#### BERMUDA ELECTRIC LIGHT COMPANY LIMITED

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PLEASE QUOTE OUR REF

January 19, 2016

The Energy Commission c/o The Ministry of Energy, Telecommunications and E-Commerce PO Box HM 101 Hamilton, HM AX

Attention: Mr. Michael Leverock, Chairman

#### **TARIFF FILING**

Dear Mr. Leverock,

This is to advise you that we wish to make the following changes to the fuel adjustment rate ("FAR") and Commercial renewable system excess energy rate ("CRSEER"):

- 1. FAR Maintain the existing rate of 10.0 cents per kilowatt-hour sold for February 2016; and
- 2. CRSEER Increase from 14.77 cents per kilowatt-hour for January to 14.83 cents per kilowatt-hour for all meters read during the month of February 2016.

The CRSEER represents the rate BELCO will pay commercial owners for excess energy they have generated but not consumed and have exported to BELCO.

As directed by the Energy Commission in accordance with Schedule 1 Paragraph 16 of the Energy Act 2009, our submission in support of this request is attached for your review.

The actual fuel adjustment cost recovery position as at 31st December, 2015 was \$1,092,089 over recovered as compared to the projected \$1,118,792 over recovery position projected in December. The \$26,703 unfavorable variance is due to:

- Actual barrels of fuel consumed in December were higher than projected by 3,381 barrels. This <u>negatively</u> impacted the recovery position by \$230,923;
- Net price variance <u>positively</u> impacted the recovery position by \$7,568;
- Actual December electric sales were 2,135,747 KWH's more than projected. This variance resulted in a net positive impact on the fuel recovery position of \$228,093;
- Year end temperature adjustments for fuel inventory <u>positively</u> impacted the recovery position by \$14,397;
   and
- Fuel interest finance cost incurred in December <u>negatively</u> impacted the recovery position by \$45,838.

As always, we are available to meet with the Energy Commission to discuss our FAR submission. We will continue to monitor our projections to ensure that our submitted FAR requests enable us to achieve a break-even position on fuel costs. 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



# Bermuda Electric Light Company Limited

Fuel Adjustment Submission

## FOR PUBLIC DISCLOSURE

February 2016

This information is provided to the Bermuda Energy Commission as directed by them on December 30, 2013, in accordance with Schedule 1, Paragraph 16 of the Bermuda Energy Act 2009. This information should be read in conjunction with documents filed by Ascendant Group Limited with the Bermuda Stock Exchange. Please refer to the Company's website at <a href="https://www.belco.bm">www.belco.bm</a> for further information describing Bermuda Electric Light Company Limited. 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.



# Fuel Adjustment Submission

# Table of Contents

	PAGE
Graph - Cost per Barrel of Heavy Fuel Oil Purchased	<u>3</u>
Graph - Cost per Barrel of Diesel Fuel Oil Purchased	4
Table of Heavy Fuel Oil Inventory Activity	<u>5</u>
Graph - Heavy Fuel Oil Inventory Activity	<u>6</u>
Table of Diesel Fuel Oil Inventory Activity	<u>7</u>
Graph - Diesel Fuel Oil Inventory Activity	8
Table of Heavy Fuel Oil Costs Per Shipment	9
Table of Diesel Fuel Oil Per Shipment	<u>10</u>
Graph - Barrels of Fuel Consumed	<u>11</u>
Graph - Fuel Consumption & Kilowatt Hours Sold	<u>12</u>
Graph - Kilowatt Hours Sold	<u>13</u>
Graph - Maximum 15-Minute & Hourly Peak Kilowatt Hour Demand	<u>14</u>
Graph - Fuel Adjustment Rate vs. Platt's Indices for Heavy & Diesel Fuel	<u>15</u>

Fuel Adjustment Over/(Under) Recovery - Previous Month	<u>16</u>
Fuel Consumption Projections - Forward Three Months	<u>17</u>
Fuel Adjustment Over/(Under) Recovery Projections - Existing Rate	<u>18</u>
Fuel Adjustment Over/(Under) Recovery Projections - Requested Rate	<u>19</u>
Fuel Adjustment Over/(Under) Recovery Projections - Full Cost	<u>20</u>
Generators Available for Service - Previous Month	<u>21</u>
Generators Out of Service - Previous Month	<u>22</u>
Scheduled Generator Maintenance - Filing Period	<u>23</u>
Other Events Affecting The Fuel Adjustment Calculation	<u>24</u>

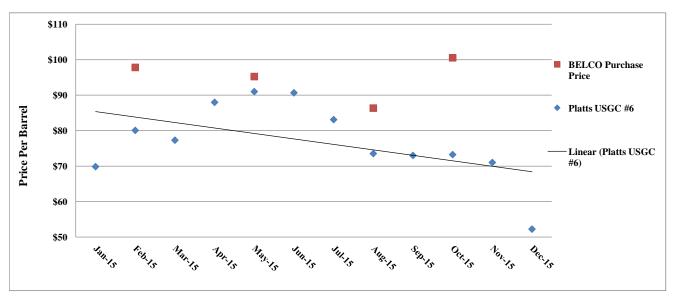


#### **Heavy Fuel Oil Purchased**

#### Versus

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

#### **Previous Twelve Months**

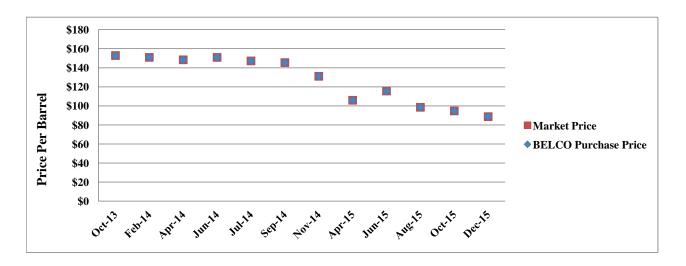


N.B. In accordance with the Fuel Supply Agreement for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil between BELCO and Shell Western Trading Limited, the contracted price is stipulated as the 30-day average for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel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



#### **Diesel Fuel Oil Purchased**

#### **Previous Twelve Months**



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.

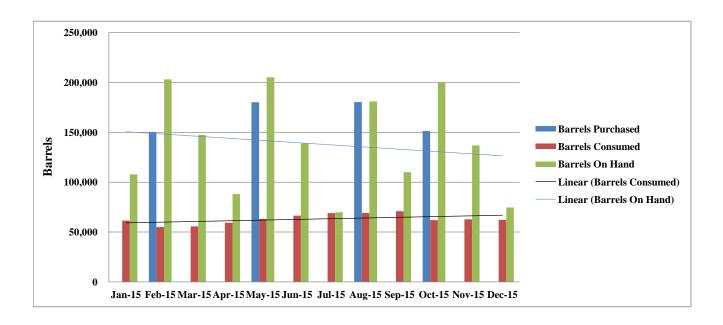


# **Heavy Fuel Oil Inventory Activity**

Date	<b>Barrels Purchased</b>	<b>Barrels Consumed</b>	<b>Barrels On Hand</b>
January, 2015	-	61,419.00	107,755.72
February, 2015	150,289.50	54,987.00	203,058.22
March, 2015	-	55,605.00	147,453.22
April, 2015	-	59,347.00	88,106.22
May, 2015	180,228.50	63,163.00	205,171.72
June, 2015	-	66,399.00	138,772.72
July, 2015	-	69,022.00	69,750.72
August, 2015	180,297.11	69,125.00	180,922.83
September, 2015	-	70,852.00	110,070.83
October, 2015	151,329.70	61,874.55	199,525.98
November, 2015	-	62,737.00	136,788.98
December, 2015	-	62,251.00	74,553.17



## **Graph of Heavy Fuel Oil Inventory Activity**



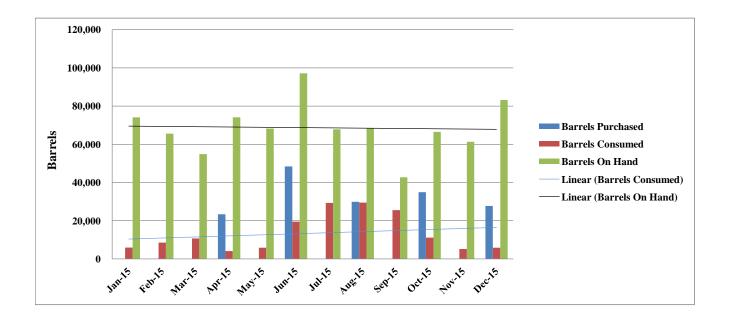


# **Diesel Fuel Oil Inventory Activity**

Date	<b>Barrels Purchased</b>	<b>Barrels Consumed</b>	<b>Barrels On Hand</b>
January, 2015	-	5,959.00	74,129.52
February, 2015	-	8,529.00	65,600.52
March, 2015	-	10,779.00	54,821.52
April, 2015	23,421.39	4,096.00	74,146.91
May, 2015	-	5,914.00	68,232.91
June, 2015	48,413.33	19,525.00	97,121.24
July, 2015	-	29,286.00	67,835.24
August, 2015	29,940.60	29,499.00	68,276.84
September, 2015	-	25,552.00	42,724.84
October, 2015	34,952.60	11,171.00	66,506.44
November, 2015	-	5,216.00	61,290.44
December, 2015	27,725.60	5,874.00	83,142.70



## **Graph of Diesel Fuel Oil Inventory Activity**





## **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**

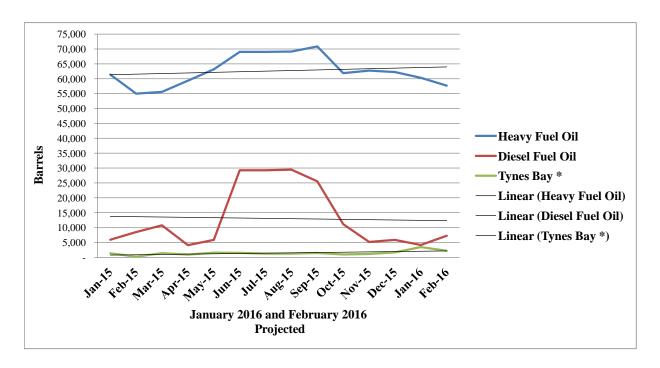
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#### **Barrels of Fuel Consumed**

#### **Previous Twelve Months**

#### **Plus Two Month Forward Projection**



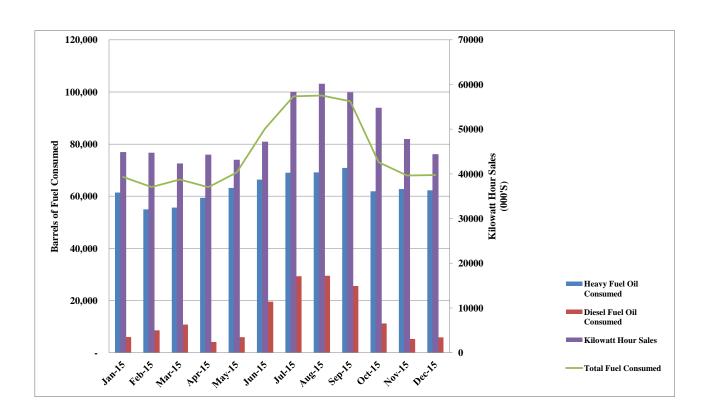
<sup>\*</sup> BELCO calculates an efficiency rating for its generators on a monthly basis. This is calculated as the estimated kilowatt hours that will be generated that month divided by the estimated number of barrels of fuel that will be used. Therefore, the equivalent barrels of fuel is calculated 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**

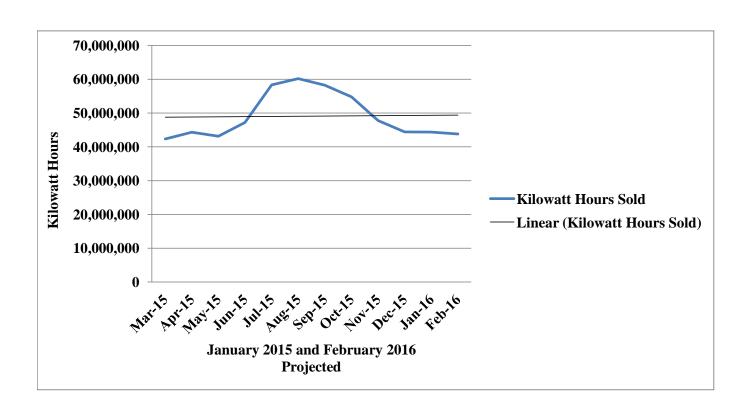




## **Kilowatt Hour Sales**

### **Previous Twelve Months**

### **Plus Two Month Forward Projection**





## **Maximum 15-Minute & Hourly Peak Kilowatt Hour Demand**

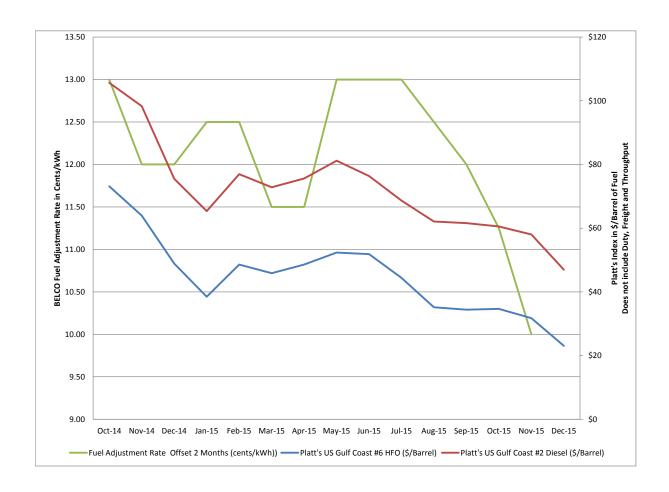




#### **Fuel Adjustment Rate**

#### Versus

#### Platt's Indices for Heavy and Diesel Fuel Oils





## Fuel Adjustment Over / (Under) Recovery

## For the Month Ended 31st December 2015

Opening Balance at 1 December 2015 <u>Fuel Consumption</u>		\$	\$	\$ 1,191,367
Diesel -5,874 bbls @ \$98.5940		579,141	402.021	
Less: Fuel Consumption @ \$30/bbl  Heavy - 15,459.28 bbls @ \$115.0314  Heavy - 30,000.00 bbls @ \$92.1489  Heavy - 16,791.72 bbls @ \$93.9714		(176,220) 1,778,303 2,764,467 1,577,941	402,921	
Less: Fuel Consumption @ \$30/bbl		(1,867,530)	4,253,181	
Tynes Bay - 1,211,812 kWh @ \$0.185 Less: (1,211,812 kWh /722.9) 1,676.32 bbls @ \$30/bbl		224,185 (50,290)	173,895 4,829,997	
Deduct: Fuel Adjustment Revenue (after discount)	\$4,996,240	@ .95315	4,762,166	
December over / (under) recovery	Ψτ,220,240	e .93313 _	4,702,100	(67,831)
Interest Expense				(45,838)
Year End temperature gain adjustment per SOL pump qu	antity			
Cost of Power Purchased from Commercial Providers				14,391
Ending Balance at 31 December 2015			-	1,092,089



# **Fuel Consumption Projections**

# **Forward Three Months**

Shipment			Amount	Total	FADJ (less
Date	Type	Hedged	(Barrels)	Cost/Barrel	<b>\$30/bbl</b> )
October 15	Heavy	Yes	13,223.47	93.9714	63.9714
October 15	Heavy	Yes	30,000.00	115.6389	85.6389
October 15	Heavy	Yes	30,000.00	87.3902	57.3902
October 15	Heavy	No	1,329.70	75.9339	45.9339
January 16	Heavy	Yes	30,000.00	88.9080	58.908
January 16	Heavy	Yes	30,000.00	116.0430	86.043
January 16	Heavy	Yes	30,000.00	79.1475	49.1475
January 16	Heavy	Yes	30,000.00	67.5442	37.5442
August 15	Diesel	No	20,464.80	98.5940	68.5940



## **Fuel Adjustment Over/(Under) Recovery Projections**

## At Existing Fuel Adjustment Rate

## **Three Months Forward**

		Ov	er (Under) Recov	ery account as at end	of 1	previous month:	\$	1,092,089
			. (=====) 210001	- J mo me one	]		т	-, <b>-,</b>
Projected kWh								
Sales - January								
2016	44,371,418		At 10.00 FADJ	@ 95315 (discount)	\$	4,229,262		
Projected fuel								
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>		
	Diesel	August 2015	4,180		\$	(286,722.92)		
	Heavy	October 2015	13,223	( )	\$	(845,923.89)		
	Heavy	October 2015	30,000	, , , ,		(2,569,167.00)		
	Heavy	October 2015	17,085		\$	(980,484.59)		
	Tynes Bay	N/A	3,464	\$ (105.88)	\$	(366,801.77)		
	<b>Total Barrels</b>		67,952					(819,838)
		Projecte	d Over (Under) R	ecovery account as a	t en	d of this month:		272,250
Projected kWh								
Sales - February								
2016	43,804,640		At 10.00 FADJ	@ 95315 (discount)	\$	4,175,239		
Projected fuel								
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>		
	Diesel	August 2015	7,301	\$ (68.59)	\$	(500,804.79)		
	Heavy	October 2015	12,915			(741,221.41)		
	Heavy	October 2015	1,330		\$	(60,697.75)		
	Heavy	January 2016	30,000	. ,		(1,767,240.00)		
	Heavy	January 2016	13,467			(1,158,726.45)		
	Tynes Bay	N/A	2,224	\$ (104.25)	\$	(231,902.69)		
	Total Barrels		67,237					(285,354)
		Projecte	d Over (Under) R	ecovery account as a	t en	d of this month:		(13,104)
Projected kWh								
Sales - March								
2016	41,304,919		At 10.00 FADJ	@ 95315 (discount)	\$	3,936,978		
Projected fuel								
consumed		Shipment Date	Barrels	FADJ Cost/Barrel		Total Cost		
	Diesel	August 2015	2,586		_	(177,384.08)		
	Heavy	January 2016	16,533		\$	(1,422,563.55)		
	Heavy	January 2016	30,000			(1,474,425.00)		
	Heavy	January 2016	12,529	\$ (37.54)		(470,384.90)		
	Tynes Bay	N/A	2,559	\$ (102.53)	\$	(262,363.38)		
	<b>Total Barrels</b>		64,207					129,857
		Projecte	d Over (Under) R	ecovery account as a	t en	d of this month:		116,754



## **Fuel Adjustment Over/(Under) Recovery Projections**

## At Requested Fuel Adjustment Rate

#### **Three Months Forward**

		(	Over (Under) Rec	covery account as at	end o	of previous month:	\$ 1,092,089
Projected kWh							
Sales - January							
2016	44,371,418		At 10.00 FADJ	@ 95315 (discount)	\$	4,229,262	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		Total Cost	
	Diesel	August 2015	4,180			(286,722.92)	
	Heavy	October 2015	13,223			(845,923.89)	
	Heavy	October 2015	30,000			(2,569,167.00)	
	Heavy	October 2015	17,085	\$ (57.39		(980,484.59)	
	Tynes Bay	N/A	3,464	\$ (105.88	\$	(366,801.77)	
	<b>Total Barrels</b>		67,952				(819,838
		Proje	cted Over (Under	) Recovery account a	is at	end of this month:	272,250
Projected kWh							
Sales -							
February 2016	43,804,640		At 10.00 FADJ	@ 95315 (discount)	\$	4,175,239	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		Total Cost	
	Diesel	August 2015	7,301	\$ (68.59)	\$	(500,804.79)	
	Heavy	October 2015	12,915		\$	(741,221.41)	
	Heavy	October 2015	1,330			(60,697.75)	
	Heavy	January 2016	30,000	\$ (58.91	\$	(1,767,240.00)	
	Heavy	January 2016	13,467	\$ (86.04	\$	(1,158,726.45)	
	Tynes Bay	N/A	2,224	\$ (104.25)	\$	(231,902.69)	
	<b>Total Barrels</b>		67,237				(285,354)
		Proje	cted Over (Under	Recovery account a	is at	end of this month:	(13,104)
Projected kWh							
Sales - March							
2016	41,304,919		At 9.75 FADJ	@ 95315 (discount)	\$	3,838,554	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		Total Cost	
	Diesel	August 2015	2,586	\$ (68.59		(177,384.08)	
	Heavy	January 2016	16,533			(1,422,563.55)	
	Heavy	January 2016	30,000			(1,474,425.00)	
	Heavy	January 2016	12,529	\$ (37.54		(470,384.90)	
	Tynes Bay	N/A	2,559	\$ (102.53)	\$	(262,363.38)	
	Total Barrels		64,207				31,433
		Proje	cted Over (Under	Recovery account a	ıs at	end of this month:	18,329



## **Fuel Adjustment Over/(Under) Recovery Projections**

## **At Requested Fuel Adjustment Rate - Full Cost**

#### **Three Months Forward**

		Pro	ojected Over (Und	ler) Recovery account	tas	at end of January:	\$ 272,250
Projected kWh							
Sales -							
February 2016	43,804,640		At 14.83 FADJ	@ 95315 (discount)	\$	6,191,880	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>	
	Diesel	August 2015	7,301	\$ (98.59)	\$	(719,834.79)	
	Heavy	October 2015	12,915	\$ (87.39)	\$	(1,128,685.51)	
	Heavy	October 2015	1,330	\$ (75.65)	\$	(100,588.75)	
	Heavy	January 2016	30,000	\$ (88.91)	\$	(2,667,240.00)	
	Heavy	January 2016	13,467	\$ (116.04)	\$	(1,562,731.35)	
	Tynes Bay	N/A	2,224	\$ (134.25)	\$	(298,634.40)	
	Total Barrels		67,237				(285,835)
		Proje	cted Over (Under	Recovery account as	s at	end of this month:	(13,585)
						•	
Projected kWh							
Sales - March							
2016	41,304,919		At 14.64 FADJ	@ 95315 (discount)	\$	5,763,736	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		Total Cost	
	Diesel	August 2015	2,586	\$ (98.59)	\$	(254,964.08)	
	Heavy	January 2016	16,533	\$ (116.04)	\$	(1,918,558.65)	
	Heavy	January 2016	30,000	\$ (79.15)	\$	(2,374,425.00)	
	Heavy	January 2016	12,529	\$ (67.54)	\$	(846,249.80)	
	Tynes Bay	N/A	2,559	\$ (132.53)	\$	(339,127.20)	
	<b>Total Barrels</b>		64,207				30,412
		Droio	oted Over (Under	Recovery account as	c of	and of this month.	16,827



# **Generators Available for Service**

## December 2015

Generator	Available	Type of fuel Consumed	Barrels of Fuel Consumed	Efficiency Rating*
E1	Yes	HFO	6,166	670
E2	Yes	HFO	9,088	670
E3	Yes	HFO	4,555	702
E4	Yes	HFO	4,742	701
E5	Yes	HFO	9,728	713
E6	Yes	HFO	11,420	733
E7	Yes	HFO	11,078	748
E8	Yes	HFO	10,571	756
D3	Yes	LFO	297	601
D8	Yes	LFO	814	617
D10	Yes	LFO	534	607
D14	Yes	LFO	93	581
GT4	Yes	LFO	0	0
GT5	Yes	LFO	0	0
GT6	Yes	LFO	6	391
GT7	Yes	LFO	8	416
GT8	Yes	LFO	15	431

<sup>\*</sup> Efficiency Rating = Amount of kilowatt hours generated per barrel consumed



## **Generators Out of Service**

## December 2015

Unit	Category	Туре	Forced Outage Details	Outage Date	Return Date
E2	Auxilary Systems	FO (Postpone)	Unit forced out due to JCW vent line rupturing cylinder #4	12/04/15	12/04/15
	, ,	<u> </u>	E2 engine ramp down to 3 MW. EMD was called engine failing to raise or		
E2	Instrumentation & Control System	FO (Immediate)	lower. dropping in and out of droop mode.	12/05/15	12/05/15
D10	Electrical System	FO (Start-Up Fai	No power to engine MCC panel. Adaptor fault alarm indication on PLC.	12/08/15	12/08/15
E3	Main Engine	MO	MO for Hot Deflections and FO Duplex filters change over v/v Seals	12/10/15	12/10/15
E1	Main Engine	FO (Immediate)	Unit Forced out due to Hi exhaust temp on cyl 7	12/11/15	12/13/15
E1	Main Engine	FO (Immediate)	Cyl #4 exhaust temp climb to hi hi alarm causing a ramp down	12/14/15	12/14/15
E1	Auxilary Systems	FO (Immediate)	Fuel leak from telltale at bottom of RHS fuel flex hose	12/15/15	12/15/15
E4	Main Engine	MO	Hot deflections and valve replacement	12/15/15	12/15/15
E2	Main Engine	МО	Unit out for exhaust gas springs and stuffing box on cylinder #2	12/16/15	12/17/15
D8	Main Engine	FO (Immediate)	Unit FO due to fuel leak on R8 Hi pressure Braided fuel line	12/16/15	12/17/15
E6	Main Engine	MO	repair of nozzle coolant leak	12/18/15	12/18/15
E5	Main Engine	FO (Immediate)	E5 F.O. due to broken n/s exhaust pipe	12/18/15	12/18/15
D14	Main Engine	FO (Immediate)	Engine trip due to high crankcase pressure alarm.	12/18/15	12/22/15
E1	Other Systems	MO	control air line modification	12/19/15	12/19/15
D8	Auxilary Systems	MO	LO duplex filter housing change over cock seals	12/21/15	12/21/15
E6	Main Engine	MO	fuel rail brackets	12/21/15	12/21/15
E1	Main Engine	FO (Immediate)	Camshaft lub oil leak on exhaust valve actuator hose, cylinder #4.	12/21/15	12/21/15
E3	Auxilary Systems	MO	Unit out to repair JCW Leak.	12/22/15	12/23/15
E2	Auxilary Systems	FO (Immediate)	Unit out to replace leaking HP fuel Line Cylinder #4	12/24/15	12/25/15
E1	Instrumentation & Control System	FO (Immediate)	Primary speed pick up failed causing unit to trip off load	12/24/15	12/25/15
E5	Main Engine	FO (Immediate)	Main fuel inlet pipe is cracked and leaking	12/25/15	12/26/15
E2	Main Engine	FO (Immediate)	Fuel pump lifted at cylinder #4	12/26/15	12/26/15
E7	Main Engine	MO	HTCW control valve inspection and Exhaust leak inspection	12/28/15	12/29/15
E8	Main Engine	FO (Immediate)	E8 forced out due to fail thermocouple in cyl 7A.	12/29/15	12/30/15
E8	Main Engine	FO (Immediate)	E8 cyl 1B not firing possible seized pump	12/30/15	12/31/15
E1	Main Engine	МО	Unit out to facilitate changing of exhaust gas valve spring on cylinder #7	12/31/15	12/31/15
D10	Main Engine	МО	Unit to M/O to facilitate changing of HP flex fuel hoses Cylinders 3RHS and 6RHS WO # 154291	12/31/15	12/31/15



# **Scheduled Generator Maintenance**

# February 2016

Generator	Maintenance Type	Outage Date	Return Date
E2	12K	01/18/16	02/15/16
E6	12K	02/22/16	03/27/16



## 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 incured by BELCO during the filing period that would result in a potential insurance
- 2. Any major events that have a direct impact on the Fuel Adjustment Rate.

  No major events have occurred during the filing period having an impact on the Fuel Adjustment Rate.
- 3. Changes in Debt Facilities Affecting the Fuel Adjustment Rate.

  The current overdraft facility which expires on 28 February, 2016 has a maximum limit of \$41 million.