$38MN for 2<sup>nd</sup> (Redundant) submarine cable to San Pedro and
- \$60MN for 2<sup>nd</sup> 230 kV Transmission Line (Tx) to Mexico.

Please report on all the projects approved for the FTRP 2020|2024 and the actual expenditures.

**BEL Response –**  
San Pedro &  
Caye Caulker  
Submarine  
Interconnection

### **Caye Caulker Submarine Interconnection**

The feasibility and environmental and social impact assessment studies for this project were completed in December 2018 by consultant Mott McDonald. During 2019, the Company proceeded to secure the necessary funding from the CDB, identify land needed for switching stations and substations on Caye Caulker and San Pedro, and obtain the necessary environmental clearances from the DOE. The latter proved more challenging than was anticipated and caused the first delay in the project.

A decision was made to revisit the load forecast and design after the island experienced an unexpected surge in demand at the start of January 2020 at the same time the front-end engineering design was scheduled to start. The reforecast confirmed that the projected load demand of Caye Caulker had doubled from 4 MVA to 8 MVA in 2040.

The project scope and design concept were consequently revised to double the cable capacity, change the route of the submarine cable resulting in a longer length to avoid landing near the forest reserve at the northern tip of the island, building a full-fledged substation on the north island of Caye Caulker, and adjusting the feeder interconnection configuration. The budget was consequently revised from \$17.3M to \$26.0M.

Further delays occurred because of the onset of COVID-19 (both due to resultant internal organizational adjustments and re-prioritization of focus as well external supply chain challenges). Numerous difficulties were encountered in procuring suitable contractors to lay the cable and to build the switching station and substation due to lack of interest and unresponsiveness of suppliers. Special waivers have had to be obtained from the Caribbean Development Bank (CDB) to negotiate directly with suppliers. The submarine cable was delivered to Belize since early July 2023, and the project is now scheduled to be completed by the end of Q4 2024. Total expenditure on the project to date is \$12.1M, and the estimated cost of the remaining works is \$22.2M.

BEL is finalizing an independent audit of the project to evaluate challenges and cost impacts as well as lessons learned to inform the planning and management of on-going and future capital projects.

**BEL Response –**  
Second  
(Redundant)  
Submarine  
Cable to San  
Pedro

## **Second Submarine Cable Interconnection between Ambergris Caye and Grid**

BEL is planning to install a second submarine cable between the mainland and San Pedro to bolster the capacity and reliability of power supply to serve burgeoning demand in both San Pedro and Caye Caulker. The capacity limit of the existing interconnection (~17.5 MVA) was breached in April of this year due to heatwave impacts on top of high organic tourism-driven growth, resulting in load shedding of specific Customers.

The new cable is expected to be rated at 69 KV or 115 KV with sufficient capacity to serve the power supply needs of San Pedro, Caye Caulker, and the islands further to the south of Caye Caulker, including Caye Chapel, over the next 25 years. Preliminary investigations have determined that the most feasible route for the new cable is near the route of the existing cable but terminating along the northern half of San Pedro where there are currently higher levels of and therefore more potential for tourism and commercial growth.

The feasibility study is on track to be completed by end of May (2024) and the design and engineering and the ordering of the long lead equipment are scheduled to be completed by the end of this year (2024). The project is scheduled to be completed by mid-2026 at an estimated cost of \$53.8M. Expenditure to date is \$46,000 for engineering and administration and \$117,000 (undisbursed) for the feasibility study.

In the meantime, a 21 MW GE TM2500 mobile gas turbine is currently being installed in San Pedro with an expected commissioning date of mid-May 2024, and a 10 MW (5 hour) battery storage solution is scheduled to be installed on the island by mid-2025. These will be used for peak shaving when demand exceeds the capacity of the submarine interconnection from Maskall or if the single submarine interconnection from the mainland fails or needs to be repaired. A recent inspection of the cable revealed that the cable terminations on both ends have deteriorated extensively and need to be repaired/replaced within the next 12 months. This will require an estimated total of 36 hours of downtime of the interconnection.

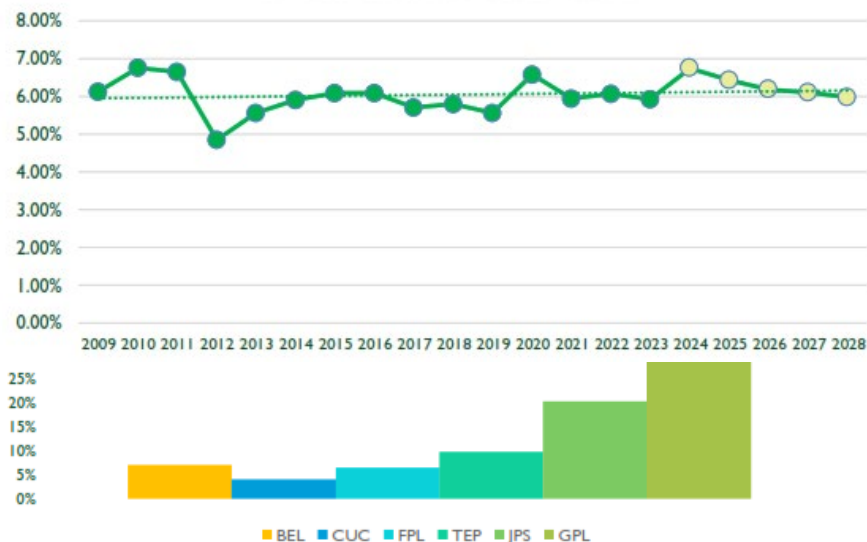
The gas turbine will remain in place on the island until the second submarine cable is installed and commissioned. Afterwards, BEL plans to relocate the mobile unit to Independence to provide emergency or backup capacity if the need arises.

<p><b>BEL Response</b> – Second 230 kV Transmission Line (Tx) to Mexico.</p>	<p><b>Second Interconnection from Mexico</b></p> <p>A 2018 IDB-financed pre-feasibility study had investigated the benefit/cost of various alternatives for a second cross-border interconnection between Belize and neighbouring countries and/or SIEPAC (the Central American Grid Integration Project) to provide further opportunities for Belize to purchase and/or sell power and energy. These alternatives included: i) A second interconnection from Mexico at 115 kV or 230 kV to Westlake or La Democracia or Camalote; ii) Interconnection to Guatemala at 115 kV or 230 kV; and iii) Interconnection to Honduras at 115 kV or 230 kV via a submarine cable.</p> <p>The study recommended that BEL (Belize) should consider a second interconnection to Mexico between the CFE-Mexico Xulha substation and Camalote via the Chan Chen Substation, and that the transmission line should be built to meet 230 kV construction standards to enhance its potential use in the future though it would be initially operated at 115 kV. The cost of this alternative, which included approximately 103 miles of new transmission line, was estimated at \$25 M USD.</p> <p>This second interconnection from Mexico was evaluated against other competing alternatives as part of the 2022 LCEP study. The evaluation showed that the estimated cost of the interconnection had doubled to \$55.4 M USD and that this was the highest costing capacity expansion alternative and therefore least preferred of all the options considered.</p> <p>BEL has earmarked funds (\$350,000) as part of its current Investment Plan to carry out a more in-depth study within the next two years to re-investigate the option in conjunction with cross-border energy trading directly with Mexico and SIEPAC as well as Guatemala.</p>
<p><b>PUC Q2 – Operating Expense (OPEX):</b></p> <p>(a) Please give the justification for the increase in OPEX from approved \$133MN in FTRP 2020-2024 to forecast of \$194MN in FTRP 2024-2028.</p> <p>The Commission is particularly concern for the increase in Payroll Expenses, averaging approximately \$8MN per year.</p>	
<p><b>BEL Response</b> – increase of OPEX</p>	<p><b>OPEX compared to Other Jurisdictions</b></p> <p>BEL’s actual operating expenses (OPEX) exceeded the PUC approved OPEX threshold by an average of \$2 to \$4 MN between 2020 and 2023.</p>

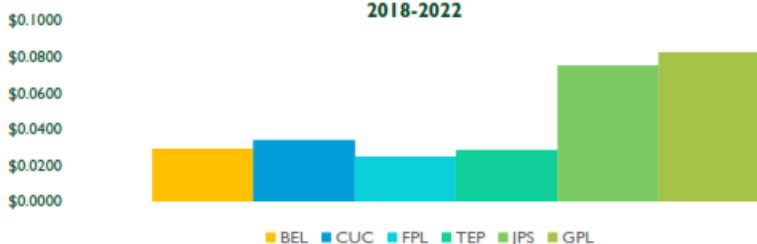


This gap will widen as the Company continues to reinforce, expand, and  
Likewise, the OPEX to MWh sales ratio (expressed as a percentage) has remained fairly constant at 5.97% with a standard deviation of 0.46% and is projected to marginally increase over the next five years.

**OPEX to MWh Sales Ratio**



**OPEX (\$USD) per MWh Sold  
2018-2022**



Moreover, over the past 15 years, BEL's OPEX as a percentage of its net fixed assets has remained fairly constant at an average of 6.47% with a standard deviation of 0.58%. This ratio is projected to improve over the next five years.

**OPEX as % of Net Fixed Assets**



**PUC Q2 – Operating Expense (OPEX):**

(b) In FTRP 2020-2024, the approved OPEX was exactly what BEL requested in its submission.

Can BEL explain and provide supporting data as to the core reasons for the over expenditure?

**BEL Response –**  
Over  
expenditure

**OPEX Drivers**

FTRP 20|24 approved OPEX was for \$133 MN or \$33 MN on average

**Increase in work volume**

As noted further above, the volume of work done at BEL is a direct function of the net fixed assets in operation, which has increased by 28% since 2019 and is expected to increase by a further 50% by the end of 2028. In addition, Customers continue to expect and demand faster and more reliable services and to interact with BEL in both traditional and non-traditional ways. BEL’s staff complement has increased by 16% over the past 4 years and is expected to increase by a further 10% to 15% over the next 4 years.

administrative staff to support utility operations and is in fierce competition both locally and regionally to retain its staff. Several powerline technicians have been recruited to Cayman from the Company and engineering and project management competencies are in high demand and short supply throughout the region. BEL updated its salary scales in 2021 based on the recommendations of a Job Evaluation and Remuneration Review (JERR) by Korn Ferry (formerly Hay Consulting Group) to make the Company’s compensation offers more competitive within local and regional labour markets. The midpoint of all salary scales was moved upward by 15.9% on average. This resulted in a one-time average increase of 5.1% in base salaries for non-management employees and 5.6% increase in base salaries for management employees. Moreover, staff have received further pay increases of approximately 4.6% per annum since 2020. Despite these salary adjustments, pay raises, and competitive performance-based benefits, the Company has been finding it difficult to attract well-trained professionals in the fields of finance, engineering, and procurement and technical field staff in the tourism-based service areas where there is greater competition for workers.

**PUC Q2 – Operating Expense (OPEX):**

(c) The Commission notes the inclusion of computer software once more in the submission and takes note of the increase of OPEX as well.

In its FTRP-2020 Final Decision, the Commission deferred consideration of any and all Smart Grid/Grid Modernization investments to a separate proceeding to fully ventilate expected cost/benefits of the implementation of automation.

The PUC is eager to modernize the industry and wants to know when will BEL comply with the PUC FTRP 2020|24 Determination?

**BEL Response –**  
Inclusion of  
computer  
software and  
compliance  
with FTRP  
2020|24  
Determination

### **Information Technology & Cybersecurity Expenses**

The increases in Information Technology and Cybersecurity (IT&C) expenses are driven by the imperative of modernizing the national electricity infrastructure. BEL has previously made the case that the PUC must consider the need to provide specifically for IT&C needs to support greater grid automation and business efficiency. Key projects that carry operational expenses include license fees for business intelligence software (Power BI), field management software, upgrades to the Customer Information System, maintenance and upgrades to the well-received BEL 24-7 App, Cybersecurity upgrades and business continuity needs, and provisions for Energy Management Software among others. The increase in staff is also accompanied by an increase in the number of laptops and electronic devices needed to support new work modalities which emphasizes greater engagement with Customers in the field.

### **Grid Modernization Investments**

BEL appreciates the opportunity for a separate proceeding to evaluate the cost/benefit of implementing its Smart Grid/Grid Modernization strategy. During the 2020/2024 FTP, the Company engaged in researching available technologies, assessing their suitability for the Belize

context, identifying reputable vendors and consultants to commence work on a Grid Modernization Study, and evaluating the solutions already deployed at a limited scale.

As AMI and smart meters are the foundation of Grid Modernization, BEL has developed a proposal and accompanying business case for AMI which will not only enhance the efficiency and reliability of our operations but also deliver tangible benefits to our Customers and the broader community. Furthermore, it will enable BEL to properly implement the PUC's Decision and Order on "BEL's New Customer Classifications and Associated Tariff Schedules", which resulted in the establishment of a "Demand Charge Rate" and Feed-in-Tariff to be implemented under condition of a Regulatory Sandbox. The PUC can expect BEL to submit its AMI Business Case before the end of Q2 2024.

In addition to its case for AMI, BEL has been engaging ESTA Consultancy to conduct a grid modernization study since 2003. The objective of the consultancy includes a Needs Analysis, including identifying a set of grid modernization functions and technologies that are needed to implement these proposed functions. The results of the assessment will be a desired smart grid "Future State". A Gap Analysis will then be conducted to identify modifications and additions that will be needed to accomplish the



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**PUC Q3 – Capital Expense (CAPEX):**

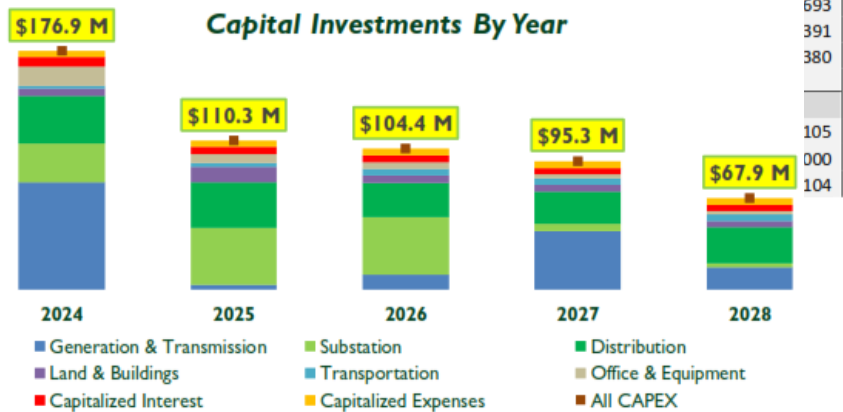
- (a) Can BEL breakdown its CAPEX submission on what is for Generation, Supply assets (RAV) and None Regulated business (Such as EV Charging Stations, Solar DG, Engineering Studies)?

**BEL Response – CAPEX Breakdown**

**CAPEX**

**Breakdown**

Construction of New Independence Operations Facility	2,204,508	1,102,254
Facilities Renovation	1,105,046	1,105,046
<b>New Customer Connections</b>		
Urban & Peri-Urban Electrification	44,548,412	8,062,140
Rural Electrification (Micro-Grid)	11,208,076	5,565,777
Rural Electrification (Standard)	1,300,000	1,300,000
<b>Distribution System Reliability Improvement</b>		
Reliability Improvement for Distribution Operations	12,858,472	4,167,062
Standards & Safety	10,343,115	2,334,381
Replacement of Rotten & Burnt Poles	8,089,691	1,854,919
Placencia Submarine Replacement	3,654,000	374,000
Belmopan Feeder #4 Separation	1,220,000	938,000
<b>Grid Modernization</b>		
Smart Grid (Country-wide Rollout AMI)	33,830,000	1,990,000
Redundant Telecommunications Infrastructure	6,193,375	2,786,275
DG & EV Programs	3,000,000	915,000
GIS & Field Service Management System	2,678,503	962,749
Other Grid Modernization Projects	1,053,192	703,192
<b>Information Technology &amp; Cybersecurity</b>		
Digital Work Environment	7,099,221	3,051,480
Cybersecurity & Business Continuity Projects/Programs	6,037,915	2,075,000
OT System & Network Upgrade	5,129,676	2,840,296
Digital Customer Service	1,431,792	781,146
<b>Operations Support</b>		
New Vehicles & Upgrades	19,554,225	2,012,083
Specialized Work Equipment	2,927,570	827,570
<b>Streetlights</b>		
New & Replacement LED Street Lights	8,684,245	4,840,836
<b>Other Projects</b>		
	7,570,305	5,733,605
<b>NON-REGULATED BUSINESS INVESTMENTS</b>		
	3,000,000	915,000
DG Programs	1,050,000	525,000
EV Programs	1,950,000	390,000
<b>GRAND TOTAL</b>	<b>504,524,923</b>	<b>165,715,333</b>



**PUC Q3 – Capital Expense (CAPEX):**

(b) What is the current Weighted Cost of Capital (WACC) of BEL, showing clearly how the proposed ROR of 10% is composed?

**BEL Response –**  
Weighted Cost of  
Capital (WACC)

**WACC**

The Weighted Cost of Capital of BEL has historically been calculated as follows using a target ROE of 8%:

<b>Weighted Cost of Capital Calculation</b>	<b>2023</b>
Closing amount of debt + Convertible debt Dec 31, 2022	217,441,081
Closing amount of debt + Convertible debt Dec 31, 2023	249,587,875
<b>Average amount of debt + CD</b>	<b>233,514,478</b>
Total interest on debt and convertible debt	12,153,206
<b>Average rate of interest on debt</b>	<b>5.20%</b>
Shareholders' equity at start of year Dec 31, 2022	388,657,681
Closing amount of debt + Convertible debt Dec 31, 2023	395,638,588
<b>Average amount of shareholders equity</b>	<b>392,148,135</b>
<b>Historical target return on equity</b>	<b>8.00%</b>
Debt as a % of [debt+equity]	37.32%
Equity as a % of [debt+equity]	62.68%
<b>Total debt %+ equity %</b>	<b>100.00%</b>
Debt contribution to WACC	1.94%
Equity contribution to WACC	5.01%
<b>Weighted average cost of capital (WACC)</b>	<b>6.96%</b>

There is no true equivalence between the Return on RAV and the WACC because of the OPEX threshold and the discrepancies between the PUC's RAV determination and BEL's fixed assets value, which impacts the calculation of depreciation. Moreover, BEL has had to finance high regulatory account balances without the prospect of reimbursement as there is no provision to do so in the current rate-making practice. As a result, BEL shareholders have in fact been earning returns of 5.6% on their investments (measured as net income as a % of total equity) over the past 10 years.

**PUC Q3 – Capital Expense (CAPEX):**

(c) Why should the PUC not apply penalties for BEL’s delay in the implementation of the Caye Caulker Submarine Cable and the San Pedro 2<sup>nd</sup> Submarine Cable installations, when both projects have been approved in FTRP 2016 and 2020 respectively?

**BEL Response –**  
Penalties for  
delayed  
implementation  
of submarine  
cable  
installations

**Penalties for Delays in Project Implementation**

BEL has previously stated its position on the penalty for the San Pedro and Caye Caulker Interconnection Projects: Project delays cannot be solely attributed to BEL as some of the causative factors for the delay were outside the control of the Company. Furthermore, BEL has asked that the PUC give full and fair consideration to the recommendations of Independent Expert, Mr. Ian McMillian, who when reviewing the Caye Caulker penalty, made the following observation (emphasis added): “Implicit to the notion of the adjudicated penalty is that that the delays could have been avoided by BEL. The PUC has, through its 2018 ATRP decision, sought to penalize BEL on the basis of harm to ratepayers et al. We note that the cable by design will provide significant savings to ratepayers in CCK by reducing BEL’s cost-of-delivery which would in turn manifest lower user rates to rate-payers. The basis of the value of the penalty is the value of lost savings to affected rate-payers. The imposition of the ROR 1% reduction equates to such value and therefore is being used as a justifiable proxy for same.”

BEL maintains that a reasonable penalty for delays with the Caye Caulker project is one which reflects the lost savings to consumers from delaying the interconnection. BEL has estimated this amount to be at most \$1M per year, if any, as opposed to the \$4M per year penalty currently being incurred because of the arbitrary 1% deduction of Return which clearly does not reflect the expert recommendation. This is one of the outstanding issues that the PUC Chairman and BEL CEO had agreed would be put to the bi-partisan committee for further analysis and final resolution.

**PUC Q4 – Cost of Power (COP):**

(a) In its 2024 Planning Determination the Commission directed BEL to align its FTRP Submission with its Planning Determination (Least Cost Expansion Plan – LCEP). Of note, both BEL and the PUC recognize errors on the demand forecast of the LCEP.

Does BEL intend to follow the Order of the Commission and align the FTRP Submission with the Planning Determination (LCEP) 2024?

<p><b>BEL Response</b> – Alignment of FTRP with 2024 Planning Determination (LCEP)</p>	<p><b>COST OF POWER (COP)</b></p> <p><b>Compliance with Planning Determination</b></p> <p>BEL intends to participate in the Ad-Hoc Working Group being set up by the PUC and will generally comply with Orders of the PUC, however there are certain aspects of the Order that will require further clarification.</p>
<p><b>PUC Q4 – Cost of Power (COP):</b></p> <p>(b) On BEL Submission, the solar farms and Battery Energy Storage Systems (BESS) will be staggered annually.</p> <p>Why is BEL timeline not aligned with the Central Executing Unit (CEU) that is developing these projects?</p>	
<p><b>BEL Response</b> – Alignment of CEU’s timeline for BESS and Solar PV rollout</p>	<p><b>Alignment with the CEU’s Timetable for BESS and Solar PV Rollout</b></p> <p>BEL is represented in the Project Implementation Unit overseeing both sets of projects and assures the PUC that the CEU has not officially adopted any timetable for rollout of the BESS projects nor the Solar PV projects.</p>
<p><b>PUC Q4 – Cost of Power (COP):</b></p> <p>(c) In the Least Cost Expansion Plan (LCEP), which BEL has developed the FTRP, the economics of the Battery Energy Storage System (BESS) is supported by arbitrage energy trading, wherein charging is done during periods of low demand, low prices; while discharge is done during periods of high demand, high prices.</p> <p>Why is the BESS not operated to take advantage of arbitrage as envisioned in the LCEP?</p>	
<p><b>BEL Response</b> – Operations of BESS</p>	<p><b>Planned Operation of BESS</b></p> <p>BEL assures the PUC that the BESS projects will be operated to take advantage of energy arbitrage opportunities <i>where possible</i> balanced against the main purpose of managing supply variability and enhancing reliability.</p>
<p><b>PUC Q4 – Cost of Power (COP):</b></p>	



(d) When comparing the Overheads on Power Purchase Actuals with Forecasted on the Cost of Power (COP) Detail submission, BEL anticipates an increase of 600%, or approximately \$3MN annually.

What are the expected expenses that will drive these increases?

<p><b>BEL Response –</b> Cost of Power overheads</p>	<p><b>COP Overheads</b></p> <p>The cost increases in COP overheads are driven by provisions for interests associated with late payments assuming higher than usually COP payables under a conservative cash sensitivity case. The estimates are admittedly high, and the PUC may reduce as needed in line with historical costs for forecasting purposes.</p>
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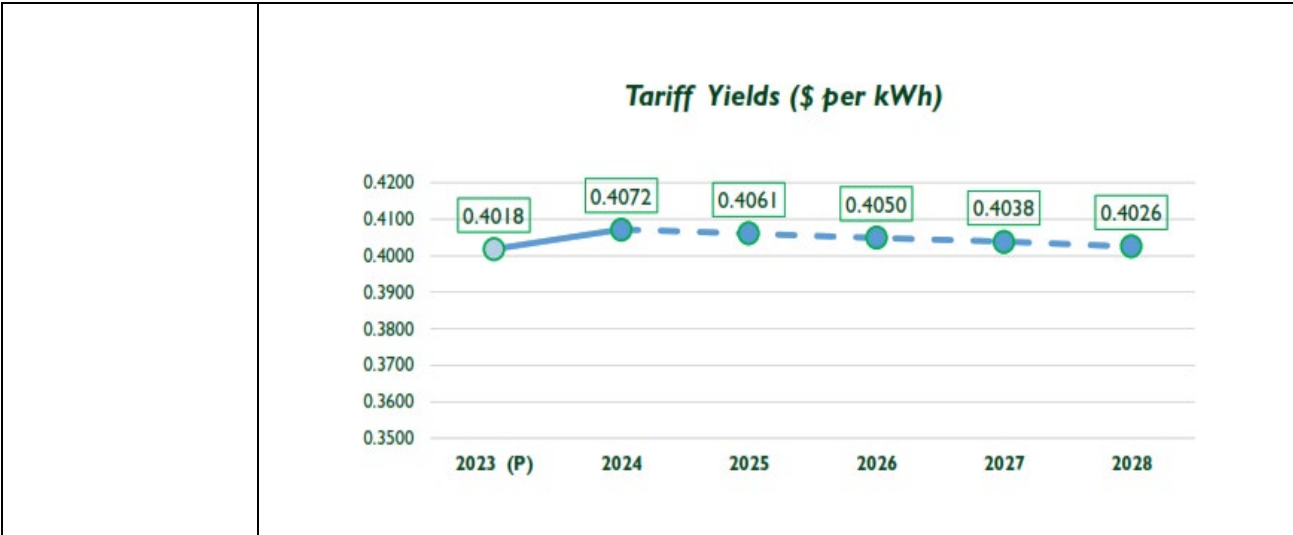
**PUC Q5 – Tariff:**

(a) Present tariff is BZD\$0.3999 per KWh. The actual collections on this tariff schedule gave a “Tariff Yield” of BZD\$0.4036 in 2023.

In the BEL submission, the Tariff Schedule introduces additional buckets in the Residential and Commercial 1 categories adding a higher rate for consumptions over 300KWh per month. In addition, the Commercial 2 bucket above the 20,000 KWh per month threshold was removed, leaving only the higher rate buckets.

The PUC anticipates that this will cause the Tariff Yield to be higher than the present one. Has BEL calculated what the New Tariff Yield will be?

<p><b>BEL Response –</b> New Tariff Yield</p>	<p><b>TARIFFS</b></p> <p><b>Tariff Yield from New Tariffs</b></p> <p>BEL's 5-year Business Plan forecasts a New Tariff yield ranging from 0.4026 to 0.4072. This includes revenues from traditional sources, taking into account the proposed higher-priced consumption buckets, as well as emerging sectors like Distributed Generation (DG), Electric Vehicles (EV), wholesale electricity transactions, and tourism-related activities.</p>
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**PUC Q5 – Tariff:**

(b) Please provide evidence from recently metered and billed Residential, Commercial 1 and Commercial 2; as if the new tariffs proposed by BEL was implemented.

**BEL Response –**  
New Tariff  
Impact on  
customers

**New Tariff Impacts**

BEL is proposing an adjustment to the existing tariff structure with additional consumption buckets for Residential and Commercial I Customers to accommodate a rate that is \$0.02/kWh higher for consumption above 300 kWh per month *if the planned utility-scale solar rollout is delayed beyond 2025.*

The typical Residential Customer (consuming approximately 350 kWh monthly) will incur a 0.72% increase in their electricity bill, while the typical Commercial I Customer (consuming approximately 725 kWh monthly) will incur an increase of 2.84% in their electricity bill. The average Commercial II Customer (consuming approximately 25,000 kWh monthly) will incur an increase of 0.5%.

The comparisons of the new bill calculations are presented below for these typical customer consumption amounts.

### Residential Customer (Consumption = 350 kWh/month)

EXISTING TARIFF		350 kWh	
Tariff Bucket	Rate (\$)	Amount (\$)	
0 - 50	0.33	\$	16.50
51 - 200	0.38	\$	57.00
201+	0.43	\$	64.50
	Bill before GST	\$	138.00
	GST	\$	17.25
	<b>Total Bill</b>	<b>\$</b>	<b>155.25</b>
NEW TARIFF		350 kWh	
Tariff Bucket	Rate (\$)	Amount (\$)	
0 - 50	0.33	\$	16.50
51 - 200	0.38	\$	57.00
201 - 300	0.43	\$	43.00
301+	0.45	\$	22.50
	Bill before GST	\$	139.00
	GST	\$	17.38
	<b>Total Bill</b>	<b>\$</b>	<b>156.38</b>
<b>CHANGE</b>			<b>0.72%</b>

### Commercial II Customer (Consumption = 25,000 kWh/month)

EXISTING TARIFF		25,000 kWh	
Tariff Bucket	Rate (\$)	Amount (\$)	
0 - 10,000	0.41	\$	4,100.00
10,001 - 20,000	0.39	\$	3,900.00
20,000+	0.38	\$	1,900.00
Service charge		\$	150.00
	Bill before GST	\$	10,050.00
	GST	\$	1,256.25
	<b>Total Bill</b>	<b>\$</b>	<b>11,306.25</b>
NEW TARIFF		25,000 kWh	
Tariff Bucket	Rate (\$)	Amount (\$)	
0 - 10,000	0.41	\$	4,100.00
10,000+	0.39	\$	5,850.00
Service charge		\$	150.00
	Bill before GST	\$	10,100.00
	GST	\$	1,262.50
	<b>Total Bill</b>	<b>\$</b>	<b>11,362.50</b>
<b>CHANGE</b>			<b>0.50%</b>

**Tourism Customer (Consumption = 126,412 kWh/month)**

<b>EXISTING TARIFF</b>		126,412 kWh	
Tariff Bucket	Rate (\$)	Amount (\$)	
0 - 10,000	0.41	\$	4,100.00
10,001 - 20,000	0.39	\$	3,900.00
20,000+	0.38	\$	40,436.56
Service charge	150.00	\$	150.00
	Bill before GST	\$	48,586.56
	GST	\$	6,073.32
	<b>Total Bill</b>	<b>\$</b>	<b>54,659.88</b>
 <b>NEW TARIFF</b>		126,412 kWh	
<b>Demand</b>	217 KVA		
Tariff Bucket	Rate (\$)	Amount (\$)	
Peak	0.35	\$	22,122.10
Off-Peak	0.30	\$	18,961.80
Demand	30.00	\$	6,510.00
Service charge	150.00	\$	150.00
	Bill before GST	\$	47,743.90
	GST	\$	5,967.99
	<b>Total Bill</b>	<b>\$</b>	<b>53,711.89</b>
<b>CHANGE</b>			<b>-1.73%</b>

**PUC Q5 – Tariff:**

(c) According to Schedule 5 in BEL FTRP 2024|28 Submission, BEL calculates the MER to rise from the current \$0.40/kWh to the proposed \$0.443/kWh.

For the duration of the FTRP, BEL revenue short fall will be approximate \$137MN. BEL is requesting that the current MER remains the same in their submission.

The PUC is asking BEL to demonstrate how the company will remain solvent in its operation for the duration of the FTRP.

**BEL Response –**  
Remaining operational during 2024-2028 FTP if MER remains same.

### Financing Gap 2024-2028

Financing Gap (\$'000)	2024	2025	2026	2027	2028	Total
<b>Cash Requirements</b>	<b>248,602</b>	<b>156,170</b>	<b>155,402</b>	<b>153,163</b>	<b>129,479</b>	<b>766,120</b>
<b>Internal Sources</b>						
Cash at Start	35,464	22,292	18,254	17,085	19,064	35,464
Cash from Operations	66,302	62,014	68,426	89,312	93,662	379,716
Capital Contributions & Consumer Deposits	3,417	6,865	3,722	1,765	1,752	17,521
<b>Outstanding Loan Disbursements</b>	<b>13,419</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,419</b>
<b>FINANCING GAP</b>	<b>130,000</b>	<b>65,000</b>	<b>65,000</b>	<b>45,000</b>	<b>15,000</b>	<b>320,000</b>

A total of \$320.0M of additional funds will have to be sourced externally from investors or alternative schemes over the plan horizon to supplement internal sources of cash (\$432.7M) and the last \$13.4M of outstanding disbursements from the CDB Power 7 Project Loan which will be fully drawn down in 2024 to complete the Caye Caulker Submarine Cable Project. The Company will need to procure these additional funds from the IFIs and from the local market; with \$130.0M needed within the next 12 months to support the very ambitious 2024 capital investment program (\$176.9 M).

The Company is already engaged in discussions with the relevant parties and making further arrangements to bridge the financing gap in 2024:

- Based on preliminary discussions, the Company expects to be able to close out an InterAmerican Development Bank Investment Group (IDB-i) loan deal in the amount of \$60M to \$100M before the end of Q3 2024 under the same terms and conditions as the last aborted loan transaction; that is, interest rate of SOFR plus 3.5%-3.75% premium with 0% commitment fee.
- The Belize Bank has confirmed that it is amenable to rolling over the current short-term loan of \$19M @ 6.25% interest rate under the same terms and conditions for an additional 9 to 12 months.
- The HRCU has confirmed that it is prepared to convert the current short-term loan of \$15M @ 4% to a \$40M five-year loan @ 5.25%.
- Any shortfall in the required financing for 2024 will be made up by postponing planned investments or making a capital call on equity holders.

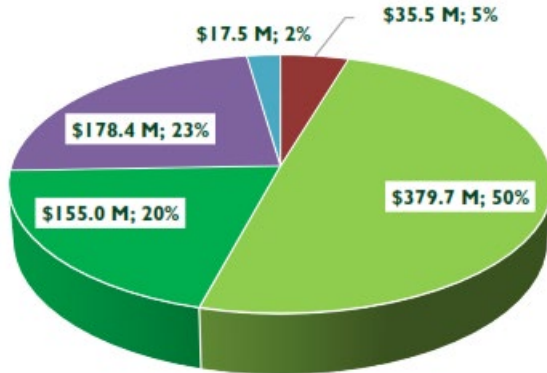
A further \$190M in externally sourced cash will be needed to bridge the financing gap over the remaining 4 years of the plan (2025-2028). Both the CDB and the World Bank have already expressed direct interest in financing the various initiatives being recommended as part of the LCEP,



including the Second Submarine Interconnection between San Pedro and the Mainland, Solar PV interconnection projects, and DG and EV initiatives.

**Sources of Cash**

- Cash at start
- Cash from Operations
- Local Currency Debt
- Foreign Currency Debt
- Capital Contributions & Consumer Deposits



**PUC Q6 – General**

The Commission has observed that revenues is projected to grow disproportionately slower that the projected expenditures in capital and OPEX.

Additionally, BEL is proposing an increase in Rate of Return (ROE) from 10% to 15%. With revenues and costs growing at an uneven pace, when will ratepayers benefit from a lower Value Added of Delivery (VAD)?

**BEL Response –**  
When will ratepayers benefit from a lower Value Added of Delivery (VAD)

**Lowering VAD**

The PUC observes that revenue will lag costs over the FTP and that BEL is “proposing an increase in ROE from 10% to 15%” and inquires as to when Customers will benefit from a lower value added of delivery (VAD). BEL clarifies that it does not propose a ROE between 10% and 15%. We assume the PUC arrives at this figure by dividing the submitted Return in the TBR by the Company’s equity position, but this would be a miscalculation of ROE on the part of the PUC. The ROE is defined as the net income divided by the average shareholder’s equity which is no more than 5% over the FTP.

The Company acknowledges that costs outpace revenues over the tariff period and the variance will impact the VAD in the long-term as it would remain recoverable into the future. The Company expects that when its strategy stabilizes unit COP and sales growth is realized, then the RAB could be gradually reduced over the long term. However, at no point will Customers be disadvantaged as the core objective of maintaining average pre-tax prices near 40 cents per kWh will remain in place.