#### BERMUDA ELECTRIC LIGHT COMPANY LIMITED

PO. BOX HM 1026, HAMILTON HM DX, BERMUDA TELEPHONE: (441) 295-5111 FAX: EXECUTIVE (441) 292-8975 CUSTOMER SERVICE (441) 292-7832

EMAIL: info@belco.bm WEBSITE: www.belco.bm



PLEASE QUOTE OUR REF.

August 14, 2015

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 13.0 cents per kilowatt-hour sold for September; and
- 2. CRSEER <u>Increase from 18.08 cents per kilowatt-hour for August to 18.29 cents per kilowatt-hour for all meters read during the month of September.</u>

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 July 31st, 2015 was \$3,237,319 under recovered as compared to the projected \$2,826,843 under recovery position reported last month. The \$410,476 unfavorable variance is due to:

- Actual barrels of fuel consumed in July were more than projected by 9,642 barrels. This <u>negatively</u> impacted the recovery position by \$916,662. Additional barrels of fuel were used primarily due to the increase in electric sales demand (see comments below);
- Net price variance positively impacted the recovery position by \$100,472;
- Actual July electric sales were 4,223,150 KWH's more than projected <u>positively</u> impacting the recovery position by \$517,023; and
- Fuel interest finance cost incurred in June <u>negatively</u> impacting the recovery position by \$111,309.

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, C.A., J.P.

Vice President, Finance & Group Controller



## Bermuda Electric Light Company Limited

Fuel Adjustment Submission

## FOR PUBLIC DISCLOSURE

September 2015

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	<u>4</u>
Table of Heavy Fuel Oil Inventory Activity	<u>5</u>
Graph - Heavy Fuel Oil Inventory Activity	<u>6</u>
	<u>_</u>
Table of Diesel Fuel Oil Inventory Activity	7
Graph - Diesel Fuel Oil Inventory Activity	8
Table of Heavy Evel Oil Costs Don Shipment	9
Table of Heavy Fuel Oil Costs Per Shipment	<u>9</u>
Table of Diesel Fuel Oil Per Shipment	10
Table of Breset Fact on For Simplificati	<u> </u>
Graph - Barrels of Fuel Consumed	11
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>

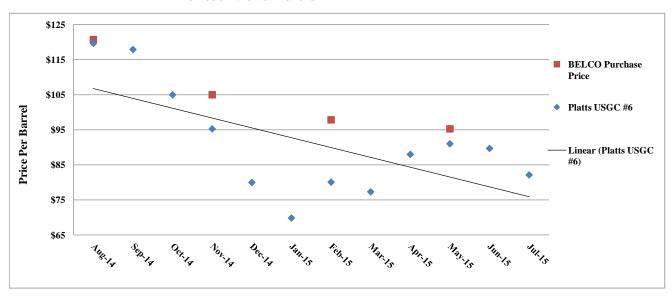


### **Heavy Fuel Oil Purchased**

#### Versus

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

#### **Previous Twelve Months**

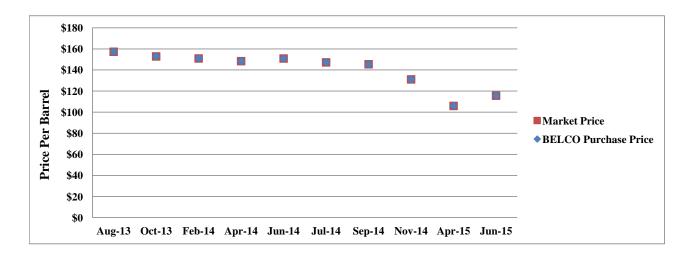


N.B. In accordance with the Fuel Supply Agreement for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil between BELCO and Shell Western Trading Limited, the contracted price is stipulated as the 30-day average for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel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

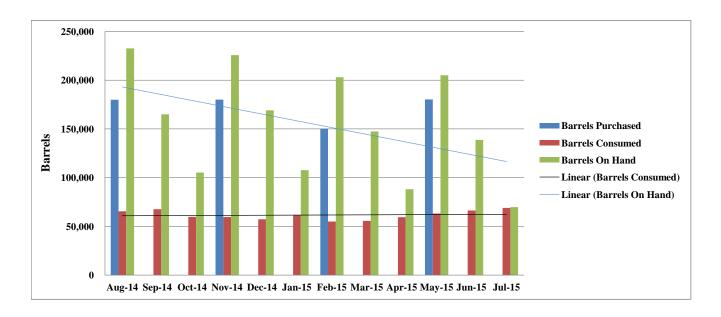


# **Heavy Fuel Oil Inventory Activity**

Date	Barrels Purchased	Barrels Consumed	Barrels On Hand
August, 2014	180,041.29	65,499.00	232,714.72
September, 2014	-	67,611.00	165,103.72
October, 2014	-	59,804.00	105,299.72
November, 2014	180,159.88	59,619.00	225,840.60
December, 2014	-	57,212.00	169,174.72
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



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



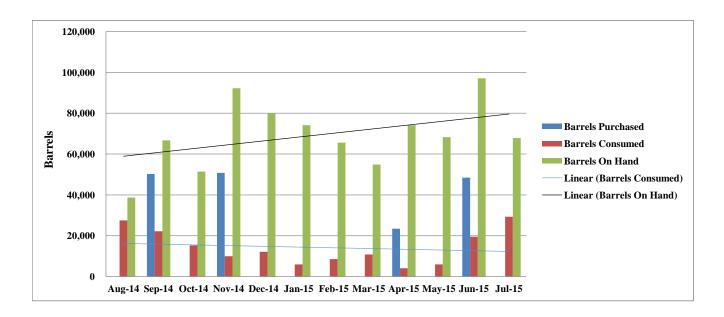


# **Diesel Fuel Oil Inventory Activity**

Date	Barrels Purchased	Barrels Consumed	Barrels On Hand
August, 2014	-	27,530.00	38,689.12
September, 2014	50,189.00	22,176.00	66,702.12
October, 2014	-	15,290.00	51,412.12
November, 2014	50,764.86	9,913.00	92,263.98
December, 2014	-	12,177.00	80,088.52
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



## **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**

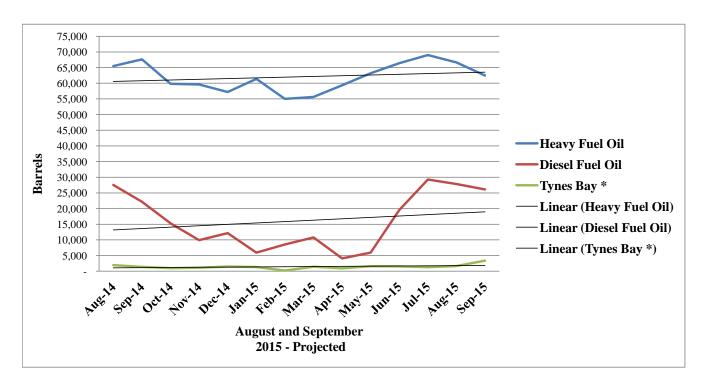
In accordance with Part 4, Paragraph 26A Clause (1)(c)(i) of the Bermuda Energy Act 2009, certain information provided to the Bermuda Energy Commission has been designated as confidential on the grounds that it could result in material financial loss or gain to any person and therefore has been excluded.



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

#### **Previous Twelve Months**

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



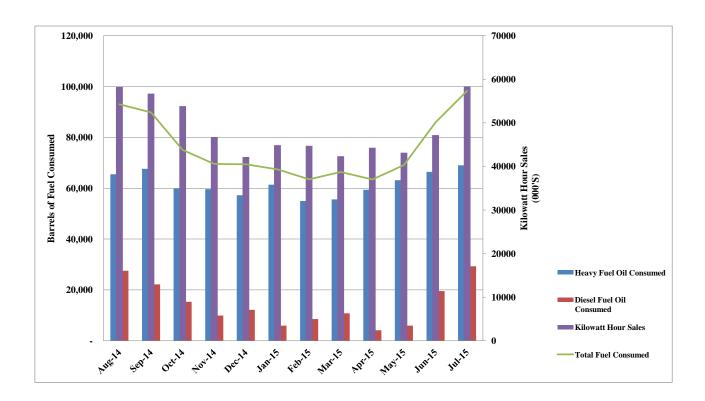
<sup>\*</sup> BELCO calculates an efficiency rating for its generators on a monthly basis. This is calculated as the estimated kilowatt hours that will be generated that month divided by the estimated number of barrels of fuel that will be used. Therefore, the equivalent barrels of fuel is calculated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

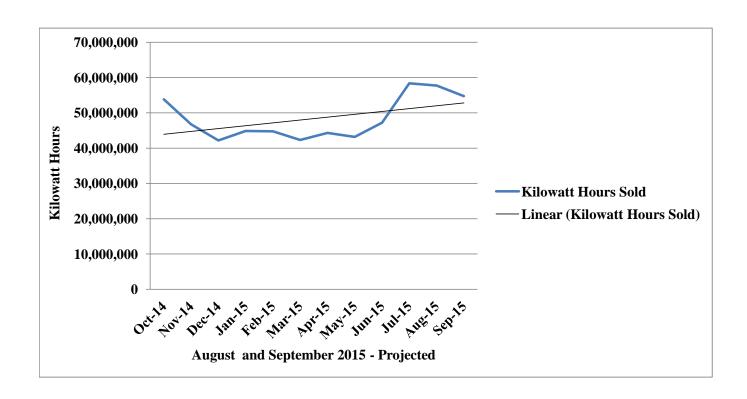




## **Kilowatt Hour Sales**

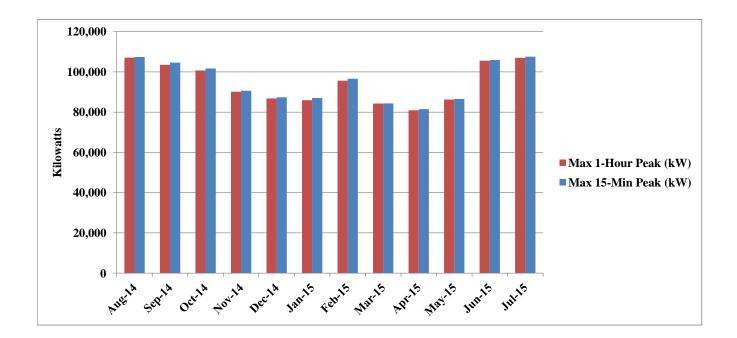
### **Previous Twelve Months**

## **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 July 2015

		\$	\$	\$
Opening Balance at 1 July 2015				(3,132,943)
Fuel Consumption				
Diesel - 29,286 bbls @ \$127.6268		3,737,678		
Less: Fuel Consumption @ \$30/bbl		(878,580)	2,859,098	
Heavy - 18,544.22 bbls @ \$98.0597		1,818,441		
Heavy - 30,000.00 bbls @ \$87.0740		2,612,220		
Heavy - 20,477.78 bbls @ \$91.3772		1,871,202		
Less: Fuel Consumption @ \$30/bbl		(2,070,660)	4,231,203	
Tynes Bay - 888,764 kWh @ \$0.185		164,421		
Less: (888,764 kWh /695.5) 1,277.9 bbls @ \$30/bbl		(38,337)	126,084	
		. , ,	7,216,385	
Deduct: Fuel Adjustment Revenue (after discount)	<b>4= ==</b> 0 0 44	0.07047		
	\$7,578,364	@ .95315	7,223,318	6.022
July over / (under) recovery				6,933
Interest Expense				(111,309)
Cost of Power Purchased from Commercial Providers				0
Ending Balance at 31 July 2015			_	(3,237,319)



# **Fuel Consumption Projections**

# **Forward Three Months**

Shipment			Amount	Total	FADJ (less
Date	Type	Hedged	(Barrels)	Cost/Barrel	\$30/bbl)
May 15	Heavy	Yes	9,522.22	91.3772	61.3772
May 15	Heavy	No	60,228.50	90.2573	60.2573
August 15	Heavy	Yes	30,000.00	114.4605	84.4605
August 15	Heavy	Yes	30,000.00	78.7193	48.7193
August 15	Heavy	Yes	30,000.00	87.4268	57.4268
August 15	Heavy	Yes	30,000.00	91.4767	61.4767
August 15	Heavy	No	6,935.28	93.0208	63.0208
April 15	Diesel	No	19,421.91	105.9076	75.9076
June 15	Diesel	No	45,457.09	115.6252	85.6252



## **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:	\$ (3,237,319)
			(2 2 2 )	<b>y</b>			(-) - ) )
Projected kWh							
Sales - August							
2015	57,721,769		At 13.0 FADJ	@ 95315 (discount)	\$	7,152,276	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>	
	Diesel	April 2015	19,422	\$ (75.91)	\$	(1,474,277.41)	
	Diesel	June 2015	8,425	\$ (85.63)	\$	(721,392.31)	
	Heavy	May 2015	9,522	\$ (61.38)		(584,433.70)	
	Heavy	May 2015	57,153	\$ (60.26)	\$	(3,443,885.47)	
	Tynes Bay	N/A	1,660	\$ (91.03)	\$	(151,135.43)	
	<b>Total Barrels</b>		96,182				777,151
		Projecte	d Over (Under) R	ecovery account as at	t en	d of this month:	(2,460,167)
Projected kWh							
Sales -							
September 2015	54,736,249		At 13.0 FADJ	@ 95315 (discount)	\$	6,782,341	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>	
	Diesel	June 2015	26,093	\$ (85.63)	\$	(2,234,218.34)	
	Heavy	May 2015	3,075	\$ (60.26)	\$	(185,291.20)	
	Heavy	August 2015	30,000	\$ (84.46)	\$	(2,533,815.00)	
	Heavy	August 2015	29,407	\$ (48.72)	\$	(1,432,688.46)	
	Tynes Bay	N/A	3,368	\$ (29.67)	\$	(99,908.88)	
	Total Barrels		91,943				296,419
		Projecte	d Over (Under) R	ecovery account as at	t en	d of this month:	(2,163,748)
Projected kWh							
Sales - October							
2015	51,806,529		At 13.0 FADJ	@ 95315 (discount)	\$	6,419,321	
Projected fuel							
consumed		Shipment Date	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>	
	Diesel	June 2015	10,939	\$ (85.63)	\$	(936,654.06)	
	Heavy	August 2015	593	\$ (48.72)	\$	(28,890.54)	
	Heavy	August 2015	30,000	\$ (57.43)	\$	(1,722,804.00)	
	Heavy	August 2015	30,000	\$ (61.48)	\$	(1,844,304.00)	
	Heavy	August 2015	6,936	\$ (63.02)	\$	(437,112.27)	
	Tynes Bay	N/A	3,425	\$ (98.35)	\$	(336,824.00)	
	Total Barrels		81,893				1,112,732
		Projecte	d Over (Under) R	ecovery account as at	t en	d of this month:	(1,051,016)



## Fuel Adjustment Over/(Under) Recovery Projections

## At Requested Fuel Adjustment Rate

## **Three Months Forward**

Over (Under) Recovery account as at end of previous month: \$							\$ (3,237,319)
Projected kWh							
Sales - August							
2015	57,721,769		At 13.0 FADJ	@ 95315 (discount	()	\$ 7,152,276	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barr	el	Total Cost	
	Diesel	April 2015	19,422	\$ (75.9	91)	\$ (1,474,277.41)	
	Diesel	June 2015	8,425	\$ (85.6	53)	\$ (721,392.31)	
	Heavy	May 2015	9,522	\$ (61.3	38)	\$ (584,433.70)	
	Heavy	May 2015	57,153	\$ (60.2	26)	\$ (3,443,885.47)	
	Tynes Bay	N/A	1,660	\$ (91.0	)3)	\$ (151,135.43)	
	Total Barrels		96,182				777,151
		Projec	ted Over (Under)	Recovery accoun	t as	at end of this month:	(2,460,167)
		<u> </u>		•			.,,,,
Projected kWh							
Sales -							
September 2015	54.736.249		At 13.0 FADJ	@ 95315 (discount	)	\$ 6,782,341	
Projected fuel	2 1,7 2 3,2 13		110 1010 11120	C years (discount	9	¢ 0,702,811	
consumed		Shipment Date	Barrels	FADJ Cost/Barr	ρÌ	Total Cost	
consumed	Diesel	June 2015	26,093			\$ (2,234,218.34)	
	Heavy	May 2015	3,075			\$ (185,291.20)	
	Heavy	August 2015	30,000			\$ (2,533,815.00)	
	Heavy	August 2015	29,407	\$ (48.7)		\$ (1,432,688.46)	
	Tynes Bay	N/A	3,368	· ·		\$ (99,908.88)	
	Total Barrels	14/21	91,943	ψ (2).(	,,,	ψ (22,200.00)	296,419
	Total Dalles	Project		Dogovory occoun	t oc	at end of this month:	(2,163,748)
		110,60	ted Over (Onder)	Recovery account	ı as	at the of this month.	(2,103,740)
Projected kWh							
Sales - October							
	51,806,529		At 13.0 FADJ	@ 95315 (discount		\$ 6,419,321	
Projected fuel	31,000,329		At 15.0 FADJ	w 93313 (discould	.)	Ψ 0,419,321	
consumed		Shipment Date	Barrels	FADJ Cost/Barr	اام	Total Cost	
consumed	Diesel	June 2015	10,939	\$ (85.6		\$ (936,654.06)	
	Heavy	August 2015	593	\$ (48.7)		\$ (28,890.54)	
	Heavy	August 2015 August 2015	30,000			\$ (28,890.34)	
	Heavy	August 2015 August 2015	30,000			\$ (1,722,804.00) \$ (1,844,304.00)	
	•	August 2015 August 2015	6,936			\$ (1,844,304.00) \$ (437,112.27)	
	Heavy	N/A	3,425			\$ (437,112.27)	
	Tynes Bay Total Barrels	N/A	3,425 <b>81,893</b>	\$ (98.3	(3)	\$ (330,824.00)	1 110 722
	Total Barreis	T. 1	,	D.		.4 1 . 6 41 *	1,112,732 (1,051,016)
	Projected Over (Under) Recovery account as at end of this month:						



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

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

## **Three Months Forward**

Projected Over (Under) Recovery account as at end of August: \$							\$ (2,460,167)
Projected kWh							
Sales -	Z 1 72 5 2 10			0.05045 (1)	Φ.	0.540.000	
September 2015	54,736,249		At 18.29 FADJ	@ 95315 (discount)	\$	9,542,232	
Projected fuel		Chinana A Data	D 1	EADLC 4/D		T . 1.C	
consumed	D: 1	Shipment Date	Barrels	FADJ Cost/Barrel	Φ	Total Cost	
	Diesel	June 2015	26,093	( )	_	(3,017,008.34)	
	Heavy	May 2015	3,075	( /	_	(277,541.20)	
	Heavy	August 2015	30,000			(3,433,815.00)	
	Heavy	August 2015	29,407	\$ (78.72)		(2,314,898.46)	
	Tynes Bay	N/A	3,368	\$ (59.67)	\$	(200,945.52)	
	<b>Total Barrels</b>		91,943				298,024
		Proje	cted Over (Under	) Recovery account as	sat	end of this month:	(2,162,144)
Projected kWh							
Sales - October							
2015	51,806,529		At 17.97 FADJ	@ 95315 (discount)	\$	8,873,477	
Projected fuel							
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		<b>Total Cost</b>	
	Diesel	June 2015	10,939	\$ (115.63)	\$	(1,264,824.06)	
	Heavy	August 2015	593	\$ (78.72)	\$	(46,680.54)	
	Heavy	August 2015	30,000	\$ (87.43)	\$	(2,622,804.00)	
	Heavy	August 2015	30,000	\$ (91.48)	\$	(2,744,304.00)	
	Heavy	August 2015	6,936	\$ (93.02)	\$	(645,192.27)	
	Tynes Bay	N/A	3,425	\$ (128.35)	\$	(439,568.33)	
	Total Barrels		81,893				1,110,104
		Proje	cted Over (Under	) Recovery account as	at	end of this month:	(1,052,040)



## **Generators Available for Service**

# **July 2015**

Generator	Available	Type of fuel Consumed	Barrels of Fuel Consumed	Efficiency Rating*
E1	yes	HFO	927	655
E2	yes	HFO	10,237	646
E3	yes	HFO	8,383	691
E4	yes	HFO	8,270	691
E5	yes	HFO	11,107	704
E6	yes	HFO	11,293	718
E7	yes	HFO	11,320	738
E8	yes	HFO	12,324	741
D3	yes	LFO	3,925	633
D8	yes	LFO	1,407	594
D10	yes	LFO	4,571	606
D14	yes	LFO	3,106	594
GT4	yes	LFO	1,160	279
GT5	yes	LFO	7,698	449
GT6	yes	LFO	861	454
GT7	yes	LFO	837	483
GT8	yes	LFO	607	535
GT3E	yes	LFO	45	39
GT3E	yes	LFO	30	65

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



#### **Generators Out of Service**

#### July 2015

Unit	Category	Type	Forced Outage Details		Return Date
E2	Main Engine	MO	Unit out for port inspection #5 and #8	07/04/15	07/04/15
D14	Auxilary Systems	FO (Postpone)	Hi LO pressure differential alarmed so FO for filter change	07/05/15	07/05/15
GT6	Other Systems	MO	Units has a fault on its Fire System	07/08/15	07/08/15
E7	Main Engine	MO	Unit MO for draining of LO	07/07/15	07/08/15
D3	Auxilary Systems	FO (Immediate)	Fuel oil leaks on A bank, FVCW leak on #3A top pipe.	07/09/15	07/09/15
GT4	Main Engine	FO (Immediate)	Hydraulic start motor leak.	07/09/15	07/09/15
E7	Instrumentation & Control System	FO (Postpone)	Unit out due to Air spring system leak and all systems position low alarm.	07/13/15	07/13/15
E2	Instrumentation & Control System	FO (Immediate)	E2 E-Stop accidentally pushed in by a fan when it fell over and bumped it. The fan was tangled in the service a	07/15/15	07/15/15
E6	Auxilary Systems	MO	HTCW bellows on inlet pipe to cooler	07/15/15	07/16/15
E6	Auxilary Systems	FO (Immediate)	Cyl #3 RHS fuel leak around the pump	07/16/15	07/16/15
E5	Main Engine	FO (Immediate)	High exhaust temperature suspect injector or exhaust valve failure	07/21/15	07/23/15
GT4	Electrical System	FO (Immediate)	MCB would not close in auto or manual operation	07/23/15	07/24/15
D8	Main Engine	MO	M.O. for indicator cock and Rocker system leak	07/25/15	07/26/15
E6	Auxilary Systems	MO	E6 6 rad fan and nutshell line repair	07/26/15	07/26/15
E6	Auxilary Systems	FO (Immediate)	Unit forced out due to high HTCW temp.	07/27/15	07/27/15
E2	Electrical System	MO	Unit out to facilitate mechanical sync checks by EMD.	07/28/15	07/29/15
E1	Main Engine	MO	Unit out for minor follow up jobs.	07/29/15	07/29/15



# **Scheduled Generator Maintenance**

# September 2015

Generator	Maintenance Type	Outage	Return
	, , , , , , , , , , , , , , , , , , ,	Date	Date
E2	9K	Wed 8/26/15	Thu 9/10/15
E6	9K	Thu 9/10/15	Thu 9/17/15
E8	12K	Thu 9/17/15	Thu 9/24/15
E7	9K	Thu 9/24/15	Thu 10/1/15



## 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.