

January 9, 2015

BY RESS & Courier

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

Dear Ms. Walli:

**Re: Union Gas Limited (“Union”)
Sarnia Expansion Pipeline Project
Board File # EB-2014-0333**

Further to the interrogatories received in the above noted matter, please find attached two copies of Union’s responses.

Sincerely,

[original signed by]

Shelley Bechard
Administrative Analyst, Regulatory Projects

Encl.

cc: Pascale Duguay, Manager Facilities Applications
Zora Crnojacki, Chair (OPCC)
Sonia Mah, Nova Chemicals, Manager, Regulatory Affairs
Tom Lacey, Nova Chemicals, Energy Manager

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

1. Ref:Section 1 / Page 3. Line 14

Preamble:

Union Gas Limited ("Union") has noted in its application that it has or will obtain all necessary land rights prior to construction.

Question:

- a. Please provide any updates to the land rights acquisition since filing of the application.
- b. Please describe the prospects of acquiring all of the permanent and temporary land rights in time to adhere to the planned construction schedule for the pipeline.

Response:

- a. Union has closed on the Purchase and Sale of land adjacent to Union's existing Novacor Corunna Station and has a signed easement agreement with Nova Chemicals (Canada) Ltd. The easement agreement with Moore Solar has been finalized with the only outstanding item being the amount of compensation.
- b. Union is confident that it will reach an agreement with all of the directly affected landowners for the required permanent and temporary land rights prior to the planned construction schedule.

2. Ref: Section 3 /Page 1. Lines 11-13

Preamble:

Union noted that it does not have sufficient capacity available on the Sarnia Industrial Line ("SIL") System to meet the recent requests for incremental firm T2 Storage and Transportation Carriage Service.

Question:

Does Union have sufficient capacity available on the existing SIL System to meet the projected demand excluding the recent requests for the incremental firm T2 Storage and Transportation Carriage Service?

Response:

No. As stated in Section 5, Page 4, Line 18, the SIL is currently at capacity.

3. Ref: Section 3 / Page 6. Lines 14-20

Preamble:

Union noted that NOVA and Shell Canada have requested new firm T2 Storage and Transportation Carriage Service totaling 53,300 GJ/d. According to Union these new service requests increases design day demand beyond existing capacity, therefore is requiring an immediate expansion of the SIL System. Union also noted expansion facilities designed for the SIL System will also need to consider the estimated incremental T2 Storage and Transportation Carriage/Service demand of nearly 70,000 GJ/d that is expected to be requested between 2015 and 2019. Board staff notes that the total increase in capacity expected is 123,300 GJ/d.

Question:

Please provide a breakdown of the 70,000 GJ/d Union allocates between forecasted load growth and what Union determines to be for security of supply.

Response:

The Proposed Pipeline provides approximately 120 TJ/d of capacity to serve firm load growth on the SIL System and the remaining capacity provides security of supply for firm demand in the event that natural gas cannot be sourced through the third party interconnecting pipelines (i.e. TransCanada/GLGT, Vector Pipeline, MichCon and BGS).

All of the 70,000 GJ/d is forecasted firm load growth on the SIL System.

4. Ref: Section 5 / Pages 8 – 10 and Section 6 / Pages 1 – 2

Preamble:

Union noted that the proposed facilities were assessed against facility alternatives, commercial alternatives and a combination of both. Union noted that facility alternatives are physical solutions involving the construction of additional pipeline and/or station infrastructure to increase capacity from existing or new supply sources. Commercial alternatives provide incremental supply from the four third-party interconnecting pipeline systems through firm transportation or exchange service contracts. Union considered three alternatives:

- 1) Incremental Supply at Courtright and SIL System Capacity Expansion;
- 2) Incremental Supply from Other Third-Party Interconnecting Pipelines and, where required, SIL System Capacity Expansion; and
- 3) Incremental Supply from Union's Existing Facilities.

Union also provided a Discounted Cash Flow ("DCF") analysis and Profitability Index ("PI") for the proposed alternative.

Questions:

- a. Please provide for each alternative, all applicable, total estimated pipeline capital costs; total estimated station capital costs; and/or total estimated contract for transportation of supply costs.
- b. Please provide DFC and PI analyses for the other two alternatives not selected.

Response:

- a) Please see below

1. Incremental Supply at Courtright and SIL System Capacity Expansion	
TransCanada/GLGT	In this alternative, Union would supply the 120 TJ/d of growth from Dawn, contract for transportation to Courtright and construct necessary facilities in its franchise to move the gas to the SIL market. Union estimates the annual cost of transportation services from Dawn to Courtright on the TransCanada/GLGT system to serve 120 TJ/d of SIL System growth to be a minimum of \$2.7 million annually. Union estimates the cost of facilities required within Union's in-franchise system to transport the additional 120 TJ/d to the Sarnia market to be \$38.4 million. This alternative does not provide any security of supply (see response to Interrogatory #3) to the SIL System. In order to provide that security of supply, Union would require additional facilities connected to Union's storage and transportation system or would require significant incremental transportation services.
Vector	In this alternative, Union would supply the 120 TJ/d of growth from Dawn, contract for transportation to Courtright and construct necessary facilities in its franchise to move the gas to the SIL market. Union estimates the annual cost of transportation services from Dawn to Courtright on the Vector system to serve 120 TJ/d of SIL System growth to be a minimum of \$2.7 million annually. Union estimates the cost of facilities required within Union's in-franchise system to transport the additional 120 TJ/d to the Sarnia market to be \$38.4 million. This alternative does not provide any security of supply (see response to Interrogatory #3) to the SIL System. In order to provide that security of supply, Union would require additional facilities connected to Union's storage and transportation system or would require significant incremental transportation services.
2. Incremental Supply from Other Third Party Interconnecting Pipelines and where required, SIL System Capacity Expansion	
MichCon	In this alternative, Union would supply the 120 TJ/d of growth through the MichCon system, contract for transportation and construct necessary facilities in its franchise to move the gas to the SIL market. Union estimates the annual cost of transportation services from the MichCon system to the SIL System to serve 120 TJ/d of growth to be a minimum of \$2.9 million annually. Union estimates the cost of facilities required within Union's in-franchise system to transport the additional 120 TJ/d to the Sarnia market to be \$40.4 million. This alternative does not provide any security of supply (see response to Interrogatory #3) to the SIL System. In order to provide that security of supply Union would require additional facilities connected to Union's storage and transportation system or would require significant incremental transportation services.
BGS	In this alternative, Union would supply the 120 TJ/d of growth through the BGS system, contract for transportation and construct necessary facilities in its franchise to move the gas within the SIL market. In order to transport natural gas on the BGS system, a shipper must contract storage services with BGS. Based solely on transportation costs, Union estimates that the cost to serve 120 TJ/d of incremental growth on the SIL System would be approximately \$2.5 million annually. Union understands that BGS may only be able to accommodate an incremental 120 TJ/d through its connection to the Sarnia market on an interruptible basis. This is not consistent with gas supply planning principles and would increase Union's requirement for security of supply to the Sarnia

	market. Union estimates the cost of facilities required within Union's in-franchise system to transport the additional 120 TJ/d to the Sarnia market to be \$7.1 million. This alternative does not provide any security of supply (see response to Interrogatory #3) to the SIL System. In order to provide that security of supply, Union would require additional facilities connected to Union's storage and transportation system or would require significant incremental transportation services.
3. Incremental Supply from Union's Existing Facilities	
New Pipeline to connect Union's Bluewater and Maundamin Pools with the SIL System	Union estimates the cost of facilities required to provide security of supply and to transport 120 TJ/d of incremental supply to the Sarnia market to be \$120 million.
New Pipeline to connect Dawn with the SIL System	Union estimates the cost of facilities required to provide security of supply and to transport 120 TJ/d of incremental supply to the Sarnia market to be \$95 million.

Notes:

Estimates (excluding proposed project) are at a magnitude quality level

b) Please see below.

The NPV and PI for the growth component of the alternatives not selected are:

		NPV	PI
1.	Incremental Supply at Courtright from TransCanada	-\$46.7 Million	-0.22
	Incremental supply at Courtright from Vector	-\$46.7 Million	-0.22
2.	Incremental supply from Michcon	-\$49.7 Million	-0.23
	Incremental supply from BGS	-\$17.4 Million	-1.46

Notes:

1. As discussed in a) above, these alternatives continue to rely on supply delivered through third party interconnecting pipelines and do not address security of supply which will entail significant further costs decreasing the NPV.
2. The cost of any required storage services on the BGS system are also not included in the NPV and PI calculations.

5. Ref: Exhibit A / Tab 3 / Page 3

Preamble:

Union applied for a Board order for leave to construct facilities under section 90 of the OEB Act.

Question:

Please comment on the attached Board staff proposed draft conditions of approval and for section 91 order. Please note that these conditions are standard conditions and are a draft version subject to additions or changes

Response:

Union can accept all of the proposed conditions of approval.