



26 September 2019

BY EMAIL

Bermuda Electric Light Co. Ltd.
P.O. Box HM 1026
Hamilton HM DX

Attn: David Faries, VP Finance & Financial Controller

Dear Mr. Faries,

Re: Fuel Adjustment Rate Filing –October 1, 2019 to October 31, 2019

The Regulatory Authority of Bermuda (the “Authority”) has reviewed the October 2019 FAR filing submitted by Bermuda Electric Light Co. Ltd. (“BELCO”) on 11 September 2019 requesting to decrease the existing Fuel Adjustment Rate (FAR) of \$0.1375 to \$0.12.

Based on its review, the Authority approves the proposed FAR rate of \$0.12.

Yours sincerely,

Markez Laws
Regulatory Finance Analyst

*Cc: Nigel Burgess – Senior Manager Electricity Analysis and Planning
Jozelle Opoku – Head of Regulation*

September 11, 2019

Regulatory Authority of Bermuda
Craig Appin House, 1st Floor
8 Wesley Street
Hamilton HM 11

Attention: Mr. Denton Williams, Chief Executive

TARIFF FILING

Dear Sirs,

This is to advise you that we wish to make the following changes to the fuel adjustment rate ("FAR"):

Decrease from the existing rate of 13.75 cents per kilowatt-hour sold for September 2019 to 12.00 cents per kilowatt-hour sold for October 2019.

Our current submission is provided using the minimum filing report (MFR) format established by the former Energy Commission. Please note the Commercial Renewable System Excess Energy Rate (CRSEER) representing the rate BELCO would pay commercial owners for excess energy generated but not consumed and exported to BELCO no longer used has been calculated and included in our September 2019 FAR MFR submission as directed per Regulatory Authority letter dated 18 April 2017.

The actual fuel adjustment cost recovery position as at 31st August 2019 was \$234,547 over recovered as compared to the \$283,953 under recovery position projected in our last filing. The \$518,500 favorable variance is due to:

- The total actual barrels of fuel consumed in July were 1,339 barrels higher than projected, resulting in a negative impact on the recovery position of \$153,646;
- Net price variance positively impacted the recovery position by \$30,444; and
- Actual August electric sales were 4,707,858 KWH's higher than projected. This variance resulted in a net positive impact on the fuel recovery position of \$641,702.

Our detailed working paper supporting this analysis has been included in the MFR (please refer to Page 17 "FAR Recovery Variance Analysis") as requested per the Authority's email dated 25 January 2017.

The logo for BELCO, featuring the word "BELCO" in white capital letters inside a green and blue geometric shape.

441 295 5111

P.O. BOX HM 1026
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BERMUDA

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BERMUDA

BELCO.BM

Should you have any questions concerning the above, please do not hesitate to contact us.

Yours sincerely,

BERMUDA ELECTRIC LIGHT COMPANY LIMITED



Carolyn Dutton
Reporting Manager (Finance)

441 295 5111

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BELCO.BM



BELCO



Bermuda Electric Light Company Limited

Fuel Adjustment Submission

FOR PUBLIC DISCLOSURE

October 2019

This submission is filed by Bermuda Electric Light Company Limited (“BELCO”) with the Regulatory Authority of Bermuda (the “Authority”) using the minimum filing requirements (“MFR”) format established by the Energy Commission in its directive letter sent to BELCO dated December 30, 2013.

In accordance with Section 33 of the Regulatory Authority Act 2011, BELCO claims confidentiality over certain information provided to the Authority. That information is therefore excluded from the redacted version of this filing on the grounds that disclosure of the information would have, or could reasonably be expected to have, an adverse effect on BELCO’s commercial interests

Fuel Adjustment Submission

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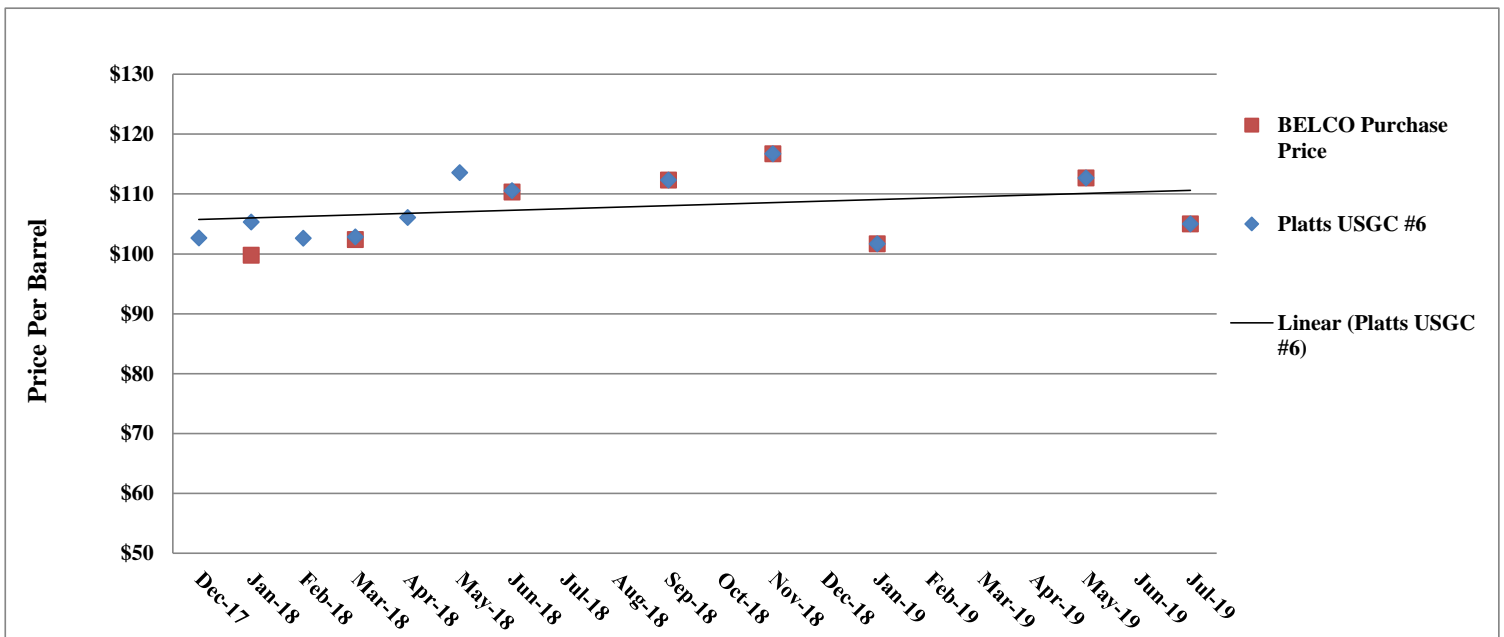


Heavy Fuel Oil Purchased

Versus

Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil

Previous Twelve Months

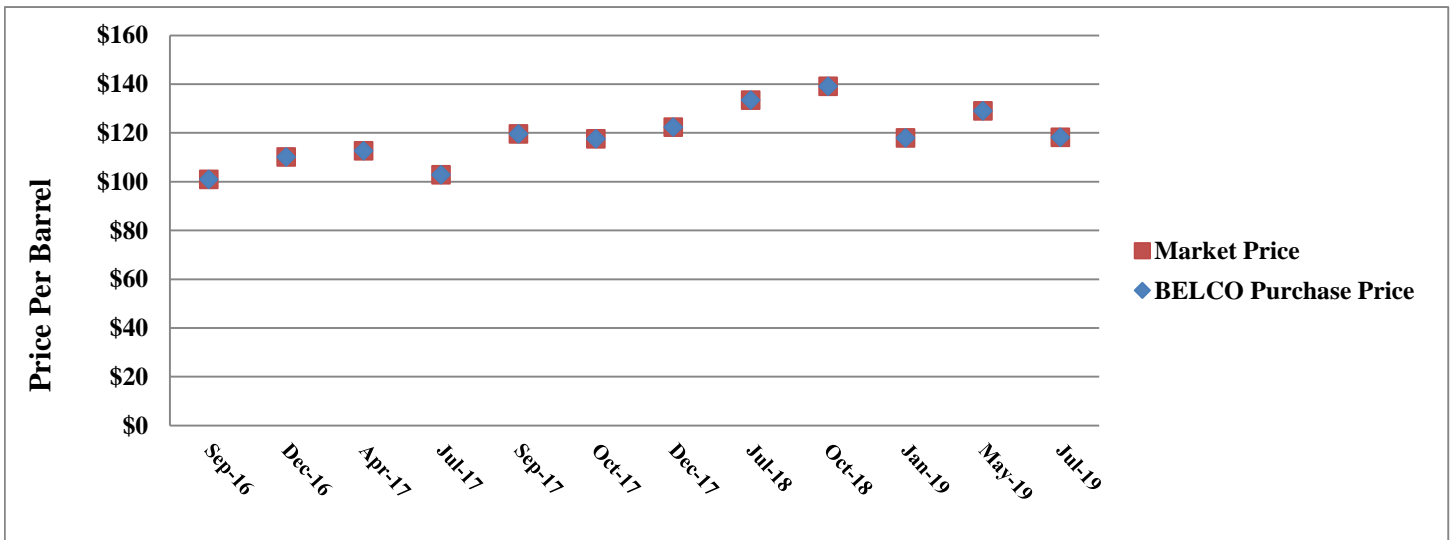


N.B. In accordance with the Fuel Supply Agreement for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil between BELCO and Shell Trading (US) Company, the contracted price is stipulated as the 30-day average for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil.



Diesel Fuel Oil Purchased

Previous Twelve Shipments



N.B. In accordance with the Fuel Supply Agreement for No. 2 Diesel Oil between BELCO and Coral Petroleum Company Limited, the contracted price is stipulated as the Platt's U.S. Gulf Coast Waterborne mid Ultra Low Sulfur Diesel, 3-day average center Bill of Lading Date which is the date the fuel is loaded on to the vessel. As BELCO does not enter into forward contracts for the supply of diesel fuel, the price BELCO pays is equal to the Platt's price.

BELCO

Heavy Fuel Oil Inventory Activity

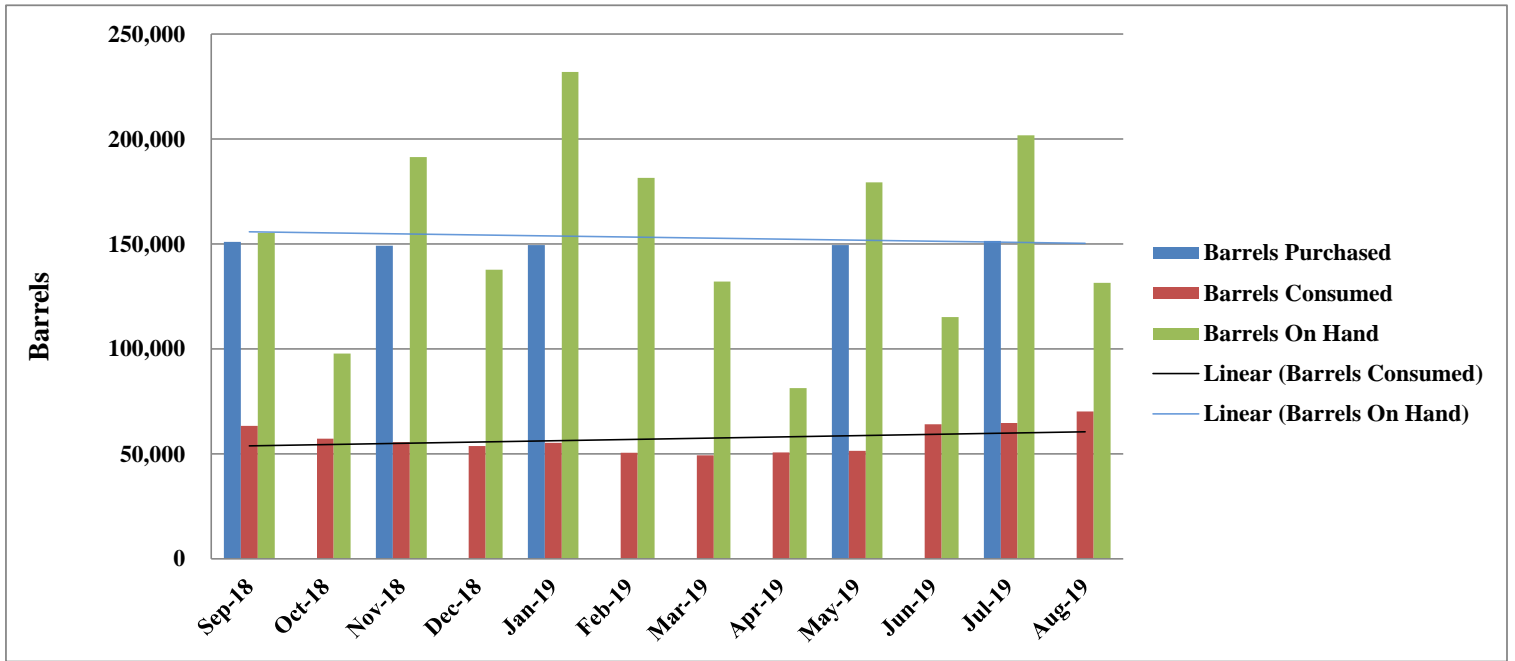
Previous Twelve Months

<u>Date</u>	<u>Barrels Purchased</u>	<u>Barrels Consumed</u>	<u>Barrels On Hand</u>
Sep-18	151,041.71	63,446.00	155,242.22
Oct-18	-	57,353.55	97,888.67
Nov-18	149,179.63	55,588.00	191,480.30
Dec-18	-	53,736.37	137,743.93
Jan-19	149,575.27	55,288.23	232,030.97
Feb-19	-	50,570.00	181,460.97
Mar-19	-	49,321.00	132,139.97
Apr-19	-	50,778.57	81,361.40
May-19	149,491.98	51,478.78	179,374.60
Jun-19	-	64,215.25	115,159.35
Jul-19	151,467.02	64,777.29	201,849.08
Aug-19	-	70,318.12	131,530.96



Graph of Heavy Fuel Oil Inventory Activity

Previous Twelve Months





Diesel Fuel Oil Inventory Activity

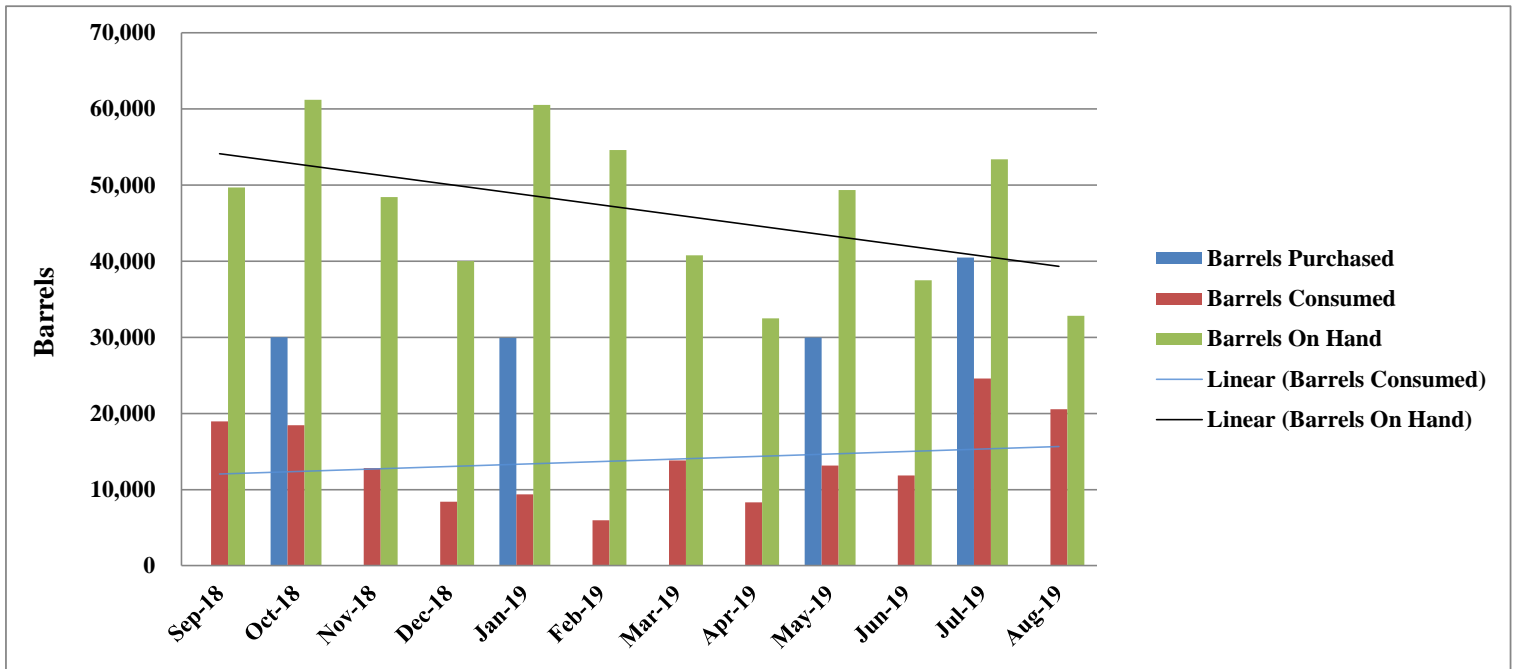
Previous Twelve Months

<u>Date</u>	<u>Barrels Purchased</u>	<u>Barrels Consumed</u>	<u>Barrels On Hand</u>
Sep-18	-	18,960.72	49,694.91
Oct-18	29,993.15	18,461.22	61,226.84
Nov-18	-	12,816.47	48,410.37
Dec-18	-	8,405.87	40,004.50
Jan-19	29,920.00	9,376.46	60,548.04
Feb-19	-	5,950.39	54,597.65
Mar-19	-	13,810.48	40,787.17
Apr-19	-	8,299.01	32,488.16
May-19	29,985.00	13,140.09	49,333.07
Jun-19	-	11,852.45	37,480.62
Jul-19	40,467.73	24,577.73	53,370.62
Aug-19	-	20,533.02	32,837.60



Graph of Diesel Fuel Oil Inventory Activity

Previous Twelve Months





Heavy Fuel Oil Costs Per Shipment

In accordance with Part 4, Paragraph 26A Clause (1)(c)(i) of the Bermuda Energy Act 2009, certain information provided to the Bermuda Energy Commission has been designated as confidential on the grounds that it could result in material financial loss or gain to any person and therefore has been excluded.

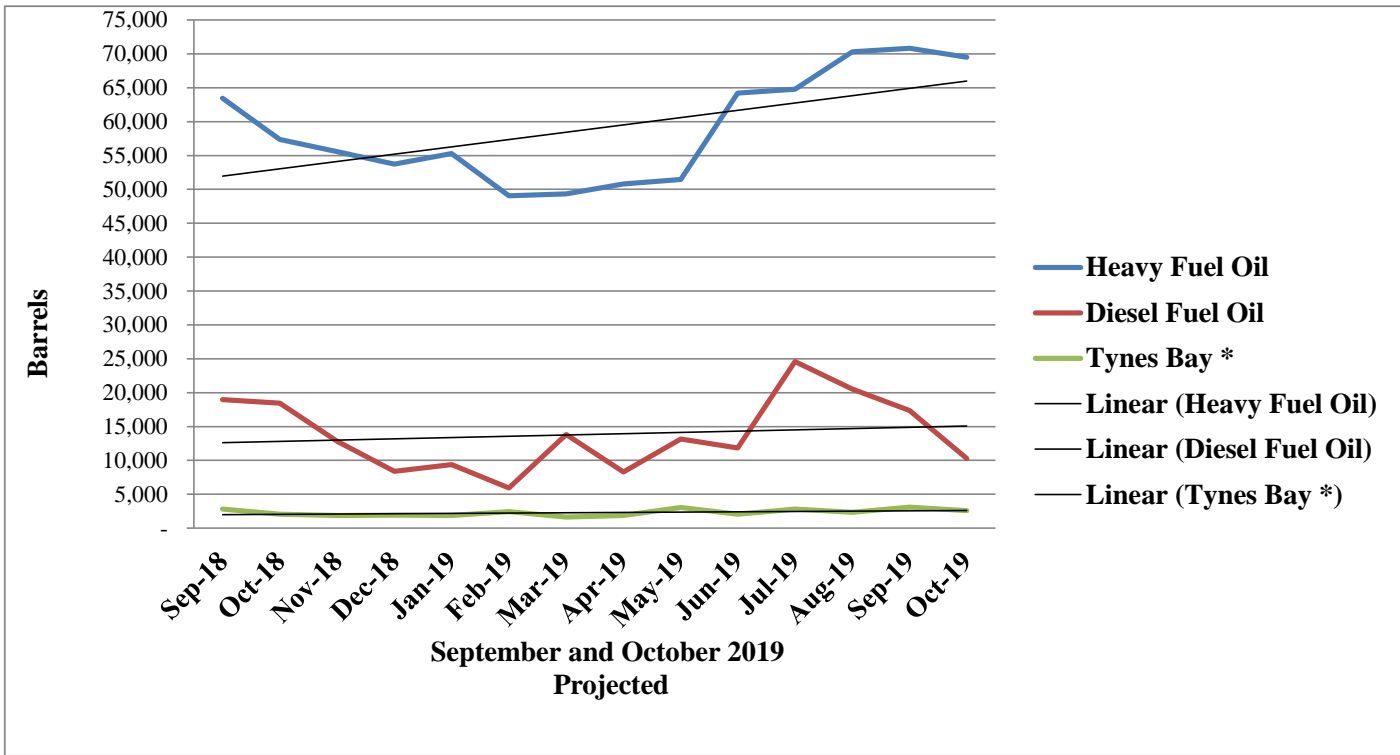


Diesel Fuel Oil Costs Per Shipment

In accordance with Part 4, Paragraph 26A Clause (1)(c)(i) of the Bermuda Energy Act 2009, certain information provided to the Bermuda Energy Commission has been designated as confidential on the grounds that it could result in material financial loss or gain to any person and therefore has been excluded.



Barrels of Fuel Consumed
Previous Twelve Months
Plus Two Month Forward Projection



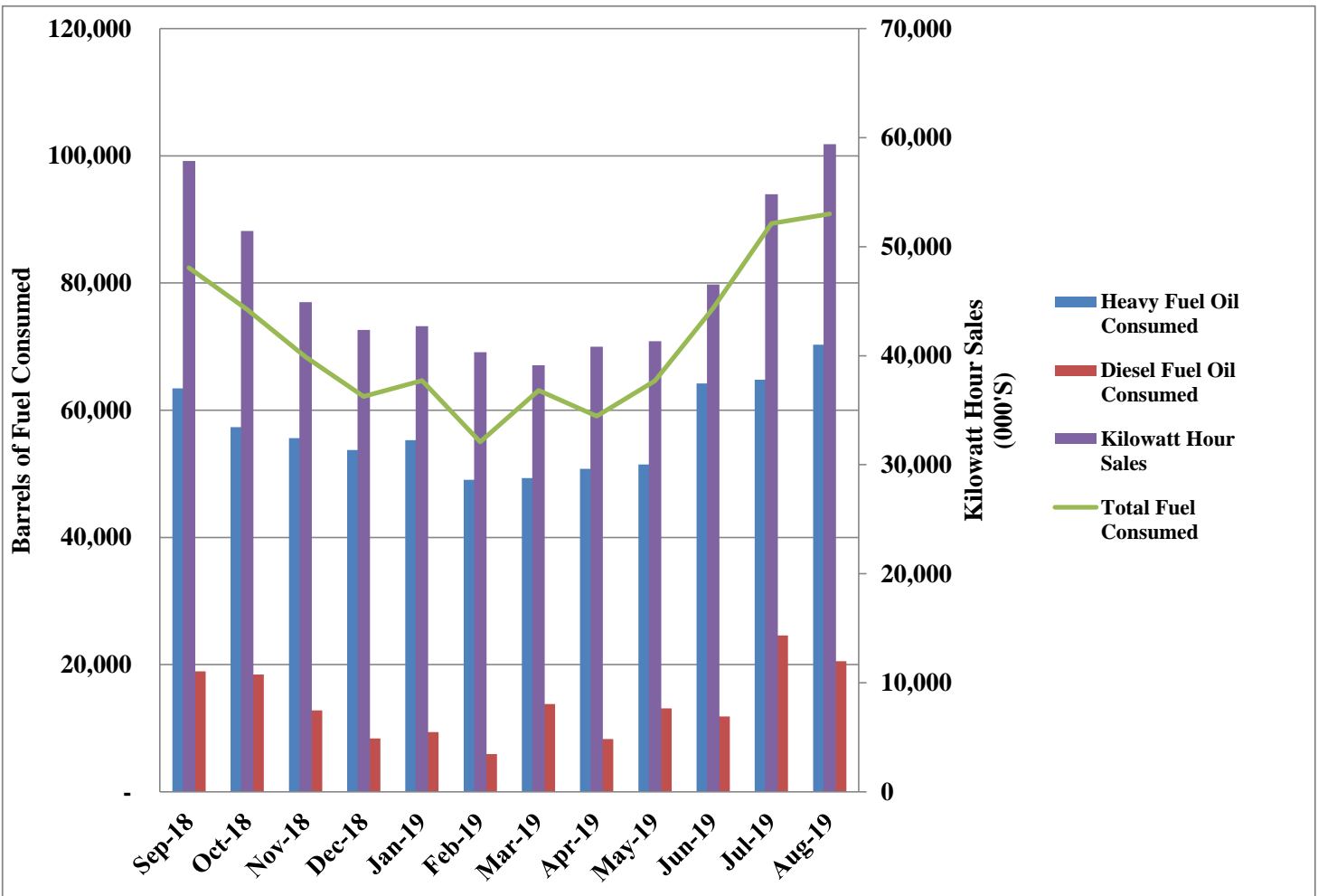
* BELCO calculates an efficiency rating for its generators on a monthly basis. This is calculated as the estimated kilowatt hours that will be generated that month divided by the estimated number of barrels of fuel that will be used. Therefore, the equivalent barrels of fuel is calculated for Tynes Bay as the amount of kilowatt hours delivered by Tynes Bay to BELCO divided by this budgeted efficiency rating.



Fuel Consumption

Versus

Kilowatt Hour Sales

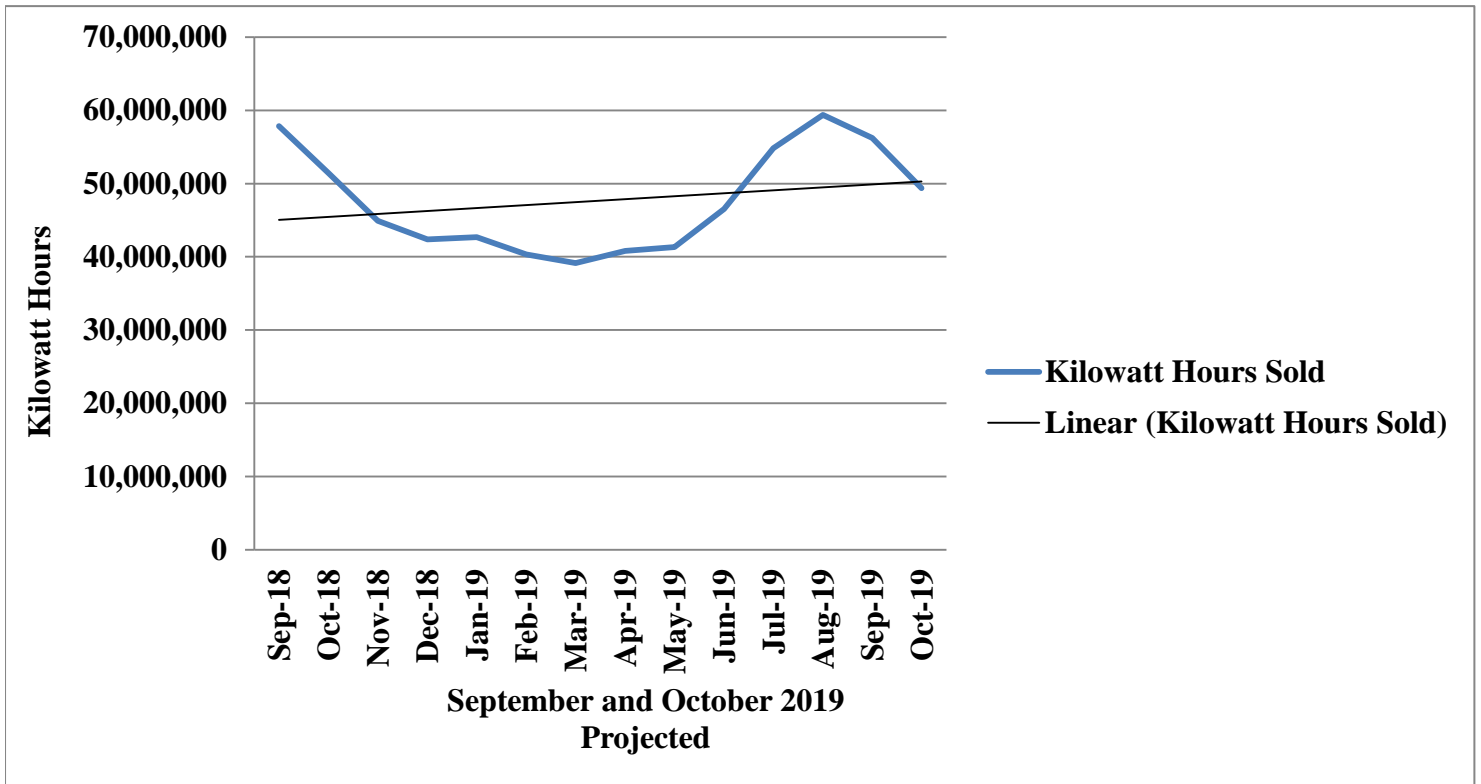


BELCO

Kilowatt Hour Sales

Previous Twelve Months

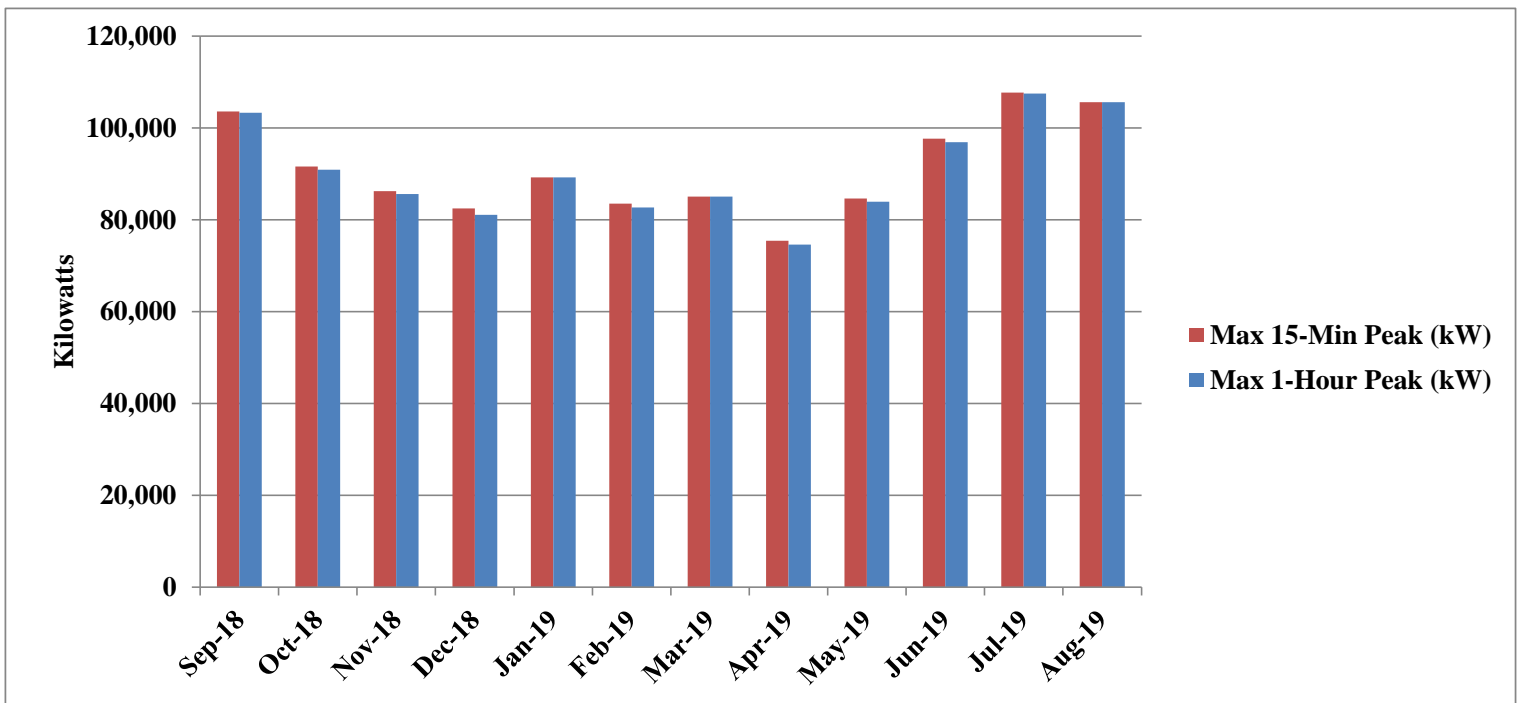
Plus Two Month Forward Projection





Maximum 15-Minute & Hourly Peak Kilowatt Hour Demand

Previous Twelve Months

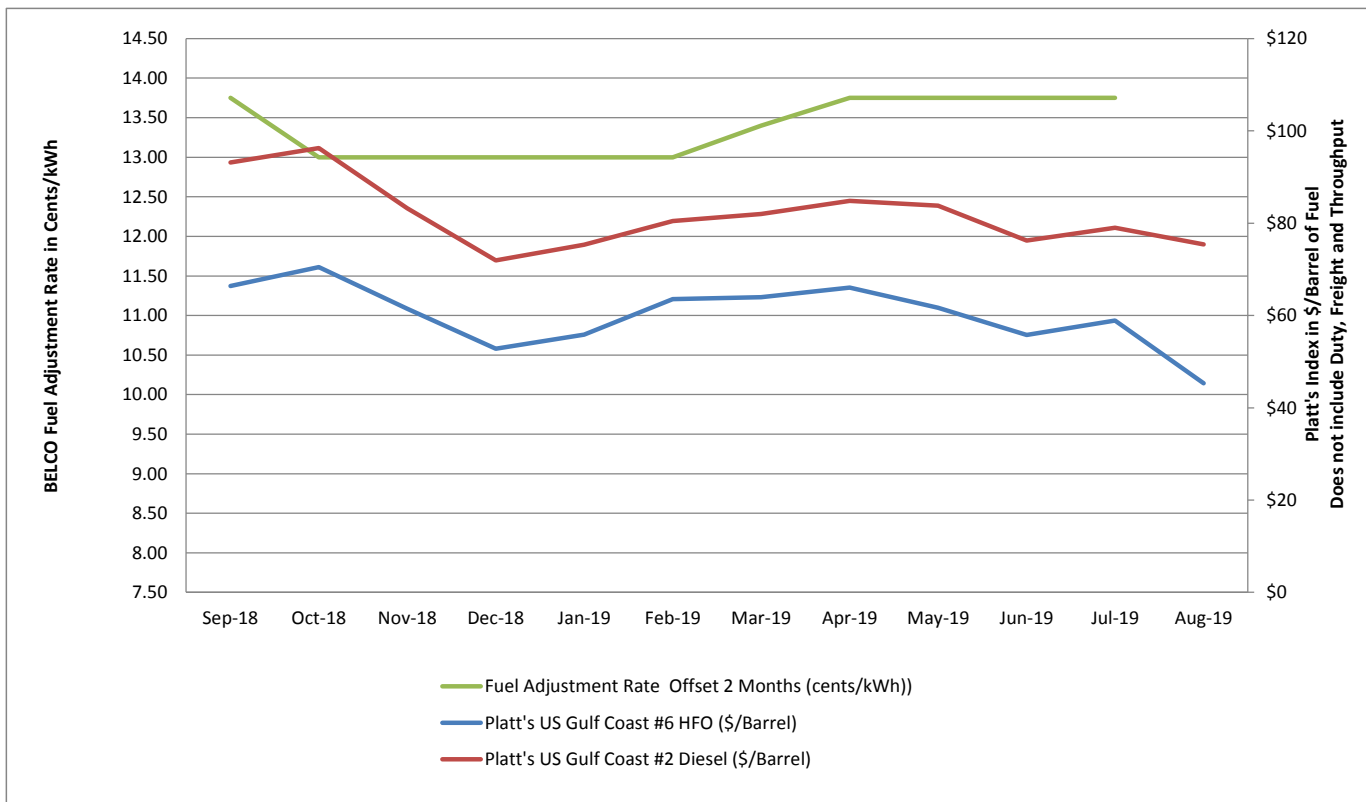




Fuel Adjustment Rate

Versus

Platt's Indices for Heavy and Diesel Fuel Oils



BELCO

Fuel Adjustment Over / (Under) Recovery

For the Month Ended 31 August 2019

	\$	\$	\$
Opening Balance at 1 August 2019			(75,478)
 <u>Fuel Consumption</u>			
Diesel - 12,902.89 @ \$128.9776	1,664,184		
Diesel - 7,630.13 @ \$118.1136	901,222		
Less: Fuel Consumption @ \$30/bbl	<u>(615,991)</u>	1,949,415	
 Heavy - 50,382.06 bbls @ \$112.7011	 5,678,114		
Heavy - 19,936.06 bbls @ \$105.00081	2,093,302		
Less: Fuel Consumption @ \$30/bbl	<u>(2,109,544)</u>	5,661,872	
 Tynes Bay - 1,686,096 kWh @ \$0.185	 311,928		
Less: (1,686,096 kWh /713.55) 2,362.97 bbls @ \$30/bbl	<u>(70,889)</u>	241,039	
		<u>7,852,326</u>	
 Deduct: Fuel Adjustment Revenue		<u>8,162,352</u>	
 August over / (under) recovery			310,026
 Ending Balance at 31 August 2019			<u>234,547</u>



Fuel Adjustment Over / (Under) Cost Recovery Variance Analysis

For the Month Ended 31 August 2019

	Diesel	Heavy	Tynes Bay	Total
Cost Analysis:				
Projections:				
Barrels	15,929	72,193	3,754	91,876
Total Fuel Adjustment Cost	\$ 1,543,739	\$ 5,802,490	\$ 382,895	\$ 7,729,125
Fuel Adjustment Cost / Barrel	\$ 96.91	\$ 80.37	\$ 102.01	\$ 84.13
Actual:				
Barrels	20,533	70,318	2,363	93,214
Total Fuel Cost	2,565,406	7,771,416	\$ 311,928	\$ 10,648,750
Total Fuel Adjustment Cost	\$ 1,949,416	\$ 5,661,872	\$ 241,039	\$ 7,852,326
Fuel Adjustment Cost / Barrel	\$ 94.94	\$ 80.52	\$ 102.01	\$ 84.24

Sales Analysis:

FAR (cents/kwh) **13.75** Requested
13.75 Approved

		Total KWH Sales	Total \$ Sales
Fuel Adjustment Sales	Projected:	54,695,632	\$ 7,520,649
	Actual:	59,403,490	\$ 8,162,352
	Variance	4,707,858	\$ 641,702
	% Variance	8.61%	8.53%

Summary - projected vs. actual variances:					
		Diesel	HFO	Tynes Bay	Total (Rounded)
<u>Quantity (Barrels):</u>		(4,604)	1,875	1,391	(1,339)
<u>Costs:</u>					
	Price variance	\$ 40,516	\$ (10,072)	\$ -	\$ 30,444
	Quantity variance	\$ (446,193)	\$ 150,690	\$ 141,857	\$ (153,646)
	Total variance	\$ (405,677)	\$ 140,618	\$ 141,857	\$ (123,202)
<u>Sales:</u>					\$ 641,702
Total projected vs. actual variance (August 2019)					\$ 518,500

Fuel Adjustment Over / (Under) Cost Recovery (General Ledger Account 24205)	Projected \$	Actual \$
Opening Balance at 1 August 2019	(75,478)	(75,478)
Projected change in over / (under) recovery position	(208,475)	(208,475)
Variance (Actual vs. Projected) - see above		518,500
Actual change in over / (under) recovery position	(208,475)	310,025
Ending Balance at 31 August 2019	(283,953)	234,547



Fuel Consumption Projections

Forward Three Months

Shipment Date	Type	Hedged	Amount (Barrels)	Total Cost/Barrel	FADJ (less \$30/bbl)
July 2019	Heavy	No	131,530.96	105.0008	75.0008
September 2019	Heavy	Yes	50,000.00	99.4656	69.4656
September 2019	Heavy	No	100,000.00	95.9127	65.9127
July 2019	Diesel	No	32,837.60	118.1136	88.1136



Fuel Adjustment Over/(Under) Recovery Projections

At Existing Fuel Adjustment Rate

Three Months Forward

Over (Under) Recovery account as at end of previous month:						\$ 234,547
Projected kWh Sales - September 2019	56,228,311		FADJ	13.75		\$ 7,731,393
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	17,341	\$ (88.11)	\$ (1,527,977.94)	
	Heavy	July 2019	70,833	\$ (75.00)	\$ (5,312,534.00)	
	Tynes Bay	N/A	3,086	\$ (103.81)	\$ (320,343.60)	
	Total Barrels		91,260			570,537
Projected Over (Under) Recovery account as at end of this month:						805,084
Projected kWh Sales - October 2019	49,114,303		FADJ	13.75		\$ 6,753,217
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	10,266	\$ (88.11)	\$ (904,574.22)	
	Heavy	July 2019	60,698	\$ (75.00)	\$ (4,552,397.56)	
	Heavy	September 2019	8,801	\$ (69.47)	\$ (611,369.31)	
	Tynes Bay	N/A	2,558	\$ (104.53)	\$ (267,364.50)	
	Total Barrels		82,323			417,511
Projected Over (Under) Recovery account as at end of this month:						1,222,595
Projected kWh Sales - November 2019	43,492,517		FADJ	13.75		\$ 5,980,221
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	1,399	\$ (88.11)	\$ (123,270.93)	
	Heavy	September 2019	41,199	\$ (69.47)	\$ (2,861,909.49)	
	Heavy	September 2019	21,360	\$ (65.91)	\$ (1,407,897.91)	
	Tynes Bay	N/A	2,543	\$ (105.29)	\$ (267,798.30)	
	Total Barrels		66,501			1,319,344
Projected Over (Under) Recovery account as at end of this month:						2,541,940



Fuel Adjustment Over/(Under) Recovery Projections

At Requested Fuel Adjustment Rate

Three Months Forward

Over (Under) Recovery account as at end of previous month:						\$ 234,547
Projected kWh Sales - September 2019	56,228,311		FADJ	13.75		\$ 7,731,393
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	17,341	\$ (88.11)	\$ (1,527,977.94)	
	Heavy	July 2019	70,833	\$ (75.00)	\$ (5,312,534.00)	
	Tynes Bay	N/A	3,086	\$ (103.81)	\$ (320,343.60)	
	Total Barrels		91,260			570,537
Projected Over (Under) Recovery account as at end of this month:						805,084
Projected kWh Sales - October 2019	49,114,303		FADJ	12.00		\$ 5,893,716
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	10,266	\$ (88.11)	\$ (904,574.22)	
	Heavy	July 2019	60,698	\$ (75.00)	\$ (4,552,397.56)	
	Heavy	September 2019	8,801	\$ (69.47)	\$ (611,369.31)	
	Tynes Bay	N/A	2,558	\$ (104.53)	\$ (267,364.50)	
	Total Barrels		82,323			(441,989)
Projected Over (Under) Recovery account as at end of this month:						363,095
Projected kWh Sales - November 2019	43,492,517		FADJ	10.00		\$ 4,349,252
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	1,399	\$ (88.11)	\$ (123,270.93)	
	Heavy	September 2019	41,199	\$ (69.47)	\$ (2,861,909.49)	
	Heavy	September 2019	21,360	\$ (65.91)	\$ (1,407,897.91)	
	Tynes Bay	N/A	2,543	\$ (105.29)	\$ (267,798.30)	
	Total Barrels		66,501			(311,625)
Projected Over (Under) Recovery account as at end of this month:						51,470



Commercial Renewable System Excess Energy Rate ("CRSEER")

At Requested Fuel Adjustment Rate - Full Cost

Projected Over (Under) Recovery account as at end of September:						\$ 805,084
Projected kWh Sales - October 2019	49,114,303		CRSEER	17.03		\$ 8,364,166
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	10,266	\$ (118.11)	\$ (1,212,554.22)	
	Heavy	July 2019	60,698	\$ (105.00)	\$ (6,373,336.36)	
	Heavy	September 2019	8,801	\$ (99.47)	\$ (875,400.51)	
	Tynes Bay	N/A	2,558	\$ (134.53)	\$ (344,100.00)	
	Total Barrels		82,323			(441,225)
Projected Over (Under) Recovery account as at end of this month:						363,859
Projected kWh Sales - November 2019	43,492,517		CRSEER	14.59		\$ 6,345,558
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2019	1,399	\$ (118.11)	\$ (165,240.93)	
	Heavy	September 2019	41,199	\$ (99.47)	\$ (4,097,878.29)	
	Heavy	September 2019	21,360	\$ (95.91)	\$ (2,048,699.11)	
	Tynes Bay	N/A	2,543	\$ (135.29)	\$ (344,100.00)	
	Total Barrels		66,501			(310,360)
Projected Over (Under) Recovery account as at end of this month:						53,499

Note: CRSEER is calculated to have no impact on the FAR over (under) recovery balance

BELCO

Generators Available for Service

August 2019

Generator	Available	Type of fuel Consumed	Barrels of Fuel Consumed	Efficiency Rating*
E1	Yes	HFO	10,187	688
E2	Yes	HFO	10,295	683
E3	Yes	HFO	8,737	694
E4	Yes	HFO	8,511	702
E5	Yes	HFO	4,760	708
E6	Yes	HFO	7,883	707
E7	Yes	HFO	12,257	731
E8	Yes	HFO	12,331	758
D3	Yes	LFO	4,488	608
D8	Yes	LFO	4,754	616
D10	Yes	LFO	4,119	605
D14	Yes	LFO	1,780	576
GT5	Yes	LFO	514	411
GT6	Yes	LFO	1,349	443
GT7	Yes	LFO	365	440
GT8	Yes	LFO	556	429

* Efficiency Rating = Amount of kilowatt hours generated per barrel consumed



Generators Out of Service

August 2019

Unit	Category	Type	Forced Outage Details	Outage Date	Return Date
E4	Main Engine	MO	Cyl 5 R injector replaced	8/27/19	8/28/19
E6	Main Engine	MO	To fix W/W line	8/24/19	8/25/19
E4	Main Engine	MO	Fuel leaks	8/23/19	8/24/19
D10	Main Engine	MO	To secure fuel injector pipe	8/23/19	8/24/19
E2	Main Engine	FO (Postpone)	Jacket Water leak on elbow jumper from jacket to head.	8/22/19	8/22/19
E7	Main Engine	MO	N/S system and W/W system	8/20/19	8/21/19
E3	Main Engine	MO	Fuel leak on cylinder 3R bottom pipe	8/18/19	8/18/19
D14	Auxiliary Systems	MO	outage extended due to JKW leak	8/15/19	8/18/19
GT7	Electrical System	MO	For the T20 job	8/14/19	8/16/19
D3	Main Engine	MO	cylinder LO boxes to be changed, Alt air filter to be changed	8/14/19	8/14/19
E6	Main Engine	MO	Rocker gear box on cylinder 5A leak, N/S line cleared and W/W lines secured and welded.	8/13/19	8/14/19
E5	Main Engine	PO	Unit out for Foundation repairs and 12K Service	8/12/19	9/28/19
E6	Main Engine	SE of MO	Unit out for extension of follow up jobs.	8/10/19	8/11/19
D8	Main Engine	MO	ICW sensing line leaking badly.	8/7/19	8/7/19
E1	Main Engine	FO (Immediate)	Cylinder #1 not firing. Suspect suction valve.	8/7/19	8/8/19
D10	Main Engine	MO	Head stud to be replaced	8/5/19	8/7/19
E2	Main Engine	FO (Immediate)	Injector leak on cylinder #1	8/1/19	8/1/19



Scheduled Generator Maintenance

Sep-19

Generator	Maintenance Type	Outage Date	Return Date
E5	12k Service	8/1/2019	10/30/2019



Other Events Affecting the Fuel Adjustment Rate

- 1. Details of any insurance claims submitted by BELCO which directly impact the Fuel Adjustment Rate.**
No insured losses have been incurred by BELCO during the filing period that would result in a potential insurance claim.

- 2. Any major events that have a direct impact on the Fuel Adjustment Rate.**
None