Tab 4

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

Volumes (Dth)

	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
Spot Purchases - Transco	2,496,166	1,144,139	1,024,423	2,089,135	718,137	133,185	137,625	137,625	252,502	1,435,467
Spot Purchases - Tetco	371,843	363,040	320,069	413,237	278,150	243,769	251,894	251,894	243,769	334,390
Transco Supply 1	-	-	-	-	-	-	-	-	-	-
Transco Supply 2	-	-	-	-	-	-	-	-	-	-
Transco Supply 3	620,000	-	-	-	-	-	-	-	-	-
Transco Supply 4	-	-	-	-	-	-	-	-	-	-
Transco Supply 5	-	-	-	-	-	-	-	-	-	-
Transco Supply 6	155,000	140,000	155,000	-	-	-	-	-	-	-
Transco Supply 7	-	-	-	-	-	-	-	-	-	-
Transco Supply 8	620,000	932,198	941,384	450,000	352,915	98,093	26,345	187,962	380,837	406,473
Transco Supply 9	-	-	-	-	-	-	-	-	-	-
Transco Supply 10	155,000	140,000	150,000	-	-	-	-	-	-	-
Transco Supply 11	-	-	-	-	-	-	-	-	-	-
Transco Supply 12	-	-	-	-	-	-	-	-	-	-
Transco Supply 13	-	-	-	-	-	-	-	-	-	-
Transco Supply 14	155,000	420,000	155,000	-	-	-	-	-	-	-
Transco Supply 15	-	-	-	-	-	-	-	-	-	-
Transco Supply 16	-	-	-	-	-	-	-	-	-	-
Transco Supply 17	-	-	-	-	-	-	-	-	-	-
Transco Supply 18	-	-	-	-	-	-	-	-	-	-
Transco Supply 19	-	-	-	-	-	-	-	-	-	-
Transco Supply 20	-	-	-	-	-	-	-	-	-	-
Transco Supply 21	-	-	-	-	-	-	-	-	-	-
Transco Supply 22	-	405,929	408,620	450,000	465,000	423,933	332,663	390,528	446,287	465,000
Transco Supply 23	155,000	140,000	155,000	-	-	-	-	-	-	-
Transco Supply 24	-	-	-	-	-	-	-	-	-	-
Transco Supply 25	-	388,599	377,769	450,000	456,248	436,966	457,690	236,283	143,081	464,083
Transco Supply 26	-	-	-	-	-	-	-	-	-	-
Transco Supply 27	-	-	-	-	-	-	-	-	-	-
Transco Supply 28	-	-	-	-	-	-	-	-	-	-
Transco Supply 29	155,000	140,000	155,000	-	-	-	-	-	-	-
Tetco Supply 1	-	-	-	-	-	-	-	-	-	-
Tetco Supply 2	-	-	-	-	-	-	-	-	-	-
Tetco Supply 3	620,000	280,000	310,000	-	-	-	-	-	-	-
Tetco Supply 4	155,000	140,000	155,000	-	-	-	-	-	-	-
Tetco Supply 5	-	280,000	-	-	-	-	-	-	-	-
Tetco Supply 6	-	-	-	-	-	-	-	-	-	-
Tetco Supply 7	-	-	-	-	-	-	-	-	-	-
Tetco Supply 8	-	-	-	-	-	-	-	-	-	-
Tetco Supply 9	-	-	-	-	-	-	-	-	-	-
Tetco Supply 10	-	-	-	-	-	-	-	-	-	-
Tetco Supply 11	-	-	-	-	-	-	-	-	-	-
Tetco Supply 12	-	-	-	-	-	-	-	-	-	-
Tetco Supply 13	-	-	-	-	-	-	-	-	-	-
Tetco Supply 14	-	-	-	-	-	-	-	-	-	-
Tetco Supply 15	-	-	-	-	-	-	-	-	-	-
Tetco Supply 16	155,000	140,000	155,000	-	-	-	-	-	-	-
Tetco Supply 17	310,000	280,000	310,000	-	-	-	-	-	-	-
Tetco Supply 18	-	-	-	-	-	-	-	-	-	-
Tetco Supply 19	-	-	-	-	-	-	-	-	-	-
Tetco Supply 20	155,000	-	-	-	-	-	-	-	-	-
Tetco Supply 21	-	-	-	-	-	-	-	-	-	-
Tetco Supply 22	-	-	-	-	-	-	-	-	-	-
Tetco Supply 23	-	-	-	-	-	-	-	-	-	-
Tetco Supply 24	930,000	980,000	1,073,286	600,000	620,000	600,000	620,000	620,000	600,000	620,000
Tetco Supply 25	155,000	140,000	155,000	-	-	-	-	-	-	-
Tetco Supply 26	620,000	560,000	605,287	450,000	465,000	450,000	465,000	465,000	450,000	465,000
Total Volumes	7,983,009	7,013,906	6,605,840	4,902,372	3,355,450	2,385,946	2,291,218	2,289,292	2,516,477	4,190,414

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

Schedule 3
item 53.64(c)(1)

Volumes (Dth)

	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
Spot Purchases - Transco	1,685,622	2,428,814	2,083,670	2,403,006	2,185,179	1,474,029	388,369	-	-	-
Spot Purchases - Tetco	825,280	1,761,513	2,142,287	1,690,091	1,235,392	476,083	179,120	147,513	152,430	152,430
Transco Supply 1	-	-	-	-	-	-	-	-	-	-
Transco Supply 2	-	-	-	-	-	-	-	-	-	-
Transco Supply 3	-	-	-	-	-	-	-	-	-	-
Transco Supply 4	-	-	-	-	-	-	-	-	-	-
Transco Supply 5	-	-	-	-	-	-	-	-	-	-
Transco Supply 6	-	-	-	-	-	-	-	-	-	-
Transco Supply 7	-	-	-	-	-	-	-	-	-	-
Transco Supply 8	995,193	1,085,000	1,085,000	1,015,000	1,070,000	450,000	407,694	8,531	-	67,679
Transco Supply 9	-	-	-	-	-	-	-	-	-	-
Transco Supply 10	-	-	-	-	-	-	-	-	-	-
Transco Supply 11	-	-	-	-	-	-	-	-	-	-
Transco Supply 12	-	-	-	-	-	-	-	-	-	-
Transco Supply 13	-	-	-	-	-	-	-	-	-	-
Transco Supply 14	-	-	-	-	-	-	-	-	-	-
Transco Supply 15	-	-	-	-	-	-	-	-	-	-
Transco Supply 16	-	-	-	-	-	-	-	-	-	-
Transco Supply 17	-	-	-	-	-	-	-	-	-	-
Transco Supply 18	-	-	-	-	-	-	-	-	-	-
Transco Supply 19	-	-	-	-	-	-	-	-	-	-
Transco Supply 20	-	-	-	-	-	-	-	-	-	-
Transco Supply 21	-	-	-	-	-	-	-	-	-	-
Transco Supply 22	435,000	465,000	465,000	435,000	462,055	450,000	449,360	145,166	94,941	338,393
Transco Supply 23	-	-	-	-	-	-	-	-	-	-
Transco Supply 24	-	-	-	-	-	-	-	-	-	-
Transco Supply 25	421,444	465,000	465,000	435,000	450,000	450,000	465,000	424,265	325,512	13,536
Transco Supply 26	-	-	-	-	-	-	-	-	-	-
Transco Supply 27	-	-	-	-	-	-	-	-	-	-
Transco Supply 28	-	-	-	-	-	-	-	-	-	-
Transco Supply 29	-	-	-	-	-	-	-	-	-	-
Tetco Supply 1	-	-	-	-	-	-	-	-	-	-
Tetco Supply 2	-	-	-	-	-	-	-	-	-	-
Tetco Supply 3	-	-	-	-	-	-	-	-	-	-
Tetco Supply 4	-	-	-	-	-	-	-	-	-	-
Tetco Supply 5	-	-	-	-	-	-	-	-	-	-
Tetco Supply 6	-	-	-	-	-	-	-	-	-	-
Tetco Supply 7	-	-	-	-	-	-	-	-	-	-
Tetco Supply 8	-	-	-	-	-	-	-	-	-	-
Tetco Supply 9	-	-	-	-	-	-	-	-	-	-
Tetco Supply 10	-	-	-	-	-	-	-	-	-	-
Tetco Supply 11	-	-	-	-	-	-	-	-	-	-
Tetco Supply 12	-	-	-	-	-	-	-	-	-	-
Tetco Supply 13	-	-	-	-	-	-	-	-	-	-
Tetco Supply 14	-	-	-	-	-	-	-	-	-	-
Tetco Supply 15	-	-	-	-	-	-	-	-	-	-
Tetco Supply 16	-	-	-	-	-	-	-	-	-	-
Tetco Supply 17	-	-	-	-	-	-	-	-	-	-
Tetco Supply 18	-	-	-	-	-	-	-	-	-	-
Tetco Supply 19	-	-	-	-	-	-	-	-	-	-
Tetco Supply 20	-	-	-	-	-	-	-	-	-	-
Tetco Supply 21	-	-	-	-	-	-	-	-	-	-
Tetco Supply 22	-	-	-	-	-	-	-	-	-	-
Tetco Supply 23	-	-	-	-	-	-	-	-	-	-
Tetco Supply 24	600,000	620,000	620,000	580,000	620,000	600,000	620,000	600,000	620,000	620,000
Tetco Supply 25	-	-	-	-	-	-	-	-	-	-
Tetco Supply 26	443,593	465,000	465,000	435,000	465,000	450,000	465,000	450,000	465,000	465,000
Total Volumes	5,406,133	7,290,327	7,325,957	6,993,096	6,487,627	4,350,113	2,974,543	1,775,475	1,657,882	1,657,037

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
Williams	$ 2,800,653	$ 2,735,551	$ 2,629,736	$ 2,830,229	$ 2,787,949	$ 2,760,688	$ 2,756,377	$ 2,756,325	$ 2,764,597	$ 2,809,121
Texas Eastern	$ 2,325,414	$ 2,452,420	$ 2,377,847	$ 2,552,000	$ 2,527,661	$ 2,528,553	$ 2,524,882	$ 2,524,882	$ 2,528,553	$ 2,533,562
Dominion	$ 133,685	$ 129,336	$ 125,351	$ 128,470	$ 132,560	$ 132,163	$ 132,560	$ 132,560	$ 132,163	$ 132,163
Spot Purchases - Transco	$ 7,912,846	$ 3,250,499	$ 2,899,119	$ 5,876,738	$ 2,033,046	$ 382,775	$ 402,828	$ 403,929	$ 736,296	$ 4,231,758
Spot Purchases - Tecto	$ 1,171,306	$ 1,002,354	$ 880,190	$ 1,129,377	$ 765,190	$ 681,090	$ 717,143	$ 719,159	$ 691,328	$ 959,030
Transco Supply 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 3	$ 3,930,800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 6	$ 626,975	$ 566,300	$ 626,975	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 8	$ 1,929,362	$ 2,645,704	$ 2,661,666	$ 1,262,475	$ 996,735	$ 282,064	$ 78,011	$ 550,952	$ 1,107,838	$ 1,195,380
Transco Supply 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 10	$ 641,700	$ 579,600	$ 621,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 14	$ 610,700	$ 1,380,400	$ 610,700	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 22	$ 4,650	$ 1,153,384	$ 1,156,959	$ 1,265,850	$ 1,316,415	$ 1,218,644	$ 975,029	$ 1,146,945	$ 1,301,411	$ 1,370,820
Transco Supply 23	$ 553,350	$ 555,100	$ 614,575	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 24	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 25	$ 2,325	$ 1,102,224	$ 1,067,633	$ 1,263,600	$ 1,289,400	$ 1,253,722	$ 1,337,407	$ 693,453	$ 418,044	$ 1,365,802
Transco Supply 26	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 27	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 28	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 29	$ 614,575	$ 555,100	$ 614,575	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 3	$ 2,154,500	$ 1,106,000	$ 1,224,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 4	$ 385,950	$ 348,600	$ 385,950	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 5	$ -	$ 812,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 16	$ 600,625	$ 542,500	$ 600,625	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 17	$ 1,230,700	$ 1,002,400	$ 1,109,800	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 20	$ 560,015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 22	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 23	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 24	$ 2,308,725	$ 2,255,260	$ 2,467,936	$ 1,123,800	$ 1,172,420	$ 1,160,400	$ 1,231,940	$ 1,236,900	$ 1,185,600	$ 1,244,960
Tetco Supply 25	$ 615,350	$ 555,800	$ 615,350	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 26	$ 1,512,025	$ 1,298,920	$ 1,405,168	$ 842,850	$ 879,315	$ 870,300	$ 923,955	$ 927,675	$ 889,200	$ 933,720
FT PAYBACK ADJUSTMENT	$ -	$ -	$ -	$ -	$ 482,005	$ 482,005	$ 482,005	$ 482,005	$ -	$ -
Total Costs	$ 32,626,231	$ 26,029,453	$ 24,695,656	$ 18,275,388	$ 13,418,688	$ 10,788,392	$ 10,598,129	$ 10,610,774	$ 11,755,030	$ 16,776,315

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

Schedule 3
item 53.64(c)(1)

	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
Williams	$ 2,561,266	$ 2,631,867	$ 2,660,169	$ 2,647,582	$ 2,580,713	$ 2,810,841	$ 2,789,628	$ 2,749,093	$ 2,744,327	$ 2,744,303
Texas Eastern	$ 1,694,817	$ 2,228,230	$ 2,277,744	$ 2,269,847	$ 2,157,169	$ 2,589,008	$ 2,551,832	$ 2,546,559	$ 2,543,489	$ 2,543,489
Dominion	$ 120,470	$ 128,545	$ 135,285	$ 131,397	$ 124,152	$ 131,007	$ 130,396	$ 129,301	$ 129,603	$ 129,603
Spot Purchases - Transco	$ 5,166,431	$ 7,898,503	$ 7,063,641	$ 8,141,383	$ 7,318,166	$ 4,744,900	$ 1,252,878	$ -	$ -	$ -
Spot Purchases - Tecto	$ 2,463,461	$ 5,587,520	$ 7,090,971	$ 5,590,820	$ 4,038,496	$ 1,494,426	$ 563,511	$ 469,385	$ 490,519	$ 491,586
Transco Supply 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 8	$ 3,047,440	$ 3,524,932	$ 3,674,663	$ 3,435,557	$ 3,580,092	$ 1,445,175	$ 1,312,306	$ 28,867	$ 1,163	$ 224,164
Transco Supply 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 22	$ 1,333,425	$ 1,512,180	$ 1,576,350	$ 1,473,780	$ 1,547,453	$ 1,448,550	$ 1,449,793	$ 476,581	$ 316,816	$ 1,119,656
Transco Supply 23	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 24	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 25	$ 1,289,763	$ 1,509,855	$ 1,574,025	$ 1,471,605	$ 1,504,875	$ 1,446,300	$ 1,497,765	$ 1,381,961	$ 1,072,607	$ 46,925
Transco Supply 26	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 27	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 28	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transco Supply 29	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 22	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 23	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 24	$ 1,275,000	$ 1,433,440	$ 1,519,000	$ 1,419,840	$ 1,493,580	$ 1,367,400	$ 1,417,320	$ 1,393,200	$ 1,461,960	$ 1,466,300
Tetco Supply 25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tetco Supply 26	$ 942,636	$ 1,075,080	$ 1,139,250	$ 1,064,880	$ 1,120,185	$ 1,025,550	$ 1,062,990	$ 1,044,900	$ 1,096,470	$ 1,099,725
FT PAYBACK ADJUSTMENT	$ -	$ -	$ -	$ -	$ -	$ -	$ 554,582	$ 554,582	$ 554,582	$ 554,582
Total Costs	$ 19,894,708	$ 27,530,153	$ 28,711,097	$ 27,646,692	$ 25,464,880	$ 18,503,157	$ 13,473,837	$ 9,665,265	$ 9,302,370	$ 9,311,168

TRANSCONTINENTAL

Cost of Natural Gas

Suppliers	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
TR Spot	$ 7,912,846	$ 3,250,499	$ 2,899,119	$ 5,876,738	$ 2,033,046	$ 382,775	$ 402,828	$ 403,929	$ 736,296	$ 4,231,758
Supplier 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 3	$ 3,930,800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 6	$ 626,975	$ 566,300	$ 626,975	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 8	$ 1,929,362	$ 2,645,704	$ 2,661,666	$ 1,262,475	$ 996,735	$ 282,064	$ 78,011	$ 550,952	$ 1,107,838	$ 1,195,380
Supplier 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 10	$ 641,700	$ 579,600	$ 621,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 14	$ 610,700	$ 1,380,400	$ 610,700	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 22	$ 4,650	$ 1,153,384	$ 1,156,959	$ 1,265,850	$ 1,316,415	$ 1,218,644	$ 975,029	$ 1,146,945	$ 1,301,411	$ 1,370,820
Supplier 23	$ 553,350	$ 555,100	$ 614,575	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 24	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 25	$ 2,325	$ 1,102,224	$ 1,067,633	$ 1,263,600	$ 1,289,400	$ 1,253,722	$ 1,337,407	$ 693,453	$ 418,044	$ 1,365,802
Supplier 26	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 27	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 28	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 29	$ 614,575	$ 555,100	$ 614,575	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Suppliers	$ 16,827,284	$ 11,788,311	$ 10,873,202	$ 9,668,663	$ 5,635,597	$ 3,137,203	$ 2,793,275	$ 2,795,278	$ 3,563,589	$ 8,163,760
Transportation Costs										
Tr Spot	$ 134,885	$ 115,193	$ 105,534	$ 97,520	$ 53,076	$ 26,891	$ 23,006	$ 22,954	$ 30,799	$ 76,523
Williams Total	$ 134,885	$ 115,193	$ 105,534	$ 97,520	$ 53,076	$ 26,891	$ 23,006	$ 22,954	$ 30,799	$ 76,523
Total Costs	$ 16,962,169	$ 11,903,503	$ 10,978,736	$ 9,766,183	$ 5,688,673	$ 3,164,094	$ 2,816,281	$ 2,818,232	$ 3,594,389	$ 8,240,283

TRANSCONTINENTAL

Cost of Natural Gas

Suppliers	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
TR Spot	$ 5,166,431	$ 7,898,503	$ 7,063,641	$ 8,141,383	$ 7,318,166	$ 4,744,900	$ 1,252,878	$ -	$ -	$ -
Supplier 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 8	$ 3,047,440	$ 3,524,932	$ 3,674,663	$ 3,435,557	$ 3,580,092	$ 1,445,175	$ 1,312,306	$ 28,867	$ 1,163	$ 224,164
Supplier 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 22	$ 1,333,425	$ 1,512,180	$ 1,576,350	$ 1,473,780	$ 1,547,453	$ 1,448,550	$ 1,449,793	$ 476,581	$ 316,816	$ 1,119,656
Supplier 23	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 24	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 25	$ 1,289,763	$ 1,509,855	$ 1,574,025	$ 1,471,605	$ 1,504,875	$ 1,446,300	$ 1,497,765	$ 1,381,961	$ 1,072,607	$ 46,925
Supplier 26	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 27	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 28	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 29	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Suppliers	$ 10,837,058	$ 14,445,471	$ 13,888,678	$ 14,522,326	$ 13,950,586	$ 9,084,926	$ 5,512,743	$ 1,887,410	$ 1,390,586	$ 1,390,745
Transportation Costs										
Tr Spot	$ 103,316	$ 130,281	$ 133,384	$ 125,826	$ 122,025	$ 82,351	$ 47,993	$ 15,857	$ 11,536	$ 11,513
Williams Total	$ 103,316	$ 130,281	$ 133,384	$ 125,826	$ 122,025	$ 82,351	$ 47,993	$ 15,857	$ 11,536	$ 11,513
Total Costs	$ 10,940,374	$ 14,575,752	$ 14,022,062	$ 14,648,152	$ 14,072,611	$ 9,167,277	$ 5,560,735	$ 1,903,267	$ 1,402,121	$ 1,402,257

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

TRANSCONTINENTAL

Volumes (Dth)

Suppliers	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
TR Spot	2,496,166	1,144,139	1,024,423	2,089,135	718,137	133,185	137,625	137,625	252,502	1,435,467
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	620,000	-	-	-	-	-	-	-	-	-
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	620,000	932,198	941,384	450,000	352,915	98,093	26,345	187,962	380,837	406,473
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	155,000	140,000	150,000	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	155,000	420,000	155,000	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	-	-	-	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	-	405,929	408,620	450,000	465,000	423,933	332,663	390,528	446,287	465,000
Supplier 23	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 24	-	-	-	-	-	-	-	-	-	-
Supplier 25	-	388,599	377,769	450,000	456,248	436,966	457,690	236,283	143,081	464,083
Supplier 26	-	-	-	-	-	-	-	-	-	-
Supplier 27	-	-	-	-	-	-	-	-	-	-
Supplier 28	-	-	-	-	-	-	-	-	-	-
Supplier 29	155,000	140,000	155,000	-	-	-	-	-	-	-
Total Volumes	4,511,166	3,850,865	3,522,197	3,439,135	1,992,300	1,092,178	954,323	952,398	1,222,708	2,771,024

TRANSCONTINENTAL

Volumes (Dth)

Suppliers	**11/1/2015: Nov**	**12/1/2015: Dec**	**1/1/2016: Jan**	**2/1/2016: Feb**	**3/1/2016: Mar**	**4/1/2016: Apr**	**5/1/2016: May**	**6/1/2016: Jun**	**7/1/2016: Jul**	**8/1/2016: Aug**
TR Spot	1,685,622	2,428,814	2,083,670	2,403,006	2,185,179	1,474,029	388,369	-	-	-
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	-	-	-	-	-	-	-	-	-	-
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	-	-	-	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	995,193	1,085,000	1,085,000	1,015,000	1,070,000	450,000	407,694	8,531	-	67,679
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	-	-	-	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	-	-	-	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	435,000	465,000	465,000	435,000	462,055	450,000	449,360	145,166	94,941	338,393
Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	-	-	-	-	-	-	-	-	-	-
Supplier 25	421,444	465,000	465,000	435,000	450,000	450,000	465,000	424,265	325,512	13,536
Supplier 26	-	-	-	-	-	-	-	-	-	-
Supplier 27	-	-	-	-	-	-	-	-	-	-
Supplier 28	-	-	-	-	-	-	-	-	-	-
Supplier 29	-	-	-	-	-	-	-	-	-	-
Total Volumes	3,537,259	4,443,814	4,098,670	4,288,006	4,167,235	2,824,029	1,710,423	577,963	420,453	419,608

TRANSCONTINENTAL

	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
WSS										
Injection	$ -	$ -	$ -	$ 556	$ 840	$ 812	$ 840	$ 840	$ 812	$ 812
Withdrawal	$ 4,172	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828
Total Charges	$ 51,000	$ 46,828	$ 46,828	$ 47,384	$ 47,667	$ 47,640	$ 47,667	$ 47,667	$ 47,640	$ 47,640
S2										
Injection	$ -	$ -	$ -	$ 719	$ 1,214	$ 1,175	$ 1,214	$ 1,214	$ 1,175	$ 1,175
Withdrawal	$ 6,059	$ 706	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172
Total Charges	$ 33,232	$ 27,878	$ 27,172	$ 27,891	$ 28,386	$ 28,347	$ 28,386	$ 28,386	$ 28,347	$ 28,347
GSS										
Injection	$ 553	$ -	$ 342	$ 18,014	$ 20,189	$ 18,085	$ 18,688	$ 18,688	$ 18,085	$ 18,085
Withdrawal	$ 50,757	$ 26,279	$ 6,029	$ 342	$ -	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033
Total Charges	$ 306,343	$ 281,312	$ 261,403	$ 273,389	$ 275,222	$ 273,118	$ 273,720	$ 273,720	$ 273,118	$ 273,118
EMINENCE										
Injection	$ -	$ -	$ -	$ 2,469	$ 3,219	$ 3,116	$ 3,219	$ 3,219	$ 3,116	$ 3,116
Withdrawal	$ 4,508	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467
Total Charges	$ 120,975	$ 116,467	$ 116,467	$ 118,936	$ 119,687	$ 119,583	$ 119,687	$ 119,687	$ 119,583	$ 119,583
Total Injection Charges	$ 553	$ -	$ 342	$ 21,757	$ 25,462	$ 23,188	$ 23,960	$ 23,960	$ 23,188	$ 23,188
Total Withdrawal Charges	$ 65,497	$ 26,985	$ 6,029	$ 342	$ -	$ -	$ -	$ -	$ -	$ -
Total Demand Charges	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500
Total Storage	$ 511,550	$ 472,485	$ 451,871	$ 467,600	$ 470,962	$ 468,688	$ 469,461	$ 469,461	$ 468,688	$ 468,688

Forecasted Summary of Firm Transportation

	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
Demand Charges	$ 2,317,031	$ 2,317,031	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079
Capacity Release Credit	$ (162,813)	$ (169,158)	$ (228,749)	$ (35,970)	$ (37,169)	$ (35,970)	$ (37,169)	$ (37,169)	$ (35,970)	$ (37,169)
Net Demand Charge	$ 2,154,218	$ 2,147,873	$ 2,072,330	$ 2,265,109	$ 2,263,910	$ 2,265,109	$ 2,263,910	$ 2,263,910	$ 2,265,109	$ 2,263,910

TRANSCONTINENTAL

	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
WSS										
Injection	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Withdrawal	$ -	$ -	$ 4,397	$ -	$ -	$ 440	$ -	$ -	$ -	$ -
Demand Charges	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828	$ 46,828
Total Charges	$ 46,828	$ 46,828	$ 51,225	$ 46,828	$ 46,828	$ 47,268	$ 46,828	$ 46,828	$ 46,828	$ 46,828
S2										
Injection	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Withdrawal	$ -	$ 1,586	$ 2,370	$ 2,074	$ 296	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172
Total Charges	$ 27,172	$ 28,758	$ 29,543	$ 29,247	$ 27,469	$ 27,172	$ 27,172	$ 27,172	$ 27,172	$ 27,172
GSS										
Injection	$ -	$ -	$ -	$ -	$ -	$ 10,541	$ 25,094	$ 15,726	$ 16,250	$ 16,250
Withdrawal	$ -	$ 35,719	$ 47,893	$ 36,159	$ 10,063	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033	$ 255,033
Total Charges	$ 255,033	$ 290,752	$ 302,926	$ 291,192	$ 265,096	$ 265,573	$ 280,127	$ 270,759	$ 271,283	$ 271,283
EMINENCE										
Injection	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Withdrawal	$ -	$ -	$ 7,844	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Demand Charges	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467
Total Charges	$ 116,467	$ 116,467	$ 124,312	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467	$ 116,467
Total Injection Charges	$ -	$ -	$ -	$ -	$ -	$ 10,541	$ 25,094	$ 15,726	$ 16,250	$ 16,250
Total Withdrawal Charges	$ -	$ 37,305	$ 62,505	$ 38,233	$ 10,359	$ 440	$ -	$ -	$ -	$ -
Total Demand Charges	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500	$ 445,500
Total Storage	$ 445,500	$ 482,805	$ 508,005	$ 483,733	$ 455,859	$ 456,481	$ 470,595	$ 461,226	$ 461,751	$ 461,751

Forecasted Summary of Firm Transportation

	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
Demand Charges	$ 2,301,079	$ 2,317,031	$ 2,317,031	$ 2,317,031	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079	$ 2,301,079
Capacity Release Credit	$ (288,630)	$ (298,251)	$ (298,251)	$ (279,009)	$ (298,251)	$ (29,070)	$ (30,039)	$ (29,070)	$ (30,039)	$ (30,039)
Net Demand Charge	$ 2,012,449	$ 2,018,780	$ 2,018,780	$ 2,038,022	$ 2,002,828	$ 2,272,009	$ 2,271,040	$ 2,272,009	$ 2,271,040	$ 2,271,040

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

Texas Eastern
Cost of Natural Gas

Suppliers	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
TE Spot	$ 1,171,306	$ 1,002,354	$ 880,190	$ 1,129,377	$ 765,190	$ 681,090	$ 717,143	$ 719,159	$ 691,328	$ 959,030
Supplier 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 3	$ 2,154,500	$ 1,106,000	$ 1,224,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 4	$ 385,950	$ 348,600	$ 385,950	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 5	$ -	$ 812,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 16	$ 600,625	$ 542,500	$ 600,625	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 17	$ 1,230,700	$ 1,002,400	$ 1,109,800	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 20	$ 560,015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 22	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 23	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 24	$ 2,308,725	$ 2,255,260	$ 2,467,936	$ 1,123,800	$ 1,172,420	$ 1,160,400	$ 1,231,940	$ 1,236,900	$ 1,185,600	$ 1,244,960
Supplier 25	$ 615,350	$ 555,800	$ 615,350	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 26	$ 1,512,025	$ 1,298,920	$ 1,405,168	$ 842,850	$ 879,315	$ 870,300	$ 923,955	$ 927,675	$ 889,200	$ 933,720
Sub Total	$ 10,539,196	$ 8,923,834	$ 8,689,520	$ 3,096,027	$ 2,816,925	$ 2,711,790	$ 2,873,038	$ 2,883,734	$ 2,766,128	$ 3,137,710
Transportation Costs										
TE Spot	$ 235,670	$ 275,084	$ 259,228	$ 113,677	$ 95,990	$ 90,204	$ 93,210	$ 93,210	$ 90,204	$ 102,312
Total TE	$ 235,670	$ 275,084	$ 259,228	$ 113,677	$ 95,990	$ 90,204	$ 93,210	$ 93,210	$ 90,204	$ 102,312
Total Costs	$ 10,774,865	$ 9,198,919	$ 8,948,748	$ 3,209,704	$ 2,912,914	$ 2,801,994	$ 2,966,249	$ 2,976,944	$ 2,856,332	$ 3,240,021

Texas Eastern
Cost of Natural Gas

Suppliers	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
TE Spot	$ 2,463,461	$ 5,587,520	$ 7,090,971	$ 5,590,820	$ 4,038,496	$ 1,494,426	$ 563,511	$ 469,385	$ 490,519	$ 491,586
Supplier 1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 12	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 22	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 23	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 24	$ 1,275,000	$ 1,433,440	$ 1,519,000	$ 1,419,840	$ 1,493,580	$ 1,367,400	$ 1,417,320	$ 1,393,200	$ 1,461,960	$ 1,466,300
Supplier 25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supplier 26	$ 942,636	$ 1,075,080	$ 1,139,250	$ 1,064,880	$ 1,120,185	$ 1,025,550	$ 1,062,990	$ 1,044,900	$ 1,096,470	$ 1,099,725
Sub Total	$ 4,681,097	$ 8,096,040	$ 9,749,221	$ 8,075,540	$ 6,652,261	$ 3,887,376	$ 3,043,821	$ 2,907,485	$ 3,048,949	$ 3,057,611
Transportation Costs										
TE Spot	$ 162,368	$ 262,264	$ 302,188	$ 249,771	$ 207,099	$ 120,329	$ 85,507	$ 80,015	$ 82,682	$ 82,682
Total TE	$ 162,368	$ 262,264	$ 302,188	$ 249,771	$ 207,099	$ 120,329	$ 85,507	$ 80,015	$ 82,682	$ 82,682
Total Costs	$ 4,843,465	$ 8,358,303	$ 10,051,409	$ 8,325,311	$ 6,859,361	$ 4,007,705	$ 3,129,328	$ 2,987,500	$ 3,131,631	$ 3,140,293

Philadelphia Gas Works
Forecasted Summary of Total Fuel Purchased
January 2015-August 2016

Texas Eastern
Volumes

Suppliers	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
TE Spot	371,843	363,040	320,069	413,237	278,150	243,769	251,894	251,894	243,769	334,390
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	620,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 4	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 5	-	280,000	-	-	-	-	-	-	-	-
Supplier 6	-	-	-	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	-	-	-	-	-	-	-	-	-	-
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	-	-	-	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 17	310,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	155,000	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	-	-	-	-	-	-	-	-	-	-
Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	930,000	980,000	1,073,286	600,000	620,000	600,000	620,000	620,000	600,000	620,000
Supplier 25	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 26	620,000	560,000	605,287	450,000	465,000	450,000	465,000	465,000	450,000	465,000
Total	3,471,843	3,163,040	3,083,643	1,463,237	1,363,150	1,293,769	1,336,894	1,336,894	1,293,769	1,419,390

Texas Eastern
Volumes

Suppliers	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
TE Spot	825,280	1,761,513	2,142,287	1,690,091	1,235,392	476,083	179,120	147,513	152,430	152,430
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	-	-	-	-	-	-	-	-	-	-
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	-	-	-	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	-	-	-	-	-	-	-	-	-	-
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	-	-	-	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	-	-	-	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	-	-	-	-	-	-	-	-	-	-
Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	600,000	620,000	620,000	580,000	620,000	600,000	620,000	600,000	620,000	620,000
Supplier 25	-	-	-	-	-	-	-	-	-	-
Supplier 26	443,593	465,000	465,000	435,000	465,000	450,000	465,000	450,000	465,000	465,000
Total	1,868,873	2,846,513	3,227,287	2,705,091	2,320,392	1,526,083	1,264,120	1,197,513	1,237,430	1,237,430

Texas Eastern
Storages

	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
SS1A										
Injections	$ -	$ -	$ -	$ 6,382	$ 6,473	$ 6,264	$ 6,473	$ 6,473	$ 6,264	$ 6,264
Withdrawal	$ 37,449	$ 16,897	$ 2,982	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capacity	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522
Demand	$ 208,507	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095
Total Charges	$ 274,478	$ 258,514	$ 244,599	$ 247,999	$ 248,090	$ 247,881	$ 248,090	$ 248,090	$ 247,881	$ 247,881
SS1B										
Injections	$ 181	$ -	$ -	$ 6,250	$ 6,608	$ 6,394	$ 6,608	$ 6,608	$ 6,394	$ 6,394
Withdrawal	$ 30,887	$ 21,427	$ 7,856	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capacity	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529
Demand	$ 98,510	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678
Total Charges	$ 156,107	$ 148,635	$ 135,064	$ 133,458	$ 133,815	$ 133,602	$ 133,815	$ 133,815	$ 133,602	$ 133,602
GSSTE										
Injections	$ -	$ -	$ 692	$ 7,978	$ 12,323	$ 11,925	$ 12,323	$ 12,323	$ 11,925	$ 11,925
Injections/Retention Fuel	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Withdrawal	$ 13,447	$ 9,098	$ 4,421	$ 254	$ -	$ -	$ -	$ -	$ -	$ -
Capacity	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825
Demand	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413
Total Charges	$ 133,685	$ 129,336	$ 125,351	$ 128,470	$ 132,560	$ 132,163	$ 132,560	$ 132,560	$ 132,163	$ 132,163
Total Injection Charges	$ 181	$ -	$ 692	$ 20,610	$ 25,403	$ 24,583	$ 25,403	$ 25,403	$ 24,583	$ 24,583
Total Injections/Retention Fuel	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Withdrawal Charges	$ 81,784	$ 47,422	$ 15,260	$ 254	$ -	$ -	$ -	$ -	$ -	$ -
Total Capacity Charges	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877
Total Demand Charges	$ 370,429	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185
	$ 564,271	$ 536,484	$ 505,014	$ 509,927	$ 514,465	$ 513,646	$ 514,465	$ 514,465	$ 513,646	$ 513,646

Forecasted Summary of Firm Transportation

	1/1/2015: Jan	2/1/2015: Feb	3/1/2015: Mar	4/1/2015: Apr	5/1/2015: May	6/1/2015: Jun	7/1/2015: Jul	8/1/2015: Aug	9/1/2015: Sep	10/1/2015: Oct
Texas Eastern Demand	$ 2,216,947	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837
Capacity Release Credits	$ (557,788)	$ (499,650)	$ (530,881)	$ (212,971)	$ (220,070)	$ (212,971)	$ (220,070)	$ (220,070)	$ (212,971)	$ (220,070)
Net Total	$ 1,659,158	$ 1,770,187	$ 1,738,956	$ 2,056,866	$ 2,049,767	$ 2,056,866	$ 2,049,767	$ 2,049,767	$ 2,056,866	$ 2,049,767
Total Demand Charges	$ 1,659,158	$ 1,770,187	$ 1,738,956	$ 2,056,866	$ 2,049,767	$ 2,056,866	$ 2,049,767	$ 2,049,767	$ 2,056,866	$ 2,049,767

Texas Eastern
Storages

	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
SS1A										
Injections	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,535	$ -	$ -	$ -
Withdrawal	$ 6,660	$ 9,205	$ 16,054	$ 17,164	$ 554	$ -	$ -	$ -	$ -	$ -
Capacity	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522	$ 28,522
Demand	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095	$ 213,095
Total Charges	$ 248,277	$ 250,822	$ 257,671	$ 258,781	$ 242,171	$ 241,617	$ 244,152	$ 241,617	$ 241,617	$ 241,617
SS1B										
Injections	$ -	$ -	$ -	$ -	$ -	$ 2,135	$ 2,982	$ -	$ -	$ -
Withdrawal	$ 7,242	$ 10,281	$ 13,021	$ 11,775	$ 3,034	$ -	$ -	$ -	$ -	$ -
Capacity	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529	$ 26,529
Demand	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678	$ 100,678
Total Charges	$ 134,450	$ 137,488	$ 140,229	$ 138,982	$ 130,242	$ 129,342	$ 130,190	$ 127,207	$ 127,207	$ 127,207
GSSTE										
Injections	$ -	$ -	$ -	$ -	$ -	$ 10,385	$ 10,159	$ 9,063	$ 9,365	$ 9,365
Injections/Retention Fuel	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Withdrawal	$ 233	$ 8,307	$ 15,047	$ 11,159	$ 3,914	$ 384	$ -	$ -	$ -	$ -
Capacity	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825	$ 56,825
Demand	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413	$ 63,413
Total Charges	$ 120,470	$ 128,545	$ 135,285	$ 131,397	$ 124,152	$ 131,007	$ 130,396	$ 129,301	$ 129,603	$ 129,603
Total Injection Charges	$ -	$ -	$ -	$ -	$ -	$ 12,520	$ 15,676	$ 9,063	$ 9,365	$ 9,365
Total Injections/Retention Fuel	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Withdrawal Charges	$ 14,135	$ 27,793	$ 44,122	$ 40,098	$ 7,503	$ 384	$ -	$ -	$ -	$ -
Total Capacity Charges	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877	$ 111,877
Total Demand Charges	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185	$ 377,185
	$ 503,197	$ 516,856	$ 533,184	$ 529,160	$ 496,565	$ 501,966	$ 504,738	$ 498,125	$ 498,427	$ 498,427

Forecasted Summary of Firm Transportation

	11/1/2015: Nov	12/1/2015: Dec	1/1/2016: Jan	2/1/2016: Feb	3/1/2016: Mar	4/1/2016: Apr	5/1/2016: May	6/1/2016: Jun	7/1/2016: Jul	8/1/2016: Aug
Texas Eastern Demand	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837	$ 2,269,837
Capacity Release Credits	$ (1,120,115)	$ (692,181)	$ (692,181)	$ (647,524)	$ (692,181)	$ (172,118)	$ (177,855)	$ (172,118)	$ (177,855)	$ (177,855)
Net Total	$ 1,149,722	$ 1,577,656	$ 1,577,656	$ 1,622,313	$ 1,577,656	$ 2,097,719	$ 2,091,982	$ 2,097,719	$ 2,091,982	$ 2,091,982
Total Demand Charges	$ 1,149,722	$ 1,577,656	$ 1,577,656	$ 1,622,313	$ 1,577,656	$ 2,097,719	$ 2,091,982	$ 2,097,719	$ 2,091,982	$ 2,091,982

CAPACITY RELEASE (Dth)

	TRANSCO		TETCO		TETCO		TOTAL DOLLARS		TOTAL VOLUMES	
	Contract 3691		Contract 800232		Contract 800515-514 Paid					
	VOLUMES	DOLLARS	VOLUMES	DOLLARS	VOLUMES	DOLLARS	TRANSCO	TETCO	TRANSCO	TETCO
Sep-14	-	$ -	-	$ -	-	$ -	$ -	$ -	-	-
Oct-14	-	$ -	-	$ -	-	$ -	$ -	$ -	-	-
Nov-14	-	$ -	-	$ -	-	$ -	$ -	$ -	-	-
Dec-14	-	$ -	-	$ -	-	$ -	$ -	$ -	-	-
Jan-15	210,000	$ 162,813	719,448	$ 557,788	-	$ -	$ 162,813	$ 557,788	210,000	719,448
Feb-15	220,000	$ 169,158	649,824	$ 499,650	-	$ -	$ 169,158	$ 499,650	220,000	649,824
Mar-15	310,000	$ 228,749	719,448	$ 530,881	-	$ -	$ 228,749	$ 530,881	310,000	719,448
Apr-15	300,000	$ 35,970	696,240	$ 83,479	1,080,000	$ 129,492	$ 35,970	$ 212,971	300,000	1,776,240
May-15	310,000	$ 37,169	719,448	$ 86,262	1,116,000	$ 133,808	$ 37,169	$ 220,070	310,000	1,835,448
Jun-15	300,000	$ 35,970	696,240	$ 83,479	1,080,000	$ 129,492	$ 35,970	$ 212,971	300,000	1,776,240
Jul-15	310,000	$ 37,169	719,448	$ 86,262	1,116,000	$ 133,808	$ 37,169	$ 220,070	310,000	1,835,448
Aug-15	310,000	$ 37,168	719,448	$ 86,262	1,116,000	$ 133,808	$ 37,168	$ 220,070	310,000	1,835,448
TOTAL September 14 - August 15	2,270,000	$ 744,166	5,639,544	$ 2,014,062	5,508,000	$ 660,409	$ 744,166	$ 2,674,471	2,270,000	11,147,544

CAPACITY RELEASE (Dth)

	TRANSCO		TETCO		TETCO		TOTAL DOLLARS		TOTAL VOLUMES	
	Contract 3691		Contract 800232		Contract 800515-514 Paid					
	VOLUMES	DOLLARS	VOLUMES	DOLLARS	VOLUMES	DOLLARS	TRANSCO	TETCO	TRANSCO	TETCO
Sep-15	300,000	$ 35,970	696,240	$ 83,479	1,080,000	$ 129,492	$ 35,970	$ 212,971	300,000	1,776,240
Oct-15	310,000	$ 37,169	719,448	$ 86,262	1,116,000	$ 133,808	$ 37,169	$ 220,070	310,000	1,835,448
Nov-15	300,000	$ 288,630	696,240	$ 669,853	468,000	$ 450,263	$ 288,630	$ 1,120,115	300,000	1,164,240
Dec-15	310,000	$ 298,251	719,448	$ 692,181	-	$ -	$ 298,251	$ 692,181	310,000	719,448
Jan-16	310,000	$ 298,251	719,448	$ 692,181	-	$ -	$ 298,251	$ 692,181	310,000	719,448
Feb-16	290,000	$ 279,009	673,032	$ 647,524	-	$ -	$ 279,009	$ 647,524	290,000	673,032
Mar-16	310,000	$ 298,251	719,448	$ 692,181	-	$ -	$ 298,251	$ 692,181	310,000	719,448
Apr-16	300,000	$ 29,070	696,240	$ 67,466	1,080,000	$ 104,652	$ 29,070	$ 172,118	300,000	1,776,240
May-16	310,000	$ 30,039	719,448	$ 69,715	1,116,000	$ 108,140	$ 30,039	$ 177,855	310,000	1,835,448
Jun-16	300,000	$ 29,070	696,240	$ 67,466	1,080,000	$ 104,652	$ 29,070	$ 172,118	300,000	1,776,240
Jul-16	310,000	$ 30,039	719,448	$ 69,715	1,116,000	$ 108,140	$ 30,039	$ 177,855	310,000	1,835,448
Aug-16	310,000	$ 30,039	719,448	$ 69,715	1,116,000	$ 108,140	$ 30,039	$ 177,855	310,000	1,835,448
TOTAL September 15 - August 16	3,660,000	1,683,788	8,494,128	3,907,735	8,172,000	1,247,288	$ 1,683,788	$ 5,155,024	3,660,000	16,666,128

Tab 5

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

KENNETH S. DYBALSKI

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. **R-2015-2465656**

Philadelphia Gas Works
Proposed 2015 Annual GCR Adjustment

March 1, 2015

Q. PLEASE STATE YOUR NAME AND POSITION WITH THE COMPANY.

A. My name is Kenneth S. Dybalski. My position is Director - Gas Planning & Rates at the Philadelphia Gas Works.

Q. HOW LONG HAVE YOU HELD THIS POSITION?

A. I assumed the position of Director - Gas Planning & Rates in 2006. Prior to this position, I was the Manager of Gas Planning from 2001 to 2006.

Q. WHAT ARE YOUR VARIOUS JOB RESPONSIBILITIES?

A. In my present position, I am responsible for developing and coordinating short and long term planning of gas demand, gas supply, raw material expense and revenue; overseeing the preparation of sales, sendout, revenue and fuel expense projections; developing peak day/hour load projections; overseeing the development of the various filings before the Pennsylvania Public Utility Commission (PUC) and Philadelphia Gas Commission (PGC), including the quarterly and annual Gas Cost Rate (GCR) filings; preparing the Integrated Resource Planning Report; and providing supporting documentation for gas costs related to PGW's Operating Budget before the Philadelphia Gas Commission.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. I have received a BS and MBA from Temple University in Philadelphia, Pennsylvania.

Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS COMMISSION?

A. Yes. I submitted testimony for the PGW 1307f Annual GCR Filings in Docket Nos. R-2014-2404355, R-2013-2346376, R-2012-2286447, R-2011-2224739, R-2010-20157062, R-2009-2088076, and R-2008-2021348. I have also submitted testimony in PGW's most recent base rate proceeding (Docket No. R-2009-2139884) and PGW's 2008 Extraordinary Rate Request (Docket No. R-2008-2073938).

Q. HOW IS YOUR TESTIMONY STRUCTURED

A. First, I describe PGW's rate design and Gas Cost Rate (GCR) calculation methodology. Second, I describe the level of heating degree-days utilized in this filing. Third, I identify the methodology for determining the number of customers and calculating firm sales. Fourth, I discuss the calculation for the Unaccounted for Adjustment Factor (UAF). Fifth, I discuss Off System Sales and Capacity Release credits. Sixth, I discuss the changes to the PGW Gas Service Tariff and the PGW Gas Supplier Tariff. Lastly, I will discuss the reasonableness of PGW's gas costs.

Q. PLEASE DESCRIBE THE IMPACT OF THE PROPOSED CHANGE IN PGW's GCR IN THIS PROCEEDING.

A. PGW's GCR on September 1, 2014 was $5.8670 / Mcf and this rate was increased in the Company's first quarterly GCR filing on December 1, 2014 to $5.9976 / Mcf. PGW's second quarter GCR filing, also submitted to the PUC concurrently with this filing, decreases the GCR to $4.7059 effective March 1, 2015. The proposed rate to be effective September 1, 2015 is $4.4901.

Q. PLEASE SUMMARIZE THE EVIDENCE THAT PGW IS SUBMITTING IN SUPPORT OF ITS PROPOSED GCR ADJUSTMENT.

A. Tab 2 of this filing contains the sheets supporting the filing requirements of Section 53.64 (a) for the proposed GCR for the period September 1, 2015 through August 31, 2016.

Schedule 1 identifies the Levelized Gas Cost Rate. Specifically, this schedule identifies the GCR Firm Sales Volumes in Mcfs ("S"), Total Applicable GCR Expense ("C"), and adjustments for Prior Year Reconciliation and Interest ("E"). An adjustment is also included for the Interruptible Revenue Credit (IRC). Additionally, this schedule calculates the company's total projected recovery plus the load balancing revenue and LNG sales demand revenue to determine if these rates adequately cover the Net Applicable GCR Expense (a Net Over/Under Recovery amount is displayed to prove the calculation). Schedule 1a details the price to compare for the PGW rate classes.

Schedule 2 identifies the calculation of GCR Firm Sales in Mcfs ("S") and the Applicable Volumes. The company utilizes Total Volumes and subtracts the volumes associated with Firm Transportation, Interruptible Sales, LNG Sales and AC Sales to arrive at GCR Firm Sales ("S"). Also included in Schedule 2 are the Applicable Volumes which is comprised of GCR Firm Sales less 20% of the sales attributable to Senior Citizens (Senior Citizen Discount Sales) plus the Firm Transportation Volumes.

Schedule 3 identifies the Projected Applicable Fuel Expense. Specifically, this schedule identifies PGW's Net Natural Gas Expense and Total Applicable Expenses. To arrive at the Net Natural Gas Expense, the total cost of commodity and pipeline charges for firm sales are calculated per month. Two credits are then applied for the portion of gas costs recovered from PGW's Interruptible Sales customers (i.e. the "Interruptible & A/C Credit") and for gas used by PGW (i.e. "Gas Used by Utility"). Next, the Company calculates the net effect of gas supplies being transferred into and out of storage and LNG. The result is the Net Natural Gas Expense. To arrive at the Total Applicable Expenses in Schedule 3, the fuel expenses for Purchased Electric and miscellaneous are added to the Net Natural Gas Expenses to arrive at Total Applicable Expenses.

Schedule 4(a) is the actual/estimated data for FY 15. Schedule 4(b) is the C factor Reconciliation for FY 15. Schedule 4(c) is the E factor Reconciliation for FY 15. Schedule 4(d) is the IRC Revenue Billed for FY 15. Schedule 4(e) is the Reconciliation of Demand Charges for FY 15.

Schedule 5(a) ("Interest Rate Calculation") provides the interest rate for the over/under recovery and is calculated on the over/under recovery in calendar year 2014. Schedule 5(b) ("Interest Calculation") provides the calculation of the interest expense or credit for the period of September 2014 through August 2015 for the under/over recovery of fuel costs and the interest for the natural gas refunds. Schedule 5(c) ("Interest on Natural Gas Refunds") provides information on historic refunds that have been received by the Company resulting from various cases before the Federal Energy Regulatory Commission and the interest on these refunds. Schedule 5(d) provides the calculation of the interest for the demand and commodity charges.

Schedule 6 presents the migration rider and load balancing revenue for the forecast period of September 2015 to August 2016.

Schedule 7 calculates total projected recovery with the proposed GCR.

Schedule 8 shows the changes in rates identifying the proposed changes to the GCR and distribution charge and the impact on the proposed total commodity rate.

Schedule 9(a) shows the calculation of the Universal Service & Energy Conservation Surcharge to be effective September 1, 2015. Schedule 9(b) is the reconciliation of the Universal Service & Energy Conservation Surcharge for period of September 2014 to August 2015.

Schedule 10(a) shows the calculation of the Interruptible Revenue Credit to be effective September 1, 2015. Schedule 10(b) is the forecasted Interruptible Revenue Margin for Fiscal Year 2016. Schedule 10(c) is the reconciliation of the Interruptible Revenue Credit for Fiscal Year 2014.

Schedule 11(a) shows the calculation of the Other Post Employment Benefit (OPEB) Surcharge to be effective September 1, 2015. Schedule 11(b) is the reconciliation of the OPEB Surcharge for Fiscal Year 2014.

Schedule 12 shows the reconciliation of the Efficiency Cost Recovery Surcharge for the Fiscal Year 2015.

Schedule 13(a) is the calendar year 2014 reconciliation of the Supplier and Storage Peaking Charge (SSPC) and Schedule 13(b) is the SSPC expense and interest calculation.

Schedule 14 sets the load balancing charge to be effective September 1, 2015.

Schedule 15 identifies the natural gas prices that were used in the preparation of this filing.

Q. WHAT IS THE TIME PERIOD FOR FORECASTING PGW'S FUTURE GAS COSTS?

A. PGW's forecast period is a twenty (20) month period that commences on January 1, 2015 (two months before this filing) and eight months before the effective date of the tariff on September 1, 2015. The 2015-16 GCR year is from September 1, 2015 to August 31, 2016, however, since the required forecast covers 20 months, it must begin eight months earlier, consistent with Commission regulations.

Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF PGW'S RATE DESIGN AND GCR CALCULATION METHODOLOGY.

A. The volumetric rates charged to PGW's customers are the distribution charge and the Gas Cost Rate plus the Merchant Function Charge (MFC) and Gas Procurement Charge (GPC). The distribution charge consists of the Delivery Charge; the Universal Service and Energy Conservation Surcharge; and the Other Post Retirement Benefit Surcharge. The Universal Service and Energy Conservation Surcharge provides for the recovery of Customer Responsibility Program (CRP) discounts; Senior Citizen Discounts; the costs of the Enhanced Low Income Retrofit Program (ELIRP); and CRP arrearage forgiveness. The Other Post Retirement Benefit Surcharge recovers the amount to fund these obligations.

The second element of the rate is the Gas Cost Rate or GCR factor. This charge is a mechanism used to flow through the costs of natural gas costs and other raw materials in a timely and equitable manner. The specific elements of PGW's GCR are set forth in PGW's Tariff.

Generally, the cost of gas purchased to serve the requirements of PGW's customers constitutes the largest single item in the delivered price of gas. In the past, all natural gas costs were recovered through base rates (distribution charge). However, in the early 1970's, the price of gas lost its stability and underwent rapid escalation during and after a worldwide oil crisis. To combat this instability and prevent the economic harm to all parties caused by regulatory lag in reflecting these price fluctuations in base rates, the concept of a fuel adjustment surcharge mechanism was introduced by PGW. This mechanism provides the flexibility to rapidly reflect current conditions without the time delay inherent in a full-scale base rate alteration. The intent is to achieve an annual balance of the costs incurred for fuel and its pass-through to customers. The costs for pipeline transportation, storage capacity and related fuel prices charged by the interstate pipeline suppliers are largely outside of distributor control. The State Public Utility Commission oversees the pass-through of these charges and the balancing activity. The Gas Cost Rate Section in PGW's Tariff identifies the appropriate formula for such a balance and the charges that may be recovered through this mechanism. Charges for natural gas and other raw materials are included in the GCR. In addition, the interest expense for the over or under recovery of gas costs and natural gas refunds are also included in the GCR. No labor or profit component is added by PGW. The GCR represents the direct pass-through of actual costs incurred.

Only costs related to meeting customer sendout requirements, including associated plant fuel, may be included as a fuel expense for GCR purposes. Purchases diverted into storage and/or LNG become an expense only when withdrawn for customer delivery. Costs associated with purchases made to supply interruptible customers are excluded from the Total Applicable GCR Expenses used to calculate the GCR. Also, demand costs for pipeline transportation for the firm transportation customers are excluded from the GCR.

Various adjustments are then made to the total applicable expenses eligible for the GCR. Natural gas refunds and interest on the refunds are credited in the calculation of the GCR in the fiscal year received. An adjustment is made to correct for any over or under recovery during the previous period resulting from differences between rates used to project the prior GCR and those actually experienced. The interest expense or credit on the over or under recovery is applied to calculate the total adjustment. An additional adjustment is also made for the Interruptible Revenue Credit which is a credit that firm sales customers receive for the interruptible sales margin.

To determine the unit level of the GCR, the remaining total expenses must be divided by the sum of the volumes over which they can be effectively distributed.

Q. WHAT IS THE BASIS FOR THE PRICES USED IN DETERMINING THE GAS COSTS USED IN THIS FILING?

A. The pricing methodology utilized by the Company is consistent with that used in the recent quarterly filings with the inclusion of the additional months in the 20-month forecast. Specifically, the company utilized actual prices for January 2014 and the NYMEX Futures close data (as of January 20, 2015) for the 19 forecast months of February 2015 through August 2016.

Q. HOW DOES THE GCR FOR THE FORECAST PERIOD COMPARE WITH THE GCR FORECASTED IN THE COMPANY'S LAST ANNUAL GCR FILING?

A. The GCR forecasted for 2015-2016 is lower than the level PGW had forecasted for the 2014-2015 GCR. The level of costs in the 2015-2016 period are being influenced by the decrease in prices for natural gas compared to the prior year.

Q. DESCRIBE THE LEVEL OF HEATING DEGREE-DAYS THAT WERE USED IN YOUR ANALYSIS.

A. The Company utilizes the temperatures recorded at the PGW Richmond Plant to calculate the average temperature for a given day. The Company subtracts the average temperature from 65 degrees to calculate the number of degree-days for the day. The degree-days for all of the days in the year are aggregated to arrive at the total number of degree-days for the year. Next, the Company calculates the average heating degree-days for the past 30 years to arrive at the forecasted heating degree-days in a normal year and in this filing PGW is using the 30 year average of 4,237 degree days.

Q. HOW HAS THE COMPANY CALCULATED THE NUMBER OF CUSTOMERS IN EACH RATE CLASS?

A. PGW determined the actual number of customer billings on December 31, 2014 using the PGW Gas Sales and Revenue Reports. Next, the Marketing Department load forecast was used to factor in the addition and loss of customers. Finally, the customer numbers were adjusted for the loss of customers due to non-payment terminations.

Q. WHAT IS THE METHOLOGY FOR CALCULATING THE WEATHER NORMALIZED BILLED SALES?

A. PGW used a two step process to arrive at the appropriate level of usage per customer. First, a trial domestic factor is developed by class of customers from sales reported for the previous year's summer months. This average factor is then utilized in the sendout formula with the customer counts for the months of July, August and September. A comparison between what the formula calculates and the actual experienced for those three months is ascertained and the trial domestic factors are finalized to replicate the total sendout experienced. The finalized domestic factors (DOMS) are then utilized in conjunction with the actual sales and customer counts for the months of December, January and February to determine the average Mcf per degree day for each of the individual months for the remaining temperature sensitive load. The results are weighted by degree-days to give an average value which is utilized as a trial value for the heating factor.

The finalized domestic factor and the trial heating factor developed, as such, are then applied in the sendout calculations together with customer counts for the months of December, January and February (the peak winter cold period) to project an estimated sendout for each of these months. The projected sendout is then compared with the actual sendout experienced. Any variation between the projected and actual is adjusted to force the replication of the actual sendout experience, thus resulting in the determination of a finalized heating factor. The finalized heating factor was then averaged with the heating factor for the previous year.

Utilizing these domestic and heating factors, billed sales are then forecasted using 4,237 degree days and the number of customers.

Q. WHAT IS THE UNACCOUNTED FOR GAS PERCENTAGE USED IN THIS FILING?

A. The level of unaccounted for gas used in this filing is 2.7 % and is based on a 3-year average.

Q. WHAT IS THE TOTAL AMOUNT OF OFF SYSTEM SALES, CAPACITY RELEASE CREDITS, AND ASSET MANAGEMENT CREDITS THAT ARE INCORPORATED INTO THE GCR?

A. PGW has projected that the amount of off system sales, capacity release credits, and asset management credits within the GCR period of 2015-16. This amount is based on a 3 year average. Of that amount, $ 6,838,812 (75%) was credited to the GCR.

Q. PLEASE EXPLAIN THE FACTOR "E" CLARIFICATION IN THE PGW GAS SERVICE TARIFF

A. Due to the settlement in the 2012-13 GCR, PGW began crediting or recovering the previous year factor "E" over the Company's Fiscal Year. Previously, PGW had credited or recovered the factor "E" over the 12-month forecast period in each quarterly GCR filing. The proposed language "Credit or recovery of the factor "E" is completed over the Company's Fiscal Year." would memorialize the current practice with respect to the factor "E".

Q. PLEASE EXPLAIN THE CHANGE TO THE FORMULA FOR BALANCING SERVICE COSTS IN THE GAS SUPPLIER TARIFF.

The PGW Gas Supplier Tariff formula for Balancing Service Costs is BSC = ((C-E) / S) where "C" is the cost in dollars for all types of storage and related services; "E" is the net overcollection or undercollection of Balancing Service Costs; and "S" is the projected MCF of storage gas/LNG to be delivered to all customers. This formula provides for the crediting or recovering of the "E" to **<u>all</u>** Mcf of storage gas/LNG when the crediting or recovering of the "E" should be applied to the forecasted Mcf of load balancing volumes. PGW is proposing that the Balancing Service Costs formula be changed to $BSC = (C / S_1) - (E / S_2)$ where S_1 is the projected Mcf of storage gas/LNG to be delivered to Customers to meet design day needs during the projected period when rates will be in effect and S_2 is the forecasted Mcf of load balancing volumes during the projected period when rates will be in effect. This will effectively distribute the overcollection or undercollection of the Balancing Service Costs.

Q. PLEASE EXPLAIN THE GAS SUPPLIER TARIFF CORRECTION.

A. A typo was discovered in PGW's Gas Supplier Tariff. The definition section on page 10 of the tariff provides a definition for Daily Delivery Quantity as follows:

> DAILY DELIVERY QUANTITY ("DDQ") - The daily quantities of natural gas supplies a Supplier is required to deliver in Dths for a Firm Pool, as forecasted and communicated by Company, and may specify the required points of delivery. Such forecast shall be calculated to include volumes needed for end-use requirements, prior imbalances and provide return of balancing service quantities and unaccounted for gas, which amount shall not exceed the DDQ. This quantity will include corrections for Volume Adjustments.

The reference to "DDQ" at the end of the second sentence is incorrect. The correct reference is "DCQ" which is the acronym for Daily Contract Quantity. DCQ is defined on the same page as follows:

> DAILY CONTRACT QUANTITY ("DCQ") - The firm transportation capacity ("Pipeline FT Capacity") in Dths assigned by the Company to the Supplier and required to deliver Natural Gas Supply to Supplier's Firm Transportation Customers.

A firm supplier is not permitted to deliver more gas than can be transported on the assigned capacity, therefore, the correct reference is "DCQ". Accordingly, PGW has changed the Daily Delivery Quantity definition in this filing.

Q. PLEASE EXPLAIN THE CHANGE PGW IS PROPOSING FOR THE COGENERATION "CHARACTER OF SERVICE"

A. PGW's Cogeneration Service is a bundled interruptible service. The Character of Service section for Cogeneration Service sets forth the following (on page 131):

> <u>CHARACTER OF SERVICE</u>
>
> Service under this rate schedule is interruptible, and shall be subordinate to all firm services. Customer is advised of their responsibility to maintain capability of satisfying their requirements during any period when service is interrupted. Interruptions may occur for economic or operational considerations at any time<u>; however, service under this rate schedule will be interrupted based upon the price priority of rate schedule LBS, No. 6 fuel oil alternate service; the service providing the lowest net contribution to be interrupted first</u>.

As discussed in my testimony submitted in last year's proceeding with respect to the LBS rate, the posted price for No. 6 fuel oil (which is used to calculate the LBS rates) is no longer published in the Oil Price Daily. Additionally, PGW does not see the need to rank the interruptions of LBS and Cogeneration customers in this manner. As a result of the foregoing, the Gas Service Tariff included with this filing includes the deletion of the underlined section of the tariff provision set forth above.

Q. PLEASE EXPLAIN THE CHANGE PGW HAS INCLUDED IN THE NATURAL GAS VEHICLE SERVICE RATE

A. During the most recent audit by the Public Utility Commission's Bureau of Audits, the auditors noticed that the OPEB surcharge[1] is not included in the distribution charge for Rate NGVS but is included in the distribution charges for all of the other firm sales service rates.[2] The OPEB surcharge was established in PGW's last base rate case[3] and the surcharge was not included for Rate NGVS

[1] Other Post Employment Benefit Surcharge – Gas Service Tariff – Page 82.
[2] The other firm sales service rates included in the Gas Service Tariff are Rate GS (page 83), Rate MS (Page 87) and Rate PHA (Page 90).
[3] *PaPUC v. PGW* (Docket No. R-2009-2139884).

(which is a firm sales service rate) in PGW's compliance tariff filing. As a result of the foregoing, PGW is including the OPEB surcharge in the NGVS distribution charges.

Q. BASED UPON THE ABOVE SUPPORTING DATA, DO YOU BELIEVE THAT PGW'S GAS COSTS ARE REASONABLE?

A. Yes, PGW's GCR only contains the direct pass-through of actual costs incurred and projections of the same (for both gas costs and certain non-gas costs that were previously approved by the PUC). As stated by Mr. Snyder in his testimony, PGW follows a least cost gas procurement strategy.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Tab 6

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

RAYMOND M. SNYDER

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket Number R-2015-2465656

Philadelphia Gas Works
Proposed 2015 Annual GCR Adjustment

March 1, 2015

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION WITH PGW.

A. My name is Raymond M. Snyder. My position with PGW is Vice President of Gas Management.

Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.

A. I received a Bachelor of Science degree in Civil Engineering from Pennsylvania State University in 1979. I have also received a Masters in Engineering Management from Drexel University in 1988. I am a registered Professional Engineer in Pennsylvania. I have held the following positions at PGW: Engineering Assistant; Assistant Staff Engineer; Staff Engineer; Senior Staff Engineer; Assistant Manager, Engineering; Manager, Engineering; Director, Operations Systems Administration; and Director, Gas Processing.

Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS COMMISSION?

A. Yes. I submitted testimony for the PGW 1307f Annual GCR Filings in Docket Nos. R-2013-2346376 and R-2014-2404355.

Q. WHAT IS THE FOCUS OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony discusses:

- PGW's gas purchasing policies and strategies applicable to FY 2016 (September 1, 2015 to August 31, 2016) and FY 2015 (September 1, 2014 – August 31, 2015);
- PGW's design day requirement;
- Capacity release, off-system sales and asset management fee sharing;
- Price analysis and buying advisory service; and
- The capacity collaborative.

Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF PGW'S GAS DISTRIBUTION SYSTEM.

A. PGW's gas distribution system is located in Southeastern Pennsylvania in the County and City of Philadelphia. Since this is not a gas-producing area, PGW and its natural gas customers are dependent upon the interstate natural gas pipeline system to deliver natural gas into the PGW gas distribution system. PGW relies on the interstate pipeline for all natural gas supply, storage, and transportation services, except for PGW's own on-system peak shaving facilities. PGW owns and operates two LNG facilities that are used primarily both to meet intraday, daily and seasonal supply needs as well as to meet peak day requirement.

Q. PLEASE IDENTIFY PGW'S CURRENT INTERSTATE SUPPLIERS.

A. Spectra Energy's Texas Eastern Transmission pipeline and Williams' Transco Gas Pipeline comprise the two interstate natural gas pipelines that deliver gas to PGW's city gates. In addition, PGW uses natural gas storage services to meet winter peak requirements.

II. GAS PURCHASING POLICIES AND SUPPLY STRATEGY

Q. DOES PGW UTILIZE A LEAST-COST PROCUREMENT POLICY IN ITS GAS PURCHASING POLICIES AND SUPPLY STRATEGY?

A. Yes.

Q. PLEASE DESCRIBE PGW'S SUPPLY STRATEGY.

A. PGW's supply strategy[1] (which is currently being used during the FY 2015 GCR period and which the Company intends to use for the FY 2016 GCR period) is a portfolio approach in both contract structure and pricing. The portfolio approach of purchasing gas supply allows PGW to remove some of the volatility in purchasing natural gas supplies for its ratepayers. Without the use of the portfolio approach, firm ratepayers would be totally at the mercy of market volatility.

The Company's gas supply portfolio is divided into four distinct categories: (1) daily index price swing contracts; (2) physical forward purchased contracts; (3) storage; and (4) LNG.

(1) The advantage of daily index priced swing contracts are their operational flexibility which allows PGW to increase or decrease the volume in response to changes in sendout requirements. During certain time periods, these types of contracts also provide security of supply.

(2) The Company enters into physical forward purchased contracts for summer and winter baseload supplies. These contracts permit the Company to make discretionary physical forward purchases on a year-round basis.

(3) The Company utilizes storage fields which act as additional sources of supply. The gas procured under these contracts also act as a physical fixed price counter to market conditions.

(4) The Company operates its own LNG peak shaving liquefaction, vaporization, and storage facilities.

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[1] All natural gas supply strategies are presented to the Company's internal Supply Committee for review and approval. The Supply Committee is comprised of senior corporate management as well as Gas Supply, Gas Planning and Regulatory departmental management. The Supply Committee meets monthly.

Spectra Energy and Williams Gas Pipeline represent the only interstate pipeline facilities with physical connections to the PGW service territory. As a result, all of PGW's supply contracts utilize these pipelines and the contracts also recognize pipeline receipt and delivery rights. These contracts contain the ability to "lock up" the price for upcoming months or to have the pricing default to an agreed upon market index if there is no market advantage in fixing a price before the month begins. As a result, PGW not only ensures security of supply from the pipelines but also can take advantage of varying basis differentiated pricing in the market. This differentiated pricing results from the fact that all shippers of natural gas receive their gas at varying locations along the pipeline. PGW uses a city-gate delivered price in comparing the various alternatives available. The city gate delivered price is computed considering the "into the pipe price of gas" plus all incremental charges levied by the transporting pipeline to deliver the gas to the city gate. These prices include, but are not limited to, reservation fees, fuel, transportation charges and FERC Annual Charge Adjustment ("ACA") charges.

Additionally, PGW utilizes storages and LNG to meet operational requirements. Bundled storage contracts provide for the right both to storage of the gas and its delivery to PGW via bundled pipeline capacity. Unbundled storage contracts provide storage rights for gas which is transported on PGW firm pipeline transportation capacity. These storages provide off-system storage and LNG provides on-system storage. While both types of storages are important to fulfill operational requirements, PGW's on-system LNG storage is vital during peak days when customer demand exceeds the amount of gas that can be physically provided through PGW's city gates.

Once operational requirements are met, these assets are then used in the overall cost saving strategies. For example, once design winter sendout requirements are ensured, the Company may utilize bundled storage and LNG as a substitute for higher priced gases. PGW's summer gas procurement policy uses a similar approach to address system supply and storage refill. The Gas Supply department also uses forecasted prices as a benchmark to purchase gas volumes for both system supply and storage refill below the projected cost (when possible) on a proportional basis, while leaving a portion of its needs to default to first of the month pricing.

Q. DOES PGW PURCHASE GAS FROM ANY AFFILIATED INTEREST?

A. No. PGW does not have any affiliated gas suppliers or pipelines.

Q. WHILE PGW IS ENSURING THE LEAST COST PROCUREMENT, HOW DOES IT PROVIDE FOR SYSTEM RELIABILITY?

A. PGW physically sources the gas in accordance with its firm pipeline paths. The pipelines give PGW firm entitlements on their systems for the sourcing of gas for which PGW pays a demand charge. By sourcing supply this way, PGW ensures its sole entitlement to this space on the pipeline and can not be accused of infringement. Transporting gas from different locations also mitigates the impact of potential regional disruptions because not all of the supply enters the pipe at the same location. As a result, if there is a disruption at one location, not all of PGW's supply will be affected.

PGW's Gas Planning Department also runs a supply status model during the winter operating season which recognizes normal and design winter conditions and the latest actual balance of gas in all storage facilities. Gas Management utilizes the output of this model to make recommendations or changes in its supply operating strategy to ensure that peak day needs and design winter conditions can be met from that point forward.

Q. DOES PGW PERIODICALLY REVIEW ITS EXISTING CONTRACTS TO DETERMINE IF THEY ARE APPROPRIATE?

A. Yes. PGW reviews each of its existing contracts on a regular basis to ensure that none of the contracts are adverse to its customers' interests. Whenever appropriate, PGW initiates renegotiations (if the contract permits) to change the terms.

Q. IN YOUR OPINION, ARE THE GAS COSTS INCURRED BY PGW REASONABLE?

A. Yes. The 2013-2014 gas costs and the gas costs incurred to date during the 2014-2015 period are the result of the least cost gas procurement strategy outlined in my testimony.

III. <u>DESIGN DAY REQUIREMENT</u>

Q. PLEASE PROVIDE AN OVERVIEW OF THE DESIGN DAY REQUIREMENT.

A. Details of PGW's design day methodology and an account of the 2014/2015 winter design day requirement can be found in the responses to items 53.64 (c)(13) and 53.64(c)(14) which were provided in PGW's February 1, 2015 GCR Filing.

IV. <u>CAPACITY RELEASE, OFF-SYSTEM SALES MARGIN AND ASSET MANAGEMENT FEES</u>

Q. HAS PGW BEEN RETAINING A PORTION OF NET PROCEEDS FROM CAPACITY RELEASE CREDITS, OFF-SYSTEM SALES MARGIN AND ASSET MANAGEMENT FEES?

A. Yes. During the 2008-2009 GCR proceeding (Docket No. R-2008-2021348), the parties agreed that PGW will retain 25% of all off-system sales margins and capacity release credits with the remaining 75% applied as an offset to purchased gas costs for the retention period of September 1, 2008 to August 31, 2011. Likewise, the parties agreed that PGW will retain 25% of all off-system sales margins, capacity release credits and asset management margins/credits/fees with the remaining 75% applied as an offset to purchased gas costs for the following GCR proceedings and retention periods:

GCR Proceeding	Docket No.	Retention Period
2011-2012	R-2011-2224739	9/1/11 to 8/31/12
2012-2013	R-2012-2286447	9/1/12 to 8/31/13
2013-2014	R-2013-2346376	9/1/13 to 8/31/14
2014-2015	R-2014-2404355	9/1/14 to 8/31/15

The Company also agreed to include an off-system sales margin, capacity release credit and asset management margins/credits/fees retention proposal for the Purchased Gas Cost period(s) beginning on September 1, 2015 in its March 1, 2015 annual 1307(f) filing.

Q. DOES PGW HAVE A RETENTION PROPOSAL FOR THE PGC PERIODS BEGINNING ON SEPTEMBER 1, 2015?

A. Yes. PGW proposes to continue the retention of 25% of capacity release credits, off system sales margin and asset management margin/credit/fees and the application of the remaining 75% to the gas cost rate.

Q. DO OTHER PENNSYLVANIA NATURAL GAS DISTRIBUTION COMPANIES ("NGDCs") HAVE SHARING MECHANISMS FOR CAPACITY RELEASE AND OFF SYSTEM SALES CREDITS?

A. Yes. Please see Exhibit RMS-1 for a chart which provides a description of the sharing mechanisms currently in place. Six of the largest NGDCs have sharing mechanisms similar to PGW's and the sharing percentage for all of the NGDCs is 25%.

Q. HOW ARE SHARING MECHANISMS BENEFICIAL TO BOTH RATEPAYERS AND UTILITES?

A. The ratepayers and the utility receive benefit from the policy because it creates an incentive to maximize efforts to make off system sales and capacity release transactions, thereby increasing the amounts applied to the gas cost rate and the lesser portion retained by the utility.

V. <u>PRICE ANALYSIS AND BUYING ADVISORY SERVICE</u>

Q. PGW CURRENTLY USES PLANALYTICS ENERGY BUYER SERVICES AND IS CURRENTLY PERMITTED TO RECOVER THE ANNUAL $125,000 FEE VIA THE GAS COST RATE DURING THE 2014- 2015 GCR PERIOD. WHAT TYPES OF SERVICES DOES PLANANYTICS PROVIDE TO PGW?

A. Planalytics provides the following services:

- Price feed from Nymex and Globex for natural gas, crude oil, heating oil and RBOB (reformulated gasoline);
- Buying suggestions up to 18 months in the future;
- A charting tool for technical analysis;
- Short and medium range weather forecasts;
- Weather alerts (issued in advance of significant weather events);
- Planalytic's pre-season hurricane forecast and in-season updates; and
- Additional energy buyer features include reporting (i.e. mark-to-market, transaction history, etc.) and portfolio/hedging parameters.

Q. WHAT WAS INCORPORATED INTO PGW'S 2014-2015 GCR PROCEEDING SETTLEMENT AGREEMENT WITH REGARD TO THE PLANANLYTICS ENERGY BUYER SERVICES?

A. PGW agreed to the following:

PGW is permitted to recover the Planalytics fee for price analysis and buying advisory services (not to exceed $125,000) for the 2014-2015 GCR period. Continued recovery of the fee beyond the 2014-2015 GCR period must be addressed in next year's Purchased Gas Cost proceeding.

Q. DOES PGW WANT TO CONTINUE THE PLANALYTICS BUYING ADVISORY SERVICES?

A. Yes. The Planalytics' service provides a comprehensive amount of information that the Company finds useful in the procurement of all gas supply. Nonetheless, PGW understands that it must reach a new agreement as to the continuing recovery of the Planalytics fee and the Company looks forward to discussing this issue with the parties involved in this year's proceeding.

VII. CAPACITY COLLABORATIVE

Q. PLEASE EXPLAIN THE ORIGIN OF PGW'S CAPACITY COLLABORATIVE?

A. On February 20, 2014, the Commission approved a settlement agreement in which PGW agreed to implement a purchase of receivables program, consolidated billing and an electronic data interchange ("EDI").[2] The parties to the settlement agreement are PGW, the Office of the Consumer Advocate, the Office of the Small Business Advocate, Interstate Gas Supply, Inc., Dominion Retail, Inc. and Hess Corporation. [3] PGW also

[2] *Pennsylvania Public Utility Commission v. Philadelphia Gas Works*, Docket Nos. R-2008-2073938 and R-2009-2139884 (Order issued Feb. 20, 2014).

[3] The Bureau of Investigation and Enforcement ("I&E"), Tenant Union Representative Network and Action Alliance of Senior Citizens of Greater Philadelphia ("TURN, *et al.*"), Direct Energy Services, LLC ("Direct Energy") and the Philadelphia Industrial and Commercial Gas Users Group ("PICGUG") did not join in this Settlement but authorized the Settling Parties to state their non-opposition to the Settlement.

agreed to convene a capacity collaborative within 30 days of the Commission's approval. More specifically, paragraph 8 of the settlement agreement set forth the following:

> PGW agrees to form a collaborative ("The Capacity Collaborative") with interested parties regarding capacity and capacity related issues. The Capacity Collaborative will be charged with exploring modifications to the following PGW processes and procedures: 1) transportation capacity assignment; 2) storage capacity allocation; and 3) the Daily Delivery Quantities ("DDQ") and Daily Contract Quantities ("DCQ") calculations.
>
> The Capacity Collaborative will initially convene within 30 days of the entry of an order by the Commission approving this Settlement. In the initial session, NGSs and any other Party who chooses to do so shall identify all of the specific concerns that they have with PGW's procedures, and make specific alternative proposals. A second session shall be held within 90 days of the approval of this Settlement, at which time PGW will respond to the concerns raised by the Parties and offer its own proposal to resolve any issues raised. Also at this second session, or at any time prior to this session, the NGSs or any other Party may make a formal proposal concerning modifications to the Company's processes and procedures regarding matters subject to this Settlement. The Parties will then endeavor to reach consensus regarding the proposals put forward. It is the intent of the Parties to conclude this Collaborative by December 31, 2013. [FN1] To the extent consensus can be achieved, PGW will propose any necessary tariff changes in its March 1, 2014 annual 1307(f) filing. [FN2] If the Collaborative participants do not reach an agreement regarding tariff modifications, the participants retain any rights they otherwise might have to raise the aforementioned issues in that (or any other) proceeding.
>
>> FN1: Depending upon when the order is entered approving this Settlement, it may not be feasible to conclude this Collaborative by December 31, 2013. If it is not feasible, the parties may either: 1) make their best effort to reach a consensus in time to include tariff changes in the March 1, 2014 annual 1307(f) filing; or 2) conclude this Collaborative during 2014 and, to the extent consensus can be achieved, PGW will propose any necessary tariff changes in its March 1, 2015 annual 1307(f) filing.
>>
>> FN2: Id.

Q. DID PGW CONVENE THE CAPACITY COLLABORATIVE?

A. Yes. PGW convened the first meeting on March 18, 2014 and held two follow-up meetings on May 14, 2014 and June 23, 2014. PGW included the parties to the settlement agreement (both the joining parties and the non-opposing parties) and the suppliers which provide gas supply to PGW's customers. During the meetings and via email, the collaborative participants posed questions and PGW provided responses and explanations during meetings and followed up via email. In response to the requests of some parties, PGW is now providing a quarterly schedule for its load balancing charge and a monthly capacity allocation calculation to each firm supplier operating on PGW's system. Some firm suppliers also requested capacity allocations on a per customer basis and PGW explored the possibility of providing this information through its current applications. PGW encountered certain limitations in its current applications and determined that it will pursue providing capacity allocation, including design day and average day, on a per customer level, to firm suppliers as part of a new gas management system which the Company will begin implementing during 2015 and complete in 2016.

Q. WERE THERE ANY FORMAL PROPOSALS FOR TARIFF MODIFICATIONS?

A. No.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Pennsylvania Natural Gas Distribution Companies - Sharing Formulas

Utility	Type of Revenue Retained	Sharing %	Source
Columbia	Off-system sales margin and capacity release.	25% of total.	Columbia Gas Tariff – Pa. P.U.C. No. 9, Supplement No. 218, 13th Revised Pg. No. 159, Issued September 30, 2014, Effective October 1, 2014.
NFG	Off-system sales margin, capacity release, gas storage fill contracts savings and asset management arrangements under FERC Order 712 for capacity releases associated with identified capacity contracts.	25% of total.	NFG Gas Tariff – Pa. P.U.C. No. 9, Supplement No. 42, 2nd Revised Pg. No. 154, Issued July 30, 2004, Effective August 1, 2004 & Supplement No. 145, 9th Revised Pg. No. 155, Issued July 31, 2013, Effective August 1, 2013.
PECO	Off-system sales margin. Effective March 31, 2008 through November 30, 2017.	25% of total.	PECO Gas Tariff – Pa. P.U.C. No. 2, Supplement No. 153, 24th Revised Pg. No. 35, Issued November 25, 2014, Effective December 1, 2014.
UGI (Central Penn)	Off-system sales margin, locational exchange revenues, capacity release and storage asset management fees. Effective December 1, 2008, through November 30, 2016.	25% of total.	UGI Central Penn Gas Tariff - PA P.U.C. No. 4, Supplement No. 2, 1st Revised Page 38, Issued November 30, 2011, Effective December 1, 2011.
UGI (Penn Natural)	Off-system sales margin, capacity release, exchanges of natural gas and storage asset management fees. Effective December 1, 2011, through November 30, 2016.	25% of total.	UGI Penn Natural Gas Tariff – Pa. P.U.C. No. 8, Supplement No. 36, 12th Revised Pg. No. 31, Issued November 26, 2014, Effective December 1, 2014.
UGI	Off-system sales margin, locational exchange revenues, capacity release and storage asset management fees. Beginning December 1, 2008 and ending November 30, 2016.	25% of total.	UGI Gas Tariff – Pa. P.U.C. No. 5, Supplement No. 88, 7th Revised Pg. No. 30, Issued November 30, 2011, Effective December 1, 2011.

Tab 7

PGW St. 3

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

WILLIAM J. PATTI, EA, MAAA

ON BEHALF OF
PHILADELPHIA GAS WORKS

DOCKET NO. R-2015-2465656

Philadelphia Gas Works
Proposed 2015 Annual GCR Adjustment

March 1, 2014

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS

A. My name is William J. Patti. My business address is, 601 Walnut Street Suite 805

A. Philadelphia, PA 19106.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Brown & Brown Consulting as a Senior Consulting Actuary.

Q. WHAT ARE YOUR PRINCIPAL RESPONSIBILITIES WITH BROWN AND BROWN CONSULTING?

A. My principal responsibilities include consulting on all aspects of defined benefit postretirement welfare and retirement plans for the public and private sectors.

Q. WHAT ARE YOUR PROFESSIONAL QUALIFICATIONS?

A. I am a Member of the Academy of Actuaries, and an Enrolled Actuary under ERISA. My Curriculum Vitae is attached as Exhibit WJP-1.

Q. WHAT IS YOUR RELATIONSHIP WITH PGW?

A. I have served as Brown and Brown's lead actuarial consultant to PGW since 2012 and worked on the PGW account in a support role prior to that back to 2007. My responsibilities include overseeing and preparation of the actuarial valuation under Government Accounting Standards Board ("GASB") 45 of the Philadelphia Gas Works Health and Life Insurance Plan for Retired Employees. Additionally Brown and Brown serves as benefit consultant which includes assisting PGW with respect to the medical, prescription drug, dental, and disability benefits provided to active and retired employees. We assist PGW management in securing insurance coverage for these benefits, reviewing service providers on self-insured benefits and negotiating union benefits. Our firm has prepared the 2007, 2009, 2011, 2012, 2013, and 2014 actuarial valuation reports for the PGW

Health and Life Insurance Plan for Retired Employees obligations and expense under GASB 45.

Q. PLEASE EXPLAIN THE PURPOSE OF YOUR TESTIMONY.

A. The purpose of my testimony is to review and update the annual funding amount for PGW's Other Post-Employment Benefits ("OPEB") Rider, as required by Paragraph 20 of the Joint Petition for Settlement, which was approved by Order of the Commission (entered July 29, 2010) at Docket No. R-2009-2139884 (collectively, the "Settlement"). Paragraph 20 provides that the funding amount used for the OPEB Rider "shall not change until reviewed and updated … after the initial 5-year period." Settlement, at ¶ 20. The OPEB Rider was implemented on September 1, 2010, and the initial five-year period ends on August 31, 2015.

Q. WHAT ARE OPEBS?

A. OPEBs are health and life insurance benefits provided to employees after termination or retirement. PGW provides eligible retirees with medical, prescription drug, dental coverage, and life insurance coverage.

Q. WHY DOES PGW HAVE AN UNFUNDED LIABILITY FOR OPEBS?

A. As a result of the issuance of GASB 45, in FY 2007 PGW began to record on its financial statements a liability for the cost of providing OPEBs to employees in the year in which the benefit is accrued. This accounting change resulted in PGW having an annual OPEB cost that consisted of both its payouts to retirees plus the amount accrued for existing employees, that will be paid out upon their retirement. As a result PGW had a large unfunded liability for current and future years ("Unfunded Actuarial Accrued Liability", or "UAAL") as well an amount of accrued liability associated with several prior years ("Net OPEB Obligation").

Q. HOW WAS THIS OPEB LIABILITY TREATED IN THE LAST PGW RATE PROCEEDING?

A. The Settlement permitted PGW to make payments into a trust fund to begin to fund its unfunded liability. It was also permitted to amortize its UAAL and Net OPEB Obligation over thirty years.

Q. WHAT IS PGW'S ANNUAL CONTRIBUTION TO THE OPEB TRUST FUND.

A. Under the Settlement, PGW's total annual contribution to the OPEB Trust Fund is $18.503 million. That amount has two components: $15 million annually to fund the Unfunded Actuarial Accrued Liability and $3.503 million annually, which represents a 30-year amortization period for the Net OPEB Obligation of $105.1 million as of FYE 2010.

Q. IS THE ENTIRE $18.5 MILLION CONTRIBUTED TO THE OPEB TRUST FUNDED BY THE OPEB RIDER?

A. No. The Settlement provides that the funding amount for the OPEB Rider "shall be $16 million annually (except for over/under collection true-ups)." Settlement, at ¶ 20. The remaining $2.5 million is contributed by PGW from general rate revenues.

Q. HAVE YOU PREPARED AN ACTUARIAL VALUATION OF PGW'S OPEB OBLIGATIONS AND ANNUAL EXPENSE?

A. Yes. The Settlement provided that PGW submit "a current actuarial study to determine the level needed to fund any remaining Unfunded Actuarial Accrued Liability and OPEB obligation funding … ." Settlement, ¶ 20. Accordingly, we prepared an actuarial study ("Study") dated November 2014 , a copy of which Study is attached as Exhibit WJP-2. The 10-year projection of GASB 45 Costs and Other Items (Appendix 4 to the Study) was completed prior to the release (by the Society of Actuaries' Retirement Plans Experience Committee) of the final report of the RP-2014 mortality tables and MP-2014 future mortality improvement factors. So, I updated that Appendix to use the RP-2014 mortality table with mortality improvements after 2014 using generational projections with scale MP-2014, and the updated results are attached as Exhibit WJP-3.

Q. PLEASE DESCRIBE WHAT THE STUDY SHOWS.

A. The Study shows that PGW continues to have a significant UAAL, approximately $360 million as of the end of FY 2014. See, Exhibit WJP-3. Even though the UAAL has been reduced since 2010 (my colleague, Mr. Kikla, had projected that the Settlement funding would reduce the UAAL to $455 million in 2014[1]), it remains a material amount. In addition, PGW is only in year 6 of the 30 year amortization of the UAAL and Net OPEB Obligation.

Q. IN LIGHT OF THESE FACTS, DO YOU RECOMMEND ANY CHANGE TO THE FUNDING AMOUNT FOR THE OPEB RIDER?

A. Not at this time. Based on our Study, the funding amount for the OPEB Rider should remain at $16 million annually (except for over/under collection true-ups) in order to "fund any remaining UAAL and OPEB obligation funding… ." Settlement, ¶ 20. PGW shall continue to deposit this amount ($16 million), together with its contribution of $2.5 million annually into the OPEB Trust.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

[1] Settlement, PGW Statement in Support, App. B, Exhibit SMK-6.

Exhibit WJP-1

William J. Patti

Mr. Patti has over twenty four years of experience in Employee Benefits Actuarial Consulting and is an Enrolled Actuary under ERISA and is also a member of the American Academy of Actuaries. Mr. Patti graduated with a bachelor degree in Mathematics with a Computer Science concentration from Shippensburg University in 1990.

Mr. Patti consults on retiree health and welfare defined benefit plans for the public and private sector, including actuarial valuations for purposes of determining financial statement expense and year-end balance sheet adjustments and footnote disclosure items under FASB and GASB, and analyzing the cost effect of alternative assumptions and plan designs, and cash flow (pay as you go) and financial statement expense and liability forecasting. Mr. Patti also consults on and prepares actuarial equivalency testing for the Medicare Part D Retiree Drug Subsidy, and the development of health insurance rates and reserves for self-insured plans and actuarial analysis of health claims experience and cost effect of health plan design changes.

Mr. Patti is also responsible for consulting on all aspects of defined benefit retirement plans for the public and private sectors, including determining minimum funding requirements and maximum tax deductible limitations, determining financial statement expense and year-end balance sheet adjustments and footnote disclosure items under FASB and GASB, analyzing alternative plan designs including defined contribution supplemental and/or replacement plans and supplemental executive retirement plans, performing nondiscrimination testing on controlled group and non-controlled group employers for purposes of satisfying benefit amount and coverage requirements, designing and analyzing the funding and financial statement costs of early retirement windows and implementation thereof, multi-employer plan participation and withdrawal liability analysis, and pension plan administration.

Mr. Patti also has significant experience analyzing the feasibility of defined benefit retirement plan terminations and performs any or all of the steps necessary to implement a plan termination, including analyzing offering lump sum payments, single premium group annuity purchases, or some combination of the two. Plan termination analysis includes continually evaluating whether to annuitize or offer lump sums to certain population or liability segments. Our single premium group annuity purchase service includes data analysis, including death audit, preparation of insurance company bid specifications (considering the size of individual participant benefits and/or the size of the annuity purchase to minimize insurance company insolvency risk), analysis of insurance company proposals and due diligence on insurance companies to comply DOL

Interpretive Bulletin 95-1, and assistance with insurance company contract review and installation.

Mr. Patti also is responsible for all Form 5500, participant disclosure, and other government filing compliance for Brown & Brown Consulting. These responsibilities include preparation and providing direction to other Brown & Brown staff on the completion of Form 5500 filings, as well as completing and providing Form 5500 counsel to other Brown & Brown offices.

Exhibit WJP-2

OPEB Valuation Study

(21 pages)

PHILADELPHIA GAS WORKS

PHILADELPHIA GAS WORKS HEALTH AND LIFE INSURANCE PLAN FOR RETIRED EMPLOYEES SEPTEMBER 1, 2014 ACTUARIAL VALUATION

Prepared by:
Brown & Brown Consulting
The Curtis Center
601 Walnut Street, Suite 805
Philadelphia, PA 19106

November 2014

ACTUARIAL STATEMENT

We present in this report the results of the actuarial valuation of the Philadelphia Gas Works Health and Life Insurance Plan For Retired Employees as of September 1, 2014. This report presents our determination of PGW's obligations and accrual expense under Government Accounting Standards Board Statement 45 (GASB 45) for the fiscal years ending August 31, 2014 and 2015. Use of the valuation report for purposes other than fulfilling the requirements of GASB 45 may not be appropriate.

The actuarial calculations and accounting figures shown in this report are based upon the census data submitted by the plan sponsor, and the plan provisions and actuarial assumptions summarized in the Appendices. We have not performed a comprehensive audit of the data provided, but have reviewed the data for reasonableness.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The calculations reported herein are consistent with our understanding of the provisions of GASB 45. The actuarial assumptions employed in the development of the postretirement welfare cost have been selected by Brown & Brown Consulting with the concurrence of the plan sponsor. In our opinion, these assumptions are individually reasonable on their own merits and consistent in the aggregate.

The undersigned credentialed actuaries of Brown & Brown Consulting meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. There is no relationship between the Plan Sponsor and Brown & Brown Consulting that impacts our objectivity.

William J. Patti, MAAA
Enrolled Actuary Number: 14-06221

Curt R. Evans, FSA
Enrolled Actuary Number: 14-05239

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EXECUTIVE SUMMARY

This report presents Philadelphia Gas Works (PGW) management with information concerning the health and life insurance benefits provided to employees after termination or retirement. PGW provides eligible retirees with medical, prescription drug, dental coverage, and life insurance coverage.

We previously performed an actuarial valuation as of September 1, 2013 of the cost and liabilities attributable to these postemployment welfare benefits using the methods and procedures under GASB 45 Statement for Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions. GASB 45 requires a valuation every two years unless there are significant plan provisions, demographic, or actuarial assumption or method changes. PGW has determined that no significant changes have occurred since the prior valuation; thus, the following valuation results as of September 1, 2014 are based on a roll forward of the valuation results as of September 1, 2013, modified to incorporate revised per capita claims costs and to reflect the resulting impact on the high-premium excise tax ("Cadillac Tax") under the Affordable Care Act.

Following are the highlights of our report:

- The Actuarial Accrued Liability at:

	September 1, 2014	September 1, 2013
Retirees	$264,643,000	$291,171,000
Active employees	$185,646,000	$145,356,000
Total	$450,289,000	$436,527,000

- The reported market value of plan assets at August 31, 2014 was $90,837,700 resulting in an Unfunded Actuarial Accrued Liability of $359,451,300. The net OPEB Obligation (NOO) as of August 31, 2014 is $101,788,000.

- The Annual Required Contribution (ARC) for the fiscal year ended August 31, 2014 is $38,062,000. The Annual OPEB cost (AOC) is $37,090,000.

- The ARC for the fiscal year beginning September 1, 2014 is $37,980,000. The AOC is $37,073,000.

- The estimated ARC and AOC for the fiscal year beginning September 1, 2015 is $37,314,000 and $36,487,000, respectively, based on a zero gain or loss and expected PGW contributions for the fiscal year ending August 31, 2015. These estimates will need to be updated to reflect actual PGW contributions during the fiscal year ending August 31, 2015 and actual NOO and market value of assets as of August 31, 2015.

SUMMARY OF VALUATION RESULTS
(in thousands)

	Medical, RX and Dental	Cadillac Tax	Life	Total
Actuarial Accrued Liability				
Retiree	$ 249,995	$ 1,396	$ 13,252	$ 264,643
Active	$ 174,943	$ 3,834	$ 6,869	$ 185,646
Total	$ 424,938	$ 5,230	$ 20,121	$ 450,289
Assets	$ -	$ -	$ -	$ 90,838
Unfunded Actuarial Accrued Liability				$ 359,451
Normal Cost	$ 5,266	$ 203	$ 275	$ 5,744
Discount Rate				7.95%

Healthcare Trend
7% grading down to 4.5% over 4 years (post-65)
9% grading down to 4.5% over 8 years (pre-65)

ANNUAL REQUIRED CONTRIBUTION AND OPEB COST

(in thousands)

	Fiscal Year Ending		
	8/31/2013	**8/31/2014**	**8/31/2015**
(1) Normal Cost with interest	$ 5,230	$ 4,933	$ 6,201
(2) Amortization of Unfunded Actuarial Accrued Liability (30 year open period)	$ 35,986	$ 33,129	$ 31,779
(3) Annual Required Contribution (ARC)	$ 41,216	$ 38,062	$ 37,980
(4) Net OPEB Obligation at beginning of year	$ 111,067	$ 109,060	$ 101,788
(5) Interest on Net OPEB Obligation	$ 8,885	$ 8,670	$ 8,092
(6) Adjustment to the ARC	$ (9,866)	$ (9,642)	$ (8,999)
(7) Annual OPEB Cost (AOC)	$ 40,235	$ 37,090	$ 37,073
Discount Rate	8.00%	7.95%	7.95%

Annual OPEB COST Summary

Fiscal Year Ending	Annual OPEB Cost ($ thousands)	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation ($ thousands)
8/31/2007	$44,501	42.3%	$25,685
8/31/2008	$44,850	40.8%	$52,255
8/31/2009	$46,009	43.6%	$78,207
8/31/2010	$48,975	53.7%	$105,476
8/31/2011	$45,691	91.3%	$109,448
8/31/2012	$46,105	96.5%	$111,067
8/31/2013	$40,235	105.0%	$109,060
8/31/2014	$37,090	119.6%	$101,788

VARIOUS GASB 45 COSTS AND OTHER ITEMS
(in thousands)

FISCAL YEAR ENDING AUGUST 31:	2007	2008	2009	2010	2011	2012	2013	2014
Actuarial Accrued Liability (AAL), BOY	557,944	573,734	591,599	635,792	654,126	485,722	443,982	436,527
Actuarial (Gain)/Loss	0	0	26,860	0	(186,752)	(59,087)	(23,512)	1,015
Interest on AAL	27,897	28,687	29,580	31,790	37,390	38,858	35,519	34,704
Normal Cost with Interest	7,179	7,915	8,311	8,793	5,106	5,514	5,230	4,933
Benefit Payments	(18,816)	(18,280)	(20,057)	(21,706)	(23,219)	(25,986)	(23,742)	(25,862)
Interest on Benefit Payments	(470)	(457)	(501)	(543)	(929)	(1,039)	(950)	(1,028)
AAL, EOY	573,734	591,599	635,792	654,126	485,722	443,982	436,527	450,289
Market Value of Assets, BOY	0	0	0	0	0	17,886	38,860	61,796
Contributions	18,816	18,280	20,057	21,706	41,719	44,486	42,242	44,362
Benefit Payments	(18,816)	(18,280)	(20,057)	(21,706)	(23,219)	(25,986)	(23,742)	(25,862)
Investment Income	0	0	0	0	(614)	2,474	4,436	10,542
Market Value of Assets, EOY	0	0	0	0	17,886	38,860	61,796	90,838
UAAL at BOY	557,944	573,734	591,599	635,792	467,374	467,836	405,122	374,731
Normal Cost with Interest	7,179	7,915	8,311	8,793	5,106	5,514	5,230	4,933
Amortization of UAAL	37,322	37,322	38,484	41,359	41,516	41,557	35,986	33,129
Annual Required Contribution (ARC)	44,501	45,237	46,795	50,152	46,622	47,071	41,216	38,062
Interest on Net OPEB Obligation	0	1,284	2,613	3,910	8,438	8,756	8,885	8,670
Adjustment to the ARC	0	(1,671)	(3,399)	(5,087)	(9,369)	(9,722)	(9,866)	(9,642)
Annual OPEB Cost (AOC)	**44,501**	**44,850**	**46,009**	**48,975**	**45,691**	**46,105**	**40,235**	**37,090**
Net OPEB Obligation, BOY	0	25,685	52,255	78,207	105,476	109,448	111,067	109,060
AOC	44,501	44,850	46,009	48,975	45,691	46,105	40,235	37,090
Contributions	(18,816)	(18,280)	(20,057)	(21,706)	(41,719)	(44,486)	(42,242)	(44,362)
Net OPEB Obligation, EOY	**25,685**	**52,255**	**78,207**	**105,476**	**109,448**	**111,067**	**109,060**	**101,788**
Discount Rate, BOY	5.00%	5.00%	5.00%	5.00%	5.00%	8.00%	8.00%	7.95%
Discount Rate, EOY	5.00%	5.00%	5.00%	5.00%	8.00%	8.00%	7.95%	7.95%

NOTES

-Prior to 9/1/10, plan was unfunded. PGW began funding the plan effective 9/1/10.

-Cumulative difference between ARC and employer contributions is Net OPEB Obligation and is carried as a liability on the balance sheet.

-Amortization method is based on an open period of 30 years.

10-YEAR EXPECTED CASH PAYOUTS

Current Retirees

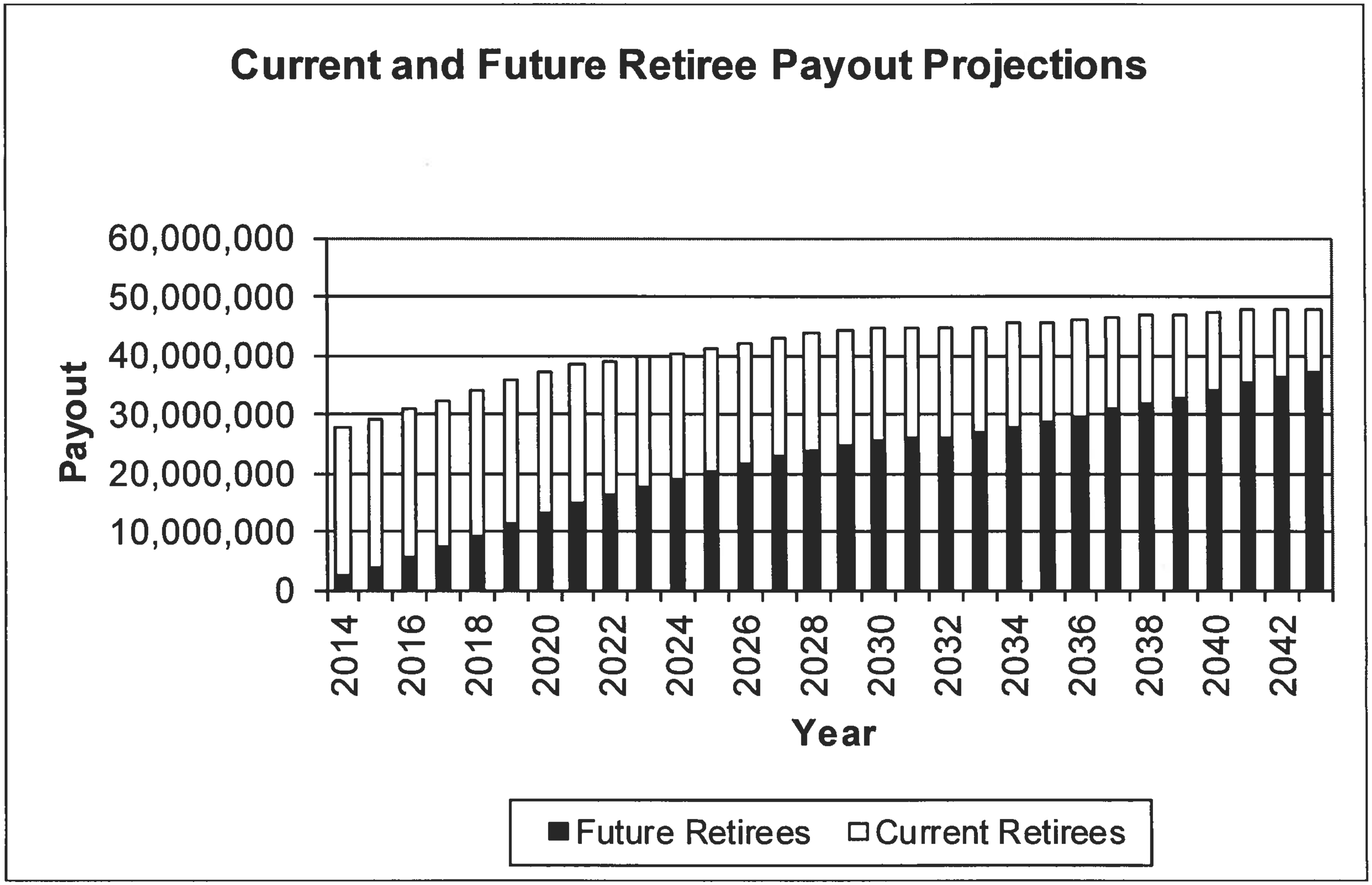
Year Beginning 9/1	Medical, Rx and Dental	Life	Total
2014	23,707,283	1,275,844	24,983,127
2015	24,064,851	1,268,280	25,333,131
2016	24,281,281	1,257,612	25,538,893
2017	23,947,184	1,247,142	25,194,326
2018	23,566,720	1,237,112	24,803,832
2019	23,249,844	1,223,186	24,473,030
2020	22,824,174	1,205,988	24,030,162
2021	22,327,972	1,187,493	23,515,465
2022	21,626,939	1,169,489	22,796,428
2023	21,070,706	1,151,079	22,221,785

Future Retirees

Year Beginning 9/1	Medical, Rx and Dental	Life	Total
2014	2,453,173	119,647	2,572,820
2015	3,789,299	161,308	3,950,607
2016	5,256,320	204,238	5,460,558
2017	6,941,194	247,043	7,188,237
2018	8,851,333	295,527	9,146,860
2019	10,784,392	347,910	11,132,302
2020	12,761,273	396,963	13,158,236
2021	14,325,633	446,546	14,772,179
2022	15,581,075	495,867	16,076,942
2023	17,030,538	546,174	17,576,712

Current and Future Retirees

Year Beginning 9/1	Medical, Rx and Dental	Life	Total
2014	26,160,456	1,395,491	27,555,947
2015	27,854,150	1,429,588	29,283,738
2016	29,537,601	1,461,850	30,999,451
2017	30,888,378	1,494,185	32,382,563
2018	32,418,053	1,532,639	33,950,692
2019	34,034,236	1,571,096	35,605,332
2020	35,585,447	1,602,951	37,188,398
2021	36,653,605	1,634,039	38,287,644
2022	37,208,014	1,665,356	38,873,370
2023	38,101,244	1,697,253	39,798,497
	328,441,184	15,484,448	343,925,632


Current and Future Retiree Payout Projections
Payout
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
2014
2016
2018
2020
2022
2024
2026
2028
2030
2032
2034
2036
2038
2040
2042
Year
Future Retirees
Current Retirees

APPENDIX 1

SUMMARY OF BENEFITS

A. Eligibility

An employee must retire directly from active service in order to be eligible for postretirement welfare benefits. All nonunion and union employees who satisfy the following eligibility requirements will receive post-retirement welfare benefits:

Normal – age 65 and 5 years of service

Early – age 55 and 15 years of service (pension plan benefit is reduced 3% per year for each of the first 5 years, and reduced 5% per year for each of the next 5 years that commencement of payment precedes Normal retirement)

Special Early – age 55 and 25 years of service (pension plan benefit is unreduced for the first 3 years, reduced 3% per year for each of the next 2 years, and reduced 5% per year for each of the next 5 years that commencement of payment precedes Normal retirement)

Thirty & Out - 30 years of service (pension plan benefit is unreduced)

Disability – age 45 and 15 years of service and rule of 65, or 20 years of service

Pre-Retirement Spouse's Death Benefit – age 45 and 15 years of service and rule of 65, or 20 years of service

If a retiree selects a joint and survivor annuity with his or her spouse as the beneficiary under the pension plan, then the spouse receives lifetime health benefits. Otherwise, spousal coverage stops on the death of the retiree.

Union employees hired on or after May 21, 2011 and Non-Union employees hired on or after December 21, 2011 are entitled to receive post–retirement medical, prescription, and dental benefits for five years only (for Normal or Early, Disability, and Pre-Retirement Spouse's Death).

B. Health Benefits

a. Medical Benefits

For pre-65 retirees, a choice of plans self-funded through Independence Blue Cross including Personal Choice, Blue Cross Blue Shield with Major Medical, or Keystone HMO's. Employees who retire after December 1, 2001 are provided the Keystone 5 Plan at the company expense and they can buy up to a more expensive plan. Employees who retire on or after September 1, 2007 are provided the Keystone 10 Plan at company expense, and they can buy up to a more expensive plan. Union employees who retire after January 1, 2012 are provided the Keystone 15 Plan at company expense and can buy up to a more expensive plan. Management employees who retire after August 31, 2011 continue to receive the Keystone 10 as the base plan and can buy up to a more expensive plan.

Reinsurance provides specific stop loss coverage of $275,000 on pre-65 Medical and Prescription Drug claims.

Eligible pre-65 retirees who relocate outside of the Keystone coverage area may elect to participate in the PGW Retiree Health Reimbursement Arrangement (HRA). Under the HRA, the Keystone base plan premium-equivalent will be credited to a participant's HRA account and will be available to reimburse the participant for eligible medical insurance premiums.

Medicare eligible retirees are provided a fully-insured Medicare Supplement Plan through Independence Blue Cross.

Opt-out benefits of $1,500 per year for Single coverage and $3,000 per year for Husband/Wife coverage are available to eligible retirees. This benefit is not available to a Husband/Wife who both retired from PGW and who are eligible for Medical benefits. Retiree can maintain Prescription Drug and Dental coverage even if they opt out of Medical coverage.

b. Prescription Drug Benefits

Employees who retired on or after April 15, 1976 and prior to December 1, 2001, are offered a Prescription Drug Plan that has been set up for retirees and is separate from the plan that is set up for active employees. The retiree Prescription plan consists of a $2 co-pay for generic drugs, a $2 co-pay for brand name drugs when no generic drugs are available, and a $15 co-pay for brand name drugs when generic drugs are available. There are no deductibles and no lifetime maximums. Employees who retired prior to April 15, 1976 or on or after December 1, 2001 but before September 1, 2007 have a $5 co-pay for generics and a $10 co-pay for brand drugs. Employees who retire on or after September 1, 2007 have a $5 co-pay for generics and a $15 co-pay for brand drugs.

Effective, January 1, 2012 PGW moved Medicare eligible retirees into an EGWP arrangement through Caremark. Covered drugs and co-pays remain the same. Prescription Drug benefits are self-funded for all retirees.

c. Dental Benefits

For employees who retired after April 15, 1978, a basic dental plan is offered at no cost to the retiree. For employees who retired after June 1, 1984, an enhanced dental plan is offered. For eligible retirees who enroll in the enhanced dental plan, the retiree must pay the difference between the basic and enhanced plans.

The dental plans are fully-insured through United Concordia.

C. Death Benefits

a. Nonunion employees are offered voluntary life insurance equal to two times their salary at retirement. At age 65, the life insurance benefit decreases by 5% per year for 15 years until the benefit equals 25% of the original life insurance benefit at age 65. PGW pays the cost of the first $75,000 of coverage. Retirees pay $0.35 per $1,000 for coverage in excess of $75,000.

b. Union employees are offered voluntary life insurance equal to one times their salary at retirement. At retirement, the life insurance benefit decreases by 10% per year for 5 years until the benefit equals 50% of the original life insurance benefit at retirement. Retirees pay $0.35 per $1,000, PGW pays the rest.

c. Upon the death of an active employee prior to satisfying the requirements for Pre-Retirement Spouse's Death Benefits, surviving spouses and dependents are entitled to receive 2 years of health coverage paid by PGW. Upon the death of an active employee on or after satisfying the requirements for Pre-Retirement Spouse's Death Benefits, surviving spouses and dependents are entitled to receive health coverage for life (or for 5 years if hired on or after May 21, 2011 if Union or hired on or after December 21, 2011 if Non-Union) paid by PGW.

D. Contributions

PGW pays the full cost of medical, basic dental, and prescription coverage for employees who retired prior to December 1, 2001. Employees who retire after December 1, 2001 are provided the Keystone 5/Keystone 10/Keystone 15 plan at the company expense and can buy up to a more expensive plan. Retirees also contribute toward enhanced dental plan and life insurance coverage as described above. PGW pays 100% of the cost for the prescription drug plan after drug co-pays.

APPENDIX 2

ACTUARIAL ASSUMPTIONS AND METHODS

Assumptions

The actuarial assumptions used to value the postretirement medical liabilities can be categorized into three groups:

- Economic Assumptions – the discount rate and health care cost trend rates.
- Benefit assumptions – the initial per capita cost rates for medical coverage, and the face amount of employer-paid life insurance.
- Demographic assumptions – including the probabilities of retiring, dying, terminating (without a benefit), becoming disabled, recovery from disability, election (participating rates) and coverage levels.

Actuarial assumptions were based on the actual experience of the covered group, to the extent that creditable experience data was available, with an emphasis on expected long-term future trends rather than giving undue weight to recent past experience. The reasonableness of each actuarial assumption was considered independently based on its own merits, its consistency with each other assumption, and the combined impact of all assumptions.

ECONOMIC ASSUMPTIONS

The economic assumptions used in the valuation are the discount rate and the health care cost trend rates. The economic assumptions are used to account for changes in the cost of benefits over time and to discount future benefit payments for the time value of money.

Discount Rate
The investment return assumption (discount rate) should be the estimated long-term investment yield on the investments that are expected to be used to finance the payments of benefits. The investments expected to be used to finance the payments of benefits would be plan assets for funded plans, assets of the employer for pay-as-you-go plans, or a proportionate combination of the two for plans that are being partially funded. Effective for the fiscal year beginning September 1, 2010, PGW has established an Other Postemployment Benefit Trust and has committed to funding $18,500,000 per year through August 31, 2015 and $3,500,000 per year through August 31, 2040 over and above the actual retiree costs for a fiscal year. We assumed a discount rate of 7.95% for purposes of developing the liabilities and Annual Required Contribution on the basis that the Plan is being funded and with management's concurrence that 7.95% represents their expected long term investment return on Trust assets.

Health care trend rates

Plan Year	Medical (pre-65)	Medical (post-65)	Drug	Dental	Expenses	Cadillac Tax Premium Equivalent (pre-65)
2014	9.0%	7.0%	7.0%	4.5%	4.5%	8.333%
2015	8.0%	6.0%	6.0%	4.5%	4.5%	7.333%
2016	7.0%	5.0%	5.0%	4.5%	4.5%	6.333%
2017	6.5%	4.5%	4.5%	4.5%	4.5%	5.833%
2018	6.0%	4.5%	4.5%	4.5%	4.5%	5.500%
2019	5.5%	4.5%	4.5%	4.5%	4.5%	5.167%
2020	5.0%	4.5%	4.5%	4.5%	4.5%	4.833%
2021+	4.5%	4.5%	4.5%	4.5%	4.5%	4.500%

BENEFIT ASSUMPTIONS

The valuation projects the cost to PGW of providing medical benefits to employees who remain in the medical plan after retirement (postemployment coverage). PGW offers various medical plans at no cost to the retirees. Retirees can buy up to more expensive plans depending on their retirement dates. We have developed age-adjusted claims costs for benefits provided by PGW based on incurred claims for retirees under the self-funded coverages and premium rates for fully insured coverage for the period September 1, 2012 to August 31, 2013. The developed rates are projected at the assumed trend rates for future years. Following actuarial standards, specifically ASOP 6, leads us to develop age-specific health care cost estimates for the period September 1, 2013 to August 30, 2014 as follows:

Annual Age Specific Per Capita Claims Cost

Current Retirees:

	Medical			Prescription Drug *			Dental	
Age	Retiree	Dependent		Retiree	Dependent		Retiree	Dependent
<50	5,039	5,039		1,814	1,814		174	295
50-54	6,126	6,126		2,005	2,005		174	295
55-59	7,663	7,663		2,508	2,508		174	295
60-64	9,231	9,231		3,021	3,021		174	295
65-69	2,308	2,308		2,716	2,716		174	295
70-74	2,491	2,491		3,102	3,102		174	295
75-79	2,662	2,662		3,457	3,457		174	295
80-84	2,777	2,777		3,742	3,742		174	295
85-90	2,837	2,837		3,893	3,893		174	295
90+	2,909	2,909		3,952	3,952		174	295

Future Retirees:

	Medical		Prescription Drug *		Dental	
Age	Retiree	Dependent	Retiree	Dependent	Retiree	Dependent
<50	5,271	5,271	1,814	1,814	174	295
50-54	6,407	6,407	2,005	2,005	174	295
55-59	8,016	8,016	2,508	2,508	174	295
60-64	9,656	9,656	3,021	3,021	174	295
65-69	2,252	2,252	2,716	2,716	174	295
70-74	2,423	2,423	3,102	3,102	174	295
75-79	2,582	2,582	3,457	3,457	174	295
80-84	2,688	2,688	3,742	3,742	174	295
85-90	2,744	2,744	3,893	3,893	174	295
90+	2,812	2,812	3,952	3,952	174	295

*Prior to 2012, PGW received the retiree drug subsidy under Medicare Part D. For GASB 45 valuation purposes, prior to 2012, prescription drug costs were not reduced nor did the liabilities reflect any anticipated retiree drug subsidy refund. PGW implemented an EGWP arrangement effective January 1, 2012.

Post-65 medical costs are based on September 1, 2013 Medicare supplement premium rates of $203.60 for the Special 65 Plan and $214.19 for Security Plan F and the commercial insurance premium rate of $542.45. The Special 65 and commercial insurance are grandfathered plans that are closed to new retirees. New retirees receive coverage under Security Plan F.

Expenses

Plan expenses include claims administration and reinsurance costs for the self-funded coverage. The annual per capita expenses for the plan year beginning October 1, 2013 are $941 for retiree pre-65 coverage, $433 for dependent pre-65 coverage, $180 for retiree post-65 coverage and $180 for dependent post-65 coverage.

Morbidity

The above healthcare costs reflect the following changes due to increased usage as a result of aging:

Age	Annual Increase
65 – 69	3.0%
70 – 74	2.5%
75 – 79	2.0%
80 – 84	1.0%
85+	0.5%

DEMOGRAPHIC ASSUMPTIONS

Mortality
Healthy mortality is assumed to follow the 2014 Static Annuitant and Non-Annuitant Mortality Table as set forth in Treasury Regulation Section 1.430(h)(3)-1(e). Disability mortality is assumed to follow the table specified in IRS Revenue Ruling 96-7 for disabilities occurring after December 31, 1994.

Salary Scale 3.0%

Retirement Rates
It is assumed that 10% of eligible participants retire at each age from age 55 to 61. It is assumed that 100% of eligible participants retire at age 62.

Withdrawal
Turnover rates applicable before an employee is eligible for retirement benefits vary by age and service with illustrative rates as follows:

	Years of Service					
Age	0	1	2	3	4	5
20	23.2%	17.4%	14.4%	11.6%	8.8%	5.8%
25	18.8	14.0	11.8	9.4	7.0	4.6
30	14.8	11.0	9.2	7.4	5.6	3.6
35	11.2	8.4	7.0	5.6	4.2	2.8
40	8.8	6.6	5.6	4.4	3.4	2.2
45	7.2	5.4	4.6	3.6	2.8	1.8
50	5.2	3.8	3.2	2.6	2.0	1.2
55	0.0	0.0	0.0	0.0	0.0	0.0

Disability Rates
Disability rates vary by age with illustrative rates as follows:

Age	Percent Expected to Become Disabled in the Next Year
30	0.06%
35	0.07
40	0.11
45	0.22
50	0.46
55	1.02
60	1.62

Participation Rates
We have assumed 100% of future retirees who meet the eligibility requirements will participate in the postemployment welfare plans upon retirement. Current retirees who have opted out of coverage are assumed to elect coverage at the next open enrollment period.

Decrement Timing
Plan benefits are assumed to be paid mid-year.

Data Assumptions
For retirees, actual data was used for type of coverage and spouse's date of birth. For Active employees, 65% of those who become eligible for coverage at retirement are assumed to have spousal coverage, with wives three years younger than husbands, and 100% of those with spousal coverage are assumed to have elected a joint & survivor pension benefit.

Based on information provided by PGW, we have assumed that 5% of current retirees are disabled retirees.

Health Care Reform
In March 2010, the Patient Protection and Affordable Care Act (as modified by the Healthcare and Education Reconciliation Act, collectively the "Act") was signed into law. The Philadelphia Gas Works Health and Life Insurance Plan for Retired Employees is considered a standalone plan not subject to the mandated provisions of the new law.

Cadillac Tax
The high cost excise tax ("Cadillac tax") provisions of the Act, which become effective January 1, 2018, are applicable to the Plan. We reflected the Cadillac tax provisions in the valuation. The Cadillac tax is based on annual pre-65 premium equivalent rates for the period September 1, 2013 to August 31, 2014 of $10,259 for retiree coverage and $13,552 for dependent coverage and annual post-65 premium equivalent rates of $5,710 for retiree coverage and $5,710 for dependent coverage. For projecting the Cadillac tax thresholds, we have assumed that the Consumer Price Index (CPI) will increase at 3.5% per annum. The results of the valuation do not consider the impact of the non-deductibility of the excise taxes on future plan costs, noting that our understanding is that IBC is a not-for-profit organization and Caremark is a for-profit organization.

Changes since Last Valuation
The claims age-adjustment factors were revised to better reflect actual plan experience and our best estimate of future plan experience.

Mortality assumption was updated from the 2013 Static Annuitant and Non-Annuitant Mortality Table to the 2014 Static Annuitant and Non-Annuitant Mortality Table as set forth in Treasury Regulation Section 1.430(h)(3)-1(e).

Decrement timing was changed from beginning of year to mid-year.

The data assumption includes a 5% probability that a current retiree is disabled.

Methods

Cost Method

The projected unit credit actuarial cost method was used in this valuation to develop the actuarial accrued liability and normal cost. Under the projected unit credit cost method, the present value of benefits is allocated uniformly over the employee's expected working lifetime.

The Actuarial Accrued Liability is that portion of the present value of projected benefits which has been accrued during the employee's working lifetime from hire to valuation date.

The normal cost represents the amount charged for service earned during the current reporting period. The normal cost is calculated by dividing the present value of projected benefits for an employee by the total service to date of first fully eligible for retirement benefits. The normal cost amount is expected to increase annually at the discount rate.

Asset Method

The actuarial value of assets is equal to the market value of plan assets, as reported by PGW.

Amortization Method and Period

The unfunded actuarial accrued liability is amortized as a level dollar amount using an open period of 30 years.

APPENDIX 3

DEMOGRAPHIC CHARACTERISTICS

Demographic data as of June, 2013 for current retirees and for active employees was provided by PGW. Information used includes gender, dates of birth, hire and retirement, and coverage status.

		Number	Average Age
1.	Retirees*	1,404	69.9
	Beneficiaries**	501	79.0
2.	Active Employees		
	- Union	1,155	43.5
	- Management	495	47.1

*There are 804 retirees with dependent coverage that will continue after the death of the retiree, 100 retirees with dependent coverage that will not continue after the death of the retiree and 17 retirees who have opted out of coverage.
**Includes 4 beneficiaries who have opted out of coverage.

Retiree and Beneficiary Age Distribution

Age Group	Male	Female	Total
<60	198	77	275
60-64	232	73	305
65-69	227	73	300
70-74	128	73	201
75-79	134	88	222
80-84	113	124	237
85+	176	189	365
Total	1,208	697	1,905

Active Age and Service Distribution

Union

	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<25	72	2	0	0	0	0	0	74
25-29	120	41	1	0	0	0	0	162
30-34	51	38	19	0	0	0	0	108
35-39	40	30	21	1	1	0	0	93
40-44	23	15	18	10	20	2	0	88
45-49	18	18	15	13	28	76	1	169
50-54	14	6	12	13	31	87	43	206
55-59	7	6	4	9	21	62	74	183
60-64	3	3	1	2	5	21	19	54
65-69	1	1	0	0	0	5	7	14
70-74	0	0	0	1	0	0	3	4
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
Total	349	160	91	49	106	253	147	1155

Non-Union

	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<25	9	0	0	0	0	0	0	9
25-29	31	10	0	0	0	0	0	41
30-34	24	15	5	0	0	0	0	44
35-39	11	15	11	1	1	0	0	39
40-44	12	8	7	2	6	0	0	35
45-49	6	18	14	4	17	19	3	81
50-54	9	6	10	3	12	26	29	95
55-59	4	9	0	9	7	18	47	94
60-64	4	5	4	7	1	6	16	43
65-69	1	1	3	1	1	0	4	11
70-74	0	2	0	0	0	0	0	2
75-79	0	0	1	0	0	0	0	1
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
Total	111	89	55	27	45	69	99	495

APPENDIX 4

VARIOUS GASB 45 COSTS AND OTHER ITEMS
(in thousands)

FISCAL YEAR ENDING AUGUST 31:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Actuarial Accrued Liability (AAL), BOY	450,289	463,637	476,742	489,638	502,694	515,777	528,850	542,040	555,914	571,125
Actuarial (Gain)/Loss	0	0	0	0	0	0	0	0	0	0
Interest on AAL	35,798	36,859	37,901	38,926	39,964	41,004	42,044	43,092	44,195	45,404
Normal Cost with Interest	6,201	6,694	7,226	7,800	8,420	9,089	9,812	10,592	11,434	12,343
Benefit Payments	(27,556)	(29,284)	(30,999)	(32,383)	(33,951)	(35,605)	(37,188)	(38,288)	(38,873)	(39,798)
Interest on Benefit Payments	(1,095)	(1,164)	(1,232)	(1,287)	(1,350)	(1,415)	(1,478)	(1,522)	(1,545)	(1,582)
AAL, EOY	463,637	476,742	489,638	502,694	515,777	528,850	542,040	555,914	571,125	587,492
Market Value of Assets, BOY	90,838	117,295	130,259	144,254	159,361	175,669	193,274	212,278	232,793	254,939
Trust Fund Contributons	18,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Contributions for Benefit Payments	27,556	29,284	30,999	32,383	33,951	35,605	37,188	38,288	38,873	39,798
Benefit Payments	(27,556)	(29,284)	(30,999)	(32,383)	(33,951)	(35,605)	(37,188)	(38,288)	(38,873)	(39,798)
Investment Income	7,957	9,464	10,495	11,607	12,808	14,105	15,504	17,015	18,646	20,407
Market Value of Assets, EOY	117,295	130,259	144,254	159,361	175,669	193,274	212,278	232,793	254,939	278,846
UAAL at BOY	359,451	346,342	346,483	345,384	343,333	340,108	335,576	329,762	323,121	316,186
Normal Cost with Interest	6,201	6,694	7,226	7,800	8,420	9,089	9,812	10,592	11,434	12,343
Amortization of UAAL	31,779	30,620	30,632	30,535	30,354	30,069	29,668	29,154	28,567	27,954
Annual Required Contribution (ARC)	37,980	37,314	37,858	38,335	38,774	39,158	39,480	39,746	40,001	40,297
Interest on Net OPEB Obligation	8,092	7,378	7,672	7,871	7,996	8,030	7,962	7,795	7,564	7,308
Adjustment to the ARC	(8,999)	(8,205)	(8,532)	(8,753)	(8,892)	(8,930)	(8,855)	(8,669)	(8,411)	(8,127)
Annual OPEB Cost (AOC)	**37,073**	**36,487**	**36,998**	**37,453**	**37,878**	**38,258**	**38,587**	**38,872**	**39,154**	**39,478**
Net OPEB Obligation, BOY	101,788	92,805	96,508	99,007	100,577	101,004	100,157	98,056	95,140	91,921
AOC	37,073	36,487	36,998	37,453	37,878	38,258	38,587	38,872	39,154	39,478
Contributions	(46,056)	(32,784)	(34,499)	(35,883)	(37,451)	(39,105)	(40,688)	(41,788)	(42,373)	(43,298)
Net OPEB Obligation, EOY	**92,805**	**96,508**	**99,007**	**100,577**	**101,004**	**100,157**	**98,056**	**95,140**	**91,921**	**88,101**
Discount Rate, BOY	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Discount Rate, EOY	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%

NOTES

-Prior to 9/1/10, plan was unfunded. PGW began funding the plan effective 9/1/10.

-Cumulative difference between ARC and employer contributions is Net OPEB Obligation and is carried as a liability on the balance sheet.

-Amortization method is based on an open period of 30 years.

Exhibit WJP-3

Updated Appendix 4 for OPEB Valuation Study
(Using RP-2014 Mortality Table)

PHILADELPHIA GAS WORKS HEALTH AND LIFE INSURANCE PLAN FOR RETIRED EMPLOYEES

PROJECTED GASB 45 COSTS
(in thousands)

FISCAL YEAR ENDING AUGUST 31:	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Actuarial Accrued Liability (AAL), BOY	436,527	450,289	501,823	517,775	533,115	548,114	561,882	574,943	587,458	599,890	612,809
Actuarial (Gain)/Loss	1,015	38,080	33	36	38	42	43	41	43	43	43
Interest on AAL	34,704	35,798	39,895	41,163	42,383	43,575	44,670	45,708	46,703	47,691	48,718
Normal Cost with Interest	4,933	6,201	6,486	6,523	6,542	6,564	6,720	7,067	7,363	7,642	7,728
Benefit Payments	(25,862)	(27,474)	(29,319)	(31,167)	(32,689)	(35,047)	(36,932)	(38,789)	(40,113)	(40,864)	(41,996)
Interest on Benefit Payments	(1,028)	(1,071)	(1,143)	(1,215)	(1,275)	(1,366)	(1,440)	(1,512)	(1,564)	(1,593)	(1,637)
AAL, EOY	450,289	501,823	517,775	533,115	548,114	561,882	574,943	587,458	599,890	612,809	625,665
Market Value of Assets, BOY	61,796	90,838	117,295	145,855	176,686	209,968	245,896	284,680	326,547	371,743	420,532
Trust Fund Contributions	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500
Contributions for Benefit Payments	25,862	27,474	29,319	31,167	32,689	35,047	36,932	38,789	40,113	40,864	41,996
Benefit Payments	(25,862)	(27,474)	(29,319)	(31,167)	(32,689)	(35,047)	(36,932)	(38,789)	(40,113)	(40,864)	(41,996)
Investment Income	10,542	7,957	10,060	12,331	14,782	17,428	20,284	23,367	26,696	30,289	34,168
Market Value of Assets, EOY	90,838	117,295	145,855	176,686	209,968	245,896	284,680	326,547	371,743	420,532	473,200
UAAL at BOY	374,731	359,451	384,528	371,920	356,429	338,146	315,986	290,263	260,911	228,147	192,277
UAAL at EOY	359,451	384,528	371,920	356,429	338,146	315,986	290,263	260,911	228,147	192,277	152,465
Normal Cost with Interest	4,933	6,201	6,486	6,523	6,542	6,564	6,720	7,067	7,363	7,642	7,728
Amortization of UAAL	33,129	31,779	35,868	35,177	34,228	33,018	31,425	29,454	27,070	24,259	21,009
Annual Required Contribution (ARC)	38,062	37,980	42,354	41,700	40,770	39,582	38,145	36,521	34,433	31,901	28,737
Interest on Net OPEB Obligation	8,670	8,092	7,385	6,848	6,112	5,182	3,978	2,524	818	(1,124)	(3,277)
Adjustment to the ARC	(9,642)	(8,999)	(8,664)	(8,148)	(7,382)	(6,365)	(4,976)	(3,222)	(1,067)	1,504	4,504
Annual OPEB Cost (AOC)	**37,090**	**37,073**	**41,075**	**40,400**	**39,500**	**38,399**	**37,147**	**35,823**	**34,184**	**32,281**	**29,964**
Net OPEB Obligation, BOY	109,060	101,788	92,887	86,143	76,876	65,187	50,039	31,754	10,288	(14,141)	(41,224)
AOC	37,090	37,073	41,075	40,400	39,500	38,399	37,147	35,823	34,184	32,281	29,964
Contributions	(44,362)	(45,974)	(47,819)	(49,667)	(51,189)	(53,547)	(55,432)	(57,289)	(58,613)	(59,364)	(60,496)
Net OPEB Obligation, EOY	**101,788**	**92,887**	**86,143**	**76,876**	**65,187**	**50,039**	**31,754**	**10,288**	**(14,141)**	**(41,224)**	**(71,756)**
Discount Rate, BOY	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Discount Rate, EOY	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%

NOTES

-Prior to 9/1/10, plan was unfunded PGW began funding the plan effective 9/1/10.

-Cumulative difference between AOC and employer contributions is Net OPEB Obligation and is carried as a liability on the balance sheet

-RP-2014 Mortality table, effective 8/31/2015