

**EB-2015-0029/0049**

**Ontario Energy Board**

**Union Gas Limited/Enbridge Gas Distribution**

**2015-2020 DSM Multi-year Plans**

Federation of Rental-housing Providers of Ontario

Reference Documents for Oral Hearing  
GEC Panel

September 1, 2015

1           And so I -- again, we are going to stay at the high  
2 level, because Mr. Poch has acknowledged that this is not  
3 something the Board is going to have the ability to  
4 determine without more information, but one of the things  
5 Mr. Poch did say was using a potential to use coefficients  
6 as place-holders that may be different from what is in the  
7 evidence of the respective utilities.

8           So I want to just cap a little bit further on that,  
9 and if you would move down in the evidence to page 17, I  
10 think -- yes, page 17. As an analogous situation, Mr.  
11 Chernick identified examining the historical relationship  
12 between monthly consumption in the northeast and the basis  
13 from Henry Hub to TETCO M3 zone.

14           Now, Mr. Sloan, I understand, with respect, your  
15 experience in the market, and so that I don't lead your  
16 opinion on that, what would you say would be the  
17 differentiating factor between TETCO M3 zone and Dawn?

18           MR. SLOAN: They are in very different parts of the  
19 North American market, with very different constraints into  
20 and around the different regions.

21           MR. QUINN: Okay. I was hoping for a little more  
22 specificity, so let me ask you --

23           MR. SLOAN: TETCO M3 is a constraint point, and you  
24 get much bigger price impacts there with changes in demand.

25           MR. QUINN: Okay. And I agree with that.

26           Can you comment on the ability of storage to TETCO M3?

27           MR. SLOAN: Thank you for leading me. One of the main  
28 reasons why you have a difference in the market is because

1 of the availability of storage, and at Dawn and in Michigan  
2 and Dawn, storage plays a major role in smoothing out the  
3 market over time, and you don't have that in the  
4 northeastern United States, and that's one of the reasons  
5 why you have the extreme volatility in prices in that  
6 region of the country.

7 MR. QUINN: So based upon your understanding of that  
8 market and your understanding of DRIPE, which you commented  
9 on in your report, would you see TETCO M3 being a parallel  
10 situation to Dawn and --

11 MR. SLOAN: It's not a relevant comparison.

12 MR. QUINN: Not a relevant comparison. Okay. Those  
13 are your words. Thank you.

14 MR. POCH: Madam Chair, I'm sorry to interrupt, but  
15 I'm just worried that the record is a little confused,  
16 because he's using the word DRIPE, and I think what we've  
17 been talking about is what Mr. Chernick called basis DRIPE  
18 or transportation DRIPE. I just want to make sure for the  
19 record that's clear. If my friends wouldn't mind just  
20 clarifying their use of the terminologies.

21 MR. SLOAN: I think that I've answered the specific  
22 question correctly. There are different concepts of DRIPE,  
23 as you will point out. There is a North American price  
24 impact concept, as well as a city gate price impact, and  
25 they are different.

26 MR. QUINN: They are different, Mr. Sloan, but --

27 MR. SLOAN: Actually, let me rephrase that.

28 MR. QUINN: Please.

1 MR. SLOAN: The North America is a subset of the city  
2 gate.

3 MR. QUINN: So as it pertains to the ability of -- and  
4 I'll distinguish them as two different consents -- for  
5 basis DRIPE is TETCO M3 an analogous situation for Dawn?

6 MR. SLOAN: TETCO M3 is not an analogous situation to  
7 Dawn for any of that type of analysis.

8 MR. QUINN: So for any of that type of analysis would  
9 you say the city gate DRIPE that I think Mr. Poch is  
10 referring to -- if I've got that wrong, Mr. Poch, I don't  
11 want -- I want to establish the record clearly -- is that  
12 what you are referring to?

13 MR. POCH: Sorry, I don't want to keep interrupting  
14 you. No, I just felt that what you were just talking about  
15 were local constraints, constraints in transmission, that  
16 would obviously affect that region, and that there would be  
17 basis DRIPE for, and that would be different than any other  
18 region, and I think that was acknowledged, and that's -- in  
19 my preamble to the Board I said that's why we're not  
20 proposing anything. That would have to be Ontario-  
21 specific, as opposed to what we'll call continental -- I  
22 think you've used the phrase continental DRIPE. I just  
23 wanted to make sure we knew which one we were talking about  
24 in that discussion, that's all.

25 MR. SLOAN: I understand the distinction, yes.

26 MR. QUINN: So as it pertains to the ability to use  
27 TETCO, information to inform the potential impacts for  
28 Ontario, you would say that that's not --

1 MR. SLOAN: There's no relevance.

2 MR. QUINN: There's no relevance. Thank you. That  
3 should be sufficient, but just to Mr. Poch's concern, I'm  
4 going to ask some more generic question: If you are  
5 evaluating the market at Dawn relative to the North  
6 American market on an annualized basis, are the  
7 distinctions you would make at Dawn because specifically  
8 its access to storage?

9 MR. SLOAN: That's part of the reasons. That's one of  
10 the reasons why there would not be a significant difference  
11 between Dawn and a North American market price impact.

12 MR. QUINN: Okay, thank you.

13 One further question while we have you here, Mr.  
14 Sloan. I respect that we want to ask questions here, and I  
15 think it is appropriate, but Mr. Quigley described doing a  
16 baseline assessment of costs using SENDOUT as -- from the  
17 gas pipeline and then doing the subsequent analysis based  
18 upon a reduction in demand.

19 Did you assess the comparison of those two SENDOUT  
20 outputs?

21 MR. SLOAN: I had a detailed discussion about the  
22 methodology and the approach and the inputs, and I saw the  
23 results. I did not run the model myself or look at any of  
24 the internal calculations within the model.

25 MR. QUINN: And it's been subject of past proceedings,  
26 so we're not -- and I appreciate the clarification. You  
27 didn't run the model, but you looked at summary output  
28 reports from -- that compared the baseline to the demand-

**GEC Response to FRPO Interrogatory #4**

**Question:**

REF: Exhibit L.GEC.2, page 15, Figure 3

Please provide the same graph for February of 2014.

**Response:**



Witness: Paul Chernick

1 the remainder of the winter; is that correct?

2 MR. WELBURN: That is correct.

3 MR. QUINN: Okay, so you are buying the month ahead,  
4 you are buying the rest of the winter to maintain your  
5 storage levels.

6 MR. WELBURN: Correct.

7 MR. QUINN: And that is opposed to where periodically  
8 -- and was evidenced in 2013-14 -- you may have only been  
9 looking a week ahead and buying that week ahead or even, in  
10 a worst-case scenario, the day ahead?

11 MR. WELBURN: That's correct, due to the nature of  
12 weather forecasts we found that going much further than a  
13 week ahead tended to be a lot less reliable, but what we  
14 are -- what we have done is started to incorporate longer  
15 range weather forecasts in there to a certain degree, to  
16 help inform us should we be forecasting to see a  
17 significant increase in degree days coming up. Then it  
18 would give us an opportunity to potentially procure some  
19 supply in advance of that occurring, if it was so  
20 necessary.

21 MR. QUINN: Okay, thank you. I'm going to say this a  
22 little differently, and hopefully this is a proposition to  
23 summarize the effect of this. And you can tell me if you  
24 agree with me, and can add caveats to it.

25 By anticipating weather ahead and buying ahead to  
26 maintain these storage levels, you are, in effect, buying  
27 your commodity prior to when it's actually needed and  
28 keeping it either -- adding into storage, or keeping more

1 gas in storage, so that the gas -- so during peaks of high  
2 demand when gas does tend to drive up prices, you are able  
3 to pull gas from storage which has the effect of lowering  
4 your overall cost of gas.

5 Would you agree with that?

6 MR. WELBURN: I would agree with that, and I'd also  
7 add that the winter that we've just experienced last year  
8 was the first time that we had actually incorporated that  
9 change in how we manage our storage levels.

10 And even though we went through a very similar type  
11 winter, as far as a degree day experience that we had and  
12 the level of demand that went through our system, we did  
13 not run into the same situation that we had the previous  
14 year where our storage levels were being depleted rather  
15 quickly because of the prolonged cold weather,  
16 necessitating us to go out into the daily market.

17 And it had significant impacts on the cost of the  
18 natural gas, especially at Dawn -- for us, anyways -- and  
19 we were able to mitigate a lot of that last year as a  
20 result of incorporating that change in the design criteria  
21 that we used as far as managing the storage.

22 MR. QUINN: And I heard you express something -- and  
23 you can comment on this, if you feel comfortable. But it  
24 lowered your gas costs as a company, and that's a matter of  
25 evidence in the 2015 rates; there was some evidence in  
26 there.

27 But because the quantity of gas that Enbridge does  
28 purchase at Dawn, and did purchase at Dawn in the day

1 market the previous year, would you say that because  
2 Enbridge has bought ahead and you're not active in trading  
3 in the day market at Dawn, that that tends to lower the  
4 overall price at Dawn for others?

5 MR. WELBURN: Obviously, we aren't the only people in  
6 there purchasing supplies at Dawn. But I would have to  
7 think we are definitely one of the larger ones.

8 So as a result, the fact that we didn't have to go  
9 into the day market in the last winter season definitely  
10 would have had -- and I think it's pretty evident if you go  
11 back and look at the prices at Dawn for the two years.  
12 They are significantly different, despite the fact that the  
13 weather conditions were quite similar.

14 MR. QUINN: And the weather conditions in 2015 were  
15 actually slightly colder than the weather conditions in  
16 February of 2014. Is that your understanding?

17 MR. WELBURN: Yes, it was.

18 MR. QUINN: Thank you, and one final comment in that  
19 area and that is would you say that now your policies, in  
20 terms of how you're looking ahead and buying gas in the  
21 forward month or for the rest of the year and your storage  
22 targets, would you say that's more aligned with what Union  
23 Gas has been doing over the last few years?

24 MR. WELBURN: Yes. The approach we took is very  
25 similar to the approach that Union's using, yes.

26 MR. QUINN: Okay. Just by extension, I wanted that to  
27 be on the record also. Thank you.

28 I'm going to move just slightly different area and

1 again, this is probably to you, Mr. Welburn. But there has  
2 been a distinction and an acceptance by -- I think, Mr.  
3 Poch would say this is fair, an acceptance by Mr. Chernick  
4 that Dawn is a special market. It differentiates itself  
5 from other markets that -- TETCO M-3 was in his evidence,  
6 and we had that discussion in the technical conference.

7 But from your perspective, Mr. Welburn, with what has  
8 occurred with Enbridge purchasing its gas closer to market,  
9 closer to Dawn, closer to your actual franchise market, you  
10 are seeing what I would suggest -- and I'm going to get you  
11 to confirm -- the impact ever transportation on the  
12 commodity price is reduced, in terms of your total overall  
13 landed cost of gas. Would you say that's correct?

14 MR. WELBURN: As a result of -- I guess you can call  
15 it the increased market access that's been made as result  
16 of the GTA project and the settlement agreement, we have  
17 been able to make some shifts in our transportation  
18 portfolio, one of which is to move away from as much of a  
19 reliance on purchases in Alberta at Empress.

20 So we are procuring more of our supply closer to the  
21 market, which has -- in the result, we were able to then  
22 subsequently contract transportation that has a less  
23 distance of haul. And since distance of haul is one of the  
24 main contributors to the tolls that you pay, our  
25 transportation as costs will go down as a result.

26 I'm hoping I addressed your question there.

27 MR. QUINN: Did you, and possibly I started you at  
28 Dawn, because that's the point I guess I was coming to.

1 But would you agree with me that this is a North American  
2 phenomenon, in terms of northeast North America has greater  
3 access to commodity closer to its market area?

4 MR. WELBURN: Absolutely. Prior to 2008, procuring  
5 significant amounts of supply in eastern Canada or the US  
6 northeast would have been a lot more challenging.

7 Since 2008, when the production of shale gas through  
8 fracking and horizontal directional drilling, those  
9 advancements certainly improved the cost effectiveness of  
10 extracting that natural gas from those reserves and, as a  
11 result, has really made a significant shift in the pricing  
12 structure of gas across North America, and has opened up a  
13 lot of other alternatives for us, as far as how we procure  
14 our natural gas supply.

15 MR. QUINN: Thank you. And in that big picture ever  
16 North America, would you agree with me that historical  
17 pipe-flows have actually reversed themselves, and that has  
18 changed the market prices between major points in North  
19 America?

20 MR. WELBURN: I would say definitely there's been a  
21 lot of change in North America-wide in regards to the  
22 infrastructure, the transportation infrastructure.

23 There are a lot of proposed projects looking to access  
24 gas in the Marcellus and Utica Basin.

25 And I guess one example, I think, that's in line with  
26 what you're talking about is the Rex pipeline, which was  
27 originally designed to ship gas from the Rockies to the  
28 mid-continent US. And that's recently actually changed

1 directions predominantly, I would assume, as result of the  
2 amount of supply that's available in the Marcellus and  
3 shale.

4 MR. QUINN: And a more local example of that same  
5 effect would be at Niagara, where there was a traditional  
6 export point from Canada to US, and that has begun to turn  
7 around, and then being an import point.

8 MR. WELBURN: Yes, it has.

9 MR. QUINN: This is a technical question and I respect  
10 that had we not had Mr. Welburn here, I might have been  
11 unable to ask this.

12 But without a lot of effort, would Enbridge have a  
13 forecast for the basis differential at Dawn going forward?  
14 I couldn't find anything on the record here, but I know you  
15 have access to other resources.

16 Do you have any other public publications that you can  
17 put on the record that would be a reference publication of  
18 the forecasts of the basis differential at Dawn?

19 MR. WELBURN: I can certainly look into that for you.  
20 I obviously don't have it here right now. But as an  
21 undertaking, we can certainly look to do that.

22 MR. QUINN: That's what I was looking for. And to be  
23 clear, and so there is a definition for that on the record,  
24 the basis differential between Dawn and Henry Hub is what  
25 we're looking for, Henry Hub being the North American  
26 standard commodity point for NIMEX transactions.

27 Is that a sufficient definition, or, Mr. Welburn would  
28 you like to add to that?

1 MR. WELBURN: No, I think that's sufficient.

2 MR. MILLAR: J7.2.

3 **UNDERTAKING NO. J7.2: ENBRIDGE TO PROVIDE THE BASIS**  
4 **DIFFERENTIAL BETWEEN DAWN AND HENRY HUB**

5 MR. QUINN: I just wanted to make sure there was  
6 clarity on the basis I was asking for. Thank you, Mr.  
7 Millar.

8 You're comfortable with that, Mr. Welburn?

9 MR. WELBURN: Yes, I am.

10 MR. QUINN: Okay. And I collaborated with Dr. Higgin,  
11 and he is going to go into an area that I think will be  
12 helpful also. So with that, those are my questions.

13 MS. LONG: Thank you, Mr. Quinn. Dr. Higgin, how long  
14 do you think you'll be?

15 DR. HIGGIN: About thirty minutes.

16 MS. LONG: Okay. Then we'll take our afternoon  
17 break, and be back at 3:25.

18 DR. HIGGIN: The transcript corrections, do you want  
19 me to do them after the break, or now?

20 MS. LONG: After the break, thank you.

21 --- Recess taken at 3:06 p.m.

22 --- On resuming at 3:25 p.m.

23 MS. LONG: Dr. Higgin?

24 **PRELIMINARY MATTERS:**

25 DR. HIGGIN: Thank you, Madam Chair. To start with,  
26 there are a couple of transcript corrections --

27 MS. LONG: Dr. Higgin, before do you that, are these  
28 material that -- do they have to do with this panel?

UNDERTAKING J7.2UNDERTAKING

TR, page 138

Enbridge to provide the basis differential between Dawn and Henry Hub

RESPONSE

The basis differential between Henry Hub and Dawn is provided in the table below based on commodity information sourced from Enbridge's Openlink database for a period of 5 years. Commodity prices are based on a 21 day monthly average settlement price for market close August 10, 2015.

<b>Month</b>	<b>Henry Hub (C\$/GJ)</b>	<b>Dawn (C\$/GJ)</b>	<b>Basis (C\$/GJ)</b>
Nov-15	3.65	3.94	0.29
Dec-15	3.85	4.26	0.40
Jan-16	3.99	4.36	0.37
Feb-16	3.98	4.45	0.47
Mar-16	3.93	4.45	0.52
Apr-16	3.74	3.73	0.00
May-16	3.73	3.73	0.00
Jun-16	3.76	3.67	-0.10
Jul-16	3.80	3.57	-0.23
Aug-16	3.81	3.69	-0.12
Sep-16	3.81	3.78	-0.02
Oct-16	3.85	3.85	0.01
Nov-16	3.94	4.06	0.12
Dec-16	4.14	4.31	0.16
Jan-17	4.28	4.44	0.16
Feb-17	4.27	4.42	0.15
Mar-17	4.19	4.37	0.19
Apr-17	3.88	3.66	-0.22
May-17	3.87	3.87	0.00
Jun-17	3.91	3.55	-0.35
Jul-17	3.94	2.93	-1.02
Aug-17	3.96	3.48	-0.48

Witness: A. Welburn

<b>Month</b>	<b>Henry Hub (C\$/GJ)</b>	<b>Dawn (C\$/GJ)</b>	<b>Basis (C\$/GJ)</b>
Sep-17	3.94	3.89	-0.05
Oct-17	3.97	3.88	-0.09
Nov-17	4.06	4.06	0.00
Dec-17	4.26	4.25	-0.01
Jan-18	4.41	4.40	-0.01
Feb-18	4.38	4.38	0.00
Mar-18	4.31	4.30	-0.01
Apr-18	3.92	3.65	-0.27
May-18	3.92	3.92	0.00
Jun-18	3.96	3.58	-0.38
Jul-18	4.00	2.89	-1.11
Aug-18	4.01	3.50	-0.51
Sep-18	4.00	3.95	-0.05
Oct-18	4.02	3.90	-0.12
Nov-18	4.11	4.13	0.02
Dec-18	4.31	4.32	0.01
Jan-19	4.46	4.47	0.01
Feb-19	4.43	4.45	0.02
Mar-19	4.36	4.37	0.01
Apr-19	3.99	3.69	-0.30
May-19	3.99	3.98	0.00
Jun-19	4.02	3.66	-0.36
Jul-19	4.06	2.96	-1.10
Aug-19	4.08	3.58	-0.50
Sep-19	4.07	4.03	-0.04
Oct-19	4.10	3.96	-0.14
Nov-19	4.19	4.21	0.02
Dec-19	4.41	4.42	0.01
Jan-20	4.57	4.58	0.01
Feb-20	4.54	4.56	0.02
Mar-20	4.47	4.48	0.01
Apr-20	4.11	3.90	-0.20
May-20	4.11	4.10	0.00
Jun-20	4.14	3.89	-0.25
Jul-20	4.17	3.42	-0.76
Aug-20	4.20	3.86	-0.34
Sep-20	4.19	4.16	-0.03

Witness: A. Welburn

<b>Month</b>	<b>Henry Hub (C\$/GJ)</b>	<b>Dawn (C\$/GJ)</b>	<b>Basis (C\$/GJ)</b>
Oct-20	4.23	4.14	-0.09
Nov-20	4.33	4.30	-0.02
Dec-20	4.55	4.51	-0.04
Jan-21	4.72	4.57	-0.15

Witness: A. Welburn