



March 26, 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 – April 1, 2019 to April 30, 2019

The Regulatory Authority of Bermuda (the “Authority”) has reviewed the April 2019 Fuel Adjustment Rate (“FAR”) filing submitted by Bermuda Electric Light Co. Ltd. (“BELCO”) on 11 March 2019 to maintain the existing FAR of \$0.1300 and approves the proposed FAR.

Yours sincerely,

Markez Laws
Regulatory Finance Analyst

*Cc: Monique Lister—Senior Legal Advisor
Nigel Burgess – Senior Manager Electricity Analysis and Planning
Jozelle Opoku – Head of Regulatory Finance*

March 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"):

Maintain the existing rate of 13.00 cents per kilowatt-hour sold for April 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 August 2018 FAR MFR submission as directed per Regulatory Authority letter dated 18 April 2017.

The actual fuel adjustment cost recovery position as at 28th February 2019 was \$39,840 under recovered as compared to the \$158,632 over recovery position projected in our last filing. The \$198,471 unfavorable variance is due to:

- The total actual barrels of fuel consumed in February were 495 barrels higher than projected, resulting in a negative impact on the recovery position of \$101,134;
- Net price variance negatively impacted the recovery position by \$2,898;
- Actual February electric sales were 172,891 KWH's lower than projected. This variance resulted in a net negative impact on the fuel recovery position of \$23,582; and
- Diesel fuel costs relating temporary power generation in the west end of the island during the America's Cup event have been included per your letter dated 21st February 2019, resulting in a negative variance of \$70,857.



441.295.5111

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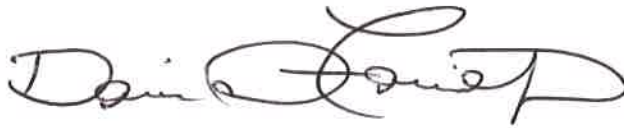
BELCO.BM

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.

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

Yours sincerely,

BERMUDA ELECTRIC LIGHT COMPANY LIMITED



David Faries, CPA, CA, JP
Vice President, Finance & Group Controller

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BELCO



Bermuda Electric Light Company Limited

Fuel Adjustment Submission

FOR PUBLIC DISCLOSURE

April 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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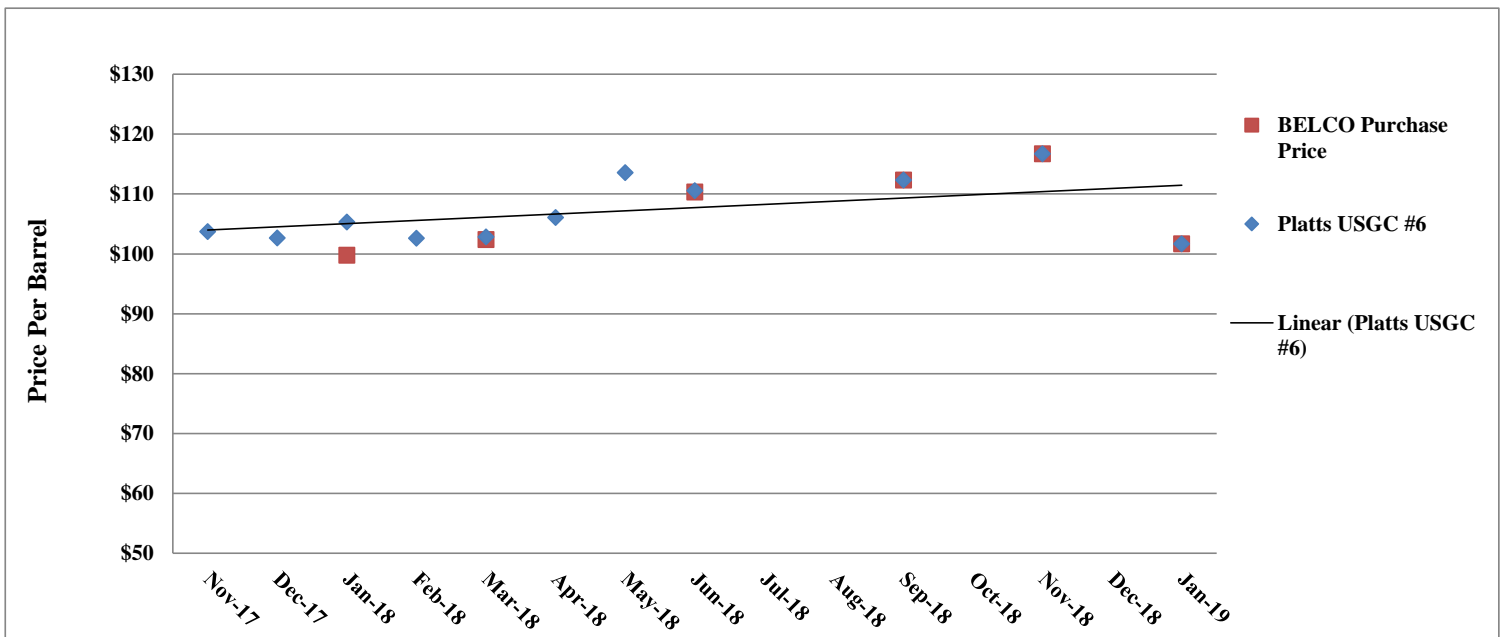


Heavy Fuel Oil Purchased

Versus

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

Previous Twelve Monthss

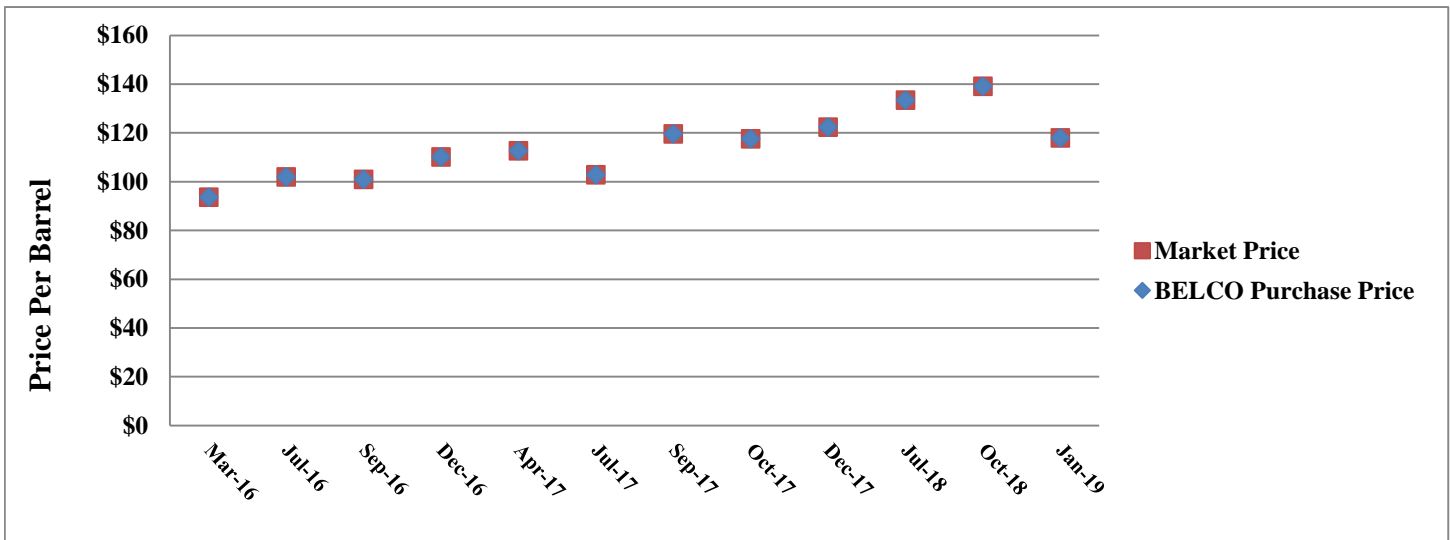


N.B. In accordance with the Fuel Supply Agreement for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil between BELCO and Shell Western Trading Limited, the contracted price is stipulated as the 30-day average for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel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

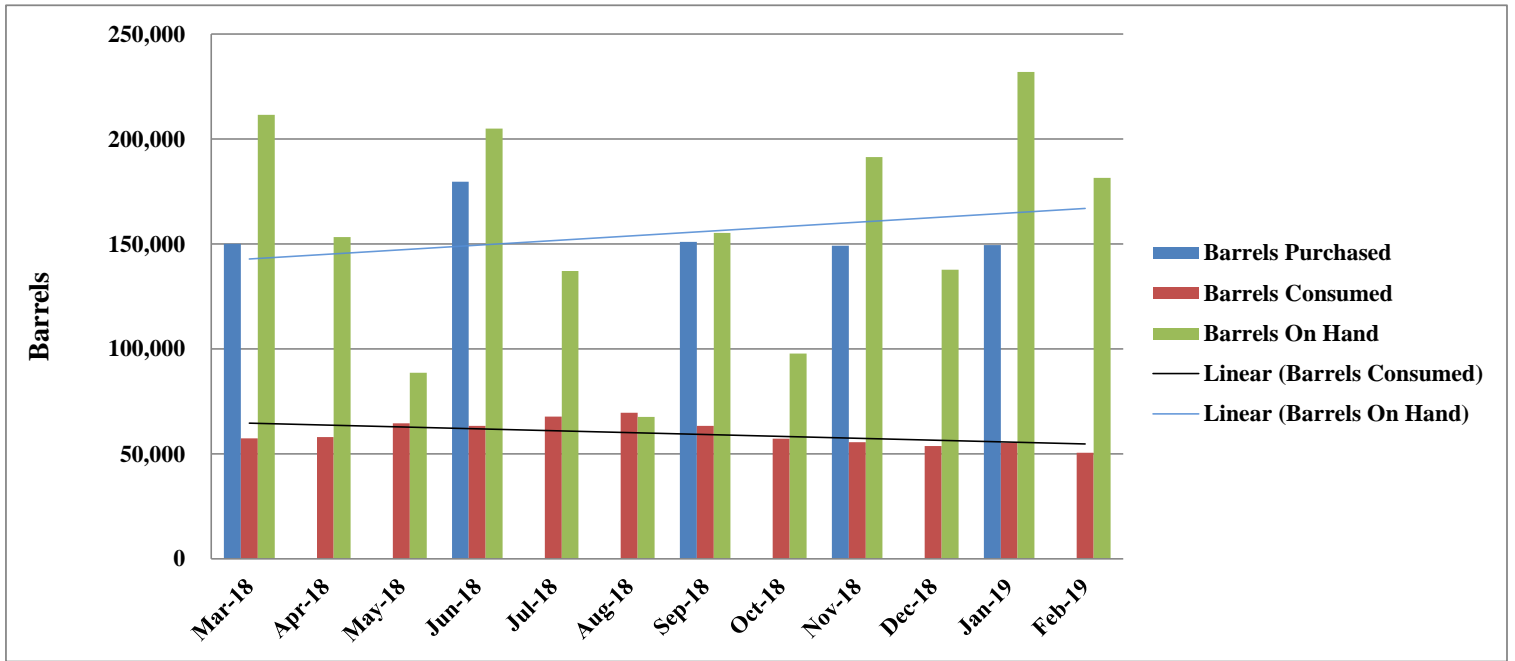
Previous Twelve Months

| <u>Date</u> | <u>Barrels Purchased</u> | <u>Barrels Consumed</u> | <u>Barrels On Hand</u> |
|-----------------|--------------------------|-------------------------|------------------------|
| March, 2018 | 150,091.50 | 57,494.00 | 211,498.53 |
| April, 2018 | - | 58,121.00 | 153,377.53 |
| May, 2018 | - | 64,615.00 | 88,762.53 |
| June, 2018 | 179,633.98 | 63,386.00 | 205,010.51 |
| July, 2018 | - | 67,766.00 | 137,244.51 |
| August, 2018 | - | 69,598.00 | 67,646.51 |
| September, 2018 | 151,041.71 | 63,446.00 | 155,242.22 |
| October, 2018 | - | 57,353.55 | 97,888.67 |
| November, 2018 | 149,179.63 | 55,588.00 | 191,480.30 |
| December, 2018 | | 53,736.37 | 137,743.93 |
| January, 2019 | 149,575.27 | 55,288.23 | 232,030.97 |
| February, 2019 | - | 50,570.00 | 181,460.97 |



Graph of Heavy Fuel Oil Inventory Activity

Previous Twelve Months





Diesel Fuel Oil Inventory Activity

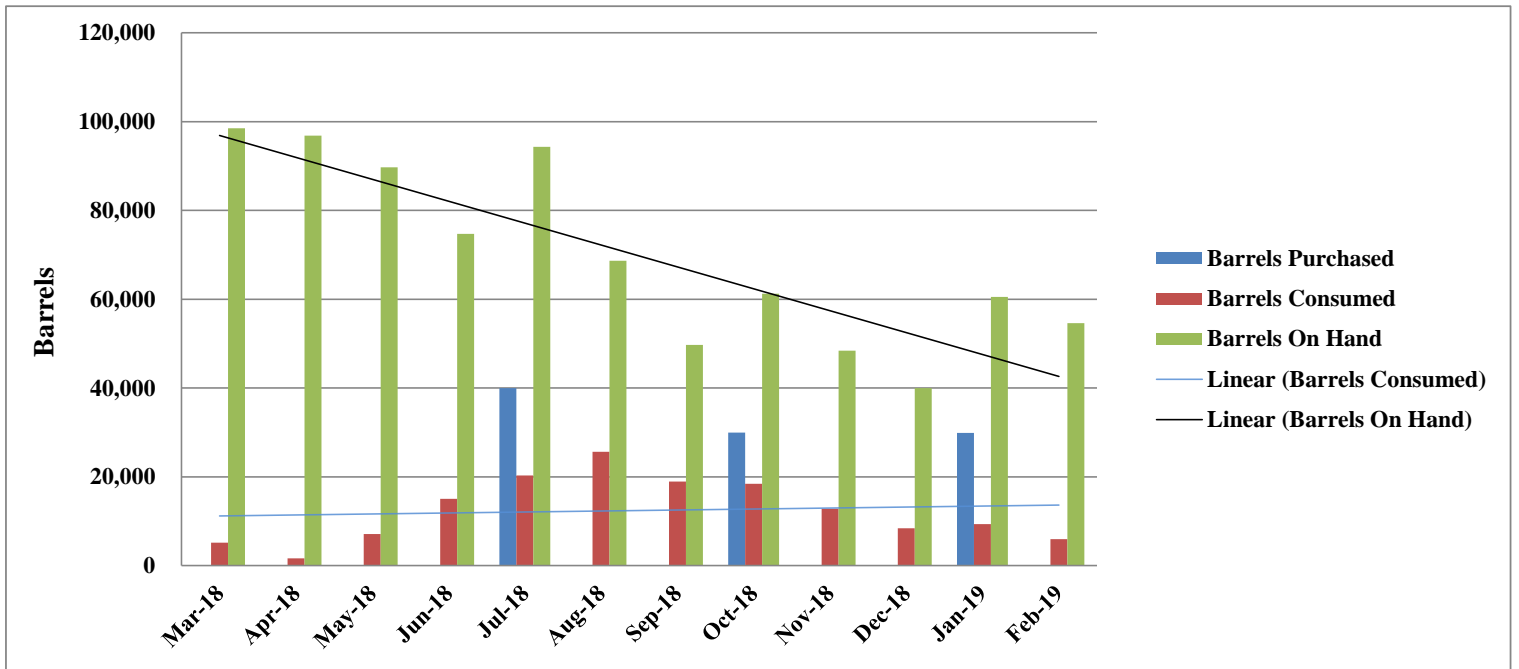
Previous Twelve Months

| <u>Date</u> | <u>Barrels Purchased</u> | <u>Barrels Consumed</u> | <u>Barrels On Hand</u> |
|-----------------|--------------------------|-------------------------|------------------------|
| March, 2018 | - | 5,150.31 | 98,533.14 |
| April, 2018 | - | 1,650.35 | 96,882.79 |
| May, 2018 | - | 7,154.97 | 89,727.82 |
| June, 2018 | - | 15,027.01 | 74,700.81 |
| July, 2018 | 39,967.59 | 20,336.75 | 94,331.65 |
| August, 2018 | - | 25,676.02 | 68,655.63 |
| September, 2018 | - | 18,960.72 | 49,694.91 |
| October, 2018 | 29,993.15 | 18,461.22 | 61,226.84 |
| November, 2018 | | 12,816.47 | 48,410.37 |
| December, 2018 | | 8,405.87 | 40,004.50 |
| January, 2019 | 29,920.00 | 9,376.46 | 60,548.04 |
| February, 2019 | - | 5,950.39 | 54,597.65 |



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.

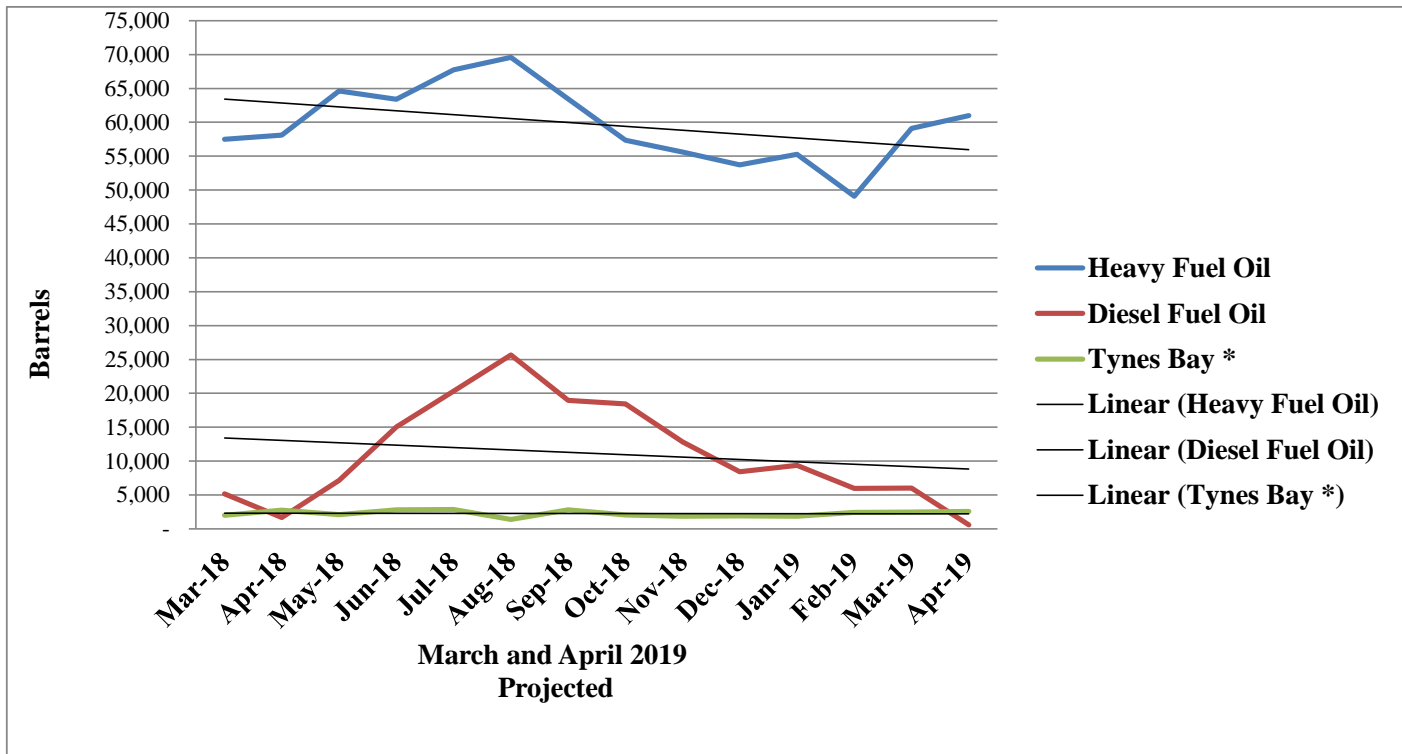


Diesel Fuel Oil Costs Per Shipment

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



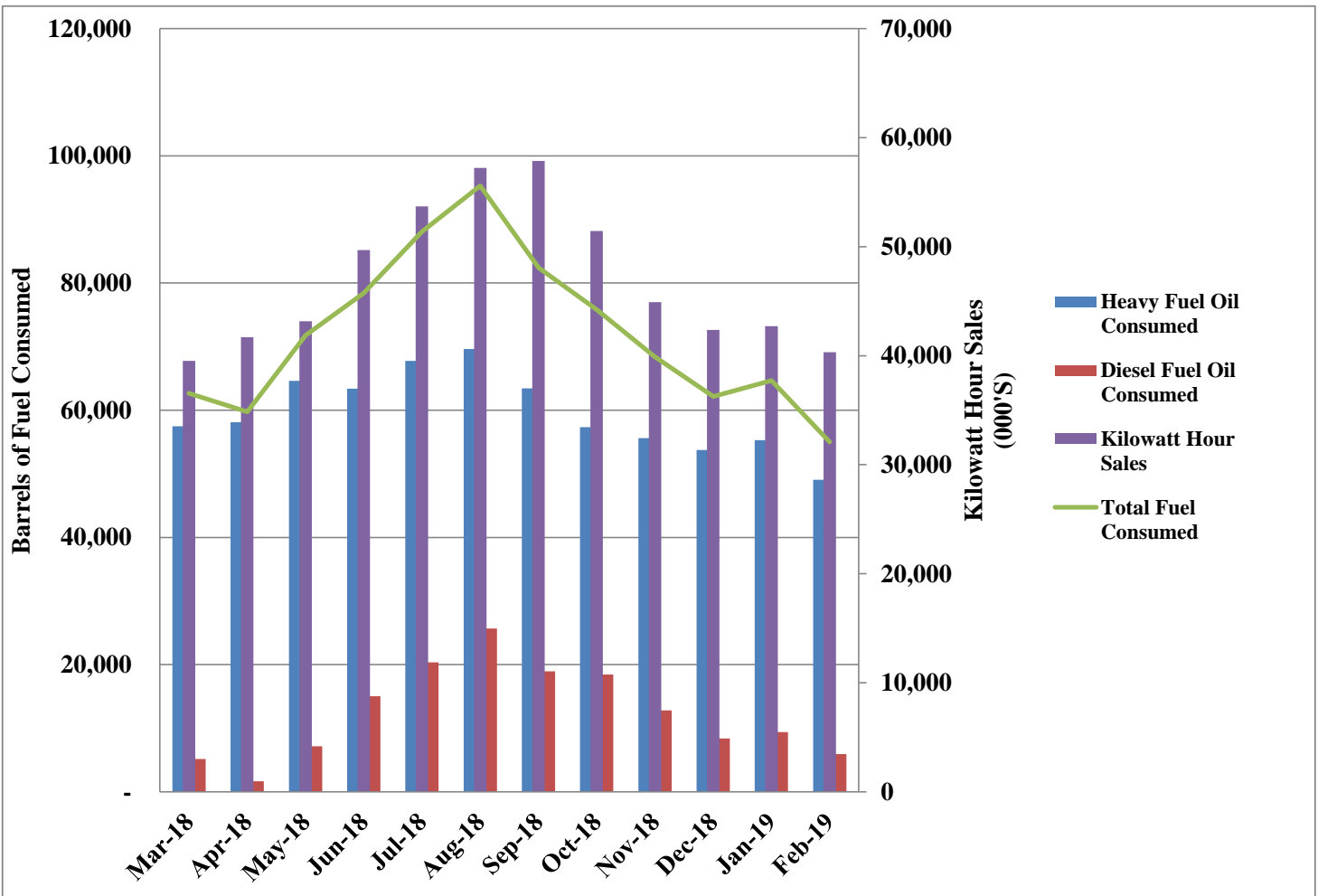
* BELCO calculates an efficiency rating for its generators on a monthly basis. This is calculated as the estimated kilowatt hours that will be generated that month divided by the estimated number of barrels of fuel that will be used. Therefore, the equivalent barrels of fuel is calculated for Tynes Bay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



Fuel Consumption

Versus

Kilowatt Hour Sales

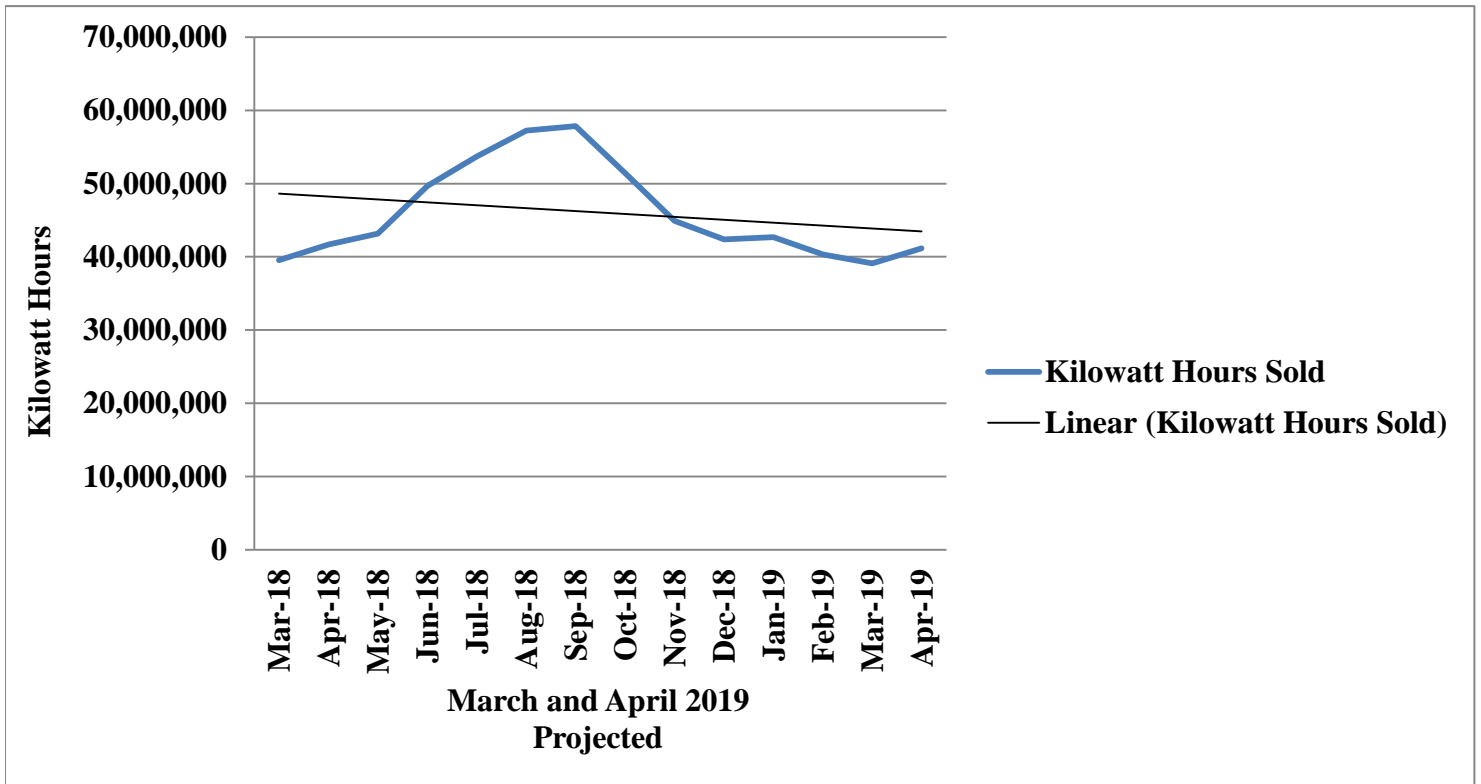


BELCO

Kilowatt Hour Sales

Previous Twelve Months

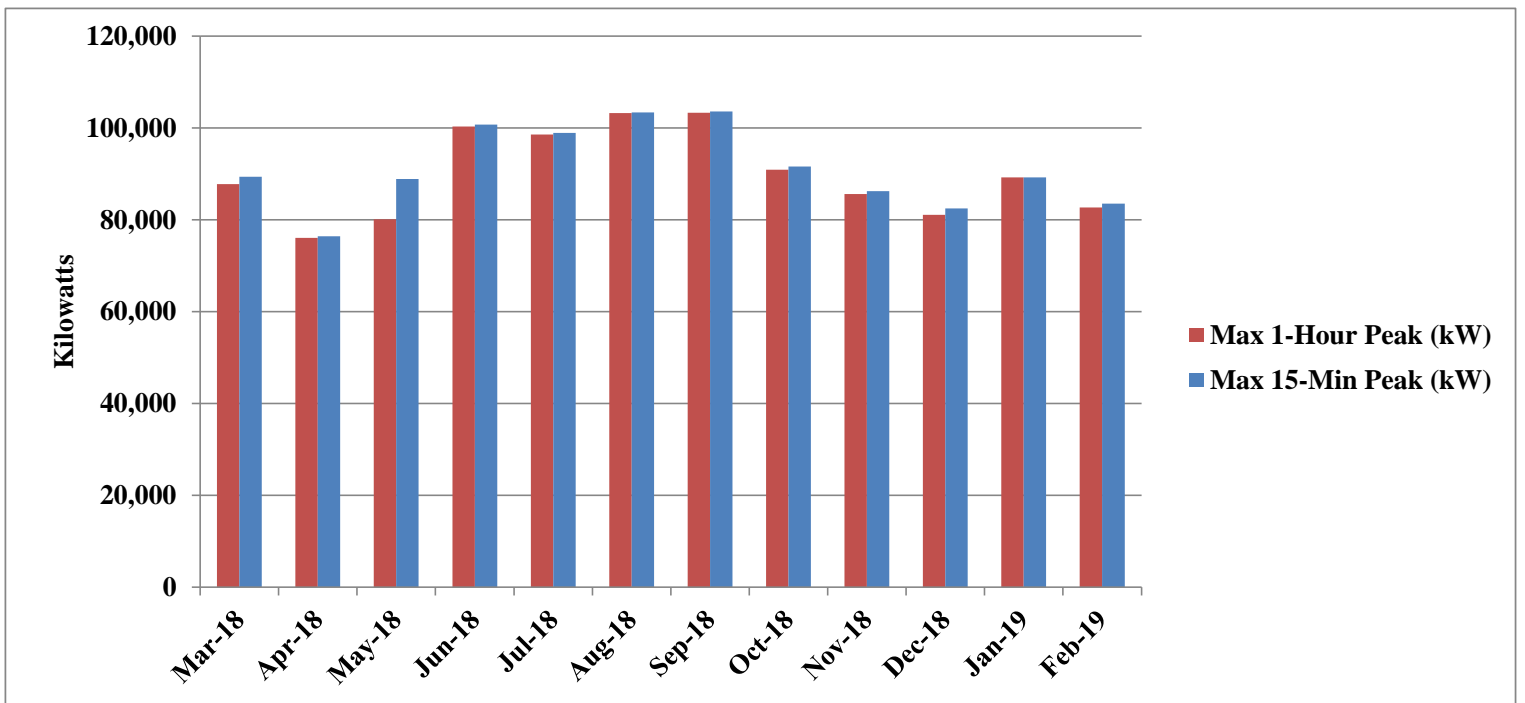
Plus Two Month Forward Projection





Maximum 15-Minute & Hourly Peak Kilowatt Hour Demand

Previous Twelve Months

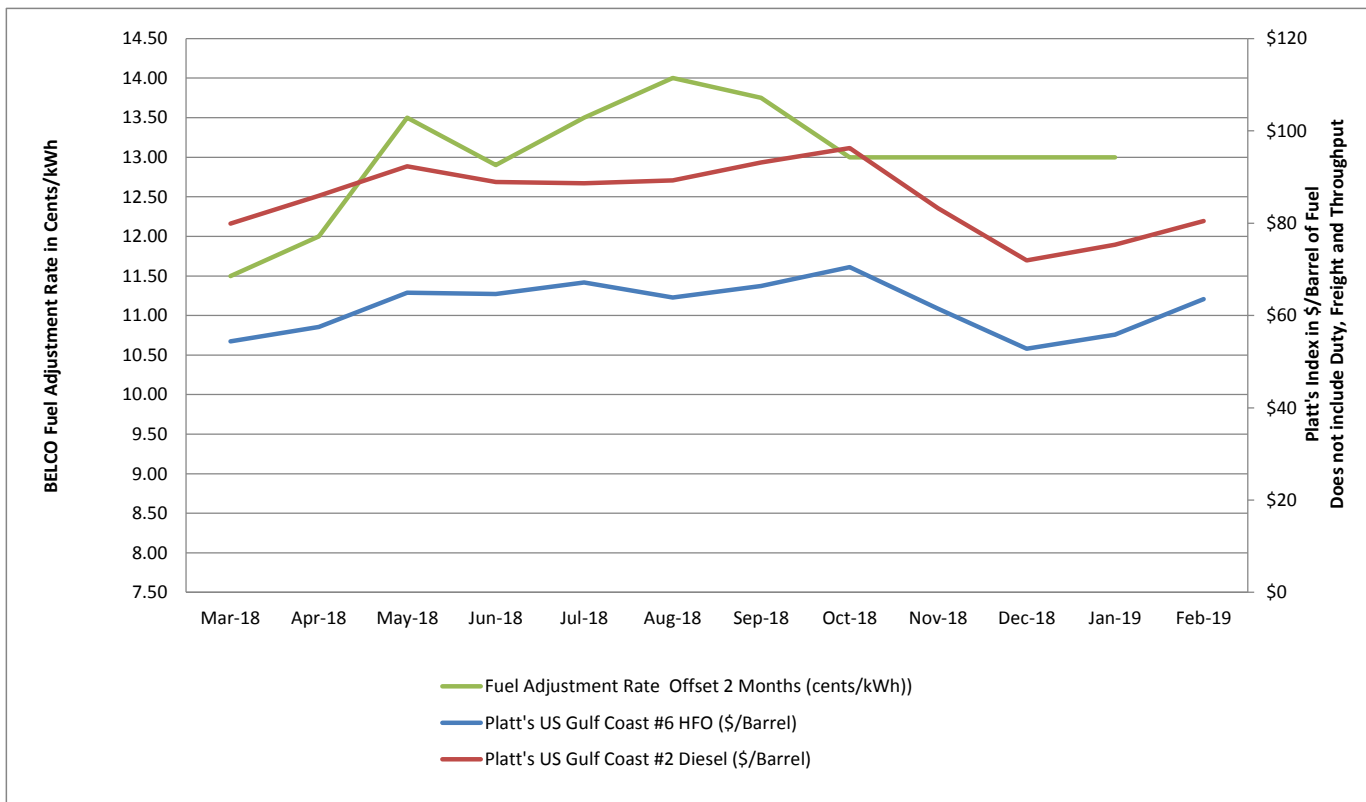




Fuel Adjustment Rate

Versus

Platt's Indices for Heavy and Diesel Fuel Oils



BELCO

Fuel Adjustment Over / (Under) Recovery

For the Month Ended 28 February 2019

| | \$ | \$ | \$ |
|---|--------------------|------------------|------------------------|
| Opening Balance at 1 February 2019 | | | 71,034 |
| <u>Fuel Consumption</u> | | | |
| Diesel - 634.89 @ \$133.3824 | 84,683 | | |
| Diesel - 5,315.50 @ \$138.7672 | 737,617 | | |
| Less: Fuel Consumption @ \$30/bbl | <u>(178,512)</u> | 643,788 | |
| Heavy - 50,570.00 bbls @ \$116.8127 | 5,907,218 | | |
| Less: Fuel Consumption @ \$30/bbl | <u>(1,517,100)</u> | 4,390,118 | |
| Tynes Bay - 1,730,104 kWh @ \$0.185 | 320,069 | | |
| Less: (1,730,104 kWh /712.37) 2,428.66 bbls @ \$30/bbl | <u>(72,860)</u> | 247,209 | |
| | | 5,281,115 | |
| Deduct: Fuel Adjustment Revenue | | <u>5,241,098</u> | |
| Less: diesel fuel relating to temporary power for America's Cup | | 70,857 | |
| February over / (under) recovery | | | (110,874) |
| Ending Balance at 28 February 2019 | | | <u>(39,840)</u> |



Fuel Consumption Projections

Forward Three Months

| Shipment Date | Type | Hedged | Amount (Barrels) | Total Cost/Barrel | FADJ (less \$30/bbl) |
|----------------------|-------------|---------------|-----------------------------|------------------------------|---------------------------------|
| November 2018 | Heavy | No | 31,885.70 | 116.8127 | 86.8127 |
| January 2019 | Heavy | No | 149,575.27 | 101.6962 | 71.6962 |
| October 2018 | Diesel | No | 24,677.65 | 138.7672 | 108.7672 |



Fuel Adjustment Over/(Under) Recovery Projections

At Existing Fuel Adjustment Rate

Three Months Forward

| | | | | | | |
|---|----------------------|----------------------|----------------|-------------------------|-------------------|--------------------|
| Over (Under) Recovery account as at end of previous month: | | | | | | \$ (39,840) |
| Projected kWh Sales - March 2019 | 39,123,271 | | FADJ | 13.00 | \$ | 5,086,025 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 6,014 | \$ (108.77) | \$ | (654,125.94) |
| | Heavy | November 2018 | 31,886 | \$ (86.81) | \$ | (2,768,083.71) |
| | Heavy | January 2019 | 27,212 | \$ (71.70) | \$ | (1,951,018.50) |
| | Tynes Bay | N/A | 2,525 | \$ (104.21) | \$ | (263,079.35) |
| | Total Barrels | | 67,637 | | | (550,282) |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | (590,123) |
| Projected kWh Sales - April 2019 | 41,161,419 | | FADJ | 13.00 | \$ | 5,350,984 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 576 | \$ (108.77) | \$ | (62,649.91) |
| | Heavy | January 2019 | 60,988 | \$ (71.70) | \$ | (4,372,607.85) |
| | Tynes Bay | N/A | 2,496 | \$ (103.39) | \$ | (258,108.30) |
| | Total Barrels | | 64,060 | | | 657,618 |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | 67,496 |
| Projected kWh Sales - May 2019 | 40,813,674 | | FADJ | 13.00 | \$ | 5,305,778 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 2,688 | \$ (108.77) | \$ | (292,366.23) |
| | Heavy | January 2019 | 60,147 | \$ (71.70) | \$ | (4,312,311.34) |
| | Tynes Bay | N/A | 2,556 | \$ (104.61) | \$ | (267,414.30) |
| | Total Barrels | | 65,391 | | | 433,686 |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | 501,182 |



Fuel Adjustment Over/(Under) Recovery Projections

At Requested Fuel Adjustment Rate

Three Months Forward

| | | | | | | |
|---|----------------------|----------------------|----------------|-------------------------|-------------------|--------------------|
| Over (Under) Recovery account as at end of previous month: | | | | | | \$ (39,840) |
| Projected kWh Sales - March 2019 | 39,123,271 | | FADJ | 13.00 | | \$ 5,086,025 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 6,014 | \$ (108.77) | \$ (654,125.94) | |
| | Heavy | November 2018 | 31,886 | \$ (86.81) | \$ (2,768,083.71) | |
| | Heavy | January 2019 | 27,212 | \$ (71.70) | \$ (1,951,018.50) | |
| | Tynes Bay | N/A | 2,525 | \$ (104.21) | \$ (263,079.35) | |
| | Total Barrels | | 67,637 | | | (550,282) |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | (590,123) |
| Projected kWh Sales - April 2019 | 41,161,419 | | FADJ | 12.50 | | \$ 5,145,177 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 576 | \$ (108.77) | \$ (62,649.91) | |
| | Heavy | January 2019 | 60,988 | \$ (71.70) | \$ (4,372,607.85) | |
| | Tynes Bay | N/A | 2,496 | \$ (103.39) | \$ (258,108.30) | |
| | Total Barrels | | 64,060 | | | 451,811 |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | (138,311) |
| Projected kWh Sales - May 2019 | 40,813,674 | | FADJ | 12.50 | | \$ 5,101,709 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 2,688 | \$ (108.77) | \$ (292,366.23) | |
| | Heavy | January 2019 | 60,147 | \$ (71.70) | \$ (4,312,311.34) | |
| | Tynes Bay | N/A | 2,556 | \$ (104.61) | \$ (267,414.30) | |
| | Total Barrels | | 65,391 | | | 229,617 |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | 91,306 |



Commercial Renewable System Excess Energy Rate ("CRSEER")

At Requested Fuel Adjustment Rate - Full Cost

| | | | | | | |
|---|----------------------|----------------------|----------------|-------------------------|-------------------|---------------------|
| Projected Over (Under) Recovery account as at end of January: | | | | | | \$ (590,123) |
| Projected kWh Sales - April 2019 | 41,161,419 | | CRSEER | 17.17 | | \$ 7,067,416 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 576 | \$ (138.77) | \$ (79,929.91) | |
| | Heavy | January 2019 | 60,988 | \$ (101.70) | \$ (6,202,247.85) | |
| | Tynes Bay | N/A | 2,496 | \$ (133.39) | \$ (333,000.00) | |
| | Total Barrels | | 64,060 | | | 452,238 |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | (137,885) |
| Projected kWh Sales - May 2019 | 40,813,674 | | CRSEER | 17.31 | | \$ 7,064,847 |
| Projected fuel consumed | | Shipment Date | Barrels | FADJ Cost/Barrel | Total Cost | |
| | Diesel | October 2018 | 2,688 | \$ (138.77) | \$ (373,006.23) | |
| | Heavy | January 2019 | 60,147 | \$ (101.70) | \$ (6,116,721.34) | |
| | Tynes Bay | N/A | 2,556 | \$ (134.61) | \$ (344,100.00) | |
| | Total Barrels | | 65,391 | | | 231,019 |
| Projected Over (Under) Recovery account as at end of this month: | | | | | | 93,135 |

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

BELCO

Generators Available for Service

February 2019

| Generator | Available | Type of fuel Consumed | Barrels of Fuel Consumed | Efficiency Rating* |
|-----------|-----------|-----------------------|--------------------------|--------------------|
| E1 | Yes | HFO | 8802 | 698 |
| E2 | Yes | HFO | 8752 | 683 |
| E3 | Yes | HFO | 4758 | 706 |
| E4 | Yes | HFO | 5173 | 714 |
| E5 | Yes | HFO | 8125 | 701 |
| E6 | Yes | HFO | 9185 | 715 |
| E7 | Yes | HFO | 1024 | 736 |
| E8 | No | HFO | 8758 | 740 |
| D3 | Yes | LFO | 1050 | 610 |
| D8 | Yes | LFO | 1381 | 621 |
| D10 | Yes | LFO | 415 | 615 |
| D14 | Yes | LFO | 323 | 576 |
| GT4 | No | LFO | 0 | NA |
| GT5 | No | LFO | 0 | NA |
| GT6 | No | LFO | 0 | NA |
| GT7 | Yes | LFO | 133 | 446 |
| GT8 | Yes | LFO | 70 | 425 |

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



Generators Out of Service

February 2019

| Unit | Category | Type | Forced Outage Details | Outage Date | Return Date |
|------|-------------------|----------------|--|-------------|-------------|
| E2 | Main Engine | FO (Postpone) | Hydraulic motor changed on Moatti filter | 2/28/19 | 3/1/19 |
| E6 | Main Engine | MO | Unit out for crankcase deflections | 2/27/19 | NA |
| E4 | Main Engine | FO (Immediate) | Tripped on cyl LO no flow alarm | 2/26/19 | 2/27/19 |
| E3 | Other Systems | FO (Postpone) | vent line leaking from LHS turbocharger expansion tank | 2/22/19 | 2/22/19 |
| E6 | Main Engine | FO (Immediate) | Splash oil high temp. | 2/20/19 | 2/20/19 |
| D3 | Electrical System | FO (Immediate) | D3 closing coil arcing | 2/20/19 | 2/20/19 |
| E5 | Main Engine | FO (Immediate) | Broken head stud cyl#5L and Charge air cooler A bank leak. | 2/19/19 | 2/25/19 |
| D10 | Main Engine | FO (Immediate) | D10 Cyl 5 L start air valve blank failed | 2/18/19 | 3/1/19 |
| E2 | Auxiliary Systems | FO (Immediate) | Leak from tell tale on cylinder #2 fuel oil pump | 2/17/19 | 2/18/19 |
| GT5 | Main Engine | FO (Immediate) | Combustion cans damaged. | 2/12/19 | NA |
| D10 | Main Engine | MO | Unit out for maintenance due to broken head stud. | 2/11/19 | 2/13/19 |
| E4 | Main Engine | FO (Immediate) | Cylinder 1L fuel leak outlet pipe | 2/8/19 | 2/8/19 |
| GT5 | Main Engine | PO | level A inspection | 2/6/19 | NA |
| E7 | Main Engine | PO | 18K service | 2/3/19 | 3/13/19 |
| E8 | Main Engine | SE of MO | To replace exhaust covers | 2/2/19 | 3/2/19 |
| E8 | Main Engine | MO | exhaust leak inspection | 2/1/19 | 2/2/19 |
| E3 | Electrical System | FO (Postpone) | Cylinder 3L thermocouple faulty | 02/01/19 | 02/01/19 |



Scheduled Generator Maintenance

Feb-19

| Generator | Maintenance Type | Outage Date | Return Date |
|-----------|------------------|-------------|-------------|
| E7 | 18K | 2/4/2019 | 3/13/2019 |
| E6 | 9K | 3/18/2019 | 3/24/2019 |
| D3 | 18K | 3/11/2019 | 3/22/2019 |
| E3 | 9K | 3/11/2019 | 3/26/2019 |



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