

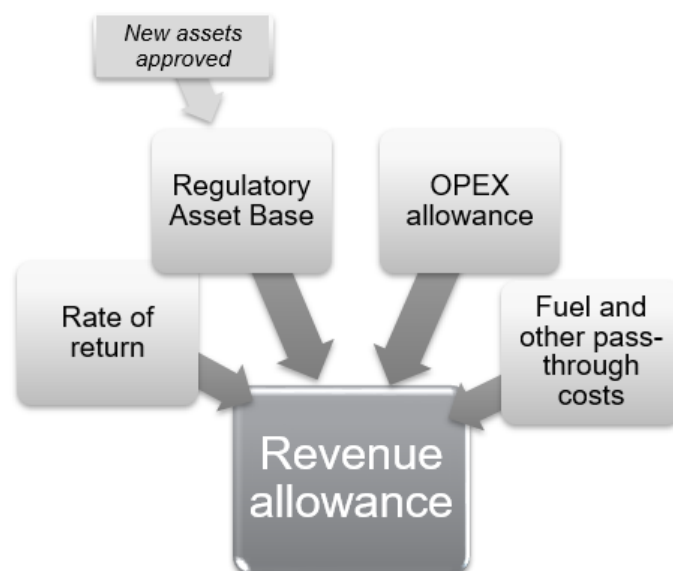
## **(Public) Report on the retail tariff review conducted by the RA**

### **The new methodology to calculate and approve retail tariffs in Bermuda**

A new Retail Tariff methodology was published by the RA in October 2018. This rigorous methodology reflects best international practice and incorporates feedback raised by members of the public and industry stakeholders in response to a consultation initiated by the RA. In summary, this methodology indicates that retail tariffs should be derived from a **revenue allowance** applied for by BELCO and reviewed, possibly adjusted, and validated by the RA. The main factors that make up this revenue allowance and which are scrutinised by the RA are (as illustrated in Figure 1 below):

- The allowable **rate of return**: this allows BELCO to recover the cost of financing new investments;
- The **regulatory asset base**: this represents the inventory of all generation, transmission, and distribution assets owned by BELCO, including new investments applied for by BELCO;
- The **allowance for operational costs (OPEX)**: this includes a range of items from salaries, through to vehicles and lubricants for power plants;
- **Fuel costs projections**; and
- **Costs projections with respect to purchasing power** from third parties such as Tynes Bay power plant and customers with solar panels.

*Figure 1: Components of the revenue allowance*



There are **distinct revenue allowances for the Bulk Generation (BG) and Transmission, Distribution, and Retail (TD&R) Business Areas** of BELCO. The revenue allowance for the Bulk Generation business area is recovered by the Transfer Price (transferred from the BG business area to the TD&R business area).

Under this methodology it is anticipated that in the future, revenue allowances should be set in advance for a period that could range between 2 and 5 years. Prior to the end of each period, a new review takes place to set new allowances for the next period.

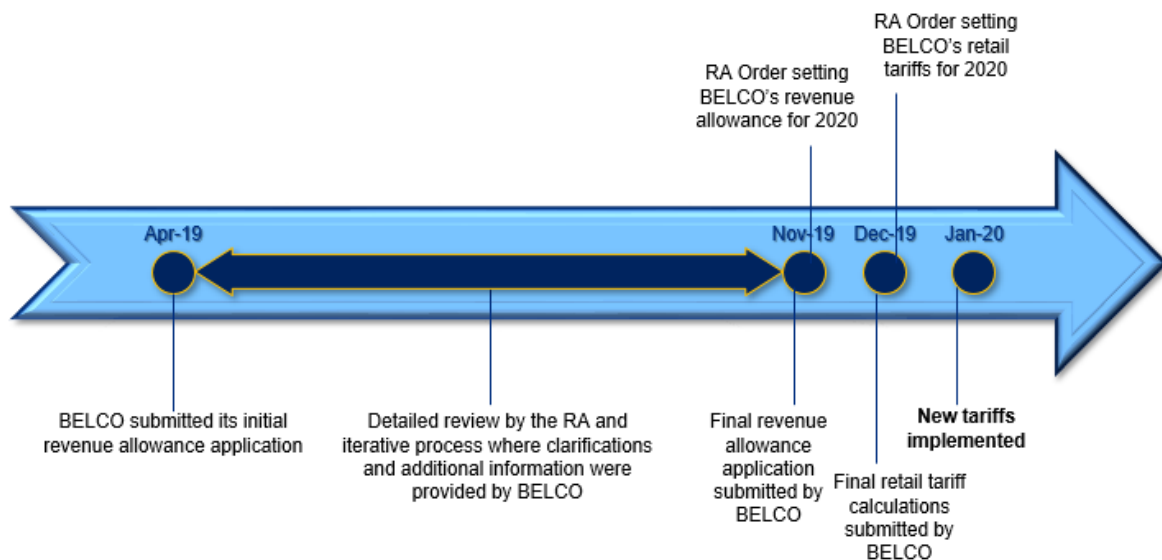
Considering that this is a new methodology, **the RA has decided that this first review should set a revenue allowance for one year only (2020)**. This means that another review is set to be completed before the end of 2020 to set tariffs for subsequent years, and that the retail tariffs approved by the RA and presented in this document might be changed in 2021.

### The procedure to decide on BELCO's revenue allowance and new retail tariffs

The process to review and approve BELCO's revenue allowance for 2020 has followed these key steps (as illustrated in Figure 2 below):

- 1) The RA requested BELCO to submit its initial revenue allowance application (received on 18<sup>th</sup> April 2019)
- 2) The RA undertook an initial detailed review of BELCO's initial application and sought further clarification and additional information through a series of meetings with BELCO
- 3) BELCO submitted its final revenue allowance application
- 4) Final review and adjustments to BELCO's revenue allowance by the RA, issuance of an Order setting BELCO's revenue allowance for 2020, and request that BELCO produce retail tariffs to align with the revenue allowance
- 5) BELCO submitted its final retail tariffs for approval
- 6) RA's final review of BELCO's proposed retail tariffs and publication of an Order setting BELCO's retail tariffs for 2020

Figure 2: Procedure to decide on BELCO's revenue allowance and new retail tariffs



## Level of revenue allowance approved for 2020

The final application by BELCO requested a 2020 revenue allowance of BMD 223,494,057<sup>1</sup>. However, following a number of adjustments, **the revenue allowance for 2020 is a maximum of BMD 207,020,413**. The adjustments to disallow some expenses and encourage efficiencies amounted to a reduction in the revenue allowance of approximately BMD 12.5 million. The amendments to BELCO's application included:

- a. BELCO applied for a rate of return of 9.45% (compared with 8% approved for 2019). Based on the analysis conducted by the RA, it was found that the currently applicable 8% rate of return continues to be in line with relevant legislation to provide a reasonable return on investment. Therefore, **the request to increase the rate of return was not approved and the allowable rate of return for 2020 will remain at 8%**;
- b. **The 2020 capital budget applied for by BELCO has been reduced by approximately 10%** to account for investments for which BELCO was not able to provide sufficient justification and investments whose costs were found to be too high; and
- c. **The operational cost allowance applied for by BELCO has been reduced by approximately 9%** for the following reasons: a) to account for specific costs which the RA determined were not fully justified b) costs which could be amortized over a longer period of time and c) to remove the Regulatory Authority Fee for the TD&R.

## Components of the revenue allowance approved for 2020

Figure 3 below indicates how the revenue allowance approved for 2020 (BMD 207,020,413) can be broken down into the following components:

- TD&R (i.e. costs associated with the transmission, distribution, and retail of power on the main grid in Bermuda);
- BG (i.e. costs associated with power generation at power plants operated by BELCO – excluding fuel costs);
- BG – Fuel (i.e. projections of fuel costs incurred at power plants operated by BELCO); and
- Energy purchases (i.e. projections of costs to purchase power from other power producers and distributed generation).

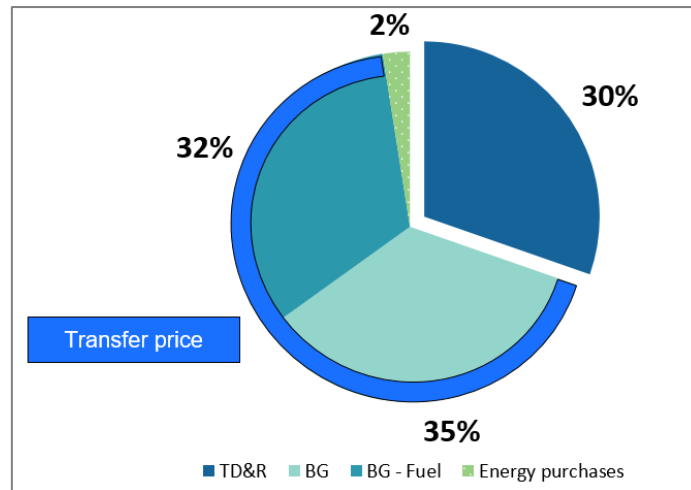
A number of comments can be made based on Figure 3:

- The TD&R costs, BG, and BG-fuel costs each represent approximately a third of the revenue allowance;
- Energy purchase costs represent less than 2% of the revenue allowance;
- In total, costs associated with the generation of power represent 69% of the revenue allowance; and
- The transfer price from BG to TD&R business areas of BELCO represent 67% of the revenue allowance.

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<sup>1</sup> net of "other revenues" deducted from the revenue allowance

Figure 3: Components of the revenue allowance approved for 2020



### Methodology to calculate the new retail tariffs in Bermuda

The methodology to set the 2020 retail tariffs was set to address the following key principles:

- 1) The retail tariff structure (meaning the nature and definition of tariff components charges including the facilities charge, the energy charge, and the demand charge) should remain the same as that in place in 2019;
- 2) New retail tariffs should enable BELCO to recover a maximum of BMD 207 million (i.e. the revenue allowance set in Order #20191125 issued to BELCO on 25 November 2019 as amended 17 December 2019);
- 3) The calculations for new retail tariffs should be derived from historical data on actual revenues from sales (this was set with the intent of having an even impact amongst customer groups); and
- 4) There should be no increase in retail tariffs for residential customers – more broadly, no group of customers should be – on average – adversely impacted by the new retail tariffs.

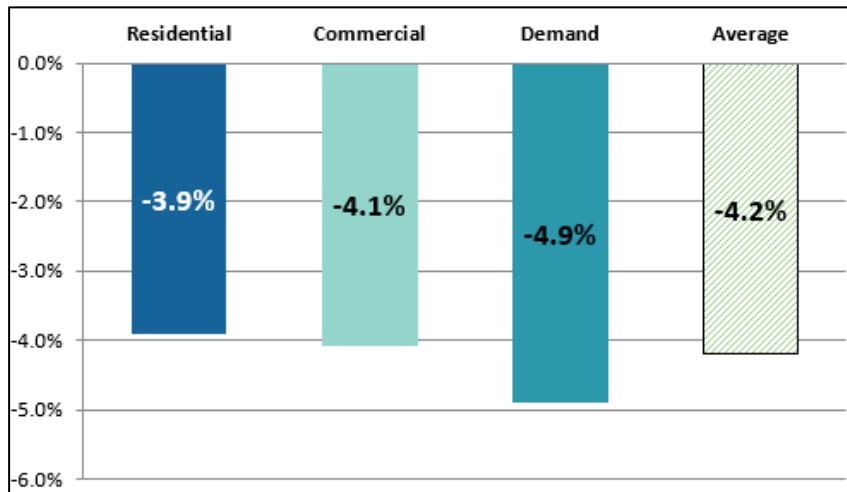
The process of adjusting the retail tariffs to achieve the Allowed Revenue has drawn on actual consumption and billing data provided by BELCO covering the 21-month period from January 2018 to September 2019.

The selected methodology:

- delivers a substantial reduction in average tariff to all customer groups;
- retains the current ratios between the different retail tariffs within the tariff (such as the facility charge, the energy charge, and the demand charge), which will limit the range of impacts on customers with different consumption levels;
- allows for the transparent reflection of the full cost of fuel to be recovered through the Fuel Adjustment Rate (FAR); and
- further encourages energy efficiency across all customer groups.

Figure 4 represents the estimated variation in retail tariffs, by customer group, between the existing retail tariffs (based on historical data) and the new retail tariffs approved by the RA. It indicates that the new tariffs are expected to yield a weighted average reduction in retail tariffs (across all customer groups) of 4.2%. Residential customers can expect 3.9% reduction in their retail tariffs on average, while commercial customers can expect 4.1% reduction on average, and demand customers 4.9% reduction on average.

Figure 4: Expected change in average retail tariffs by customer group



It is also worth noting that a key policy decision was made under the Retail Tariff Methodology to remove all fuel-related costs from the different rate components (previously, fuel costs underneath the \$30/bbl threshold were recovered through the energy charges). These costs will now be recovered through a unique and transparent fuel charge (the FAR), which will be reviewed for potential adjustment on a quarterly basis (previously, adjustments were considered on a monthly basis).

The new retail tariffs by customer group are listed in Table 1 below.

Table 1: New retail tariffs from January 2020

<b>Approved 1st January 2020</b>						
	Unit	Existing	Approved Rates	Difference Relative to Existing		
				Difference \$	Difference %	
<b>Schedule A - Residential</b>						
<u>Facilities Charge - Residential</u>						
GFC Tier One	0-10 kWh per day	\$/month	\$ 20.00	\$ 19.75	\$ (0.25)	-1.2%
GFC Tier Two	10-15 kWh per day	\$/month	\$ 30.00	\$ 29.63	\$ (0.37)	-1.2%
GFC Tier Three	15-25 kWh per day	\$/month	\$ 39.95	\$ 39.46	\$ (0.49)	-1.2%
GFC Tier Four	25-50 kWh per day	\$/month	\$ 62.50	\$ 61.73	\$ (0.77)	-1.2%
GFC Tier Five	50+ kWh per day	\$/month	\$ 95.00	\$ 93.83	\$ (1.17)	-1.2%
<u>Energy Charges</u>						
0-250 KWh	First Block	\$/kWh	\$ 0.1575	\$ 0.1281	\$ (0.0294)	-18.7%
251-700 KWh	Second Block	\$/kWh	\$ 0.2400	\$ 0.2172	\$ (0.0228)	-9.5%
700+ KWh	Tail Block	\$/kWh	\$ 0.3362	\$ 0.3209	\$ (0.0153)	-4.6%
<b>Schedule B - Small Commercial</b>						
<u>Facilities Charge - Small Commercial</u>						
		\$/month	\$ 40.00	\$ 41.76	\$ 1.76	4.4%
<u>Energy Charges</u>						
0-1000 KWh	First Block	\$/kWh	\$ 0.2500	\$ 0.2271	\$ (0.0229)	-9.1%
1001-5000 KWh	Second Block	\$/kWh	\$ 0.2797	\$ 0.2620	\$ (0.0177)	-6.3%
5001+KWh	Tail Block	\$/kWh	\$ 0.3252	\$ 0.3165	\$ (0.0087)	-2.7%
<b>Schedule C - Demand Service</b>						
<u>Facilities Charge - Demand Service</u>						
		\$/month	\$ 100.00	\$ 103.15	\$ 3.15	3.1%
<u>Demand Charges</u>						
A) 1st 50 KW		\$/kW	\$ 12.00	\$ 12.23	\$ 0.23	1.9%
remaining KW -A		\$/kW	\$ 12.00	\$ 12.23	\$ 0.23	1.9%
B) 1st 50KW		\$/kW	\$ 13.00	\$ 13.17	\$ 0.17	1.3%
remaining KW - B		\$/kW	\$ 13.00	\$ 13.17	\$ 0.17	1.3%
C) 1st 50 KW		\$/kW	\$ 13.50	\$ 13.75	\$ 0.25	1.8%
remaining KW - C		\$/kW	\$ 13.50	\$ 13.75	\$ 0.25	1.8%
<u>Energy Charges</u>						
1st 200 x Demand		\$/kWh	\$ 0.2846	\$ 0.2700	\$ (0.0146)	-5.1%
2nd 200 x Demand		\$/kWh	\$ 0.1629	\$ 0.1363	\$ (0.0266)	-16.3%
remaining KW -energy		\$/kWh	\$ 0.0862	\$ 0.0521	\$ (0.0341)	-39.6%
<b>Schedule D - Miscellaneous Commercial</b>						
<u>Energy Charges</u>						
Street Lighting		\$/kWh	\$ 0.2063	\$ 0.1765	\$ (0.0298)	-14.4%
Codes 4308, 4408		\$/kWh	\$ 0.2295	\$ 0.2007	\$ (0.0288)	-12.6%
Code 4309		\$/kWh	\$ 0.2596	\$ 0.2320	\$ (0.0276)	-10.6%
Code 4417		\$/kWh	\$ 0.2750	\$ 0.2480	\$ (0.0270)	-9.8%
<b>TD&amp;R Regulatory Authority Fee (RAF)</b>						
		\$/kWh	\$ 0.00475	\$ 0.00475	\$ -	0.0%
<b>Fuel Adjustment Rate (FAR)</b>						
		\$/kWh	\$ 0.12207	\$ 0.12741	\$ 0.0053	4.4%