#### 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.



January 10, 2016

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

Attention: Mr. Mathew Copeland, CEO

#### **TARIFF FILING**

Dear Mr. Copeland,

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 <u>Maintain</u> the existing rate of 8.00 cents per kilowatt-hour sold for February 2017; and
- 2. CRSEER <u>Decrease</u> from 13.81 cents per kilowatt-hour for January 2017 to 12.73 cents per kilowatt-hour for all meters read during the month of February 2017.

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

Please note that our submission is provided using the minimum filing report ("MFR") format established by the former Energy Commission.

The actual fuel adjustment cost recovery position as at December 31, 2016 was \$1,609,217 over recovered as compared to the projected \$1,829,913 over recovery position projected in December. The \$220,696 unfavorable variance is due to:

- The total actual barrels of fuel consumed in December were 718 barrels higher than projected, resulting in a <a href="mailto:negative">negative</a> impact on the recovery position of \$75,005;
- Net price variance <u>positively</u> impacted the recovery position by \$2,066; and
- Actual December electric sales were 1,722,763 KWH's lower than projected. This variance resulted in a net negative impact on the fuel recovery position of \$147,757.

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 2017

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

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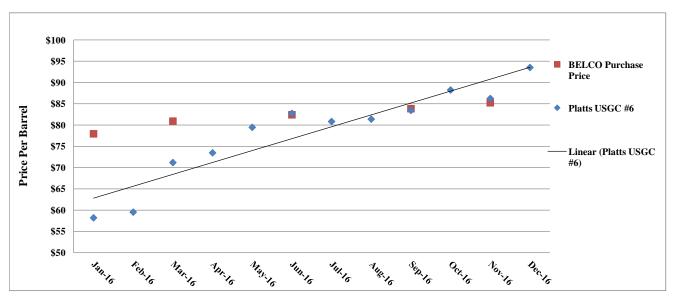


#### **Heavy Fuel Oil Purchased**

#### Versus

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

#### **Previous Twelve Months**

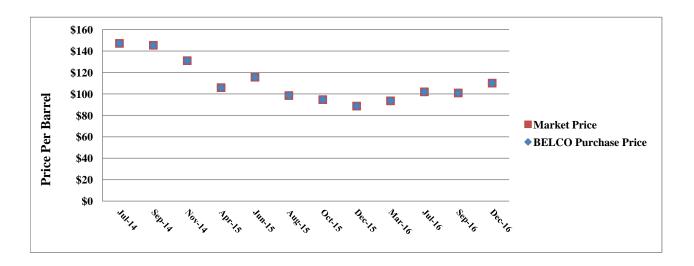


N.B. In accordance with the Fuel Supply Agreement for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel Oil between BELCO and Shell Western Trading Limited, the contracted price is stipulated as the 30-day average for Platt's U.S. Gulf Coast Waterborne mid-No. 6, 3% Sulfur Heavy Fuel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

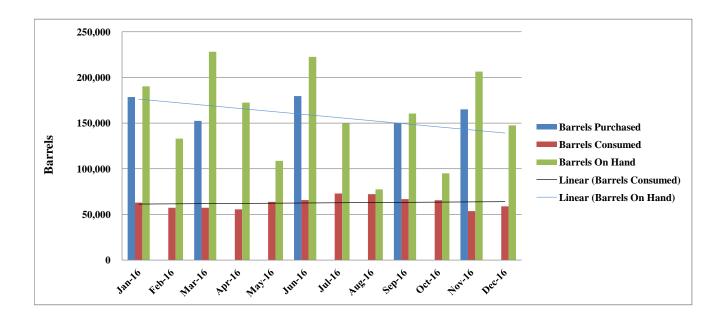


# **Heavy Fuel Oil Inventory Activity**

Date	<b>Barrels Purchased</b>	<b>Barrels Consumed</b>	<b>Barrels On Hand</b>
January, 2016	178,534.67	62,874.00	190,213.84
February, 2016	-	57,254.00	132,959.84
March, 2016	152,460.51	57,382.00	228,038.35
April, 2016	-	55,652.00	172,386.35
May, 2016	-	63,805.00	108,581.35
June, 2016	179,621.88	65,692.00	222,511.23
July, 2016	-	72,880.00	149,631.23
August, 2016	-	72,216.00	77,415.23
September, 2016	149,880.68	66,740.00	160,555.91
October, 2016	-	65,575.00	94,980.91
November, 2016	165,045.90	53,649.00	206,377.81
December, 2016	-	58,844.00	147,533.81



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



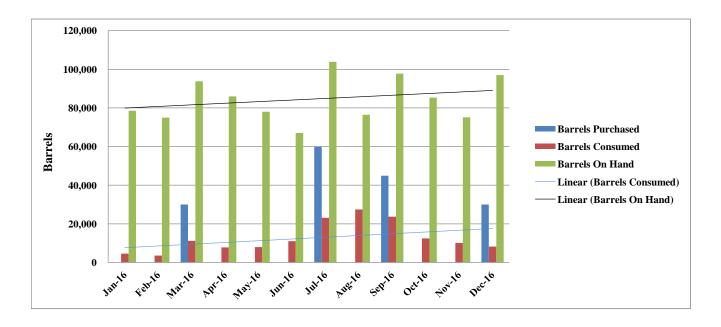


# **Diesel Fuel Oil Inventory Activity**

Date	Date Barrels Purchased		<b>Barrels On Hand</b>	
January, 2016	-	4,594.07	78,548.63	
February, 2016	-	3,566.00	74,982.63	
March, 2016	30,023.88	11,234.65	93,771.86	
April, 2016	-	7,806.00	85,965.86	
May, 2016	-	7,934.26	78,031.60	
June, 2016	-	11,012.69	67,018.91	
July, 2016	60,013.52	23,110.99	103,921.44	
August, 2016	-	27,414.40	76,507.04	
September, 2016	44,939.15	23,686.64	97,759.55	
October, 2016	-	12,448.60	85,310.95	
November, 2016	-	10,151.55	75,159.40	
December, 2016	30,003.67	8,182.48	96,980.59	



## **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**

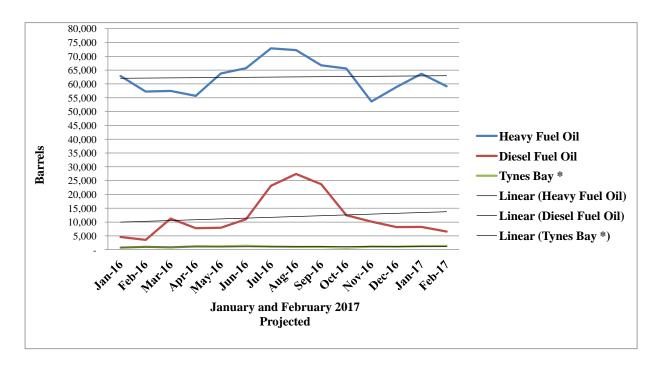
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#### **Barrels of Fuel Consumed**

#### **Previous Twelve Months**

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



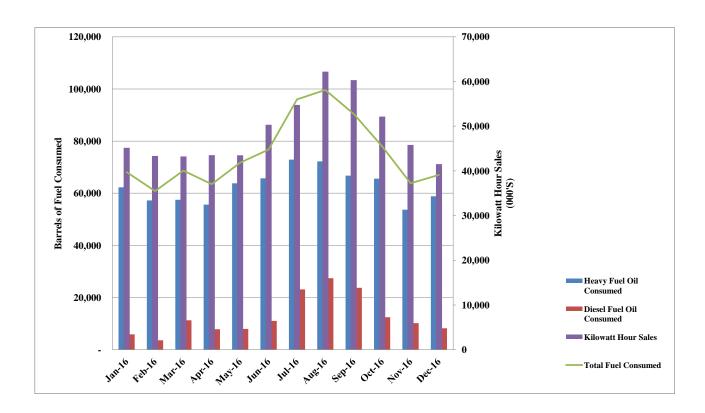
<sup>\*</sup> BELCO calculates an efficiency rating for its generators on a monthly basis. This is calculated as the estimated kilowatt hours that will be generated that month divided by the estimated number of barrels of fuel that will be used. Therefore, the equivalent barrels of fuel is calculated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

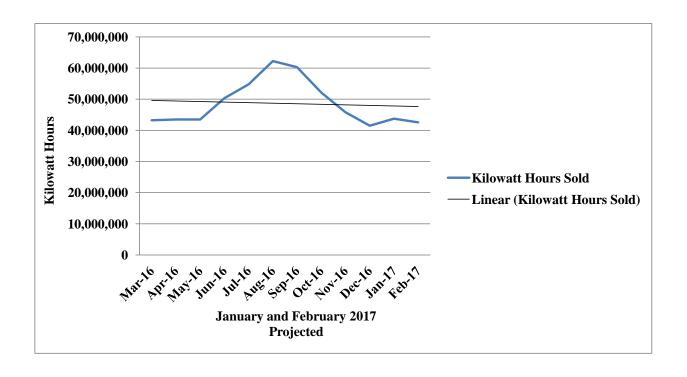




#### **Kilowatt Hour Sales**

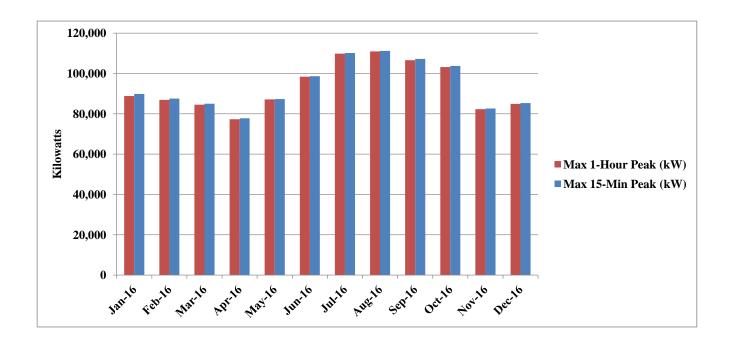
#### **Previous Twelve Months**

## **Plus Two Month Forward Projection**





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

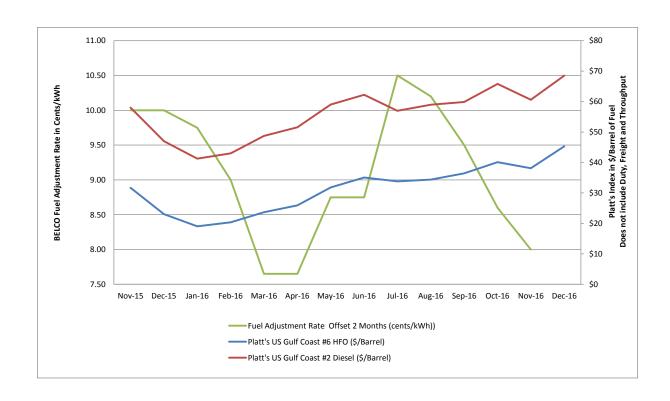




#### **Fuel Adjustment Rate**

#### Versus

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





## Fuel Adjustment Over / (Under) Recovery

## For the Month Ended 31st December 2016

Opening Balance at 1 December 2016 <u>Fuel Consumption</u>	\$	\$	\$ 1,861,832
Diesel - 8,182.48 @ \$101.9777	834,430		
Less: Fuel Consumption @ \$30/bbl	(245,474)	588,956	
Heavy - 41,331.91 bbls @ \$82.7683 Heavy - 17,512.09 bbls @ \$84.0321	3,420,972 1,471,578		
Less: Fuel Consumption @ \$30/bbl	(1,765,320)	3,127,230	
Tynes Bay - 748,308 kWh @ \$0.185 Less: (748,308 kWh /711.0) 1,052.47 bbls @ \$30/bbl	138,437 (31,574)	106,863 3,823,049	
Deduct: Fuel Adjustment Revenue		3,570,434	
December over / (under) recovery			(252,615)
Interest Expense			-
Ending Balance at 31 December 2016		_	1,609,217



# **Fuel Consumption Projections**

# **Forward Three Months**

			Amount	Total	FADJ (less
<b>Shipment Date</b>	Type	Hedged	(Barrels)	Cost/Barrel	\$30/bbl)
November 2016	Heavy	No	12,487.91	84.0321	54.0321
November 2016	Heavy	Yes	30,000.00	82.9183	52.9183
November 2016	Heavy	Yes	30,000.00	87.0697	57.0697
November 2016	Heavy	No	75,045.90	85.9015	55.9015
January 2017	Heavy	Yes	30,000.00	79.8829	49.8829
January 2017	Heavy	Yes	60,000.00	89.8560	59.8560
July 2016	Diesel	No	22,037.71	101.9777	71.9777
September 2016	Diesel	No	44,939.15	100.9380	70.9380



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

## At Existing Fuel Adjustment Rate

## **Three Months Forward**

Over (Under) Recovery account as at end of previous month: \$						\$ 1,609,217
Projected kWh						
Sales - January						
2017	43,727,752		FADJ	8.00	\$ 3,498,220	
Projected fuel		G1.4				
consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2016	8,241	\$ (71.98)		
	Heavy	November 2016	12,488	\$ (54.03)		
	Heavy	November 2016	30,000	\$ (52.92)		
	Heavy	November 2016	21,190	\$ (57.07)	\$ (1,209,312.08)	
	Tynes Bay	N/A	1,311	\$ (100.67)	\$ (132,012.62)	(600 570
	Total Barrels		73,230			(698,570)
		Projecte	d Over (Under) R	ecovery account as a	t end of this month:	910,647
D						
Projected kWh						
Sales - February 2017	42,546,604		FADJ	0.00	\$ 3,403,728	
Projected fuel	42,340,004		FADJ	8.00	\$ 3,403,728	
consumed		Shipment Date	Damala	FADJ Cost/Barrel	Total Cost	
Consumed	Diesel	July 2016	Barrels			
		November 2016	6,592 8,810	\$ (71.98) \$ (57.07)		
	Heavy Heavy	November 2016	50,341	\$ (55.90)	\$ (2,814,142.44)	
	Tynes Bay	N/A	1,327	\$ (33.90)	\$ (2,814,142.44)	
	Total Barrels	IV/A	67,070	\$ (102.79)	\$ (130,401.30)	(524,071)
	Total Darreis	Projecto	,	ecovery account as a	t and of this month.	386,576
		Projecte	u Over (Under) R	ecovery account as a	t end of this month;	380,370
Projected kWh						
Sales - March						
2017	41,308,560		FADJ	8.00	\$ 3,304,685	
Projected fuel	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1120		7 2,20 1,000	
consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2016	7,205	\$ (71.98)	\$ (518,578.45)	
	Diesel	September 2016	238	\$ (70.94)		
	Heavy	November 2016	24,705	\$ (55.90)		
	Heavy	January 2017	30,000	\$ (49.88)	\$ (1,496,487.00)	
	Heavy	January 2017	7,385			
	Tynes Bay	N/A	1,294	\$ (101.36)		
	Total Barrels		70,827	,	,	(681,547)
		Projecte	d Over (Under) R	ecovery account as a	t end of this month:	(294,971



## Fuel Adjustment Over/(Under) Recovery Projections

## At Requested Fuel Adjustment Rate

## **Three Months Forward**

Over (Under) Recovery account as at end of previous month:							\$ 1,609	,217
				•		•		
Projected kWh								
Sales - January								
2017	43,727,752		FADJ	8.00	\$	3,498,220		
Projected fuel								
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		Total Cost		
	Diesel	July 2016	8,241	\$ (71.98)	\$	(593,168.23)		
	Heavy	November 2016	12,488		\$	(674,748.00)		
	Heavy	November 2016	30,000		\$	(1,587,549.00)		
	Heavy	November 2016	21,190		\$	(1,209,312.08)		
	Tynes Bay	N/A	1,311	\$ (100.67)	\$	(132,012.62)		
	Total Barrels		73,230				(698	3,570)
		Projec	ted Over (Under)	Recovery account as	s at e	end of this month:	910	),647
Projected kWh								
Sales -								
February 2017	42,546,604		FADJ	8.00	\$	3,403,728		
Projected fuel		-						
consumed		Shipment Date	Barrels	FADJ Cost/Barrel		Total Cost		
	Diesel	July 2016	6,592	\$ (71.98)	\$	(474,477.00)		
	Heavy	November 2016	8,810		\$	(502,778.92)		
	Heavy	November 2016	50,341		\$	(2,814,142.44)		
	Tynes Bay	N/A	1,327	\$ (102.79)	\$	(136,401.36)		
	Total Barrels		67,070					1,071)
		Projec	ted Over (Under)	Recovery account as	s at e	end of this month:	386	5,576
Projected kWh								
Sales - March								
2017	41,308,560		FADJ	8.80	\$	3,635,153		
Projected fuel						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
consumed		<b>Shipment Date</b>	Barrels	FADJ Cost/Barrel		Total Cost		
	Diesel	July 2016	7,205	\$ (71.98)	\$	(518,578.45)		
	Diesel	September 2016	238	\$ (70.94)	\$	(16,903.82)		
	Heavy	November 2016	24,705		\$	(1,381,035.94)		
	Heavy	January 2017	30,000	\$ (49.88)	\$	(1,496,487.00)		
	Heavy	January 2017	7,385	\$ (59.86)	\$	(442,047.93)		
	Tynes Bay	N/A	1,294	\$ (101.36)	\$	(131,179.00)		
	Total Barrels		70,827				(351	1,079)
		Projec	ted Over (Under)	Recovery account as	at e	end of this month:	35	5,497



#### Commercial Renewable System Excess Energy Rate ("CRSEER")

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

		Pro	jected Over (Und	ler) Recovery account	as at end of January:	\$ 910,647
Projected kWh						
Sales - February 2017	42,546,604		CRSEER	12.73	\$ 5,416,183	
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2016	6,592	\$ (101.98)	\$ (672,237.00)	
	Heavy	November 2016	8,810			
	Heavy	November 2016	50,341	\$ (85.90)	\$ (4,324,375.14)	
	Tynes Bay	N/A	1,327	\$ (132.79)	\$ (176,209.91)	
	<b>Total Barrels</b>		67,070			(523,716)
		Proje	cted Over (Under	e) Recovery account as	s at end of this month:	386,932
Projected kWh Sales - March 2017	41,308,560		CRSEER	13.94	\$ 5,758,413	
Projected fuel consumed		Shipment Date	Barrels	FADJ Cost/Barrel	Total Cost	
	Diesel	July 2016	7,205		\$ (734,719.75)	
	Diesel	September 2016	238	( /		
	Heavy	November 2016	24,705	\$ (85.90)	\$ (2,122,180.24)	
	Heavy	January 2017	30,000			
	Heavy	January 2017	7,385	. ,		
	Tynes Bay	N/A	1,294	\$ (131.36)	\$ (170,004.64)	
	Total Barrels		70,827			(352,635)
		Proje	cted Over (Under	e) Recovery account as	s at end of this month:	34,297



# **Generators Available for Service**

## December 2016

Generator	Available	Type of fuel Consumed	Barrels of Fuel Consumed	Efficiency Rating*
E1	Yes	HFO	9376	657
E2	Yes	HFO	9016	655
E3	Yes	HFO	1733	652
E4	Yes	HFO	4755	687
E5	Yes	HFO	10853	667
E6	Yes	HFO	6653	686
E7	Yes	HFO	10860	705
E8	Yes	HFO	11025	715
D3	Yes	LFO	1437	610
D8	Yes	LFO	1567	623
D10	Yes	LFO	716	619
D14	Yes	LFO	297	585
GT4	Yes	LFO	27	223
GT5	Yes	LFO	630	416
GT6	Yes	LFO	32	413
GT7	Yes	LFO	143	456
GT8	Yes	LFO	58	226

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



## **Generators Out of Service**

## December 2016

Unit	Category	Туре	Forced Outage Details	Outage Date	Return Date
E7	Auxilary Systems	FO (Immediate)	E7 LTCW leak on stainless line connecting coolers	12/31/16	12/31/16
D3	Main Engine	MO	MO for various Leaks Injector, Lube Oil and Fuel Oil		01/02/17
E4	Main Engine	MO	Fuel leak repairs	12/28/16	12/28/16
E4	Instrumentation & Control System	FO (Immediate)	Oil Mist Detector air flow fault would not reset.	12/28/16	12/28/16
E4	Auxilary Systems	FO (Immediate)	Failed JCW inlet bellows (rubber)	12/26/16	12/26/16
E2	Main Engine	FO (Immediate)	LO leak Cyl 3 Exhaust Vent v/v	12/25/16	12/27/16
D8	Main Engine	FO (Immediate)	Unit out due to knocking noise in cylinder #1LHS	12/23/16	12/29/16
GT4	Electrical System	FO (Immediate)	Unit out due to low oil in auxiliary transformer	12/23/16	NULL
E6	Other Systems	MO	Unit out for exhaust stack inspection	12/22/16	12/22/16
E1	Auxilary Systems	MO	Unit out for various repairs	12/22/16	12/22/16
E2	Auxilary Systems	FO (Immediate)	Unit out for camshaft lub oil leak at #6 cylinder exhaust valve actuator		12/22/16
E6	Auxilary Systems	MO	E6 cyl l.o. pump replacement		12/23/16
E7	Main Engine	MO	unit stopped to apply reflective tape to fly wheel	12/19/16	12/19/16
E3	Main Engine	MO	MO for Crankcase Inspection and follow up Jobs	12/18/16	12/19/16
E1	Main Engine	MO	Unit out for head replacement	12/17/16	12/19/16
D14	Auxilary Systems	MO	MO for D14/D15 Exhaust Stack Inspection	12/15/16	12/17/16
E7	Electrical System	МО	Unit out to allow EMD to troubleshoot ground fault experienced on UAT recently	12/10/16	12/11/16
D3	Main Engine	FO (Postpone)	Unit out to replace cylinder head for Jacket Cooling Water leak.	12/08/16	12/09/16
D10	Main Engine	FO (Postpone)	Unit out to replace cylinder head for Jacket Cooling Water leak. Outage changed to 13.5K service.	12/08/16	12/23/16
E8	Main Engine	MO	replacement of fuel seals	12/06/16	12/06/16
E8	Main Engine	FO (Immediate)	E8 cyl 4R fuel rail seal		12/04/16
E8	Auxilary Systems	FO (Immediate)	Cyl 11 fuel rail leak	12/03/16	12/03/16
E8	Auxilary Systems	FO (Immediate)	E8 fuel rail leak Cyl #3L south upper pipe	12/02/16	12/02/16



# **Scheduled Generator Maintenance**

# January 2017

Generator	Maintenance Type	Outage Date	Return Date
E7	18K (major service)	1/3/2016	1/30/2016
E1	12K(major service)	1/31/2016	2/14/2016



#### Other Events Affecting the Fuel Adjustment Rate

- 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 claim.
- Any major events that have a direct impact on the Fuel Adjustment Rate.
   There have been no other events having a direct impact on the Fuela Adjustment Rate during the filing period.
- Changes in Debt Facilities Affecting the Fuel Adjustment Rate.
   The current overdraft facility of \$18 million expires 28 February 2017.
- Change in the Discount calculated on customer invoices
   There have been no changes to the Discounts calculated on customer invoices during the filing period.