

# BELIZE ELECTRICITY LIMITED

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**Our Ref.: EXE/200/23/2013(9)**

April 2, 2013

Mr. John Avery  
Chairman  
Public Utilities Commission  
41 Gabourel Lane  
Belize City, Belize

**RE: Annual Tariff Review Proceeding - July 1, 2013 - June 30, 2014**

Please find enclosed our application requesting the Public Utilities Commission's (PUC) approval of proposed regulated values, Mean Electricity Rate and tariffs for the Annual Tariff Review Proceeding (ARP), July 1, 2013 to June 30, 2014.

This submission proposes a reduction of approximately 1 cent per kilowatt hour (kWh) from the existing and approved Mean Electricity Rate. We take this opportunity to remind the PUC that in order to achieve the aforementioned Mean Electricity Rate, BEL had to reduce its Valued Added of Delivery for the period January to June 2013. This minimized the burden of high cost of power on customers and, as we had communicated to the PUC in December 2012, our intention was to gradually recover the shortfall in VAD in subsequent tariff review proceedings. We advise the PUC that this current ARP application does not contemplate the recovery of this shortfall, unless cost of power returns to lower levels.

We also advise that this application includes a proposal to lower the Company's targeted Rate of Return from 10 per cent to 9 per cent as noted in Schedule 1. We are able to make this proposal following the recent reduction in our financing costs.

The application includes the following schedules:

1. Limits of Rate of Return
2. Value Added of Delivery
3. Other Revenues
4. Quality of Service Standards
5. Summary of Capital Expenditure
6. Proposed Tariff Basket
7. Industrial Classification Definition

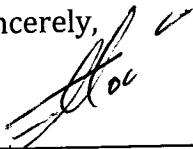
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We are also submitting the ARP timeline, a summary report on cost of power statistics, and a historical review of movement in the MER since January 2012 and related justification.

Should the PUC require any further information, please do not hesitate to contact our Senior Manager, Energy & Materials Supply, Mr. Ernesto Gomez at Ernesto.Gomez@bel.com.bz or call 227-0954, extension 1750.

Sincerely,



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Jeffrey Locke  
**Chief Executive Officer**

JL/dsn

**Schedule 1**

**Belize Electricity Limited  
("Licensee")  
Target Regulated Values**

**Table 1: Regulated Parameters  
Annual Review Proceeding 2013 -2014**

	2013	2014
Target Rate of Return	9%	9%
Rate of Return Lower Limit	9%	9%
Rate of return Upper Limit	12%	12%

**Schedule 2**  
**Table 2: Regulated Parameters**  
**Annual Review Proceeding 2013 - 2014**

	2013	2013	2014	2014
	<b>Forecast</b>	<b>Forecast</b>	<b>Forecast</b>	<b>Forecast</b>
	<b>Jan - Jun</b>	<b>Jul - Dec</b>	<b>Jan - Jun</b>	<b>Jul - Dec</b>
Rate Adjustment Date	Jul 1, 2013	Jul 1, 2013	Jul 1, 2014	Jul 1, 2014
Sales (KWh)	230,809,972	242,735,421	239,150,313	253,428,144
<b>A. CWP</b>	\$/kWh	\$/kWh	\$/kWh	\$/kWh
1. Projected	0.4005	0.2949	0.3769	0.3004
<b>B. Value Added of Delivery (Regulated Val</b>	0.0833	0.1853	0.1016	0.1786
<b>C. Variance Adjustment</b>	0.000	0.000	0.000	0.000
<b>D. Other as required</b>	0.000	0.000	0.000	0.000
<b>E. Mean Electricity Rate (A + B + C + D)</b>	0.4838	0.4802	0.4785	0.4789
<b>ATP 2013 - 2014</b>	CWP		0.3356	
	VAD		0.1438	
	MER		0.4793	

**Schedule 3**

**Belize Electricity Limited  
("Licensee")  
Target Regulated Values**

**Table 3: Regulated Parameters  
Annual Review Proceeding 2013 - 2014**

	<b>2013 Forecast Jan - Jun</b>	<b>2013 Forecast Jul - Dec</b>	<b>2014 Forecast Jan - Jun</b>	<b>2014 Forecast Jul - Dec</b>
Other Revenues	\$ 3,640,974	\$ 3,640,974	\$ 3,705,289	\$ 3,705,289

**Schedule 4**

**Belize Electricity Limited  
("Licensee")  
Quality of Service Standards (Service Reliability)**

**Reliability Indices  
System Average Interruption Frequency Index ("SAIFI")  
System Average Interruption Duration Index ("SAIDI")  
Annual Review Proceeding 2013 - 2014**

	<b>Forecast 2013</b>	<b>Forecast 2014</b>
<b>Total System</b>		
System Average Interruption Frequency Index ("SAIFI")	11	11
System Average Interruption Duration Index ("SAIDI")	10	10

**Schedule 5**

**Belize Electricity Limited  
("Licensee")  
Target Regulated Values**

**Capital Expenditure  
Annual Review Proceeding 2013 - 2014**

**Total Summary**

			2013	2014	2015	2016	2017
<b>Generation</b>			-	-	-	-	-
<b>Transmission</b>	T		1,476,875	1,376,400	2,087,300	475,800	463,100
<b>Substation</b>	S		5,029,069	5,584,876	8,718,164	5,930,530	5,233,958
<b>Distribution</b>	D		16,553,950	11,658,200	11,523,200	11,495,700	11,943,950
<b>Consultancy</b>	C		-	-	-	-	-
<b>General Property</b>	G		6,300	301,500	6,800	52,800	15,800
	<i>Specialized Equipment</i>	GSE	373,606	151,293	111,892	116,093	127,045
	<i>Office Equipment</i>	GOE	169,600	128,670	89,785	66,800	108,215
	<i>Computing Equipment</i>	GCE	352,806	771,429	372,531	86,132	141,122
	<i>Communication</i>	GCOE	167,708	731,022	99,987	61,369	62,649
	<i>Buildings</i>	GB	263,000	233,858	253,000	693,000	134,000
	<i>Vehicles</i>	GV	495,000	250,000	307,000	361,140	150,000
	<i>Training and</i>	GT	700	-	2,200	600	2,200
	Sub-Total General Property		\$ 1,828,720	\$ 2,567,772	\$ 1,243,195	\$ 1,437,934	\$ 741,030
			\$ 24,888,614	\$ 21,187,248	\$ 23,571,859	\$ 19,339,964	\$ 18,382,039
<b>Business Continuity (part of the above capital investment)</b>			BZ\$ 1,795,125	BZ\$ 1,257,800	BZ\$ 10,021,406	BZ\$ 200,000	BZ\$ 200,000

## Schedule 6

### Belize Electricity Limited (BEL)

Approved Tariffs for the Period July 1, 2013, to June 30, 2014

Period	July 1 2013 - June 30, 2014	
Customer Class	Service Type/ Consumption Block	Rate/Tariff \$/Mth; \$/KVA; \$/KWhr
<b>Social</b>	0 - 60 KWhrs	0.29
	Minimum Charge	5.00
<b>Residential</b>	0 - 50 KWhrs	0.39
	51 - 200 KWhrs	0.48
	> 200 KWhrs	0.51
	Minimum Charge	6.00
<b>Commercial I</b>	0 - 50 KWhrs	0.39
	51 - 200 KWhrs	0.48
	> 200 KWhrs	0.52
	Minimum Charge	6.00
<b>Commercial II</b>	Service Charge	125.00
	0-10,000 KWhrs	0.50
	10,001-20,000 KWhrs	0.49
	> 20,000 KWhrs	0.48
<b>Industrial 1</b>	Service Charge	125.00
	Demand (KVA)	39.00
	Energy	0.37
<b>Industrial 2</b>	Service Charge	125.00
	Demand (KVA)	30.00
	Energy	0.32
<b>Street Lights</b>	Energy	0.55



## 1.1 Industrial Customers

The **Industrial classification** is defined as manufacturing, construction, mining agriculture, fishing and forestry establishments or those industries described in the Standard Industrial Classification (ISIC) codes where energy is provided at any BEL standard primary distribution or transmission voltages of 6.6 kV or higher and include standard average national service quality and reliability. Customers are afforded an industrial rate if they are prepared to invest on the interconnection infrastructure to the primary distribution or transmission system such as transformation and meeting the consumption and the capacity requirements as outlined in the table below.

Classification	Capacity	Consumption
Industrial I	112.5kVa to 1500kVa	Any
Industrial II	Minimum interruptible 15-minute average peak load of >1500 kVa and < 4000kVa	Monthly consumption of 1,200 mWh/ month
Industrial III	Greater than 4,000kVa average peak load of any of the above with special reliability and power quality requirement as negotiated between BEL and the Customer.	

Classification or Re-classification to Industrial II will be determined on a bi-annual basis where average 6-month usage meets the consumption criteria.

### How others define Industrial customers

#### **JPSCO (Jamaica)**

[http://www.myjpsco.com/business/jps\\_rates.php#rate50](http://www.myjpsco.com/business/jps_rates.php#rate50)

**Transformer Ownership:** The Rate 50 category is applicable for customers who own and maintain their Transformer and all metering is on the Primary side of the transformer.

#### **BLP(Barbados)**

[http://www.blpc.com.bb/cust\\_gen.cfm#C](http://www.blpc.com.bb/cust_gen.cfm#C)

This tariff is available for customers with a billing demand of not less than 50 kVA, who own their own transformation equipment and receive supply at primary voltage (i.e. three phase 24,900 volts or 11,000 volts).

#### **CFE (Mexico)**

[http://app.cfe.gov.mx/Aplicaciones/CCFE/Tarifas/Tarifas/Tarifas\\_industria.asp?Tarifa=HT&Anio=2013&mes=4](http://app.cfe.gov.mx/Aplicaciones/CCFE/Tarifas/Tarifas/Tarifas_industria.asp?Tarifa=HT&Anio=2013&mes=4)

This rate applies to that intended for energy use, supplied in high-voltage transmission level, and services by use of your demand characteristics applying to register for this service, which will have a minimum validity of one year.

# BEL's Summary Report of Cost of Power Projections - 2013 - 2014

		2013 Forecast Jan - Jun	2013 Forecast Jul - Dec	2014 Forecast Jan - Jun	2014 Forecast Jul - Dec
<b>GRID ENERGY</b>					
Gross Gen	kWh	149,815,034	245,889,265	207,846,273	248,001,250
Auxiliaries	kWh	126,682	0	0	0
Net Gen	kWh	263,751,016	269,379,408	271,454,853	281,768,812
<b>OFF-GRID SYSTEM ENERGY</b>					
Gross Gen	kWh	3,198,549	3,100,231	3,095,793	3,145,110
Auxiliaries	kWh	5,018	0	0	0
Net Gen	kWh	3,193,531	3,100,231	3,095,793	3,145,110
<b>TOTAL SYSTEM ENERGY</b>					
Gross Gen	kWh	153,013,583	248,989,495	210,942,066	251,146,361
Auxiliaries	kWh	131,700	0	0	0
Net Gen	kWh	266,944,547	272,479,639	274,550,646	284,913,922
Sales - Grid	kWh	227,870,345	239,883,208	235,697,791	251,139,035
Losses - Grid	kWh	35,880,671	29,496,200	35,757,062	30,629,777
Grid Peak Demand	MW	83.0	82.7	85.5	85.2
Sales - Off Grid - Caye Caulker	kWh	2,939,627	2,852,212	2,848,130	2,893,501
Losses- Off Grid - Caye Caulker	kWh	44,758.4	49,781.0	45,406.2	50,489.1
Off Grid Peak Demand	MW	1.3	1.3	1.3	1.3
<b>Total Sales</b>	<b>kWh</b>	<b>230,809,972</b>	<b>242,735,421</b>	<b>238,545,921</b>	<b>254,032,536</b>
Total Losses	kWh	35,925,430	29,545,981	35,802,468	30,680,266
Total Peak Demand	MW	84.2	83.9	86.9	86.6
Total Grid Costs	BZ\$	89,801,024	69,150,544	87,670,010	73,632,351
Total OFF-Grid Costs	BZ\$	2,635,250	2,425,256	2,460,881	2,491,747
<b>TOTAL SYSTEM COSTS</b>	<b>BZ\$</b>	<b>\$ 92,436,274</b>	<b>\$ 71,575,800</b>	<b>\$ 90,130,891</b>	<b>\$ 76,124,097</b>

# **Historical Report on Movements in Mean Electricity Rate Since January 2012**

## **BACKGROUND**

On December 1, 2011, Belize Electricity Limited (BEL) submitted an application to the Public Utilities Commission (PUC) under the statutorily required Full Tariff Review Proceeding for the period 2012 - 2016. In its application, BEL requested a reduction in electricity rates, which the PUC approved to be effective from February 1, 2012. The rates were reduced from 44.1 cents per kilowatt hour (kWh) to 41.8 cents per kWh. This rate reduction was necessary to return to customers the 30.2 million dollars (*Balance in the Cost of Power Rate Stabilization Account as of December 2012*) it owed them due the difference in the actual cost of power and the PUC approved Cost of Power between 2008 and 2011.

At the time, BEL had advised the PUC and the general public that the rate reduction would only be sustainable if the actual cost of power remained at the projected level or lower.

Between July and October 2012, there were three unexpected factors that caused a 47 per cent increase in the cost BEL pays for power compared to the Cost of Power the PUC approved during the aforementioned Full Tariff Review Proceeding and subsequent 2012-2013 Annual Tariff Review Proceeding (ARP) for the period July 1, 2012 to June 30, 2013.

## **The Factors Triggering the Increase in Cost of Power**

1. While there was higher than average rainfall captured in the hydroelectric dam facilities during the period of January to April in 2012, during the months of May to October, rainfall levels fell significantly below average and resulted in considerably lower hydroelectric production.

Going forward, the forecast indicates that the situation will persist into the first half of 2013 and as a consequence, Independent Power Producer, Belize Electric Company Limited (BECOL), plans to dispatch at minimum until the end of July 2013 which marks the beginning of the rainy season. Normal rainfall patterns are expected after July 2013.

2. In August 2012, the Belize Cogeneration Energy Limited (Belcogen) closed its operations due to a shortage of readily usable bagasse. In 2013, It is projected that this plant will only be able to supply BEL for about six months at the rated output.
3. Reduced output from Belcogen and BECOL, resulted in increased purchases from Mexico's Comisión Federal de Electricidad (CFE) at a time when CFE rates were, on an average, 20 per cent above projections due to a shortage in natural gas. The increase purchase from CFE increased cost of power by 55 per cent when compared



with BEL's targets for the second half of the year. The increase in CFE prices was as a result of lower rainfall levels due to similar a weather pattern affecting both Southeast Mexico and Belize. Also, an increase in demand for natural gas in Mexico limited the quantities that CFE's natural gas supplier, PEMEX, could have supplied the CFE plants that supply electricity to Belize.

To address the increase in cost of power, in August 2012, BEL decided to secure financing to temporarily absorb the increase so as not to burden customers. This was seen as a short-term solution until the 30.2 million dollars it owed customers was fully repaid.

### **BEL's Submission to the PUC**

Section 33(2) of the Electricity (Tariffs, Fees And Charges) Byelaws, S.I. 145 of 2005 as amended by S.I. 116 of 2009, allows BEL to submit information on any material difference in the cost of power compared to the cost approved by the PUC during any Annual Tariff Review Proceeding (*which sets rates in this case for the period July 1, 2012 to June 30, 2013*). The Byelaws allow the PUC to make related adjustments to the Mean Electricity Rate but not to the Value Added of Delivery for the remainder of the Annual Tariff Period (*January 1 to June 30 2013 in this case*).

Therefore, on December 10, 2012 BEL made a submission to the PUC which showed a material variance in the actual unit Cost of Power compared with the unit reference Cost of Power as approved by the PUC for the 2012 - 2013 Annual Tariff Period.

It was determined by the PUC that based on BEL's revised forecast for cost of power, the Mean Electricity Rate would increase from 41.8 cents per kWh to a calculated 55.8 cents per kWh for the period January 1, 2013, to June 30, 2013. This projection took into consideration the effect of netting the increase in the cost of power in 2012 against the 30.2 million dollars that BEL owed customers. As a result, this "liability" was fully paid-off in one year instead of the four years that was initially prescribed by the PUC in the 2012 - 2016 Full Tariff Review Proceeding.

While making this submission, the Company maintained its view that such a significant increase in the Mean Electricity Rate would not be consistent with the Company's new mission as it would have created hardship for customers and significantly hinder economic growth.

BEL therefore proposed to lower its Value Added of Delivery for the period the January to June 2013 period in order to lower the projected Mean Electricity Rate and gradually recover this shortfall in subsequent review proceedings or when the cost of power returns to lower levels.

**PUC Decision**

On January 11, 2013, the Public Utilities Commission (PUC) ordered the Amendment to 2012 Annual Review Proceeding Final Decision.

The amendments provided for an approximate average increase of 16.87 per cent to the Mean Electricity Rate to be applied during the remainder of the Annual Tariff Period (January 1 to June 30, 2013). This represents an increase in the Mean Electricity Rate from 41.8 cents per kWh to 48.8 cents per kWh.

**END**