

ENBRIDGE GAS DISTRIBUTION INC. RESPONSE TO  
GEC INTERROGATORY #32

INTERROGATORY

Enbridge, Issue A.4.DSM Avoided Cost, Ref: Exh. A, T3, S7, pp. 1-3, ¶3.

- a) Please provide the avoided costs that the Company has used in screening and evaluating its DSM programs for each year since 2003.
- b) Please provide the derivation of the avoided costs that Enbridge has used in screening and evaluating its DSM programs for each year since 2003.
- c) Please provide all workpapers and the derivation of all inputs supporting the avoided costs in EB-2012-0394, Exhibit B, Tab 2, Schedule 2, page 7.
- d) Please explain how the Company has reflected the difference in load shape in the avoided costs applied to various end uses, including space heating, water heating, and industrial load.
- e) Please explain how the Company estimates avoided costs of local transmission and distribution equipment due to DSM.
- f) Please provide an electronic copy of the spreadsheet(s) used by the Company to conduct the TRC cost-effectiveness screening for its 2013-2014 DSM Plan (e.g. to produce the results reported in EB-2012-0394, Exh. B, T2, S3, pp. 2-3).

RESPONSE

- a) Please refer to the following Ontario Energy Board (OEB) case numbers which provide the avoided costs and the derivation of the avoided costs that the Company has used in screening and evaluating its DSM programs for each year since 2003.

RP-2002-0133 Exhibit A7, Tab 3, Schedule 4;  
RP-2003-0048 Exhibit A, Tab 8 Schedule 4;  
RP-2003-0203 Exhibit A7, Tab 2, Schedule 3;

Witnesses: F. Oliver-Glasford  
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EB-2005-0001 Exhibit A7, Tab 5, Schedule 1;  
 EB-2006-0021 Exhibit A, Tab 9, Schedule 1;  
 EB-2009-0154 Exhibit B, Tab 3, Schedule 6;  
 EB-2009-0341 Exhibit B, Tab 6, Schedule 1;  
 EB-2011-0295 Exhibit B, Tab 2, Schedule 2;  
 EB-2012-0394 Exhibit B, Tab 2, Schedule 2

- b) Please see answer to part a) above.
- c) Please refer to Tables 1 and 2 below for the commodity price forecast and the contracts and associated costs used to derive the avoided gas costs in EB-2012-0394, Exhibit B, Tab 2, Schedule 2, page 7.

Table 1										
Natural Gas Price Forecast (\$CAN / 103m3) - 2012 DSM Avoided Gas Costs										
Price Point	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NYMEX	147.04	159.36	167.51	179.07	195.04	211.64	228.88	242.54	261.05	261.05
Empress	111.68	124.00	132.15	143.71	159.68	176.28	193.52	207.18	261.05	261.05
Chicago	150.46	162.87	171.03	182.65	198.74	215.45	232.77	246.42	264.97	264.97
Dawn	159.46	171.63	179.41	190.71	206.55	223.38	240.78	254.31	272.80	272.80
AECO	132.77	144.22	151.93	162.77	177.48	193.01	209.20	222.17	239.65	239.65
Alliance	127.17	138.62	146.33	157.17	171.88	187.41	203.60	216.57	234.05	234.05

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Table 2				
Summary of First Year (2012) Transportation, Storage and Peaking Inputs				
	Col 1	Col 2	Col 3	Col 4
		Contract Volume (103M3/Day)	Demand Charges (\$CAN/103M3/Month)	Commodity Charges (\$CAN/103M3)
A	Transportation			
	<u>TransCanada</u>			
	FT - CDA	1,684	2406.45	5.42
	FT - EDA	5,238	2406.45	5.42
	STS to CDA	7,532	63.97	0.01
	STS to EDA	2,139	182.62	0.29
	FT Dawn to CDA	3,975	282.42	0.51
	FT Dawn to EDA	3,025	585.14	1.22
	FT Parkway to CDA	2,270	118.54	0.13
	<u>Vector</u>			
	Tranche 1 & 2	4,899	277.07	
	Other Capacity*	2,799	NA	
	<u>Alliance</u>	2,125	1558.39	
	<u>Union</u>			
	M12 Easterly Dawn to Parkway	57,156	88.27	
	M12 Easterly Dawn to Kirkwall	1,881	74.51	
	M12 Westerly	11,568	20.64	
			Storage Space (103M3)	Storage Cost (CAN\$/Month)
B	Leased Storage		594,990	331,953
			Demand Charges (\$CAN/Month)	Commodity Charges (\$CAN/103M3)
C	Peaking Service			
	CDA			
	Maximum		106,121	243.41
	Minimum		100,000	229.38
	EDA			
	Maximum		66,326	314.92
	Minimum		62,500	296.75
	* Other Capacity is acquired in the secondary market and as such the demand charge associated with it cannot be made public.			

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- d) For developing the various load shapes used to derive the avoided gas costs for space heating, water heating and industrial process, the Company uses the methodology filed in EBRO 490 (Exhibit D2, Tab 6, Schedule 1, Pages IV-25 to 45), and approved by the OEB in its EBRO 490 – Partial Decision dated August 29, 1995. The space heating profile was developed based on load research studies, which showed that space heating consumption was a function of heating degree days. Accordingly, the space heating load savings are realized predominantly in the winter months, especially the core winter months. Water heating load savings profile was developed based on samples of actual water heating usage by residential customers. The load savings profile for water heating is different than the space heating profile in that it is realized throughout the year emulating water heating consumption. The load profile for industrial process was developed from actual daily firm loads for the industrial customers. These savings, therefore, are different from the profiles of space heating and water heating. Industrial process savings profile is also realized throughout the year, emulating industrial usage of natural gas.
- e) The avoided gas costs provided in EB-2012-0394, Exhibit B, Tab 2, Schedule 2, page 7 reflect gas commodity prices, upstream long-haul and short-haul transportation costs and storage costs. They do not include local transmission and distribution equipment costs.
- f) The TRC cost-effectiveness screening spreadsheets will be provided under cover of a confidentiality agreement to the Audit Committees established for the years 2013 and 2014 during the course of the normal audit process and timelines.

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