



**GOVERNMENT OF BERMUDA**  
**Ministry of Environment, Planning and Infrastructure Strategy**  

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**The Energy Commission**

Our ref: EC # 732

February 17, 2012

By Mail and Email

Bermuda Electric Light Co. Ltd.  
P.O. Box HM 1026  
Hamilton HM DX  
*Attn: Andrew Parsons, President & CEO*

**Re: BELCO Rate Filing – October 26, 2011**

**1. BACKGROUND**

1. By way of letter on 26<sup>th</sup> October, 2011, BELCO submitted a tariff filing for new base rates for the next three years (commencing 1 January, 2012) to the Energy Commission (“Commission”).
2. The Commission is of the view that the recent BELCO rate filing supersedes all previously approved rates granted by the Price Commission in 2007, and corresponding support documentation that accompanied that rate case submission.
3. The Commission used as its guide the tariff filing process overview developed by the Commission over the previous year in anticipation of this base rate filing. The process will be examined after this tariff filing to determine what improvements could be made.
4. The Commission directed that BELCO place three advertisements in the Royal Gazette to inform the public of the proposed increases, to prepare public versions of their tariff filing and to invite public input to the Commission by 30 November, 2011.
5. The Commission received a request from BELCO for certain portions of the tariff filing to be considered proprietary and operationally sensitive, to which the Commission agreed.



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6. The Commission received a number of submissions from the public and was also made aware of public comments posted to the Bernews and The Royal Gazette websites in response to these news website articles on the BELCO base rate tariff filing.
7. Although the Commission is grateful to all members of the public for their submissions the Commission is particularly appreciative of the more substantive input from Bermuda Alternate Energy (“BAE”), Mr. Peter Haynes, Bermuda Engineering (“BEC”) and Greenrock.
8. The Commission provided all public input to BELCO and received their rebuttal comments on 12<sup>th</sup> December, 2011.
9. All public submissions were reviewed, and the Commission especially noted comments that were relevant to the BELCO rate filing.
10. The Commission considered expert testimony and utility rebuttal (from a recent Canadian rate case) regarding appropriate rates of return for power utilities in North America. The Commission considered these documents and noted the principles and key points presented as they relate to industry norms and standard practice. The Commission considered industry commentary regarding monthly facilities charges and their potential effect on energy incentives.
11. The Commission requested further data from BELCO during November, & December 2011, and January 2012 by letter, email and verbal communication and has carefully considered this further data in conjunction with the original data provided in the tariff filing.
12. The Commission is grateful to BELCO for making Messrs. O’Sheasy and Chapman of Christensen Associates, BELCO’s cost of service study and rate consultants, available to the Commission for a day of face-to-face meetings which included a good explanation and overview of the COS study and rate design process.



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13. The Commission wishes to thank BELCO's financial and administrative staffs who have responded in a timely manner to the Commission's numerous questions under the tight time deadlines imposed by the Energy Act 2009.
14. The Commission has taken careful note of BELCO's aging plant and the obvious need to replace generating equipment.
15. The Commission pointed out to BELCO a calculation error in BELCO's tariff filing relating to an example 700 kWh residential home and the amount of the BELCO bill that would result in 2012. This error was also seen by a few of the public responders. A series of BELCO advertisements in the local media explaining what a 700 kWh example home is paying now and would be paying in 2012, also contained the same calculation error.
16. BELCO were requested to place new advertisements in the local media to correct this error, however, the Commission is not aware of BELCO doing so.
17. The Commission noted the additional comments by BEC regarding billing formats, metering technology, and transmission and distribution issues.
18. The Commission noted the assertion from BAE that BELCO may not have correctly been charging residential customers in accordance with the rates structures that were approved by the Price Commission due to the absence from the billing calculations, amounts relating to the corresponding rate for the residential "second" block energy usage charge.
19. The Commission particularly examined the capital needs of BELCO for the next three and ten years and, in particular, noted the apparently higher than "normal" peak capacity margins occurring in 2012 and 2017 contained in BELCO's (public forum presentation) Energy Plan.
20. The Commission noted the various projections for demand and energy usage provided by BELCO and observed that the historic data was nearly equal to the lower variance on



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trend line presented in BELCO's demand projection graph – Economy, White Paper or Population provided by BELCO during a meeting in December, 2011

21. The Commission did not see any specific rates for churches or other special groups, nor was there rates submitted for consideration of the 'H' category of Demand customers and Street Lighting.
22. The Commission realized that it was unable to fully deliberate the various issues that this tariff filing raised before the deadline imposed by the Energy Act (26<sup>th</sup> Dec, 2011) and therefore requested and received an extension until 26 February, 2012 from the Minister. BELCO has been made aware of this extension and has written to the Commission to provide the financial impact the extension will have on BELCO.
23. In accordance with the Energy Act Section 17(2) which states; 'In the exercise of its discretion under subsection (1), the Commission shall have regard to— (a) the cost to the specified business of the specified commodity; (b) the needs of the specified business for adequate working capital and reasonable reserves; (c) the need to afford investors a reasonable rate of return on their investment; (d) the public interest; and (e) any other matters which, to the Commission, appear relevant', the Commission also considered:-
  - a. The current economic climate the country is experiencing, where facets of the community are being economically challenged.
  - b. The impact price increases for electrical energy consumption will have on the public as a whole, in that increases across all customer classes will result in increased costs to the individual consumer for both energy consumed and products and services purchased.
  - c. The reasonableness of the service provided by BELCO including, but not limited to, the value and quality of service.
  - d. The historical rate variations for the past 5 years in that rate increases were granted by the Price Commission for 2008 to 2012, albeit BELCO did waive approved increases for 2011 .
  - e. BELCO's financial history for the past 5 years, where the company has maintained moderate profit margins and remained consistently solvent.



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24. The Commission took note that the burden of proof to show that any variation in the price or charge of a specified commodity is just and reasonable is upon the specified business that seeks the variation.
25. The Commission notes the apparent lack of full understanding by some members of the public of the Fuel Adjustment Rate as a mechanism to “smooth out” abrupt hikes in world oil prices to the Bermudian public.
26. The Commission noted some assertions from the public that BELCO profits from the Fuel Adjustment Rate system. The Commission however wishes to advise that the FAR system does not produce profit for BELCO for fuel costs net of a \$30 per barrel charge embedded in the energy consumption rates.

## **2. FINDINGS**

1. The Commission will not proceed with any inquiry regarding BAE’s claim of improper charging by BELCO for current bills as part of this rate filing review and assessment, and invite BAE or any other party to make a formal complaint to the Commission should they so desire.
2. The Commission finds that there is some evidence of contradiction over BELCO’s generation and load forecasting. The reduction of BELCO’s kWh sales over the last 12 to 18 months certainly indicate that the growth forecasts provided by BELCO for the next three years are partially speculative.
3. The Commission finds that the traditional peak margin traditionally maintained by BELCO (N-3+TB) is potentially in excess of Bermuda’s real needs to have spare engines and capacity in case of failure.
4. The Commission finds that the proposed generation build in 2012 will create an even higher peak margin than the traditional N-3+TB.



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5. The Commission accepts that the current “safety” margin of N-3+TB has served Bermuda well and the public has not had to often experience power outages due to a generation failure. The Commission also realizes that the public has little tolerance for generation failure. However, the Commission accepts that Bermuda may not be able to currently afford this size of “safety” margin.
6. The Commission notes that BELCO’s recommendation is for the traditional “safety” margin to exist and by reducing the margin the Commission increases the risk that power would not be available to Bermuda in the case of an extraordinary generation failure. There was no information or evidence produced which definitively illustrated the probability of such an occurrence, nor the extent of the increased risk associated with the ‘squeezing’ of the safety margin.
7. Commission accepts the notion that the increasing residential block rates as proposed by BELCO are in the public interest and provide an appropriate method for smaller consumers of electricity to get lower base rates than those who consume more electricity. The Commission however finds that the initially proposed residential base rate prices and blocks would actually substantially increase electricity costs to the smallest consumers (9.34% increase for an example 100 kWh consumer) and only marginally increase electricity costs to the higher consumers (2.50% increase for an example 1000 kWh consumer). The Commission agrees with BELCO that the residential minimum bill policy should be eliminated.
8. The Commission reasons that it would be in the public interest to reduce the impact of the new proposed rates to those consumers below the “average” 700 kWh usage and reasons that those consumers above average consumption should accept a larger burden from the new rates.
9. The Commission determines that some high consumption customers might further consider alternate energy sources as their base prices continue to increase.
10. The Commission believes that it is not in the public interest for BELCO’s commercial customers to experience any change in base rate tariff for 2012 but accepts that BELCO’s



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proposed inclining block rates for commercial clients provides an appropriate method for smaller consumers of electricity to get lower base rates than those who consume more electricity.

11. The Commission also understands that the BELCO's Demand clients are also not likely in a position to withstand significant increases to the demand base rates. The Commission also fully understands that it is these very clients who can least withstand any interruption of service from BELCO.
12. The Commission concludes, due to the changes that the Bermuda economy is currently undergoing, that the third year financial and demand projections by both BELCO and the Commission are subject to many variables.
13. The Commission concurs that long term rate stability is in both BELCO and the public's best interest and invites a further tariff filing from BELCO for 2014 and 2015 as soon as practical after the end of fiscal 2012.
14. The Commission concurs with BELCO that a summer pilot project and pilot Time of Use programs could provide valuable data to BELCO and the Commission.
15. The Commission concurs that BELCO's yearly profitability has been declining and that it is not in the public interest for this situation to be a long-term issue for BELCO. The Energy Act requires the Commission to specifically ensure that BELCO has adequate working capital and reasonable reserves, and the need to afford investors a reasonable rate of return on their investment
16. The Commission finds that BELCO's residential billing format is currently inadequate to suitably inform customers of the details of the charges for electricity services they are paying for.



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**3. DIRECTION**

The Energy Commission directs:-

1. That BELCO to commence with meter readings starting on 1 March, 2012 and 1 January 2013 rates as outlined in the approved schedule of rates.
2. That BELCO approved schedule of rates are as follows in the table below:

EC Approved BELCO Rates				
Charge	Unit	2011	2012	2013
<b>Schedule A - Residential</b>				
Facilities Charge	per month	\$ 30.00	\$ 30.00	\$ 33.00
Energy Charges	per KWh			
0 - 250 KWh First Block		\$ 0.1575	\$ 0.1575	\$ 0.1575
251 - 700 KWh Second Block		\$ 0.2400	\$ 0.2400	\$ 0.2400
700+ KWh Tail Block		\$ 0.2285	\$ 0.2804	\$ 0.2972
Min Bill		\$ 40.00	\$ -	\$ -
<b>Schedule B - Small Commercial</b>				
Facilities Charge	per month	\$ 30.00	\$ 30.00	\$ 33.00
	per month	\$ 36.00	\$ 36.00	\$ 39.00
Energy Charges	per KWh			
0 - 1000KWh First Block		\$ 0.3372	\$ 0.3372	\$ 0.2295
1001-5000KWh Second Block		\$ 0.2500	\$ 0.2500	\$ 0.2517
5001+ KWh Tail Block		\$ 0.2228	\$ 0.2228	\$ 0.2800
Min Bill			\$ -	\$ -
<b>Schedule C - Demand Service</b>				
Facilities Charge	per month	\$ 100.00	\$ 100.00	\$ 100.00
Demand Charges	per KW			
A) 1st 50KW remaining KW		\$ 8.83	\$ 8.83	\$ 9.14
B) 1st 50KW remaining KW		\$ 8.16	\$ 8.16	\$ 8.45
C) 1st 50KW remaining KW		\$ 9.00	\$ 9.00	\$ 9.32
		\$ 9.59	\$ 9.59	\$ 9.93
		\$ 9.53	\$ 9.53	\$ 9.86
		\$ 10.09	\$ 10.09	\$ 10.44
Energy Charges	per KWh			
1st 200x Dmd		\$ 0.2236	\$ 0.2236	\$ 0.2314
2nd 200x Dmd		\$ 0.1443	\$ 0.1443	\$ 0.1494
remaining KW		\$ 0.1170	\$ 0.1170	\$ 0.1211





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3. The Commission further directs that BELCO shall change its residential billing format, both electronic and paper based bills, no later than 1 May 2012 to also show as separate line items the following:-

Facilities Fee		\$ XXX.XX
First 250 kWh of usage at	\$ 0.XXXX per kWh =	\$ XXX.XX
Next 250 kWh to 700 kWh of usage at	\$ 0.XXXX per kWh =	\$ XXX.XX
Over 700 kWh of usage at	\$ 0.XXXX per kWh =	<u>\$ XXX.XX</u>
Total Energy Use		\$ XXX.XX
Fuel Adjustment Charge	\$ XX.XX per kWh =	<u>\$ XXX.XX</u>
Total Billing Amount		\$ XXX.XX

4. As the Commission can only act on submissions placed before it, the directive reflects only those rate codes that were submitted. All other rate codes will remain with their current billing factors. This applies to Class "H" rate codes 4323 & 4423, Church rate code 4309, Street Lighting rate code 4202 and all other rate codes and classes not specifically addressed in the BELCO Summary of proposed rates.
5. The Commission directs BELCO to submit by May 1, 2012 rates for customer classes,
- Churches and special interest groups
  - 'H' Demand
  - Street Lighting
  - All other classes outlined in their Monthly Rates schedule which was made effective January 1, 2010.
- which were not specifically included in the tariff filing of 26<sup>th</sup> Oct, 2011.
6. That BELCO cap its actual net income for 2012 to a maximum of BD \$ 13 Million and to a maximum of \$ 14 Million for 2013.
7. The Commission further directs that BELCO may not discount or give a non-approved rate to any of its customers without the express approval of the Commission.



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8. The Commission further directs that BELCO complete a feasibility study on TOU and present its findings to the Commission no later than 31 May, 2012 and that no pilot project may be embarked upon without the Commission's approval.

Sincerely,

A handwritten signature in black ink, appearing to be 'E. Michael Leverock'.

E. Michael Leverock  
Energy Commission Chairman