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August 29, 2016

*VIA ELECTRONIC FILING*

**Attention: Kirsten Walli, Board Secretary**

Ontario Energy Board

2300 Yonge Street

27<sup>th</sup> Floor

Toronto, ON M4P 1E4

Dear Madam Secretary:

**RE: Union Gas Ltd. – Panhandle Reinforcement Project – OEB File No. EB-2016-0186  
CAEPLA-PLC Interrogatories to Union Gas Ltd.  
Our File No. 18162**

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We are the lawyers for CAEPLA-PLC in this proceeding. Please find enclosed for filing with the Board the interrogatories of CAEPLA-PLC directed to the Applicant, Union Gas Limited. Please also find enclosed an updated version of the Schedule "A" list of properties owned by PLC members, reflecting the increase in membership of PLC since the time of our request for intervenor status.

We trust this is satisfactory. Should you require any further information, please do not hesitate to email or call me.

Yours truly,

SCOTT PETRIE LLP  
LAW FIRM



**John D. Goudy**

Encl.

c.c.: Karen Hockin, Union Gas Limited  
Charles Keizer, Torys LLP

## ONTARIO ENERGY BOARD

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B, and in particular, S.90(1) thereof;

**AND IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B, and in particular, S.36 thereof;

**AND IN THE MATTER OF** an Application by Union Gas Limited for an Order or Orders granting leave to construct natural gas pipelines and ancillary facilities in the Township of Dawn Euphemia, Township of St. Clair and the Municipality of Chatham-Kent;

**AND IN THE MATTER OF** an Application by Union Gas Limited for an Order or Orders for approval of recovery of the cost consequences of all facilities associated with the development of the proposed Panhandle Reinforcement Pipeline Project.

## CAEPLA-PLC INTERROGATORIES TO UNION GAS LIMITED

August 29, 2016

**1.1 References:** Union Application, Exhibit A, Tab 3, page 7 of 14

**Preamble:** **Anticipated Useful Life of Project**

Union states that:

*The uncertainty created by Cap and Trade and the CCAP has driven the need for Union to calculate the revenue requirement and resulting rate impacts based on an estimated 20-year useful life of the Project assets rather than the weighted average useful life of approximately 50 years based on Board-approved depreciation rates. Depreciating the asset over a 20-year useful life better aligns the cost with the timing of the reported restrictions and potential elimination of natural gas heating in homes and businesses.*

**Request:**

- a) Considering that Union will be depreciating the project over 20 years, how is this short life span of the project reflected in the proposed easement agreement from a pipeline abandonment perspective and how is it reflected in existing easement agreements on which Union proposes to rely for this project?
- b) Will tolls be set to reflect collection of funds to cover the costs of the abandonment (negative salvage value) due to the truncated 20 year depreciated lifespan of the pipeline and for remediation after the pipeline is removed?

- c) Will funds be collected aggressively and have negative salvage values been considered in the tolling values?
- d) As the provincial government moves aggressively towards renewable energy sources, is Union Gas taking these aggressive cost recovery tolling practices into consideration to protect landowners?

- 1.2 References:** Union Application, Exhibit A, Tab 3, page 12 of 14  
Union Application, Exhibit A, Tab 6, page 4 of 15  
Union Application, Exhibit A, Tab 11, page 1 of 4  
CAEPLA-PLC Schedule “A” Property Listing updated as at August 29, 2016

**Preamble:** **Permanent Easements and TLU Rights Required**

Union describes the land requirements for the Project as:

*The permanent and temporary land rights necessary for the construction of the Proposed Pipeline will be acquired from individual landowners. The majority of the Proposed Pipeline will be constructed within Union’s existing easement. Union will only require approximately 1 kilometre in total of new permanent easement (multiple short sections for road and water crossing locations, etc) for the Proposed Pipeline. Union will require approximately 309 acres of temporary land use (“TLU”) for construction and top soil storage purposes. Union has initiated meetings with the landowners from whom either permanent easements or TLU rights are required and will continue to meet with those landowners to acquire options for all the necessary lands.*

Union also states:

*As stated at Exhibit A, Tab 9, Union is proposing to remove the existing NPS 16 pipeline and replace it with a new NPS 36 pipeline within the boundaries of its current easement. The current easement for the NPS 16 pipeline does not restrict the diameter of the pipeline which can be constructed. Union will not be required to obtain a new easement for the construction of the majority of the new NPS 36 pipeline.*

- Request:** For each property owned by a CAEPLA-PLC member (as set out in the updated Schedule “A” property listing submitted to the OEB along with these interrogatories), please provide a copy of the easement agreement(s) or other document pursuant to which Union has constructed the existing NPS 16 pipeline and/or pursuant to which Union proposes to construct the replacement NPS 36 pipeline.

- 1.3 References:** Union Application, Exhibit A, Tab 9, page 4 of 10, Figure 9-2  
Stantec Environmental Report, Section 2.6, page 24 of 351

**Preamble:** **Pipeline Wall Thickness**

Union states:

*Union anticipates sourcing two separate wall thickness and a single grade to meet the varying design conditions listed above. Pipe with a location factor of 0.9 and above uses 9.6 mm wall thickness and a specified minimum grade of 483 MPa. Pipe with a location factor of 0.625 uses 13.5 mm wall thickness and a specified minimum grade of 483 MPa.*

Stantec states:

*In southern Ontario, it is not uncommon for residential homes to be located adjacent to natural gas transmission corridors. The proposed pipeline will be designed to meet or exceed all safety regulations and codes. In addition, Union Gas has a rigorous safety and integrity program so that the pipeline is constructed and maintained to operate safely.*

- Request:**
- a) Which thickness of pipe provides better protection for farmers and landowners conduct agricultural and other activities over the proposed pipeline – 9.6 mm or 13.5 mm? Please explain.
  - b) Which thickness of pipe provides better protection for residents of residential homes adjacent to the pipeline route – 9.6 mm or 13.5 mm? Please explain.
  - c) What would be the incremental increases in the cost of the project (broken down into materials and other costs) if 13.5 mm pipe was used for the entire project?

**1.4 References:** Union Application, Exhibit A, Tab 9, page 5 of 10

**Preamble:** **Pipeline Depth of Cover**

Union states:

*Minimum depth of cover required will be 1.0 metre from top of pipe to final grade. Where required additional cover, will be, used to accommodate planned or existing underground facilities, roads, railway and watercourse crossings. In agricultural areas the minimum depth of cover will be 1.2 metres, except where bedrock is encountered at a depth less than 1.2 metres, in which case the pipe will be installed with the same cover as the bedrock, but not less than 1.0 metres below grade.*

**Request:**

- a) Please provide a copy of Union Gas Limited's depth of cover monitoring program documents.
- b) What is the depth of cover monitoring program proposed for the proposed pipeline?
- c) What is the minimum depth of cover that will be maintained by Union Gas Limited over the proposed pipeline following construction (i.e. during operation)?

**1.5 References:** Union Application, Exhibit A, Tab 10, page 3 of 4

**Preamble:** **Agricultural Land Impact Mitigation**

Union lists measures to be implemented to minimize impacts to soil and agricultural land along the pipeline route:

- Union's wet soil shut down practice
- Topsoil stripping
- Maintaining proper separation between subsoil and topsoil
- A pre tiling program to maintain and redirect drainage tile around the easement prior to the initiation of construction on tiled agricultural lands
- Flagging and repairing broken tiles
- Retaining a qualified soils expert/inspector
- Union's post construction cover crop program

On past projects, Union Gas Limited has made formal construction methodology agreements with landowners in the form of a Letter of Understanding.

- Request:**
- a) Please provide a copy of Union Gas Limited's Letter of Understanding or similar landowner construction agreement proposed for this project.
  - b) If no agreement is proposed, please explain why not.



- 1.6 References:** Union Application, Exhibit A, Tab 10, page 3-4 of 4  
Stantec Environmental Report, Section 3.3.5, page 37 of 351
- Preamble:** **Soy Bean Cyst Nematode (“SCN”)**
- Union states:
- Union will sample agricultural soils along the pipeline route and any soils imported to the easement lands for the presence of SCN. Sampling is proposed to take place in summer/fall 2016. In the event that sampling indicates the presence of SCN, Union’s SCN management practices will be implemented on any impacted lands.*
- Stantec states:
- A pre-construction soil sampling program for SCN should be implemented for agricultural fields, subject to landowner approval. Field surveys should be done when field conditions are dry. The pre-construction soil sampling would include the collection of one composite sample from each field. A composite sample consists of approximately 0.5 kilogram total from 10-15 sub-samples of topsoil collected systematically, for the length of each field along the easement. The subsamples should be collected to a depth of 15-20 cm with a narrow shovel, trowel or soil probe. The composite sample collected from each field should be sent to a laboratory capable of testing.*
- If SCN affected areas are discovered, a plan should be undertaken which will outline mitigation measures such as the use of machine washing stations.*
- Any imported topsoil should have a composite sample analyzed for SCN before it is placed on the easement.*
- Request:**
- Please provide Union Gas Limited’s plan for dealing with soybean cyst nematode.
  - What is Union Gas Limited’s plan for the control and containment of other weed and/or disease infestations encountered during construction and operation of the proposed pipeline?
  - Was any soybean cyst nematode identified in the previous constructions along this corridor? Please provide details and copies of any reports or studies prepared.
  - What is Union Gas Limited’s experience with the transfer of soybean cyst nematode and other weed and/or disease infestations from property to property during construction or as a result of construction? Please provide details.
  - Please provide details of any landowner complaints received with respect to soybean cyst nematode, weeds or diseases along this corridor. How were these resolved?

- 1.7 References:** Union Application, Exhibit A, Tab 10, page 4 of 4  
Stantec Environmental Report, Section 3.3.3, page 31 of 351
- Preamble:** **Ground Water and Private Water Wells**
- Union states:
- Union will retain a qualified hydrogeologist to review the existing groundwater conditions along the pipeline route and inventory the existing wells. The hydrogeologist will then develop and implement a program for monitoring all wells that could be affected by construction. Union will also follow the recommendations pertaining to ground water as outlined in the ER and environmental permits.*
- Stantec states:
- There are approximately 104 water supply wells within 500 m of the proposed pipeline route, 61 of which are domestic. The majority of these private domestic supply wells are greater than 100 m from the proposed pipeline route, with only 6 WWR mapped within a 100 m radius. Trench dewatering and sand-pointing has the possibility of negatively affecting water well quality and quantity depending on the location and condition of the wells.*
- Request:** Please provide details of Union's well monitoring program.

- 1.8 References:** Union Application, Exhibit A, Tab 11, page 2 of 4  
Union Application, Exhibit A, Tab 11, Schedule 3

**Preamble:** **Form of Easement and TLU**

Union states:

*For those landowners from whom a new permanent easement will be required for the Proposed Pipeline, Union's Form of Easement is attached at Exhibit A, Tab 11, Schedule 3. This agreement covers the installation, operation, and maintenance of one pipeline. This form of easement has been amended from the form of easement previously approved by the Board in EB-2014-0261 to include the amendments to CSA Z662-15 with respect to the prohibition of storage of flammable material, solid or liquid spoil, refuse waste or effluent on the easement.*

*The TLU agreements are in the form used by Union in the past on similar 1 pipeline projects. These agreements are usually for a period of two years, beginning in the year of construction. This allows Union an opportunity to return in the year following construction to perform further clean-up work as required.*

**Request:** Please provide a copy of Union's form of TLU agreement.

**1.9 References:** Union Application, Exhibit A, Tab 11, page 4 of 4

**Preamble:** **Clean-up Acknowledgement Form**

Union states:

*When clean-up is completed, the landowner will be asked by a Union representative to sign a Clean-up Acknowledgement Form if satisfied with the clean-up. This form, when signed, releases the contractor allowing payment for the clean-up on the property. This form in no way releases Union from its obligation for tile repairs, compensation for damages and/or further clean-up as required due to erosion or subsidence directly related to pipeline construction.*

**Request:** Please provide a copy of Union's Clean-up Acknowledgement Form.

**1.10 References:** Stantec Environmental Report, page 2 of 351

**Preamble:** **Preparation of Environmental Report**

Stantec's Environmental Report was prepared by Mark Iamarino and reviewed by Mark Knight and David Wesenger.

**Request:** Please provide copies of the most recent resumes or CVs for Mr. Iamarino, Mr. Knight, and Mr. Wesenger.

**1.11 References:** Stantec Environmental Report, Section 3.3.5, page 36 of 351

**Preamble:** **Wet Soil Shutdown**

Stantec states:

*To the extent feasible, construction activities should occur during drier times of the year. Lands affected by heavy rainfall events should be monitored for wet soil conditions, to avoid the potential for topsoil and subsoil mixing. Construction activities should be temporarily halted on lands where excessively wet soil conditions are encountered, as per Union Gas's standard wet soils shutdown practice. Union Gas's on-site inspection team should determine when construction activities may be resumed.*

*If a situation develops that necessitates construction during wet soil conditions, soil protection measures should be implemented, such as confining construction activity to the narrowest area practical, installing surface protection measures, and using wide tracked or low ground pressure vehicles.*

**Request:** Please provide a copy of Union Gas Limited's standard wet soils shutdown practice.

**1.12 References:** *OEB Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7<sup>th</sup> Edition 2016, Section 5.12, page 63, Restoration Plans*

**Preamble:** The *Guidelines* include the following with respect to the rehabilitation of the easement post-construction:

“The landowner must be consulted and any reasonable request regarding rehabilitation of the easement complied with. Planting of soil-building cover crops should be considered. ... It is recommended that a professional agronomist/agrologist be retained to review the proposed restoration technique and its application with the contractor and the landowner, in order to ensure that optimal results are achieved.”

**Request:**

- a) Has Union Gas retained a professional agronomist and/or agrologist for this project?
- b) If so, please provide his or her most recent resume or CV.
- c) If not, when will a professional agronomist and/or agrologist be retained by Union Gas for this project, and in what capacity?

- 1.13 References:** Stantec Environmental Report, Section 4.0, pages 105 of 351 et ff.  
*OEB Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7<sup>th</sup> Edition 2016*, Section 4.3.14, pages 44 et ff., Cumulative Effects  
*OEB Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7<sup>th</sup> Edition 2016*, Section 6.2.2, page 68, Monitoring Reports  
Stantec Environmental Report, Exhibit A, Tab 10, Schedule 1, page 218 of 351 – Information Session Questionnaire

**Preamble: Cumulative Effects Assessment**

The Stantec EA Report does not appear to include consideration of adjacent pipelines and pipeline easements in its analysis of cumulative effects.

During consultation for the project, Union received comments from at least one landowner concerning damage to soil caused by previous construction on the landowner's property.

The *OEB Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7<sup>th</sup> Edition 2016* include the following guidelines with respect to the assessment of cumulative effects:

Page 43 et ff.: "Cumulative impacts may result from pipeline projects which loop existing systems and should be addressed. This may include an examination of areas of known soil erosion, soil compaction or soil productivity problems. It may mean the examination of impacts associated with continued loss of hedgerows and woodlots in the same area. As well, it could mean the increased loss of enjoyment of property because of disruptions caused by the construction of successive pipelines on a landowner's property. There may also be heightened sensitivities as a result of improper or ineffective practices and mitigation measures in the past."

"Cumulative effects, when identified as part of the assessment process, should be integrated in the appropriate section of the ER (e.g. soil impacts)."

"The following is a list that encompasses some of the cumulative effects of pipeline construction:

- (a) Incremental increase of easement width when adding new parallel pipelines to reinforce the systems;
- (b) Additive effects of vegetation removal including riparian vegetation, forest cover, agricultural crops;
- (c) Repetitive disturbance of soils including soil compaction, drainage systems damages, loss of soil fertility, crop yield reduction;
- (d) Streams and groundwater degradation and effects on water wells;



- (e) Residual effects caused by the removal of forest edge and interior, such as reduced species diversity and other habitat alterations.”

Page 66: “The Final Monitoring Report should address any potential cumulative effects which may arise for pipelines, these may include for example, reduced soil productivity over easements which overlap, land-use restrictions due to increased easement widths or additional above ground facilities and/or the repeated construction through sensitive areas.”

**Request:**

- a) Please provide a detailed chronology of pipeline development on the properties affected including: dates of construction, widths of individual easements obtained or acquired, total width of corridor, projected economic life of each pipeline.
- b) Please provide copies of interim and final monitoring reports for the pipelines in the corridor.
- c) Please provide details of damage caused to soils within the corridor and of crop loss suffered within the corridor in connection with previous Union Gas Pipeline construction projects and operations.
- d) What is Union Gas Limited doing to investigate and remediate residual damage from past projects within the corridor?
- e) Has Union Gas studied crop yield effects from previous pipeline constructions in the corridor, including on the lands to be affected by the new construction? Please provide any reports, data, results, conclusions, analyses, etc. in connection with such study.

**SCHEDULE "A"**

**AFFECTED PROPERTIES OWNED BY CAEPLA-PLC MEMBERS**

	<b><u>Union #</u></b>	<b><u>PIN</u></b>		<b><u>Union #</u></b>	<b><u>PIN</u></b>
1.	P31	PIN: 007690229 LT	38.	P103	PIN: 433870109 LT
2.	P39a	PIN: 007700017 LT	39.	P104	PIN: 433870111 LT
3.	P40	PIN: 007700084 LT	40.	P105	PIN: 433870108 LT
4.	P41	PIN: 007700085 LT	41.	P106	PIN: 433870123 LT
5.	P42	PIN: 007700184 LT	42.	P107	PIN: 433870080 LT
6.	P48	PIN: 007680006 LT	43.	P108	PIN: 433870078 LT
7.	P49	PIN: 007680009 LT	44.	P109	PIN: 433870079 LT
8.	P52	PIN: 007680017 LT	45.	P110	PIN: 433880095 LT
9.	P59	PIN: 007530024 LT	46.	P111	PIN: 433880097 LT
10.	P61	PIN: 007560007 LT	47.	P112	PIN: 433880071 LT
11.	P62	PIN: 007560067 LT	48.	P114	PIN: 433880068 LT
12.	P63	PIN: 007560009 LT	49.	P117	PIN: 433880065 LT
13.	P64	PIN: 007560010 LT	50.	P122	PIN: 433850066 LT
14.	P66	PIN: 007560048 LT			
15.	P67	PIN: 007560053 LT			
16.	P69	PIN: 007560050 LT			
17.	P71	PIN: 007560060 LT			
18.	P72	PIN: 007560020 LT			
19.	P73	PIN: 007570007 LT			
20.	P74	PIN: 007570036 LT			
21.	P75	PIN: 007570039 LT			
22.	P78	PIN: 007570043 LT			
23.	P79	PIN: 007570046 LT			
24.	P81	PIN: 007570044 LT			
25.	P84	PIN: 007570055 LT			
26.	P85	PIN: 007570056 LT			
27.	P86	PIN: 005920021 LT			
28.	P87	PIN: 005920024 LT			
29.	P88	PIN: 005920081 LT			
30.	P89	PIN: 005940018 LT			
31.	P91	PIN: 005940104 LT			
32.	P92	PIN: 005940103 LT			
33.	P94	PIN: 005940106 LT			
34.	P95	PIN: 005940102 R			
35.	P96	PIN: 005950008 LT			
36.	P98	PIN: 005950043 LT			
37.	P99	PIN: 005950027 LT			

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