BELIZE ELECTRICITY LIMITED
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08 November 2024

Mr. Dean Molina
Chairman
Public Utilities Commission
#4 Princess Margaret Drive
2nd Floor, Marina Towers
Belize City, Belize

Dear Chairman Molina,

NOTICE OF ANTICIPATED MATERIAL SHORTFALL IN GENERATION SERVICES

Belize Electricity Limited (BEL), acting in its capacity as Single Buyer in the electricity market, hereby gives notice to the Public Utilities Commission (PUC) of an anticipated material shortfall in generation services pursuant to Section 19 of the Public Utilities Commission (Request for Proposals) Regulations, 2024.

Section 19 of the regulations stipulates that *"...the Commission, with the approval of the Government, shall declare that an emergency situation has arisen beyond the reasonable control of Belize if, in relation to generation services, the single buyer provides notice to the Commission that there will arise, within a period of twelve months, a material shortfall in generation services*."

The analysis set out in Exhibit A of this Notice demonstrates that the expected peak electricity demand within the next twelve months will exceed available generation capacity, warranting the procurement of additional generation services beyond what currently exists or will realistically exist within the next year.

BEL hereby requests the PUC to secure the approval of the Government of Belize as soon as possible but otherwise no later than 15 November 2024 to declare an emergency in relation to generation services in Belize in order to initiate the process for emergency generation procurement.

Sincerely,
Belize Electricity Limited

Signature hidden to protect against unauthorized use.

John Mencias
Chief Executive Officer

Cc: Hon. Michel Chebat, SC. Minister of Public Utilities, Energy, Logistics & E-Governance

BELIZE ELECTRICITY LIMITED

12-Month Energy Supply Outlook

EXHIBIT A

November 8, 2024

1 ENERGY SUPPLY OUTLOOK

1.1 BACKGROUND

Belize Electricity Limited (BEL) is the Single Buyer in the electricity market in Belize. Pursuant to Clause 19 of the Public Utilities Commission (Request for Proposals) Regulations, 2024, BEL has a duty to give notice to the PUC of an emergency where it projects that a material shortfall in generation capacity will occur within the next 12 months.

BEL experienced significant generation capacity shortages in 2019, 2023, and earlier in 2024 due to the systemic failure of the generation procurement process to install new generation capacity on the grid amplified by the impacts of extended droughts and heatwaves in Belize and southern Mexico (which drove up demand for electricity while simultaneously curtailing supply from both local hydroelectric power plants and CFE, Mexico). This resulted in load shedding in all three years, but especially in 2024 when consumers experienced supply interruptions due to insufficient generation capacity totalling more than 5 hours on average over the months of April, May, and June.

BEL has added around 28 MW of new generation capacity on to the grid in 2024. However, these run on diesel, with fuel costs ranging between $0.50 and $0.60 per kWh. Moreover, the generation services available to meet demand may be further constrained if energy imports from Mexico become more limited and /or more expensive with the introduction of Tren Maya in the Yucatan Peninsula and the delays with Mexican generation projects.

1.2 CRITERIA

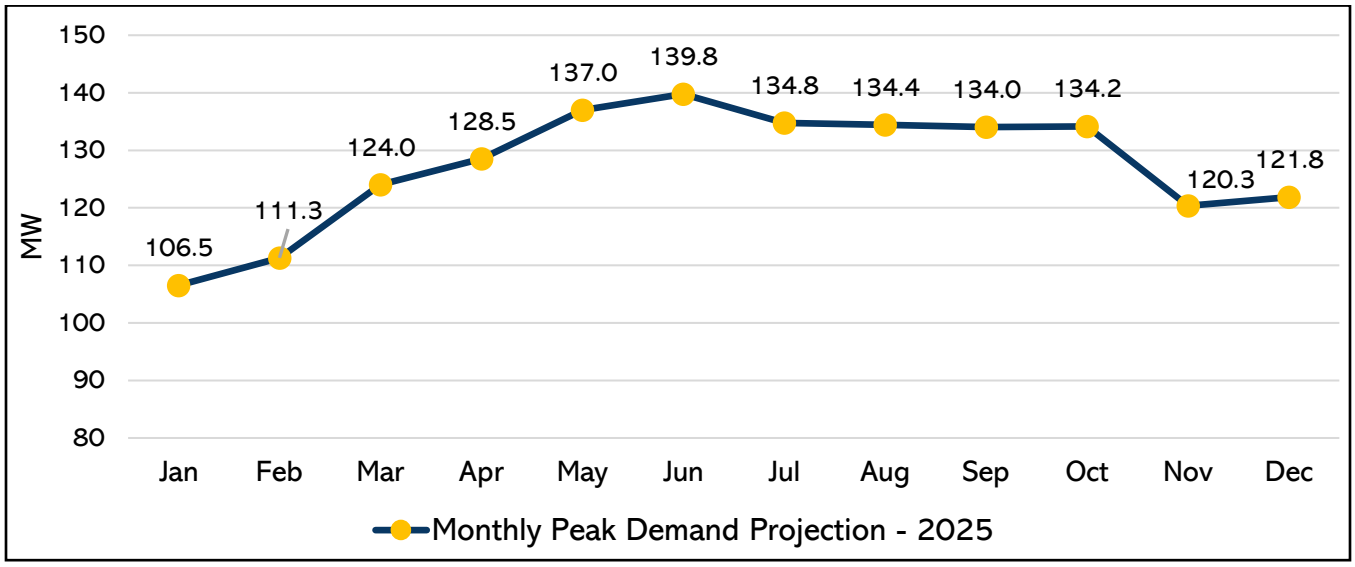
In the absence of explicit criteria in the regulations, BEL relies on the recommendations set forth in the LCEP and best practice considerations for reliability to determine a material shortfall in generation services as set out below:

> *A material shortfall in generation capacity constituting an emergency occurs where the percentage (%) reserve margin falls the below 28% generation capacity relative to demand and where the shortfall is expected to persist beyond two (2) months or where a shortfall in overall available generation capacity is likely to cause generation outages of more than four (4) hours per customer connection.*

1.3 DEMAND FORECAST

Taking into consideration the uncertain post-pandemic trajectory of BEL's demand profile, the underlying expansion of the local economy, and warming climatic conditions causing higher demand for cooling and higher transmission and distribution losses, BEL forecasts a base case grid peak demand of

139.8MW in 2025, occurring in the month of June. *The grid peak demand in June includes the Caye Caulker load, which is expected to be interconnected to the grid by the end of April 2025*.



1.4 RESERVE MARGIN ANALYSIS

Outlook on Energy Supply Shortfalls

a. Existing Generation and Capacity

Capacity challenges faced by BEL's foreign supplier, CFE, is expected to persist throughout the dry and warmer months of 2025. Like 2024, CFE's supply to Belize is likely to decline in capacity from the 55MW contracted amount; averaging 22MW, 7MW, 8MW, and 34MW during the months of May through August 2025, respectively. BEL's concerns about the dependability of CFE pertains to ongoing delays in generation expansion across the Yucatan Peninsula region as well as transmission line congestion along the route extending from Valladolid which feeds into BEL's interconnection.

Table 1: Capacity forecast by Energy Supplier, 2025.

Available Capacity Forecast – GRID (MW)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Challilo/Mollejon	28.0	28.0	26.0	26.0	26.0	26.0	31.5	31.5	31.5	31.5	31.5	31.5
Vaca	16.0	16.0	14.0	14.0	14.0	14.0	16.5	19.0	19.0	19.0	19.0	19.0
HML	0.8	0.8	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Belcogen	12.0	12.0	12.0	12.0	12.0	12.0	12.0	8.5	0.0	0.0	0.0	0.0
SSEL	8.0	8.0	8.0	8.0	8.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0
LM2500	28.0	28.0	28.0	28.0	28.0	28.0	28.0	**28.0**	28.0	28.0	28.0	28.0
TM2500	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
BAPCOL	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Caye Caulker (capacity integrated starting May 2025)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Total In-country Grid Capacity	***131.3***	***131.3***	***126.5***	***126.5***	***130.5***	***130.5***	***140.5***	***131.5***	***123.0***	***123.0***	***123.0***	***123.0***
CFE	55.0	55.0	55.0	55.0	22.0	7.0	8.0	34.0	55.0	55.0	55.0	55.0
Total Capacity	**186.3**	**186.3**	**181.5**	**181.5**	**152.5**	**137.5**	**148.5**	**165.5**	**178.0**	**178.0**	**178.0**	**178.0**

b. Reserve Margins

Table 2 below displays BEL's anticipated reserve margins, relative to both in-country capacity only and total (including electricity imports), measured in MW and percentages. The in-country Base scenario indicates probable generation deficits occurring from April to June and August to October 2025. In general, reserve margins within the country do not attain the 28% minimum recommended by the LCEP in any month in 2025, strongly indicating that any disruptions impacting the supply of imported electricity could lead to generation shortfalls in the upcoming 12 months. Even if anticipated capacity from CFE is realized, the overall available generation capacity will not fulfil the 28% reserve margin from May to August 2025.

Table 2: Capacity Reserve Margin Forecast, 2025

% Reserve Margins highlighted in red fail to meet 28% reserve margin recommended by LCEP

Reserve Margin (MW)	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
In-Country	24.8	20.0	2.5	-2.0	-6.5	-9.3	5.7	-2.9	-11.0	-11.2	2.7	1.2
With Imports	79.8	75.0	57.5	53.0	15.5	-2.3	13.7	31.1	44.0	43.8	57.7	56.2
% Reserve Margin												
In-Country	23.3%	18.0%	2.0%	-1.6%	-4.7%	-6.6%	4.2%	-2.2%	-8.2%	-8.3%	2.2%	1.0%
With Imports	74.9%	67.4%	46.4%	41.2%	11.3%	-1.6%	10.2%	23.1%	32.8%	32.7%	47.9%	46.1%