

Lake Road Generating Station Coal Performance Adjustment

**Due to Boiler 5 Outage:
May 17, 2015-July 18, 2015
Update as of October 15, 2015**

Boiler 5 Outage Overview-

At the Lake Road Generating Station, Boiler 5 is the main boiler used for generating steam due to its ability to burn coal, the lowest cost fuel. Increasing incidents in tube leaks has necessitated a need to replace Boiler 5 super-heater and casing for purposes of restoring its capability to operate at 250,000 PPH.

While there have been repairs and replacements to other equipment to maintain Boiler 5 performance (that has already necessitated an adjustment to the coal performance standard), the actual major maintenance to improve performance on Boiler 5 has not been scheduled until now. An outage is currently planned for Q2 2015 through Q3 2015 to allow for major maintenance of Boiler 5. This outage will occur on May 17th and is expected to last through July 18 and will impact 2 Quarters that will require further adjustment of the Coal Performance Standard. All customers have been notified of the outage and the impact on unavailability of coal during that time.

Coal Performance Standard-

As set under section 2. (b.) of the Quarterly Cost Adjustment Rider(QCA) –Steam Tariff, a coal performance standard is set at 1,920,000 million BTU on a 12 month basis and 460,000 million BTU 3 month standard. Both are based on sales exceeding 2,594,975 million BTUs. The Coal Performance Standard sets a certain utilization of coal for purposes of the minimization of incurred total fuel costs to steam customers.

Adjustment of the Coal Performance Standard 2015-

As outlined in 2. (c.), of the QCA-Steam Tariff, the Coal Performance Standard may be adjusted to reflect major scheduled outage for system maintenance and improvement. In the event of a major scheduled outage for system maintenance and improvement, such as occurred in the last quarter of 2008, the Coal Performance Standard shall be subject to further adjustment as agreed upon the by signatories herein, to reflect the reduced availability of the coal-fired boiler resulting from the scheduled outage. In such case, the three-month and twelve-month coal performance standard will be further adjusted proportionately as agreed to reflect any reduced availability of the Lake Road Boiler 5.

The following is the adjustment to the coal performance standard to reflect the unavailability of coal during the outage. If the unit takes outage is longer or shorter, adjustments may be made to reflect those time periods.

**Lake Road Generating Station
Coal Performance Adjustment**

**Due to Boiler 5 Outage:
May 17, 2015-July 18, 2015
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Boiler 5 Outage Impact on Coal Performance Standard-

	Adjustment (mmBtu)	Original 3 Month Standard (mmBtu)	Original Annual Standard (mmBtu)
		460,000	1,920,000
		Adjusted 3 Month Standard (mmBtu)	Adjusted Annual Standard (mmBtu)
Previous Adjustment		368,000	1,536,000
Q2 2015	184,000	184,000	1,344,000
Q3 2015	208,000	160,000	1,144,000
Q4-2015		460,000	1,228,000
Q1-2016		460,000	1,324,000
Q2-2016		460,000	1,612,000
Q3-2016		460,000	1,920,000

		Q214			Q314			Q414			Q115			Total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Total Steam mmBtu Sales - 2014-2015		227,032	222,955	199,002	188,744	194,684	164,531	223,034	225,822	240,795	259,226	236,680	246,648	2,629,153
Fuel Costs - 2014		1,001,230	985,927	929,013	776,625	713,912	616,780	826,719	886,701	846,459	796,049	730,229	752,824	9,862,469
Coal Costs - 2014	\$	296,057	259,590	251,437	243,031	310,318	263,139	385,911	373,939	375,636	375,916	359,475	288,703	
Gas Costs - 2014	\$	705,173	726,337	677,576	533,594	403,594	353,641	427,691	512,762	470,823	415,025	337,722	414,249	
Oil Costs - 2014	\$	-	-	-	-	-	-	13,118	-	-	5,108	33,032	49,872	
Hedge Costs - 2014	\$	-	-	-	-	-	-	-	-	-	-	-	-	
Coal mmBtu Input Blr Nos. 5	mmBtu	128,327	121,245	114,799	107,286	132,376	111,906	158,186	162,589	172,478	174,230	159,534	130,637	1,673,593
Gas mmBtu Input Blr Nos. 1-5 & 8	mmBtu	162,939	156,647	136,494	136,289	106,717	93,871	117,621	122,519	137,826	147,081	131,870	166,530	1,616,404
No. 2 Oil mmBtu Input Blr Nos. 1-4	mmBtu	-	-	-	-	-	-	720	-	-	300	2,017	3,243	6,280
Blr 1-5 Fuel to Steam Input	mmBtu	291,266	277,892	251,293	243,575	239,093	205,777	276,527	285,108	310,304	321,611	293,421	300,410	3,296,277
Production Test - Q1	mmBtu			364,371	95,629		351,568	16,432		493,253	0		464,401	0
Production Test - Q4	mmBtu			1,824,371	95,629		1,798,547	0		1,819,820	0		1,769,222	0
Production Coal Costs - Q1				2,2150			2,3224			2,3020			2,2052	
Production Coal Costs - Q4				3,4819			2,2372			2,2653			2,2605	
Production Gas Costs - Q1				4,6244			3,8318			3,7339			2,6196	
Production Gas Costs - Q4				4,3085			4,3091			4,3025			3,6984	
Appendix D		202,635	195,170	159,314	177,341	198,924	188,724	187,991	187,887	190,423	110,912	188,695	196,088	2,184,104
Adjusted Production Standards - Q1	mmBtu			460,000			368,000			368,000			368,000	
Adjusted Production Standards - Q4	mmBtu			1,920,000			1,423,872			1,462,272			1,536,000	
Production Standards - Q1	mmBtu			460,000			460,000			460,000			460,000	
Production Standards - Q4	mmBtu			1,920,000			1,920,000			1,920,000			1,920,000	
12 Month Actual Sales Test %				100.0000%			100.0000%			100.0000%			100.0000%	
Days Boiler #5 had Major Maintenance		0	0	0	0	0	0	0	0	0	0	0	0	0
Boiler #5 Major Maintenance Adjustment Q1				100.0000%			100.0000%			100.0000%			100.0000%	
Boiler #5 Major Maintenance Adjustment Q4				100.0000%			100.0000%			100.0000%			100.0000%	
Quarterly Fuel Costs - Actual	\$			2,916,170			2,107,317			2,559,879			2,279,102	
Production Standards - Coal				332,967			38,162			0			0	
Production Standards - Gas				(412,019)			(62,963)			0			0	
Quarterly Fuel Costs - Adjusted	\$			2,837,119			2,082,516			2,559,879			2,279,102	
Quarterly Blr 1-5 & 8 Fuel to Steam Input	mmBtu			820,451.00			688,445.00			871,939.00			915,442.00	
Base fuel amount (per million BTU)	mmBtu	3.9500	3.9500	3.46	3.9500	3.9500	3.02	3.9500	3.9500	2.94	3.9500	3.9500	3.9500	2.49
Quarterly Fuel Costs - Collected	\$			3,240,781			2,719,358			3,444,159			3,615,996	
(Over) or Under Collected Fuel Costs	\$			(403,663)			(636,842)			(884,280)			(1,336,894)	
85% of change in actual fuel costs	\$			(343,113)			(541,316)			(751,638)			(1,136,360)	
Rolling 12-months Steam Btu Sales	mmBtu			2,706,382			2,643,055			2,616,035			2,629,153	
Quarterly Cost Adjustment				(0.1268)			(0.2048)			(0.2873)			(0.4322)	
Cumulative - QCA				(0.7354)			(0.6525)			(0.6757)			(1.0511)	

		Q215			Q315			Q415			Q116			Total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Total Steam mmBtu Sales - 2015-2016		222,436	223,426	219,936	214,266	221,709	189,243	220,854	217,440	233,553	0	0	0	1,962,863
Fuel Costs - 2015		615,175	700,252	705,408	700,954	686,260	584,825	630,412	624,611	626,300	0	0	0	5,874,198
Coal Costs - 2015	\$	317,845	170,383	-	-	71,147	311,785	411,884	425,686	384,037	-	-	-	
Gas Costs - 2015	\$	297,330	529,870	705,408	700,954	615,113	273,040	218,528	198,924	230,967	-	-	-	
Oil Costs - 2015	\$	-	-	-	-	-	-	-	-	11,296	-	-	-	
Hedge Costs - 2015	\$	-	-	-	-	-	-	-	-	-	-	-	-	
Coal mmBtu Input Blr Nos. 5	mmBtu	139,335	76,219	-	-	30,431	133,537	174,047	173,215	162,601	-	-	-	889,385
Gas mmBtu Input Blr Nos. 1-5 & 8	mmBtu	133,472	201,576	268,705	258,216	235,816	103,836	99,251	100,872	119,763	-	-	-	1,521,507
No. 2 Oil mmBtu Input Blr Nos. 1-4	mmBtu	-	-	-	-	-	-	-	-	737	-	-	-	737
Blr 1-5 Fuel to Steam Input	mmBtu	272,807	277,795	268,705	258,216	266,247	237,373	273,298	274,087	283,101	0	0	0	2,411,629
Production Test - Q1	mmBtu			215,554	0		163,968	0		509,863	0		0	460,000
Production Test - Q4	mmBtu			1,524,776	0		1,337,176	0		1,353,786	0		889,385	434,615
Production Coal Costs - Q1				2,2650			2,3354			2,3960			-	
Production Coal Costs - Q4				3,2771			2,2665			2,3023			2,3531	
Production Gas Costs - Q1				2,5385			2,6580			2,0270			-	
Production Gas Costs - Q4				3,0621			2,8147			2,5100			2,4779	
Appendix D		202,635	195,170	159,314	177,341	198,924	188,724	187,991	187,887	190,423	110,912	188,695	196,088	2,184,104
Adjusted Production Standards - Q1	mmBtu			184,000			160,000			460,000			460,000	
Adjusted Production Standards - Q4	mmBtu			1,344,000			1,144,000			1,228,000			1,324,000	
Production Standards - Q1	mmBtu			460,000			460,000			460,000			460,000	
Production Standards - Q4	mmBtu			1,920,000			1,920,000			1,920,000			1,920,000	
12 Month Actual Sales Test %				100.0000%			100.0000%			100.0000%			75.6409%	
Days Boiler #5 had Major Maintenance		0	0	0	0	0	0	0	0	0	0	0	0	
Boiler #5 Major Maintenance Adjustment Q1				100.0000%			100.0000%			100.0000%			100.0000%	
Boiler #5 Major Maintenance Adjustment Q4				100.0000%			100.0000%			100.0000%			100.0000%	
Quarterly Fuel Costs - Actual	\$			2,020,836			1,972,039			1,881,323			0	
Production Standards - Coal				0			0			0			1,022,671	
Production Standards - Gas				0			0			0			(1,076,930)	
Quarterly Fuel Costs - Adjusted	\$			2,020,836			1,972,039			1,881,323			(54,259)	
Quarterly Blr 1-5 & 8 Fuel to Steam Input	mmBtu			819,307.00			761,836.00			830,486.00			0.00	
				2.47			2.59			2.27			#DIV/0!	
Base fuel amount (per million BTU)	mmBtu	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	3.9500	
Quarterly Fuel Costs - Collected	\$			3,236,263			3,009,252			3,280,420			0	
(Over) or Under Collected Fuel Costs	\$			(1,215,427)			(1,037,213)			(1,399,097)			(54,259)	
85% of change in actual fuel costs	\$			(1,033,113)			(881,631)			(1,189,232)			(46,120)	
Rolling 12-months Steam Btu Sales	mmBtu			2,645,962			2,723,221			2,705,417			1,962,863	
Quarterly Cost Adjustment				(0.3904)			(0.3237)			(0.4396)			(0.0235)	
Cumulative - QCA				(1.3147)			(1.4336)			(1.5859)			(1.1772)	

Total Steam mmBtu Sales

	2007	06-07 rolling	2008	07-08 rolling	2009	08-09 rolling	2010	09-10 rolling	2011	10-11 rolling	2012	11-12 rolling	2013	12-13 rolling	2014	13-14 rolling	2015	14-15 rolling
Jan	216,576		252,642		238,762		247,011		254,018		232,106		249,946		257,035		259,226	
Feb	195,401		234,677		223,168		223,234		228,525		229,307		229,041		226,942		236,680	
Mar	216,301	2,257,289	235,092	2,550,573	228,267	2,569,161	246,630	2,565,289	248,195	2,571,254	237,007	2,475,887	251,298	2,638,143	245,459	2,685,082	246,648	2,629,153
Apr	202,306		227,282		205,054		202,624		213,858		218,880		232,068		227,032		222,436	
May	186,234		209,320		190,919		206,212		198,344		216,197		218,373		222,955		223,426	
Jun	192,882	2,307,858	191,622	2,597,375	184,834	2,521,744	202,288	2,595,606	190,830	2,563,162	207,738	2,515,670	177,248	2,623,017	199,002	2,706,382	219,936	2,645,962
Jul	186,532		196,358		188,131		201,013		153,873		201,369		209,768		188,744		214,266	
Aug	183,134		182,132		190,690		189,729		186,147		199,763		202,923		194,684		221,709	
Sep	192,040	2,354,882	180,813	2,594,972	163,957	2,505,219	170,954	2,614,524	178,733	2,520,219	201,658	2,599,707	198,595	2,631,513	164,531	2,643,055	189,243	2,723,221
Oct	226,701		228,872		237,773		209,986		213,700		216,350		231,940		223,034		220,854	
Nov	226,638		224,167		233,442		217,771		216,038		219,838		233,105		225,822		217,440	
Dec	231,695	2,456,440	238,398	2,601,375	253,614	2,538,611	239,939	2,557,391	225,944	2,508,205	226,065	2,606,278	251,626	2,685,931	240,795	2,616,035	233,553	2,705,417
Total	2,456,440																	

		% by Quarter	07 - '08		% by Quarter	09 - '10		
Q1		628,278	722,411	14.983%	Q1	690,197	716,875	3.865%
Q2	20.151%	581,422	628,224	8.050%	Q2	580,807	611,124	5.220%
Q3	16.496%	561,706	559,303	-0.428%	Q3	542,778	561,696	3.485%
Q4	20.160%	685,034	691,437	0.935%	Q4	724,829	667,696	-7.882%
		% by Quarter	'08 - '09		% by Quarter	10 - '11		
Q1	18.966%	722,411	690,197	-4.459%	Q1	716,875	730,738	1.934%
Q2	9.526%	628,224	580,807	-7.548%	Q2	611,124	603,032	-1.324%
Q3	9.137%	559,303	542,778	-2.955%	Q3	561,696	518,753	-7.645%
Q4	17.406%	691,437	724,829	4.829%	Q4	667,696	655,682	-1.799%

Jun-15	billed	\$	150,611.48	223,426.00			64,190.30	45,757.64	28,330.42	12,690.60												
Transfer Q412 Bal to Q114 r factor											662.48											
Jul-15	billed	\$	234,275.83	219,936.00			95,056.35	63,187.61	45,042.89	27,887.88												
Aug-15	billed	\$	228,236.14	214,266.00			92,605.76	61,558.62	43,881.68	27,168.93												
Sep-15	billed	\$	236,164.43	221,709.00			95,822.63	63,697.00	45,406.00	28,112.70												
Transfer Q113 Bal to Q214 r factor											(104.41)											
Oct-15	billed	\$	249,138.41	189,243.00			73,880.47	81,790.82	54,369.51	38,756.97												
Nov-15	billed	\$	290,754.28	220,854.00			86,221.40	95,453.10	63,451.35	45,230.90												
Dec-15	billed	\$	286,259.76	217,440.00			84,888.58	93,977.57	62,470.51	44,531.71												
Transfer Q213 Bal to Q314 r factor											(441.48)											
BALANCE PER OCA PERIOD							(1,189,232.00)	(881,631.00)	(788,122.55)	(581,653.77)	(183,945.28)	13,795.07	(1,046.47)	(2,765.93)	(14,764.26)	900.51	11,765.49	(35,994.58)	27,175.24	23,109.96	1,259,539.24	88,350.09

