uniongas
A Spectra Energy Company

October 13, 2016

BY COURIER & RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, Ontario
M4P 1E4

RE: EB-2016-0186 – Union Gas Limited ("Union") – Panhandle Reinforcement Project Undertaking Responses

Dear Ms. Walli,

Please find attached Union's responses to Undertakings 1 - 5, 9 - 17, 20 and 21 received in the Technical Conference on October 4, 2016. Union is in the process of finalizing responses to the remaining Undertakings and these responses will be filed by end of day Friday, October 14th. All responses will be filed in RESS and copies will be sent to the Board.

Attachments for JT1.4 and JT1.9 will be provided in confidence to the Board as indicated at the Technical Conference.

If you have any questions with respect to this submission please contact me at 519-436-5473.

Yours truly,

[original signed by]

Karen Hockin
Manager, Regulatory Initiatives

Encl.

cc: Zora Crnojacki, Board staff
Mark Kitchen, Union Gas
Charles Keizer, Torys
All Intervenors (EB-2016-0186)

UNION GAS LIMITED

Undertaking Response

TO FILE THE UPDATED SCHEDULE IN LPMA 17 AND ALSO REFILE THE FRPO 9(C) SHOWING THE CORRECTION

Union filed an updated interrogatory package on October 11, 2016 including the following updated interrogatory responses:

- Exhibit B.LPMA.17 as noted at the technical conference
- Exhibit B.Staff.4 to reflect the update from LPMA.17
- Exhibit B.FRPO.9 c) as noted at the technical conference

UNION GAS LIMITED

Undertaking Response

FRPO PRE-FILED TECHNICAL CONFERENCE QUESTIONS

This was inadvertently numbered as an undertaking rather than an exhibit. No response required. The FRPO questions were filed by FRPO as an exhibit at KT1.2.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO PROVIDE A COPY OF THE SCHEMATIC FOR THE SUMMER MONTHS

The schematic provided at Exhibit B.FRPO.14 Attachment 2 illustrates for 2016 how imports at a level of 115 TJ/d would flow into the Panhandle System with power generator demands at zero.

The schematics for the summer months for 2017 and 2021 (using the forecast demand underpinning the application) with only existing facilities are not expected to change because the minimum market is not expected to materially change.

Union does not expect the 115 TJ/d available summer market to materially change as the available market is based on actual utilization. As included at Exhibit JT1.12, the available summer capacity at Ojibway is based on the average of the lowest demands for 20 days of each month and compared across a 5 year historical timeframe.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO PROVIDE THE ACTUAL CONSUMPTION BY THE AGGREGATE OF ELECTRICITY GENERATORS IN THE WINDSOR MARKET FOR THE SUMMERS OF 2013, 2014 AND 2015

Union has provided the requested data to the Board in confidence due to commercial sensitivity. As noted in the technical conference TR at page 37, this is due to the existence of a competitive electricity market where if data were on the public record, historical dispatch information could potentially be extracted which could compromise generators' future dispatch.

Union has filed in confidence an excel spreadsheet that shows the actual historical daily summer consumption by the aggregate of electrical generators in the Windsor market for the summers of 2013 through 2016. Union notes there are a number of days each summer where demands were close to zero. This, along with other minimum demands in the Windsor market impacts or limits Union's ability to accept firm receipts at Ojibway on a year round basis.

As stated in Exhibit JT1.12 the amount of gas Union can accept on a firm basis through Ojibway into the Windsor market has declined due to an electric generator moving from a self-dispatch operation to a market dispatch operation during 2016. This limitation is important as it is the amount of gas Union can accept at Ojibway on a firm basis without the need for additional facilities to transport gas not being consumed in the Windsor market back towards Dawn.

Union describes in Exhibit JT1.5 how the minimum summer available market is developed for modelling summer operations. The maximum amount of gas Union can commit to receive at Ojibway is dependent on the minimum level of gas that will likely be consumed in the market plus the capacity to compress gas easterly at Sandwich compressor station.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO PROVIDE INFORMATION RELATED TO THE CALCULATION OF LIKELY MINIMUMS

The maximum summer and winter capacity to be accepted at Ojibway on a firm basis is determined based on available market and facility/system capability. The available market at Ojibway is calculated based on an average of the lowest demands for 20 days of each month. This average value is compared each month across a 5 year timeframe to determine a reasonably available market.

The minimum demand profile of the market in the Windsor area, which determines the amount of firm receipts Union can accept at Ojibway, has declined for both summer and winter in 2016 and beyond, but has not lowered Design Day demands. This is due to an electric generator moving from a self-dispatch operation to a market dispatch operation during 2016. Prior to this, this electric generator ran 5 to 6 days per week, and since that time has operated only 12 days in the last 4 months.

The expected load profile going forward is the primary reason for the limitation of Ojibway receipts at 115 TJ/d in the summer and 140 TJ/d in the winter.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO PROVIDE THE DEGREE DAYS EXPERIENCED AND THE DAILY CONSUMPTION IN THE WINTER MARKET SEPARATED BETWEEN ELECTRICITY GENERATION AND NON-GENERATION LOAD FOR THE WINTER PERIOD, SPECIFICALLY NOVEMBER TO MARCH, FOR THE LAST THREE YEARS, IN AN EXCEL SPREADSHEET FORMAT

Union has provided the requested data to the Board in confidence due to commercial sensitivity. As noted in the technical conference TR at page 37, this is due to existence of the competitive electricity market where if data were on the public record, historical dispatch information could potentially be extracted which could compromise generators' future dispatch.

Union has provided in a confidential excel spreadsheet the Windsor area daily consumption split between electricity generation and non-generation and the associated degree day for 2013 through 2016.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO PROVIDE THE CLARIFICATION WITH RESPECT TO FRPO 20, WHICH IS THE SEPARATION BETWEEN OJIBWAY AND DAWN WITH RESPECT TO THE ACTUAL FLOWS

The actual flows noted below are the physical measured receipts on the Union Panhandle System broken down between those at Ojibway and those at Dawn. Through further review Union discovered an error in the response at Exhibit B.FRPO.20. In the response a number of Dawn meters were omitted from the data and therefore a lower actual volume from Dawn and therefore a lower overall Panhandle System Ojibway/Dawn physical measure receipt was reported than what actually occurred. Attachment 1has the revised total Panhandle System Ojibway/Dawn actual physical measured receipts and the requested Dawn versus Ojibway split.

It is the physical measured receipts at Ojibway that are limited by the US Presidential Permit that PEPL has for the Ojibway river crossing, and Union's ability to accept these volumes based on market requirements and existing facilities limitations. These are not to be confused with volumes Union posts as part of its Gas Day Summary Report which are only nominated and scheduled paper transactions. These two values can be different based on a number of factors with any difference being tracked and managed by an Operating Balancing Agreement ("OBA") between Union and PEPL

Any actual physical receipts measured at Ojibway will not equal the volume scheduled and nominated. Union has an OBA with PEPL at Ojibway that is used every day to manage variances between what is expected to be delivered (nominated) and what actually flows (physical). The OBA daily variances are unpredictable and depend on various factors including intraday demand changes, pressure variations on Union and PEPL and other pipeline operating conditions required to manage short term needs.

As a result of the foregoing, the nominated and scheduled flows cannot be used to allocate on a proportional basis the actual flows at Ojibway since on any given day the nominated and scheduled flows will not match and will be independent of actual flows. Using nominated and scheduled flows to allocate actuals would be erroneous.

Please see Attachment 1 for the Panhandle System – Historical Winter Flows (GJ/d) as described above.

Panhandle System - Historical Winter Flow Units (GJ/day)

Date	Ojibway	Dawn	Total
11/1/2013	135,967	51,265	187,232
11/2/2013	141,931	55,977	197,908
11/3/2013	136,272	62,683	198,955
11/4/2013	136,591	57,136	193,727
11/5/2013	134,482	52,608	187,090
11/6/2013	133,828	51,101	184,929
11/7/2013	133,684	74,200	207,884
11/8/2013	133,128	54,856	187,984
11/9/2013	133,229	45,139	178,368
11/10/2013	132,738	56,587	189,325
11/11/2013	132,929	132,009	264,938
11/12/2013	128,958	142,911	271,869
11/13/2013	134,876	117,076	251,952
11/14/2013	118,946	84,603	203,549
11/15/2013	133,433	41,432	174,865
11/16/2013	138,730	17,845	156,575
11/17/2013	166,816	10,957	177,773
11/18/2013	127,670	92,081	219,751
11/19/2013	123,126	106,442	229,568
11/20/2013	123,261	67,773	191,034
11/21/2013	130,471	50,720	181,191
11/22/2013	118,576	111,561	230,137
11/23/2013	107,610	183,747	291,357
11/24/2013	107,841	174,847	282,688
11/25/2013	107,772	167,231	275,003
11/26/2013	89,822	155,260	245,082
11/27/2013	117,417	167,353	284,770
11/28/2013	118,578	158,836	277,414
11/29/2013	118,443	115,395	233,838
11/30/2013	118,406	79,250	197,656
12/1/2013	134,359	60,179	194,538
12/2/2013	138,330	81,284	219,614
12/3/2013	153,766	53,679	207,445
12/4/2013	161,340	32,777	194,117
12/5/2013	134,696	53,725	188,421
12/6/2013	91,732	156,391	248,123
12/7/2013	91,533	168,269	259,802
12/8/2013	95,373	148,428	243,801
12/9/2013	97,708	186,883	284,591
12/10/2013	48,625	241,542	290,167
12/11/2013	65,525	271,938	337,463
12/12/2013	107,915	205,233	313,148

Panhandle System - Historical Winter Flow Units (GJ/day)

12/13/2013	128,840	162,137	290,977
12/14/2013	138,255	144,673	282,928
12/15/2013	136,157	165,235	301,392
12/16/2013	123,484	201,038	324,522
12/17/2013	121,614	163,473	285,087
12/18/2013	133,679	106,388	240,067
12/19/2013	135,458	62,137	197,595
12/20/2013	124,847	67,105	191,952
12/21/2013	150,489	67,641	218,130
12/22/2013	145,865	70,303	216,168
12/23/2013	158,641	90,472	249,113
12/24/2013	161,147	117,694	278,841
12/25/2013	152,410	103,468	255,878
12/26/2013	145,087	82,427	227,514
12/27/2013	166,591	50,158	216,749
12/28/2013	171,857	11,960	183,817
12/29/2013	171,744	51,225	222,969
12/30/2013	172,022	86,121	258,143
12/31/2013	172,087	104,498	276,585
1/1/2014	171,740	136,020	307,760
1/2/2014	171,605	234,541	406,146
1/3/2014	137,418	244,243	381,661
1/4/2014	18,719	236,071	254,790
1/5/2014	56,971	220,262	277,233
1/6/2014	21,488	372,158	393,646
1/7/2014	131,217	273,039	404,256
1/8/2014	88,389	266,605	354,994
1/9/2014	130,505	176,520	307,025
1/10/2014	171,027	57,153	228,180
1/11/2014	171,954	55,575	227,529
1/12/2014	172,319	59,745	232,064
1/13/2014	173,024	57,783	230,807
1/14/2014	177,021	71,636	248,657
1/15/2014	178,111	118,533	296,644
1/16/2014	183,507	123,482	306,989
1/17/2014	181,663	95,086	276,749
1/18/2014	166,595	135,973	302,568
1/19/2014	166,554	118,704	285,258
1/20/2014	165,719	166,192	331,911
1/21/2014	122,667	301,266	423,933
1/22/2014	128,024	317,344	445,368
1/23/2014	107,905	317,284	425,189
1/24/2014	117,938	283,821	401,759
1/25/2014	97,503	220,739	318,242
1/26/2014	103,541	254,180	357,721

Panhandle System - Historical Winter Flow Units (GJ/day)

1/27/2014	103,536	252,922	356,458
1/28/2014	92,836	279,910	372,746
1/29/2014	138,303	213,835	352,138
1/30/2014	167,922	137,669	305,591
1/31/2014	170,841	99,995	270,836
2/1/2014	169,133	93,037	262,170
2/2/2014	163,961	138,015	301,976
2/3/2014	105,342	192,227	297,569
2/4/2014	159,624	171,703	331,327
2/5/2014	148,470	221,284	369,754
2/6/2014	130,534	253,952	384,486
2/7/2014	145,917	245,734	391,651
2/8/2014	131,254	191,577	322,831
2/9/2014	144,246	202,769	347,015
2/10/2014	162,717	202,692	365,409
2/11/2014	186,976	256,157	443,133
2/12/2014	195,077	193,129	388,206
2/13/2014	178,020	147,020	325,040
2/14/2014	184,391	116,598	300,989
2/15/2014	186,190	118,782	304,972
2/16/2014	195,183	162,124	357,307
2/17/2014	202,487	150,339	352,826
2/18/2014	194,881	85,092	279,973
2/19/2014	189,386	84,666	274,052
2/20/2014	180,774	87,366	268,140
2/21/2014	186,242	74,181	260,423
2/22/2014	119,002	104,358	223,360
2/23/2014	117,776	151,299	269,075
2/24/2014	117,685	175,126	292,811
2/25/2014	117,457	214,724	332,181
2/26/2014	117,586	212,148	329,734
2/27/2014	141,827	231,387	373,214
2/28/2014	137,182	156,690	293,872
3/1/2014	144,588	170,005	314,593
3/2/2014	148,364	237,871	386,235
3/3/2014	128,947	245,713	374,660
3/4/2014	140,857	209,842	350,699
3/5/2014	137,879	221,632	359,511
3/6/2014	144,803	175,942	320,745
3/7/2014	171,184	68,094	239,278
3/8/2014	140,797	135,764	276,561
3/9/2014	146,805	75,390	222,195
3/10/2014	146,999	48,469	195,468
3/11/2014	146,663	74,922	221,585
3/12/2014	144,710	238,106	382,816

Panhandle System - Historical Winter Flow Units (GJ/day)

3/13/2014	143,478	155,423	298,901
3/14/2014	147,045	68,613	215,658
3/15/2014	146,405	108,556	254,961
3/16/2014	146,653	182,573	329,226
3/17/2014	146,819	149,989	296,808
3/18/2014	146,555	78,216	224,771
3/19/2014	146,099	98,301	244,400
3/20/2014	146,304	103,525	249,829
3/21/2014	146,881	50,403	197,284
3/22/2014	162,096	85,460	247,556
3/23/2014	161,043	119,492	280,535
3/24/2014	163,500	158,839	322,339
3/25/2014	133,394	201,091	334,485
3/26/2014	121,610	147,430	269,040
3/27/2014	123,147	114,135	237,282
3/28/2014	158,610	41,123	199,733
3/29/2014	172,329	101,155	273,484
3/30/2014	168,617	39,899	208,516
3/31/2014	168,209	16,415	184,624
11/1/2014	125,202	105,380	230,582
11/2/2014	115,427	74,936	190,363
11/3/2014	112,524	44,112	156,636
11/4/2014	113,383	75,603	188,986
11/5/2014	115,981	47,282	163,263
11/6/2014	118,184	92,069	210,253
11/7/2014	147,531	57,013	204,544
11/8/2014	148,696	53,155	201,851
11/9/2014	148,408	36,943	185,351
11/10/2014	146,465	19,376	165,841
11/11/2014	148,605	55,866	204,471
11/12/2014	96,486	166,212	262,698
11/13/2014	125,647	167,008	292,655
11/14/2014	124,844	151,760	276,604
11/15/2014	127,047	140,251	267,298
11/16/2014	126,505	138,047	264,552
11/17/2014	158,825	171,294	330,119
11/18/2014	137,606	219,046	356,652
11/19/2014	106,742	208,570	315,312
11/20/2014	113,183	202,683	315,866
11/21/2014	141,644	141,567	283,211
11/22/2014	142,059	62,651	204,710
11/23/2014	142,414	39,375	181,789
11/24/2014	143,016	79,194	222,210
11/25/2014	142,934	110,789	253,723
11/26/2014	142,592	117,237	259,829

Panhandle System - Historical Winter Flow Units (GJ/day)

11/27/2014	142,483	133,564	276,047
11/28/2014	142,557	117,308	259,865
11/29/2014	122,953	63,149	186,102
11/30/2014	113,570	57,214	170,784
12/1/2014	169,205	96,882	266,087
12/2/2014	168,223	87,722	255,945
12/3/2014	172,440	73,326	245,766
12/4/2014	165,912	74,314	240,226
12/5/2014	171,274	60,906	232,180
12/6/2014	174,793	48,167	222,960
12/7/2014	176,525	48,600	225,125
12/8/2014	178,533	30,906	209,439
12/9/2014	179,278	38,512	217,790
12/10/2014	178,828	88,374	267,202
12/11/2014	171,685	76,864	248,549
12/12/2014	178,863	41,812	220,675
12/13/2014	176,555	17,618	194,173
12/14/2014	169,780	-5,144	164,636
12/15/2014	170,177	9,760	179,937
12/16/2014	166,253	28,358	194,611
12/17/2014	165,407	73,312	238,719
12/18/2014	169,257	63,911	233,168
12/19/2014	168,631	79,715	248,346
12/20/2014	169,234	63,738	232,972
12/21/2014	169,482	60,191	229,673
12/22/2014	162,299	39,410	201,709
12/23/2014	169,143	-7,154	161,989
12/24/2014	167,736	-4,194	163,542
12/25/2014	167,222	3,871	171,093
12/26/2014	164,554	-23,889	140,665
12/27/2014	165,942	-17,247	148,695
12/28/2014	167,157	49,842	216,999
12/29/2014	168,118	83,660	251,778
12/30/2014	128,999	153,538	282,537
12/31/2014	121,520	183,076	304,596
1/1/2015	134,711	123,172	257,883
1/2/2015	153,991	76,545	230,536
1/3/2015	132,618	85,423	218,041
1/4/2015	132,818	153,830	286,648
1/5/2015	133,196	215,637	348,833
1/6/2015	131,800	225,347	357,147
1/7/2015	55,529	351,340	406,869
1/8/2015	64,804	339,860	404,664
1/9/2015	59,641	311,152	370,793
1/10/2015	64,671	269,468	334,139

Panhandle System - Historical Winter Flow Units (GJ/day)

1/11/2015	64,691	205,040	269,731
1/12/2015	66,166	298,583	364,749
1/13/2015	81,402	297,981	379,383
1/14/2015	96,302	248,070	344,372
1/15/2015	141,259	157,594	298,853
1/16/2015	163,973	156,856	320,829
1/17/2015	143,195	89,440	232,635
1/18/2015	148,106	94,213	242,319
1/19/2015	148,732	115,596	264,328
1/20/2015	149,078	164,515	313,593
1/21/2015	169,081	156,750	325,831
1/22/2015	172,976	110,957	283,933
1/23/2015	173,059	101,833	274,892
1/24/2015	174,100	88,999	263,099
1/25/2015	168,881	191,271	360,152
1/26/2015	169,055	190,427	359,482
1/27/2015	168,895	196,484	365,379
1/28/2015	155,158	156,526	311,684
1/29/2015	165,683	158,140	323,823
1/30/2015	168,650	188,558	357,208
1/31/2015	168,339	119,690	288,029
2/1/2015	68,529	236,104	304,633
2/2/2015	71,917	265,662	337,579
2/3/2015	71,847	260,519	332,366
2/4/2015	71,629	236,693	308,322
2/5/2015	61,038	273,350	334,388
2/6/2015	70,534	236,783	307,317
2/7/2015	73,648	147,273	220,921
2/8/2015	70,606	221,392	291,998
2/9/2015	70,893	294,888	365,781
2/10/2015	144,098	199,217	343,315
2/11/2015	159,438	197,290	356,728
2/12/2015	106,729	262,640	369,369
2/13/2015	131,385	233,065	364,450
2/14/2015	105,073	244,402	349,475
2/15/2015	104,194	295,573	399,767
2/16/2015	104,414	296,268	400,682
2/17/2015	103,382	250,581	353,963
2/18/2015	96,201	290,425	386,626
2/19/2015	79,449	374,434	453,883
2/20/2015	87,137	363,508	450,645
2/21/2015	81,182	293,718	374,900
2/22/2015	102,039	235,095	337,134
2/23/2015	98,407	332,864	431,271
2/24/2015	92,203	320,252	412,455

Panhandle System - Historical Winter Flow Units (GJ/day)

2/25/2015	92,083	284,879	376,962
2/26/2015	115,808	288,429	404,237
2/27/2015	106,892	254,397	361,289
2/28/2015	106,454	203,789	310,243
3/1/2015	155,652	155,632	311,284
3/2/2015	171,789	127,702	299,491
3/3/2015	174,049	125,349	299,398
3/4/2015	176,104	156,963	333,067
3/5/2015	164,364	226,455	390,819
3/6/2015	165,208	161,132	326,340
3/7/2015	161,190	61,566	222,756
3/8/2015	159,729	76,576	236,305
3/9/2015	147,564	67,436	215,000
3/10/2015	146,549	71,205	217,754
3/11/2015	147,482	64,659	212,141
3/12/2015	145,851	89,858	235,709
3/13/2015	150,854	47,709	198,563
3/14/2015	149,026	61,775	210,801
3/15/2015	145,699	53,897	199,596
3/16/2015	146,108	49,191	195,299
3/17/2015	145,927	101,331	247,258
3/18/2015	146,124	97,243	243,367
3/19/2015	146,557	93,480	240,037
3/20/2015	147,052	63,737	210,789
3/21/2015	146,854	113,949	260,803
3/22/2015	146,932	114,665	261,597
3/23/2015	143,803	158,457	302,260
3/24/2015	147,506	105,505	253,011
3/25/2015	147,576	85,667	233,243
3/26/2015	156,059	97,587	253,646
3/27/2015	157,827	162,436	320,263
3/28/2015	162,347	102,901	265,248
3/29/2015	166,669	74,467	241,136
3/30/2015	167,291	48,166	215,457
3/31/2015	166,432	87,152	253,584
11/1/2015	152,671	9,986	162,657
11/2/2015	120,395	39,519	159,914
11/3/2015	120,168	33,008	153,176
11/4/2015	122,107	18,342	140,449
11/5/2015	139,396	-6,151	133,245
11/6/2015	139,516	9,421	148,937
11/7/2015	138,960	45,898	184,858
11/8/2015	139,064	52,958	192,022
11/9/2015	124,485	19,070	143,555
11/10/2015	121,879	79,976	201,855

Panhandle System - Historical Winter Flow Units (GJ/day)

11/11/2015	140,280	32,431	172,711
11/12/2015	143,605	69,293	212,898
11/13/2015	143,308	78,245	221,553
11/14/2015	142,537	34,901	177,438
11/15/2015	121,325	27,942	149,267
11/16/2015	121,048	44,430	165,478
11/17/2015	120,867	24,790	145,657
11/18/2015	120,991	16,452	137,443
11/19/2015	101,132	103,301	204,433
11/20/2015	101,098	109,582	210,680
11/21/2015	100,925	146,087	247,012
11/22/2015	100,853	155,195	256,048
11/23/2015	101,131	153,316	254,447
11/24/2015	100,921	152,121	253,042
11/25/2015	101,073	81,257	182,330
11/26/2015	101,259	54,258	155,517
11/27/2015	116,180	84,344	200,524
11/28/2015	115,832	112,376	228,208
11/29/2015	115,810	116,393	232,203
11/30/2015	109,695	93,156	202,851
12/1/2015	102,007	101,446	203,453
12/2/2015	103,576	100,225	203,801
12/3/2015	102,395	101,347	203,742
12/4/2015	102,092	114,407	216,499
12/5/2015	68,608	136,815	205,423
12/6/2015	68,612	139,033	207,645
12/7/2015	68,503	148,123	216,626
12/8/2015	82,011	123,690	205,701
12/9/2015	114,181	83,858	198,039
12/10/2015	116,969	73,833	190,802
12/11/2015	68,240	86,933	155,173
12/12/2015	93,224	36,695	129,919
12/13/2015	103,210	36,591	139,801
12/14/2015	118,074	53,121	171,195
12/15/2015	80,024	105,579	185,603
12/16/2015	90,721	94,374	185,095
12/17/2015	99,102	130,859	229,961
12/18/2015	101,275	144,459	245,734
12/19/2015	101,076	156,029	257,105
12/20/2015	101,201	105,793	206,994
12/21/2015	101,104	73,152	174,256
12/22/2015	101,593	61,217	162,810
12/23/2015	97,884	46,922	144,806
12/24/2015	101,991	24,104	126,095
12/25/2015	102,008	29,761	131,769

Panhandle System - Historical Winter Flow Units (GJ/day)

12/26/2015	101,529	40,284	141,813
12/27/2015	101,604	78,475	180,079
12/28/2015	101,678	97,956	199,634
12/29/2015	101,623	104,276	205,899
12/30/2015	101,686	122,461	224,147
12/31/2015	101,658	146,319	247,977
1/1/2016	101,790	150,231	252,021
1/2/2016	102,030	136,583	238,613
1/3/2016	101,041	163,669	264,710
1/4/2016	101,467	270,754	372,221
1/5/2016	106,015	205,011	311,026
1/6/2016	100,188	146,990	247,178
1/7/2016	98,617	133,565	232,182
1/8/2016	104,397	112,672	217,069
1/9/2016	101,429	87,168	188,597
1/10/2016	101,180	213,879	315,059
1/11/2016	101,718	226,528	328,246
1/12/2016	91,269	249,734	341,003
1/13/2016	91,424	242,341	333,765
1/14/2016	91,390	157,454	248,844
1/15/2016	90,817	142,431	233,248
1/16/2016	95,310	169,467	264,777
1/17/2016	101,411	268,023	369,434
1/18/2016	101,555	283,536	385,091
1/19/2016	101,332	241,981	343,313
1/20/2016	101,063	255,502	356,565
1/21/2016	100,938	208,955	309,893
1/22/2016	100,936	222,451	323,387
1/23/2016	100,404	179,662	280,066
1/24/2016	100,554	161,478	262,032
1/25/2016	100,808	129,541	230,349
1/26/2016	100,787	183,329	284,116
1/27/2016	100,857	185,249	286,106
1/28/2016	100,777	179,029	279,806
1/29/2016	100,842	171,057	271,899
1/30/2016	100,723	115,129	215,852
1/31/2016	100,688	113,915	214,603
2/1/2016	100,887	138,531	239,418
2/2/2016	100,961	129,784	230,745
2/3/2016	100,341	121,368	221,709
2/4/2016	101,050	197,796	298,846
2/5/2016	101,071	151,483	252,554
2/6/2016	101,342	140,951	242,293
2/7/2016	101,546	116,281	217,827
2/8/2016	102,015	156,425	258,440

Panhandle System - Historical Winter Flow Units (GJ/day)

2/9/2016	102,103	200,392	302,495
2/10/2016	102,059	268,319	370,378
2/11/2016	102,068	254,563	356,631
2/12/2016	101,692	241,067	342,759
2/13/2016	101,438	259,887	361,325
2/14/2016	101,704	252,814	354,518
2/15/2016	101,511	198,869	300,380
2/16/2016	101,353	210,099	311,452
2/17/2016	101,367	227,919	329,286
2/18/2016	101,448	179,583	281,031
2/19/2016	100,231	99,196	199,427
2/20/2016	101,407	86,416	187,823
2/21/2016	101,515	146,485	248,000
2/22/2016	101,259	189,516	290,775
2/23/2016	101,373	156,785	258,158
2/24/2016	101,557	199,403	300,960
2/25/2016	101,498	221,218	322,716
2/26/2016	101,485	166,521	268,006
2/27/2016	101,596	130,700	232,296
2/28/2016	92,212	107,655	199,867
2/29/2016	101,474	168,589	270,063
3/1/2016	101,504	236,598	338,102
3/2/2016	79,894	245,588	325,482
3/3/2016	83,254	215,393	298,647
3/4/2016	100,946	155,793	256,739
3/5/2016	104,132	157,609	261,741
3/6/2016	105,769	148,415	254,184
3/7/2016	99,259	77,852	177,111
3/8/2016	96,769	53,480	150,249
3/9/2016	101,238	52,814	154,052
3/10/2016	106,945	107,667	214,612
3/11/2016	112,473	95,395	207,868
3/12/2016	108,044	30,339	138,383
3/13/2016	112,216	86,039	198,255
3/14/2016	112,073	53,026	165,099
3/15/2016	155,340	48,461	203,801
3/16/2016	163,124	28,548	191,672
3/17/2016	158,252	48,455	206,707
3/18/2016	159,386	88,880	248,266
3/19/2016	161,553	96,250	257,803
3/20/2016	158,442	78,082	236,524
3/21/2016	157,337	72,386	229,723
3/22/2016	153,183	40,447	193,630
3/23/2016	162,061	73,705	235,766
3/24/2016	165,211	53,475	218,686

Panhandle System - Historical Winter Flow Units (GJ/day)

3/25/2016	153,905	55,619	209,524
3/26/2016	157,631	30,060	187,691
3/27/2016	150,398	-6,878	143,520
3/28/2016	173,988	64,470	238,458
3/29/2016	172,057	40,628	212,685
3/30/2016	170,780	4,338	175,118
3/31/2016	171,241	18,748	189,989

Note: a negative Dawn number means gas is being received at Dawn from the Panhandle System

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

(A) TO ADVISE WHAT IS FLOWING AT OJIBWAY AND WHO IS FLOWING IT; (B) TO PROVIDE THE MONTHLY AND SPOT GAS PURCHASE; WHAT WAS SCHEDULED AND NOMINATED BY UNION IN THAT PERIOD.

The actual physical flow arriving at Ojibway is provided in Exhibit JT1.10. The physical receipts that arrive at Ojibway are made up of receipts at Ojibway (Union's gas supply contracts, C1 Shippers holding Ojibway to Dawn transportation contracts and shippers holding enhanced HUB contracts Ojibway to Dawn (shorter term contracts less than one year) plus any volumes Union or PEPL utilizes under the Operating Balancing Agreement ("OBA") to balance the gas day.

These physical measured values will differ from the nominated and scheduled values Union posts on its web site each day (see Exhibit JT1.15). As a result of the foregoing, the nominated and scheduled flows cannot be used to allocate on a proportional basis the actual flows at Ojibway since on any given day the nominated and scheduled flows will not match and will be independent of actual flows. Using nominated and scheduled flows to allocate actuals would be erroneous. Union cannot determine the actual physical gas received by each service provided.

Any actual physical receipts measured at Ojibway will not equal the volume scheduled and nominated. Union has an OBA with PEPL at Ojibway that is used every day to manage variances between what is expected to be delivered (nominated) and what actually flows (physical). The OBA daily variances are unpredictable and depend on various factors including intraday demand changes, pressure variations on Union and PEPL and other pipeline operating conditions required to manage short term needs.

It is the actual physical volumes of gas Union receives at Ojibway that Union must manage to ensure the needs of the Windsor market are met each and every day.

Union stated at the technical conference that a break out of scheduled flows would not be provided for all components for the reasons above. Union has provided nominated and scheduled values for HUB contracts at Exhibit JT1.15 and has addressed spot purchases at Exhibit JT1.13.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO CONFIRM THE CALCULATIONS IN FRPO 3B, QUESTION 7 OF EXHIBIT CT1.2

Union confirms the total C1 contracted volumes between Nov 1, 2012 and Jan 31, 2015 was 87.7 TJ/d during all months and not just the winter months.

Combining the C1 contracted volumes with the Gas Supply firm transportation capacity of 60 TJ/d results in a total C1 and Gas Supply commitment of 147.7 TJ/d in the winter and summer period up to the start of 2016. **This is no longer appropriate as the planning assumption for the Panhandle System has changed as described below.**

The maximum summer and winter capacity to be accepted at Ojibway on a firm basis is determined based on available market and facility/system capability. The available market at Ojibway is calculated based on an average of the lowest demands for 20 days of each month. This average value is compared each month across a 5 year timeframe to determine a reasonably available market.

The minimum demand profile of the market in the Windsor area, which determines the amount of firm receipts Union can accept at Ojibway, has declined for both summer and winter in 2016 and beyond, but has not lowered Design Day demands. This is due to an electric generator moving from a self-dispatch operation to a market dispatch operation during 2016. Prior to this, this electric generator ran 5 to 6 days per week, and since that time has operated only 12 days in the last 4 months.

The expected load profile going forward is the primary reason for the limitation of Ojibway receipts at 115 TJ/d in the summer and 140 TJ/d in the winter.

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO CHECK TO SEE IF ANY OF THE SPOT OR MONTHLY PURCHASES WERE SCHEDULED THROUGH OJIBWAY.

Over the last 3 years, Union made no spot or monthly purchases in addition to those required to fill the contracted firm transportation capacity on PEPL.

UNION GAS LIMITED

Undertaking Response
To Mr. Wolnick

TO PROVIDE THE NET ALTERNATE COST FOR ALL FOUR WINTERS

Please see below the tables from Exhibit B.APPrO.2 c) and Exhibit B.IGUA.1 e), updated to include the requested calculation. The annual net cost of alternative fuel is calculated by subtracting the estimated cost of gas using the daily spot price of gas at Dawn as per the APPrO request.

Exhibit B.APPrO.2 c) Table

Alternate Fuel Mix		
Oil		60%
Diesel		25%
Propane		15%
Alternate Fuel Cost (/GJ)		
Oil	$	9.45
Diesel	$	15.05
Propane	$	13.98
Weighted cost of alternate fuel per GJ	$	11.53
Total Alternate Fuel Requirement on Peak Day (GJ)		69,000
Cost of Alternate Fuel per Day of Interruption	$	795,310
Days of Interruption in Winter 14/15		15.7
Annual Cost of Alternate Fuel	$	12,486,371
Average Cost Natural Gas per GJ (Average 15/16 Winter Spot)	$	2.95
Total Cost of Gas	$	3,195,735
Net cost of Alternate Fuel	$	9,290,636

Exhibit B.IGUA.1 e) Table

Alternative Fuel Mix	W12/13	W13/14	W14/15	W15/16
Oil	70%	70%	70%	70%
Diesel	30%	30%	30%	30%
Propane				
Alternative Fuel Cost				
Oil	$ 22.13	$ 23.34	$ 13.54	$ 7.52
Diesel	$ 22.47	$ 24.93	$ 18.26	$ 13.44
Propane	$ -	$ -	$ -	$ -
			-	
Weighted cost of alternative fuel per GJ	$ 22.23	$ 23.81	$ 14.96	$ 9.30
Total Alternative Fuel Requirement on Peak day (GJ)	91,660	75,833	72,325	58,718
Cost of Alternative Fuel per Day of Interruption	$ 2,037,904	$ 1,805,954	$ 1,081,948	$ 545,791
Days of Interruption in Winter 14/15	2.8	5.8	15.7	2
Annual Cost of Alternative Fuel	$ 5,706,132	$ 10,474,534	$ 16,986,578	$ 1,091,582
Average Cost Natural Gas per GJ (Average Winter Spot)	$ 3.56	$ 9.27	$ 4.86	$ 2.95
Total Cost of Gas	$ 913,665	$ 4,077,226	$ 5,518,573	$ 346,434
Net cost of Alternate Fuel	$ 4,792,467	$ 6,397,308	$ 11,468,005	$ 745,148

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO PROVIDE THE RECEIPTS FOR HUB CONTRACTS AT OJIBWAY

Please see Attachment 1 for HUB contracts with nominated and scheduled receipts at Ojibway. Firm or interruptible Ojibway transportation capacity with a term less than one year is contracted via an enhanced HUB contract. The enhanced Hub contract can be daily, weekly, monthly or seasonally in duration depending upon pipeline capacity available on PEPL and the Panhandle System, consumption in the Windsor market (specifically for daily or very short terms) and the needs of the shipper.

Similar to C1 transportation contracts, any enhanced HUB contracted volumes arriving at Ojibway are not relied upon to serve firm demand on a Design Day. The enhanced HUB contracts are held by marketers who control and dictate when and to what degree nominations are made under their contracts so they may or may not utilize the Panhandle System on peak demand days.

Ojibway Receipts from HUBs
Winter 2013 to 2016
(GJ/d)

Nov-01-2013	23,184
Nov-02-2013	23,184
Nov-03-2013	23,184
Nov-04-2013	23,184
Nov-05-2013	23,184
Nov-06-2013	23,184
Nov-07-2013	23,184
Nov-08-2013	21,074
Nov-09-2013	21,074
Nov-10-2013	21,074
Nov-11-2013	21,074
Nov-12-2013	7,358
Nov-13-2013	11,579
Nov-14-2013	17,909
Nov-15-2013	23,184
Nov-16-2013	23,184
Nov-17-2013	23,184
Nov-18-2013	9,468
Nov-19-2013	6,303
Nov-20-2013	17,909
Nov-21-2013	12,634
Nov-22-2013	7,991
Nov-23-2013	7,358
Nov-24-2013	7,358
Nov-25-2013	7,358
Nov-26-2013	6,303
Nov-27-2013	22,129
Nov-28-2013	22,129
Nov-29-2013	22,129
Nov-30-2013	22,129
Dec-01-2013	23,184
Dec-02-2013	17,909
Dec-03-2013	23,184
Dec-04-2013	23,184
Dec-05-2013	20,546
Dec-06-2013	12,634
Dec-07-2013	12,634
Dec-08-2013	12,634
Dec-09-2013	12,634
Dec-10-2013	12,634
Dec-11-2013	12,634
Dec-12-2013	12,634
Dec-13-2013	23,184
Dec-14-2013	23,184
Dec-15-2013	23,184
Dec-16-2013	23,184
Dec-17-2013	23,184
Dec-18-2013	23,184
Dec-19-2013	23,184
Dec-20-2013	23,050
Dec-21-2013	44,772
Dec-22-2013	44,772

Ojibway Receipts from HUBs
Winter 2013 to 2016

Dec-23-2013	44,772
Dec-24-2013	49,560
Dec-25-2013	49,536
Dec-26-2013	49,551
Dec-27-2013	60,111
Dec-28-2013	54,836
Dec-29-2013	54,836
Dec-30-2013	54,836
Dec-31-2013	60,111
Jan-01-2014	60,111
Jan-02-2014	60,111
Jan-03-2014	23,184
Jan-04-2014	3,395
Jan-05-2014	3,395
Jan-06-2014	2,657
Jan-07-2014	71,639
Jan-08-2014	21,101
Jan-09-2014	34,078
Jan-10-2014	70,662
Jan-11-2014	70,662
Jan-12-2014	70,662
Jan-13-2014	70,662
Jan-14-2014	70,662
Jan-15-2014	70,662
Jan-16-2014	70,662
Jan-17-2014	70,662
Jan-18-2014	47,477
Jan-19-2014	47,477
Jan-20-2014	47,477
Jan-21-2014	47,477
Jan-22-2014	54,863
Jan-23-2014	47,477
Jan-24-2014	51,698
Jan-25-2014	21,092
Jan-26-2014	21,092
Jan-27-2014	21,092
Jan-28-2014	31,652
Jan-29-2014	61,932
Jan-30-2014	60,111
Jan-31-2014	60,111
Feb-01-2014	21,505
Feb-02-2014	21,505
Feb-03-2014	21,505
Feb-04-2014	87,446
Feb-05-2014	79,129
Feb-06-2014	93,189
Feb-07-2014	84,405
Feb-08-2014	68,648
Feb-09-2014	68,648
Feb-10-2014	100,300
Feb-11-2014	116,258
Feb-12-2014	116,402
Feb-13-2014	116,056

Ojibway Receipts from HUBs
Winter 2013 to 2016

Feb-14-2014	118,183
Feb-15-2014	119,470
Feb-16-2014	119,468
Feb-17-2014	119,468
Feb-18-2014	119,468
Feb-19-2014	120,065
Feb-20-2014	121,332
Feb-21-2014	98,648
Feb-22-2014	35,464
Feb-23-2014	35,464
Feb-24-2014	34,310
Feb-25-2014	31,652
Feb-26-2014	65,060
Feb-27-2014	63,304
Feb-28-2014	31,979
Mar-01-2014	21,101
Mar-02-2014	31,652
Mar-03-2014	29,014
Mar-04-2014	31,652
Mar-05-2014	33,735
Mar-06-2014	33,735
Mar-07-2014	69,091
Mar-08-2014	33,735
Mar-09-2014	33,735
Mar-10-2014	33,735
Mar-11-2014	33,735
Mar-12-2014	33,735
Mar-13-2014	33,735
Mar-14-2014	33,735
Mar-15-2014	33,735
Mar-16-2014	33,735
Mar-17-2014	33,735
Mar-18-2014	33,735
Mar-19-2014	33,735
Mar-20-2014	33,735
Mar-21-2014	33,735
Mar-22-2014	33,735
Mar-23-2014	33,735
Mar-24-2014	33,735
Mar-25-2014	33,735
Mar-26-2014	33,735
Mar-27-2014	33,735
Mar-28-2014	33,735
Mar-29-2014	33,735
Mar-30-2014	33,735
Mar-31-2014	33,735
Nov-01-2014	11,982
Nov-02-2014	13,243
Nov-03-2014	13,258
Nov-04-2014	13,988
Nov-05-2014	13,988
Nov-06-2014	13,988
Nov-07-2014	13,988

Ojibway Receipts from HUBs
Winter 2013 to 2016

Nov-08-2014	13,988
Nov-09-2014	13,988
Nov-10-2014	13,988
Nov-11-2014	12,450
Nov-12-2014	13,988
Nov-13-2014	13,988
Nov-14-2014	13,988
Nov-15-2014	13,988
Nov-16-2014	13,988
Nov-17-2014	13,988
Nov-18-2014	13,988
Nov-19-2014	13,988
Nov-20-2014	13,988
Nov-21-2014	13,988
Nov-22-2014	13,988
Nov-23-2014	13,988
Nov-24-2014	13,988
Nov-25-2014	13,988
Nov-26-2014	13,988
Nov-27-2014	13,988
Nov-28-2014	13,988
Nov-29-2014	13,988
Nov-30-2014	13,988
Dec-01-2014	13,988
Dec-02-2014	13,988
Dec-03-2014	13,988
Dec-04-2014	13,988
Dec-05-2014	13,988
Dec-06-2014	13,988
Dec-07-2014	13,988
Dec-08-2014	13,988
Dec-09-2014	16,626
Dec-10-2014	13,988
Dec-11-2014	21,901
Dec-12-2014	28,231
Dec-13-2014	28,231
Dec-14-2014	28,231
Dec-15-2014	28,231
Dec-16-2014	28,231
Dec-17-2014	13,988
Dec-18-2014	21,901
Dec-19-2014	33,497
Dec-20-2014	22,945
Dec-21-2014	22,946
Dec-22-2014	22,946
Dec-23-2014	24,527
Dec-24-2014	24,539
Dec-25-2014	20,779
Dec-26-2014	20,779
Dec-27-2014	20,779
Dec-28-2014	20,779
Dec-29-2014	20,779
Dec-30-2014	5,275

Ojibway Receipts from HUBs
Winter 2013 to 2016

Dec-31-2014	0
Jan-01-2015	0
Jan-02-2015	0
Jan-03-2015	0
Jan-04-2015	0
Jan-05-2015	0
Jan-06-2015	0
Jan-07-2015	0
Jan-08-2015	0
Jan-09-2015	0
Jan-10-2015	0
Jan-11-2015	0
Jan-12-2015	0
Jan-13-2015	0
Jan-14-2015	0
Jan-15-2015	13,988
Jan-16-2015	35,089
Jan-17-2015	13,988
Jan-18-2015	13,988
Jan-19-2015	12,321
Jan-20-2015	13,965
Jan-21-2015	28,316
Jan-22-2015	24,539
Jan-23-2015	24,539
Jan-24-2015	24,539
Jan-25-2015	24,539
Jan-26-2015	24,539
Jan-27-2015	24,539
Jan-28-2015	24,539
Jan-29-2015	24,539
Jan-30-2015	4,074
Jan-31-2015	0
Feb-01-2015	10,551
Feb-02-2015	10,551
Feb-03-2015	10,551
Feb-04-2015	0
Feb-05-2015	0
Feb-06-2015	10,551
Feb-07-2015	10,551
Feb-08-2015	10,551
Feb-09-2015	10,551
Feb-10-2015	35,090
Feb-11-2015	35,090
Feb-12-2015	21,649
Feb-13-2015	35,090
Feb-14-2015	24,327
Feb-15-2015	24,327
Feb-16-2015	24,327
Feb-17-2015	15,137
Feb-18-2015	10,551
Feb-19-2015	17,092
Feb-20-2015	10,551
Feb-21-2015	14,068

Ojibway Receipts from HUBs
Winter 2013 to 2016

Feb-22-2015	25,111
Feb-23-2015	15,826
Feb-24-2015	10,551
Feb-25-2015	24,464
Feb-26-2015	24,539
Feb-27-2015	24,539
Feb-28-2015	24,539
Mar-01-2015	45,640
Mar-02-2015	45,640
Mar-03-2015	45,640
Mar-04-2015	40,364
Mar-05-2015	48,148
Mar-06-2015	47,449
Mar-07-2015	26,649
Mar-08-2015	26,649
Mar-09-2015	26,649
Mar-10-2015	24,539
Mar-11-2015	24,539
Mar-12-2015	24,539
Mar-13-2015	24,539
Mar-14-2015	24,443
Mar-15-2015	24,286
Mar-16-2015	24,274
Mar-17-2015	24,539
Mar-18-2015	24,539
Mar-19-2015	24,539
Mar-20-2015	24,539
Mar-21-2015	24,539
Mar-22-2015	24,539
Mar-23-2015	24,539
Mar-24-2015	24,539
Mar-25-2015	24,539
Mar-26-2015	24,539
Mar-27-2015	24,539
Mar-28-2015	24,539
Mar-29-2015	24,539
Mar-30-2015	24,539
Mar-31-2015	24,539
Nov-01-2015	15,826
Nov-02-2015	15,826
Nov-03-2015	26,377
Nov-04-2015	31,652
Nov-05-2015	40,092
Nov-06-2015	40,092
Nov-07-2015	10,551
Nov-08-2015	10,551
Nov-09-2015	10,551
Nov-10-2015	10,551
Nov-11-2015	9,311
Nov-12-2015	10,551
Nov-13-2015	10,551
Nov-14-2015	10,551
Nov-15-2015	10,551

Ojibway Receipts from HUBs
Winter 2013 to 2016

Nov-16-2015	10,551
Nov-17-2015	0
Nov-18-2015	0
Nov-19-2015	0
Nov-20-2015	0
Nov-21-2015	0
Nov-22-2015	0
Nov-23-2015	0
Nov-24-2015	0
Nov-25-2015	0
Nov-26-2015	0
Nov-27-2015	0
Nov-28-2015	0
Nov-29-2015	0
Nov-30-2015	0
Dec-01-2015	0
Dec-02-2015	0
Dec-03-2015	0
Dec-04-2015	0
Dec-05-2015	0
Dec-06-2015	0
Dec-07-2015	0
Dec-08-2015	0
Dec-09-2015	0
Dec-10-2015	0
Dec-11-2015	2,670
Dec-12-2015	0
Dec-13-2015	0
Dec-14-2015	0
Dec-15-2015	0
Dec-16-2015	0
Dec-17-2015	0
Dec-18-2015	0
Dec-19-2015	0
Dec-20-2015	0
Dec-21-2015	0
Dec-22-2015	0
Dec-23-2015	0
Dec-24-2015	0
Dec-25-2015	0
Dec-26-2015	0
Dec-27-2015	0
Dec-28-2015	0
Dec-29-2015	0
Dec-30-2015	0
Dec-31-2015	0
Jan-01-2016	0
Jan-02-2016	0
Jan-03-2016	0
Jan-04-2016	0
Jan-05-2016	0
Jan-06-2016	0
Jan-07-2016	0

Ojibway Receipts from HUBs
Winter 2013 to 2016

Jan-08-2016	0
Jan-09-2016	0
Jan-10-2016	0
Jan-11-2016	0
Jan-12-2016	0
Jan-13-2016	0
Jan-14-2016	0
Jan-15-2016	0
Jan-16-2016	0
Jan-17-2016	0
Jan-18-2016	0
Jan-19-2016	0
Jan-20-2016	0
Jan-21-2016	0
Jan-22-2016	0
Jan-23-2016	0
Jan-24-2016	0
Jan-25-2016	0
Jan-26-2016	0
Jan-27-2016	0
Jan-28-2016	0
Jan-29-2016	0
Jan-30-2016	0
Jan-31-2016	0
Feb-01-2016	0
Feb-02-2016	0
Feb-03-2016	0
Feb-04-2016	0
Feb-05-2016	0
Feb-06-2016	0
Feb-07-2016	0
Feb-08-2016	0
Feb-09-2016	0
Feb-10-2016	0
Feb-11-2016	0
Feb-12-2016	0
Feb-13-2016	0
Feb-14-2016	0
Feb-15-2016	0
Feb-16-2016	0
Feb-17-2016	0
Feb-18-2016	0
Feb-19-2016	0
Feb-20-2016	0
Feb-21-2016	0
Feb-22-2016	0
Feb-23-2016	0
Feb-24-2016	0
Feb-25-2016	0
Feb-26-2016	0
Feb-27-2016	0
Feb-28-2016	0
Feb-29-2016	0

Ojibway Receipts from HUBs
Winter 2013 to 2016

Mar-01-2016	0
Mar-02-2016	0
Mar-03-2016	0
Mar-04-2016	0
Mar-05-2016	0
Mar-06-2016	0
Mar-07-2016	0
Mar-08-2016	0
Mar-09-2016	0
Mar-10-2016	0
Mar-11-2016	0
Mar-12-2016	0
Mar-13-2016	0
Mar-14-2016	0
Mar-15-2016	36,927
Mar-16-2016	52,753
Mar-17-2016	47,478
Mar-18-2016	47,478
Mar-19-2016	36,927
Mar-20-2016	36,927
Mar-21-2016	36,927
Mar-22-2016	13,736
Mar-23-2016	58,028
Mar-24-2016	36,927
Mar-25-2016	36,927
Mar-26-2016	36,927
Mar-27-2016	36,927
Mar-28-2016	36,927
Mar-29-2016	52,753
Mar-30-2016	15,826
Mar-31-2016	15,826

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO CLARIFY THE CALCULATION THAT RELATED TO THE COLUMN IDENTIFIED AS TRANSPORTATION TOLLS, THE TABLES SET OUT IN FRPO 17

Please see Attachment 1 which provides the source and effective dates of the transportation tolls in effect at the time of Union's noted analyses. As noted at the technical conference the EB-2016-0186 Date of Analysis should read May 2016 and not May 2015 as indicated.

Attachment 1 aligns transportation contracts/paths common to each of the Landed Cost Analyses, and calculates the variance in the assumed toll.

The tolls for landed costs are converted to $USD/mmbtu. Paths involving multiple pipelines include capacity required to provide fuel on downstream segments of the path.

Landed cost analyses are performed when new transportation contracts are evaluated and there are other alternatives available. The transportation tolls used are those in effect at the time of the analysis and the commodity price forecast is for the same period as the transportation contract being evaluated. For example, a one year contract would use a one year commodity price outlook, whereas a 15 year transportation contract would use a 15 year commodity price forecast.

	Date of Analysis May 2016		Date of Analysis March 2015		Date of Analysis January 2015		Variance From EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 2				Toll Source		
	EB-2016-0186 Exhibit A Tab 6 Page 9 of 15		EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 2		EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 1		EB-2016-0186 Exhibit A Tab 6 Page 9 of 15		EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 1		EB-2016-0186 Exhibit A Tab 6 Page 9 of 15	EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 2	EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 1
Line Item	**Unitized Demand Charge $US/ mmBtu**	**Commodity Charge $US/ mmBtu**	**Unitized Demand Charge $US/ mmBtu**	**Commodity Charge $US/ mmBtu**	**Unitized Demand Charge $US/ mmBtu**	**Commodity Charge $US/ mmBtu**	**Unitized Demand Charge $US/ mmBtu**	**Commodity Charge $US/ mmBtu**	**Unitized Demand Charge $US/ mmBtu**	**Commodity Charge $US/ mmBtu**	**Toll Source / Date**	**Toll Source / Date**	**Toll Source / Date**
Dawn	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	N/A	N/A
Panhandle Longhaul	0.4244	0.0437	0.4251	0.0441	0.4251	0.0441	0.0007	0.0004	0.0000	0.0000	Panhandle Pipeline Max FT Toll (Panhandle FZ to Ojibway). PEPL's tariff rates were placed into effect in 1992. Periodic Rate Adjustments and Surcharges can be applies from time to time (i.e. ACA surcharges and flowthorough of Cash-Out Revenues and Penalties).	Panhandle Pipeline Max Toll (Panhandle FZ to Ojibway). PEPL's tariff rates were placed into effect in 1992. Periodic Rate Adjustments and Surcharges can be applies from time to time (i.e. ACA surcharges and flowthorough of Cash-Out Revenues and Penalties).	Panhandle Pipeline Max Toll (Panhandle FZ to Ojibway). PEPL's tariff rates were placed into effect in 1992. Periodic Rate Adjustments and Surcharges can be applies from time to time (i.e. ACA surcharges and flowthorough of Cash-Out Revenues and Penalties).
PEPL - (2014-2015)			0.4251	0.0441	0.4200	0.0441			0.0051	0.0000		Panhandle Pipeline Max Toll (Panhandle FZ to Ojibway). PEPL's tariff rates were placed into effect in 1992. Periodic Rate Adjustments and Surcharges can be applies from time to time (i.e. ACA surcharges and flowthorough of Cash-Out Revenues and Penalties).	Panhandle Pipeline Max Toll (Panhandle FZ to Ojibway) Rounded to $0.42. PEPL's tariff rates were placed into effect in 1992. Periodic Rate Adjustments and Surcharges can be applies from time to time (i.e. ACA surcharges and flowthorough of Cash-Out Revenues and Penalties).
Trunkline / Panhandle			0.1923	0.0275	0.1923	0.0299			0.0000	-0.0024		Negotiated Rate Contracts for Trunkline Pipeline ELA to Bourbon, Panhandle Pipeline Bourbon to Ojibway (Assumes Supply purchased at ELA). Effective November 1, 2012 through October 31, 2017.	Negotiated Rate Contracts - Trunkline Pipeline ELA to Bourbon, Panhandle Pipeline Bourbon to Ojibway (Assumes Supply purchased at ELA). Effective November 1, 2012 through October 31, 2017.
Trunkline / Panhandle					0.1923	0.0275							Union Negotiated Rate Contracts (Assumes Supply purchased at Zone 1A). Effective November 1, 2012 through October 31, 2017.
TCPL SWDA			1.4749	0.0000	1.2078	0.0000			0.2671	0.0000		TCPL - July - October 2015 Compliance Tolls. Transportation Tolls Effective July 1, 2015 and Final Abandonment Surcharges Effective January 1, 2015	TCPL - Approved 2013 - 2014 Compliance Tolls effective July 1, 2013
TCPL CDA			1.6006	0.0000	1.3103	0.0000			0.2903	0.0000		TCPL - July - October 2015 Compliance Tolls. Transportation Tolls Effective July 1, 2015 and Final Abandonment Surcharges Effective January 1, 2015	TCPL - Approved 2013 - 2014 Compliance Tolls effective July 1, 2013
Alliance / Vector (2000-2015)			1.5824	-0.3713	1.6035	-0.3772			-0.0211	0.0059		Alliance Canada and Alliance US Max rate contract, assumes 28% credit for Autoirzed Overruns Service in Commodity Rate effective May 1, 2013, Vector Negotiated Rate Contract $0.25 USD/Dth effective November 1, 2000.	Alliance Canada and Alliance US Max rate contract, assumes 28% credit for Autoirzed Overruns Service in Commodity Rate, Rate effective May 1, 2013, Vector Negotiated Rate Contract $0.25 USD/Dth effective November 1, 2000.

	Date of Analysis May 2016		Date of Analysis March 2015		Date of Analysis January 2015		Variance From EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 2				Toll Source		
	EB-2016-0186 Exhibit A Tab 6 Page 9 of 15		EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 2		EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 1		EB-2016-0186 Exhibit A Tab 6 Page 9 of 15		EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 1		EB-2016-0186 Exhibit A Tab 6 Page 9 of 15	EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 2	EB-2016-0118 Exhibit A Tab 4 Appendix A Schedule 1
Line Item	Unitized Demand Charge $US/ mmBtu	Commodity Charge $US/ mmBtu	Unitized Demand Charge $US/ mmBtu	Commodity Charge $US/ mmBtu	Unitized Demand Charge $US/ mmBtu	Commodity Charge $US/ mmBtu	Unitized Demand Charge $US/ mmBtu	Commodity Charge $US/ mmBtu	Unitized Demand Charge $US/ mmBtu	Commodity Charge $US/ mmBtu	Toll Source / Date	Toll Source / Date	Toll Source / Date
ANR-Michcon-Union (Gulf)			0.4056	0.0161	0.3884	0.0161			0.0172	0.0000		ANR SE to Northern Area (ANR FTS-1 rate effective September 30, 2010), MichCon (Assumed rate of $0.05 USD/MMBtu), Union St. Clair to Dawn C1 rate effective January 1, 2015	(ANR FTS-1 rate effective September 30, 2010), MichCon (Assumed rate of $0.05 USD/MMBtu), Union St. Clair to Dawn C1 rate effective January 1, 2015
Vector (2014-2017)			0.1886	0.0018	0.1900	0.0018			-0.0014	0.0000		Union Negotiated Rate Contract Effective November 1, 2014	Union Negotiated Rate Contract Effective November 1, 2014
TCPL Niagara			0.1884	0.0000	0.1212	0.0000			0.0672	0.0000		TCPL July - October 2015 Compliance Tolls. Transportation Tolls Effective July 1, 2015 and Final Abandonment Surcharges Effective January 1, 2015	TCPL - Approved 2013 - 2014 Compliance Tolls effective July 1, 2013
PEPL (2012-2017)			0.3200	0.0441	0.3200	0.0441			0.0000	0.0000		Union Negotiated Rate Contract. Effective November 1, 2012	Union Negotiated Rate Contract. Effective November 1, 2012
Vector (2008-2016)			0.2500	0.0018	0.2500	0.0018			0.0000	0.0000		Negotiated Rate Contract. Effective November 1, 2008	Negotiated Rate Contract. Effective November 1, 2008
GLGT to TCPL			0.3151	0.0074	0.2718	0.0074			0.0433	0.0000		GLGT Farwell to TCPL (GLGT FT rate effective November 1, 2013), TCPL St. Clair to Dawn (TCPL July - October 2015 Compliance Tolls Effective July 1, 2015 and Final Abandonment Surcharges Effective January 1, 2015)	GLGT Farwell to TCPL (GLGT FT rate effective November 1, 2013), TCPL to Dawn (TCPL - Approved 2013 - 2014 Compliance Tolls effective July 1, 2013)
DTE to St. Clair (2014-2015)			0.0640	0.0000	0.0618	0.0000			0.0021	0.0000		Union Negotiated Rate Contract. Effective November 1, 2014.	Union Negotiated Rate Contract. Effective November 1, 2014.
ANR - GLGT - TCPL			0.5797	0.0216	0.5364	0.0216			0.0433	0.0000		ANR to GLGT Farwell (ANR FTS-1 rate effective September 30, 2010), GLGT Farwell to TCPL (GLGT FT rate effective November 1, 2013), TCPL St. Clair to Dawn (TCPL July - October 2015 Compliance Tolls Effective July 1, 2015 and Final Abandonment Surcharges Effective January 1, 2015)	ANR to GLGT Farwell (FTS-1 rate effective September 30, 2010), GLGT Farwell to TCPL (GLGT FT rate effective November 1, 2013), TCPL to Dawn (TCPL - Approved 2013 - 2014 Compliance Tolls effective July 1, 2013)
Vector (2000-2017)			0.2500	0.0018								Negotiated Rate Contract. Effective December 1, 2000.	
DTE to St. Clair (2015-2018)			0.0790	0.0000								Negotiated Rate Contract. Effective December 1, 2015.	
Marcellus to Dawn					1.2680	0.0000							Negotiated Rate Contract. Effective November 1, 2015.
Vector 1 Year (Mkt Quote)					0.2100	0.0018							Market Quote

UNION GAS LIMITED

Undertaking Response
To Mr. Quinn

TO SPECIFY THE EXPECTED SYSTEM GROWTH IN THE WINDSOR AREA

Although Union does not have the specific location for the generic forecasted growth in the Windsor area, all growth identified in the response to Exhibit B.BOMA.3 d) and categorized as Windsor is assumed to be connected to the Panhandle System west of the Sandwich Compressor Station.

UNION GAS LIMITED

Undertaking Response
To Ms. Van Soelen

WITH REFERENCE TO THE CHART AT 1(J), TO CLARIFY WHETHER THE INCREASING VOLUME IS LIKELY TO SHOW UP IN THE LARGE INDUSTRIAL LINE ITEM, OR IN SMALL INDUSTRIAL, OR A COMBINATION

The increase in the peak day demand from the automotive sector is contained in both the large industrial (approximately 7 TJ/d) and small industrial (approximately 1 TJ/d) lines of Exhibit B.IGUA.1 j).

UNION GAS LIMITED

Undertaking Response
To Ms. Van Soelen

TO ADVISE WHETHER PROPANE AERATION IS A VIABLE ALTERNATIVE TO MEET THE FORECASTED DEMAND THAT IS AT ISSUE IN THIS APPLICATION.

As noted in response to Exhibit B.IGUA.9 c) "propane aeration was not considered as an alternative although both CNG and LNG were considered as alternatives."

Union has no expertise in propane aeration and does not believe it is a widely accepted means of meeting incremental demands on existing natural gas pipeline systems. While propane aeration may be used by interruptible customers as a back-up fuel on their site when natural gas supply is interrupted, the customer is responsible for designing their system to safely handle the different properties of propane as an alternate fuel and for ensuring their equipment is able to operate.