ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, Attachment 7

Preamble: Energy Probe would like to understand why the Certificate and Resolution of the Board of Directors was framed under OEB's Policies and Guidelines for Amalgamation of Electricity Distributors rather than Section 43(1) of the Act.

Question:
a). Please provide the relevant briefing notes about the relevant OEB statutory and regulatory framework, provided to the Board of Directors.
b). What specific advice did management and legal staff provide the Board that an application under Section 43(1) of the OEB Act was or was not sufficient. Please summarize this advice.
c). Why did management frame the Resolution and subsequent Application under the MAADS Policy and Guidelines for Electricity distributors?
d). Was the provision for a deferred rebasing period for rates under the MAADS Policy Guidelines the major reason for the framing of the Resolution and Application? Please confirm/discuss
e). Please provide any correspondence the utilities had with the Board or Board Staff before the application was formally submitted.

Response

a-d) Please see the response to FRPO Interrogatory #1 found at Exhibit C.FRPO.1 for the board of director materials. These materials referred to the MAADs policies and guidelines because the Applicants framed the Applications pursuant to such policies and guidelines.

e) Please see the response LPMA Interrogatory #1 found at Exhibit C.LPMA.1.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 13, Table 2

Question: Please provide the comparison of O&M per customer table, but break Union down in to Union South and Union North.

Response

Union does not record or allocate O&M expenses between Union North and Union South on an actual basis. The split of O&M costs between Union North and Union South is only determined on a forecast basis through the cost allocation study for a cost of service application.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Reference: Exhibit B, Tab 1, Pages 19-21

Preamble: In the reference, the Applicants evidence address price, reliability and quality of gas service and financial viability.

Question:
The Applicants have expanded their proposed Issues list to include the other objectives for natural gas

3. To facilitate rational expansion of transmission and distribution systems.
4. To facilitate rational development and 1 safe operation of gas storage.

Please file the evidence related to these objects including and how this relates to the applicants proposed "no harm test"

Response

Please see the response to CCC Interrogatory #2(a) found at Exhibit C.CCC.2.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, pages 14 and 27

Preamble: Union recently invested $17 million to renovate its Bloomfield Road facility into a new Information Technology Centre,

Question:

a) Please provide a recap of the recent experience the two utilities have had regarding the budget and schedule of recent IT capital projects.
b) Since 2013, please provide the initial cost estimate and final in-service amount for all IT projects over $10 million.
c) Since 2013, please provide the initial forecasted timeline and final in-service date for all IT projects over $10 million.

Response

a-c) The renovation of the Information Technology Centre was not an IT capital project. It was a building renovation project.

In the Applicants' experience, large IT capital projects can cost more and take longer to complete than estimated before they start. For example:

- At Union the ConTrax Modernization project was initially estimated to cost $50 million and be fully implemented (there are three phases) in July, 2017, a total of 48 months from pre-design. The current estimate is that the project will cost $63 million and be fully implemented in February 2019 (a total of 67 months from pre-design).
- The WAMS project at EGD was initially estimated to cost $68 million and be implemented in December 2015. The final cost was $92 million and the project was implemented in October 2016.
- Union's EAMagine project was initially estimated to cost $18 million. Actual capital costs were $14 million. It was implemented in March 2015, two months later than planned.

The Applicants are proposing to fund IT capital projects and manage capital cost variances within the framework proposed in this proceeding.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, Attachment 12

Preamble: This exhibit shows integration costs and savings in Capital and O&M. Energy Probe would like to understand the baseline 2018 costs for each utility and the and outlook in the following O&M Cost categories:

Question:
Corporate Services

a). How much does Union pay to Enbridge Inc (directly or indirectly) in 2018? How will that change in 2019, 2020 and 2021

b). How much does EGD pay to Enbridge Inc in 2018? Please provide both the RCAM and total amounts. How will that change in 2019, 2020 and 2021?

Shared Services

c). Have the applicants prepared an affiliate shared services agreement for 2019? If so please file a copy.

d). Please provide a copy of the plan for shared services. Include the basis for the $4 million capital in 2019 and the savings in 2020.

e). Have Enbridge and Union applied to the Regie d'Energie for approval of the change in ownership and changes to the affiliate relationships and shared services arrangements with Gazifere? If so please provide a Copy of that Application.

f). If not, please indicate when this will be filed and undertake to provide a copy for this proceeding.

Response

a) As per Union's 2018 Budget, net affiliate expenses (including Enbridge Inc.) are $6.7 million.

b) The amount EGD is being charged (CAM) by other affiliates (including Enbridge Inc.) is $60.3 million in 2018.

The amount EGD is being charged (RCAM) by other affiliates (including Enbridge Inc.) is $58.4 million in 2018.

c) The Applicants have not prepared intercorporate services agreements for 2019, only for the current period to the end of 2018.

d) Please see the response to BOMA Interrogatory #16(d) part (i) found at Exhibit C.BOMA.16

e- f) There is no need for the Applicants or Gazifère to apply to the Regie for approvals related to the Applications. EGD does not own Gazifère. EGD is a sister company of Gazifère and intends to continue to provide certain intercorporate services to Gazifère post-amalgamation as Amalco.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, Attachment 12 Storage and Transmission

Preamble: The OEB Objectives for Natural Gas include Rational Development of Storage and Transmission. Energy Probe would like to understand how the amalgamation will achieve this objective starting in 2019.:

Question:

a). Please indicate the basis of the capital investment of $8 million.

b). Please indicate why only $3 million in O&M savings are projected 2019-2021.

c). Confirm the approved 2018 Peak Day Storage In-franchise requirements and the total storage capacity contracted for each utility. Provide References.

d). How much of this is contracted with Union in 2019?

Please confirm the following:

e). Union has ~3Pj of cost based storage not required in-franchise in 2019

f). How much more storage Enbridge needs to meet 2019 in-franchise peak day requirements.

g). What is the plan to rationalize the total storage of the two utilities starting in 2019? How will this affect Load Balancing costs/rates for customers for example residential customers in each franchise?

Response

a) Please see the response to BOMA Interrogatory #16(d) part (i) found at Exhibit C.BOMA.16.

b) Please see the response to Board Staff Interrogatory #6 (a -b) found at Exhibit C.STAFF.6.

c) As of April 1, 2018, EGD will have contracted 26.4 PJ of storage capacity from third parties. See Table 1[1] for a summary of maximum withdrawal and injection deliverability from both the EGD regulated storage and third party contracts.

For the winter of 2017/2018, Union's in-franchise storage requirement was 93.2 PJ[2] and the maximum Design Day withdrawal requirement was 1.975 PJ/d[3]. In-franchise requirements for injections are managed within Union's injection capability of approximately 1.45 PJ/d. As the in-franchise storage requirement is below the 100 PJ capacity set aside for in-franchise use as per the NGEIR Decision, Union does not need to contract for any additional storage to meet the requirements of in-franchise customers.

d) Of the total storage capacity EGD contracted from third parties, 19.5 PJ of capacity is contracted from Union.

e) Union has not completed its Gas Supply Plan for the winter of 2018/2019 and is therefore unable to confirm the quantity of ~3PJ of excess utility storage. As noted in the response to Energy Probe Interrogatory #6(c) found at Exhibit C.EP.6, the winter 2017/2018 excess utility storage space is 6.8 PJ**.**

f) EGD has not completed its 2019 Gas Supply Plan and, therefore, is not able to comment on whether incremental storage capacity will be required to meet 2019 EGD zone peak day requirements.

g) Please see the response to Board Staff Interrogatory #6(c) found at Exhibit C.STAFF.6. Load balancing costs (i.e. storage service costs) for customers in Union South, Union North and EGD Zones are expected to continue at similar levels to pre-amalgamation rates during the deferred re-basing period, subject to annual rate adjustments.

[1] EB-2017-0086 Exhibit D1 Schedule 2 Tab 9 Page 2 has been updated to remove Contracts A and B which are expiring and to add Contracts J,K and L.
[2] EB-2017-0087, Exhibit A, Tab 3, Section 5.8, page 25
[3] EB-2017-0087, Exhibit A, Tab 3, Section 5.1.1 (Figure 5, page 16) and 5.1.2 (Figure 6, page 17)

Table 1
Status of EGD's Transportation & Storage Contracts
Storage Contract summary

Contract	Annual Quantity (GJ)	Effective Date	Expiry Date
C	4,000,000	Apr. 1, 2014	Mar. 31, 2019
D (1)	1,582,584	May 1, 2016	Apr. 30, 2019
E	3,000,000	Apr. 1, 2015	Mar. 31, 2020
F	3,000,000	Apr. 1, 2015	Mar. 31, 2020
G (1)	1,055,056	May 1, 2017	Apr. 30, 2020
H	1,500,000	Apr. 1, 2016	Mar. 31, 2021
I	5,000,000	Apr. 1, 2017	Mar. 31, 2022
J (1)	2,110,112	May 1, 2018	Apr. 30, 2019
K (1)	2,110,112	May 1, 2018	Apr. 30, 2020
L	3,000,000	Apr. 1, 2018	Mar. 31, 2023
	26,357,864		

	Total Quantity (PJ's)	Maximum Withdrawal (PJ's)	Deliverability	Maximum Injection (PJ/day)	Injectability (PJ/day)
Total Contracted Capacity	26.4	0.4	1.4%	0.2	0.8%
EGD Regulated Storage	99.4	1.9	1.9%	0.7	0.7%

Note 1 - Synthetic Storage

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, Page 20, Table 3; page 26 and page 21, line 8

Preamble: For the period post amalgamation, the Exhibit shows the ratepayer benefit for 2019-2023 as $209 million

Question:

a). Please confirm that the ratepayer benefit will be deferred for at least 5 years (300 basis points ESM) or until the next rebasing under the Applicants proposal.

Please provide additional lines in Table 3 showing for 2019-2023 estimated:

b). Amalco incremental costs based on Table 4 with the same ratepayer benefit
c). Shareholder benefit
d). Total net benefit of amalgamation

Response

a) As indicated in Exhibit B, Tab 1, beginning at page 20, the $209 million ratepayer benefit in 2019-2023, is the benefit in rates realized by ratepayers under the proposed price cap formula for that period in comparison to annual revenue requirements for the applicants were they to continue to operate as stand-alone utilities over the same period. This benefit is not deferred for 5 years or until rebasing.

b- d) The estimated incremental costs and potential cost synergies resulting from the amalgamation can be seen in the response to FRPO Interrogatory #1 found at Exhibit C.FRPO.1.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, Page 21, line 8; Exhibit B, Tab 1, Page 42 line 8

Question:

Please clarify this statement at the first reference:

a). EGD and Union would ***rebase*** in 2019 and 2025 and rates are set using a Custom IR framework during the 2020 to 2024 and 2026 to 2028 periods;

b). What is meant by rebasing in 2019? The application requests deferred rebasing of rates. Please clarify/explain.

c). Does the Custom IRM start in 2019, or 2020?

d). What rates will be the base rates for 2019 and/or 2020? Please clarify
- 2018 rates for each utility adjusted
- Rebased 2019 rates or
- Some other base rates

Please clarify this statement at the second reference:

e). "EGD and Union will continue to follow their 2014-2018 Incentive Rate Mechanisms to set rates for 2018. Subject to OEB approval, beginning in 2019 Amalco will set rates annually for the three rate zones (EGD, Union North and Union South) using a price cap. During the deferred rebasing period, Amalco may apply for rate adjustments using the Board's ICM."

Please reconcile the response with that in part a)

Response

a-d) As indicated in EB-2017-0306, Exhibit B, Tab 1, page 21, beginning at line 5, the revenue requirements for 2019-2028 shown at lines 1 through 3 in Table 3, are those of the stand-alone utilities where they would continue in an non-amalgamated state inclusive of the assumptions beginning at line 8.

e) This evidence is simply stating that 2018 rates for each of the applicants, will follow the Incentive Rate Mechanisms and Settlement Agreements reached by Stakeholders and approved by the Board in the fall of 2017 and that the proposed price cap formula/mechanism will begin in 2019.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 26, Table 4

Question:
Please provide this table, but provide as detailed breakdown as possible for the various items.

Response

Please see the response to BOMA Interrogatory#16(d) part (i) found at Exhibit C.BOMA.16.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 28

Question:

Please provide any documents related to the procurement process and any differences between the two utilities.

Response

Please see Attachment 1 and Attachment 2 for documents related to the procurement process for each of EGD and Union, respectively. The processes are similar; a detailed review has not been completed.

Enbridge Gas Distribution Inc.

SUPPLY CHAIN MANAGEMENT

Protocol

Effective: December 1, 2015

FOR INTERNAL USE ONLY

TABLE OF CONTENTS

PURPOSE

The Supply Chain Management "SCM" Protocol has been created to provide Enbridge Gas Distribution Inc. ("EGD" or "Company") with standards for establishing effective Supply Chain Management controls.

The Protocol enables consistent and controlled business processes to mitigate risk and help EGD meet its operational, financial and accountability obligations including:

- Establish clear expectations between the parties to a Contract;
- Ensure the delivery of value, leveraging buying power and economies of scale;
- Ensure that commercial and technical requirements are met;
- Ensure that tax and insurance requirements are met;
- Ensure that safety expectations are met;
- Facilitate fair and reasonable contractual arrangements;
- Enable regular monitoring of Supplier's performance; and,
- Maintaining or improving the Company's reputation in the industry.

APPLICATION

This Protocol applies to all employees and Contractors working for or on behalf of the Company. This document pertains to the processes and documentation required for the acquisition of all Goods and Services. The following transactions are exempted from the requirements of this Protocol as per the *Contracts Policy*:

- Transactions in emergency or extreme circumstances related to maintenance of the health and safety of EGD personnel and the public, protection of EGD assets or the protection of the environment;
- External and inter-company financing;
- Power purchases and power infrastructure and operating transactions;
- The purchase and maintenance of insurance policies;
- Hiring of Company non-executive employees;
- Any transactions with the Company's external auditors or external the Legal counsel;
- Contracts relating to investigations or litigation;
- Any transactions related to corporate purchase cards and employee business expenses;
- Land and real property agreements; and
- Goods and Services that are procured at the Enterprise level.

COMPLIANCE WITH OTHER COMPANY POLICIES

Compliance with the following Company policies shall be strictly adhered to. These policies include, but may not be limited to:

- *Statement on Business Conduct*;
- *Supply Chain Management Policy*;
- *Records Management and Records Discovery Policies*, applicable to the Company;
- *Contractor Safety Qualification Policy*;

- *Authorities and Spending Limits Policy*, applicable to the Company;
- *Contract Review and Signing Delegation Chart*; and,
- *Contracts Policy*.

In the event that this Protocol is inconsistent with such policies, the aforementioned policies shall prevail.

ROLES AND RESPONSIBILITIES

It is the role of all personnel directly or indirectly involved with SCM activities to comply with the following:

- Facilitate the inter-relationship of SCM, Financial and Accounting controls;
- Facilitate the inter-relationship of key stakeholders involved with SCM activities;
- Maintain the confidentiality of commercial information;
- Declare all actual or perceived conflicts of interest by seeking direction from an individual's supervisor or Law Department;
- Report all conduct known or suspected to be contrary to due process as well as all potential or actual impropriety arising in connection with the Company's business to their Supervisor/Manager or Director and the Law Department/Compliance Officer; and,
- Protect the Company's interests.

The following roles are critical to the SCM process and have specific accountabilities as noted:

Services Procurement and Contract Management Accountabilities

Contract Owner

A Contract Owner is an employee who initiates a Contract with a Contractor for work to be performed on behalf of the Company and/or who oversees the performance of the work and/or is accountable for payment to the Contractor for work performed in accordance with the Contract terms. Contract Owners are accountable for understanding and complying with this Protocol. Contract Owners are the main point of contact for Contractor communications, operational issues and performance management including safety performance related to the work being performed. For more information refer the EH&S *Contractor Safety* Page.

Contract Manager

A Contract Manager is the member of the SCM team who oversees the procurement process for Service Contracts and is accountable for working with the Contract Owner, Purchasing Specialist and the Law Department for the purposes of sourcing, procuring, drafting, negotiating and executing a Contract. Contract Managers are the main point of contact for contractual communications and commercial issues related to the Contract.

Purchasing Specialist - Services

A Purchasing Specialist for Services is the member of the SCM team who is responsible for the procurement processes, including sourcing, managing the Competitive Processes for Requests for Information, Requests for Quotation and Requests for Proposals for Services. The Purchasing Specialist is the main point of contact for all Proponents during the Procurement Process.

Contract Administrator

A Contract Administrator is the member of the SCM team who is responsible for preparing template agreements and ensuring compliance with contracting standards. The Contract Administrator ensures that the *Contract Management System* ("CMS") is up to date and that all compliance requirements are met such as insurance, *ISNetworld* "ISN" and *AODA*.

Goods Procurement and Contract Management Accountabilities

Purchasing Manager

The Purchasing Manager is the member of the SCM team who oversees the procurement process for Goods used by the Company and is accountable for working with Technical Experts including Engineering to ensure Specifications are clearly understood. The Purchasing Manager is accountable for managing the relationships with Suppliers who supply the Company with its approved Goods.

Purchasing Specialist - Goods

A Purchasing Specialist for Goods is the member of the SCM team who is responsible for the procurement processes, including sourcing, managing the Competitive Processes for Requests for Information, Requests for Quotation and Requests for Proposals for Goods used by the Company. The Purchasing Specialist for Goods is the main point of contact for all Good Suppliers and manages all communication, delivery and specification requirements.

SUPPLY CHAIN MANAGEMENT STANDARDS

1. SEGREGATION OF DUTIES

There is to be segregation of responsibilities so that no individual can control more than one (1) phase of the procurement process for Goods and/or Services in a way that permits errors to go undetected. Segregation of duties must occur between these phases:

1.1 Ordering of Goods and/or Services;
1.2 Receiving of Goods and/or Services; and
1.3 Handling of payment.

2. REQUISITION

Prior to the commencement of procurement activities, a valid form of requisition must be authorized as per *Authorities and Spending Limits Policy*.

2.1 Valid forms of requisition are any of the following:

a. Materials Requisition can be in the form of a Bill of Materials or a *Material Requisition Form*, along with an approved AFE and/or O&M account information and budget approval;

b. *Service Requisition Form*, along with an approved AFE and/or O&M account information and budget approval;

c. Relevant *Agreement Information Form* as per the *Contracts Policy*, along with an approved AFE and/or O&M account information and budget approval.

3. PAYMENT

3.1 Any payments made to Contractors for work performed must adhere to the terms in the Contract.

3.2 Services must be confirmed to have been rendered prior to approval of payment.

3.3 Goods must be confirmed against evidence of receipt prior to approval of payment.

4. COMPETITIVE PROCESS

4.1 A Competitive Process in the form of a Request for Proposal or Request for Quotation must be performed where the value of the procurement is:

a. $10,000 or greater for Goods; or

b. $150,000 or greater, based on Contract Value, for Services.

c. Transactions are not to be split in order to circumvent the dollar thresholds set out above.

4.2 A Competitive Process is to be performed every 2 to 5 years with existing approved Suppliers.

4.3 If the recommended strategy for the purchase of Goods or Services is Single or Sole Sourcing, a *Competitive Bypass Approval Form* is required and must be approved by the Director accountable for the Operational area.

4.4 Any Competitive Process must involve SCM and the Law Department.

4.5 Sourcing Strategy for Goods are driven by the specifications determined by the Technical Experts for the Goods used and exempt from the requirement to complete a *Competitive Bypass Approval Form* if there is only one Supplier.

4. SAFEGUARDING OF PROCUREMENT DOCUMENTS

All procurement documents, as well as any other pertinent information for reporting and auditing purposes must be maintained in accordance with the *Records Management Policy*.

The Contract Manager and Purchasing Specialists are responsible to ensure Contracts and all procurement documents remain secure in locked cabinets or in an electronically restricted folder under their control.

To the extent that a Contract Owner is accountable for any of the following records related to the procurement process or Contract Management it is the Contract Owners accountability to maintain the records in accordance with the *Records Management Policy*.

A record, in the context of the of the procurement process, includes the following:

a. A copy of the Service Requisition, Material Requisition or Bill of Materials;
b. A copy of the Competitive Document in the form of an RFP, RFQ or RFI;
c. Evidence that all required approvals were obtained;
d. Copies of all procurement documents used to qualify and select the supplier;
e. Where the procurement was single sourced, documented justification, applicable exemptions and associated approvals;
f. Copies of all advertisements of procurement documents;
g. Copies of all successful and unsuccessful responses, submissions and proposals received in response to procurement documents, including the conflict of interest declaration and other attached forms;
h. Information regarding any issues that arose during the procurement process;
i. Information regarding all evaluations of submissions and proposals received in response to procurement documents;
j. Information regarding all Supplier debriefings including written documentation;
k. Copies of all award letters, notices and posted announcements;
l. Copies of the Agreement(s), as well as any amendments and schedules to the Agreement(s);
m. Information regarding all changes to the terms and conditions of the Agreement, including any changes that resulted in an increase in the Agreement price;
n. Risk assessment information and recommendations, where applicable;
o. Contractor security screening decisions, where applicable;
p. Information regarding all protests, disputes or supplier complaints regarding the procurement including any Agreement disputes;
q. Evidence of receipt of deliverables; and
r. Any other documentation as identified by the Company.

5. CONFLICTS OF INTEREST

Any individual involved in supply chain related activities must declare all actual or potential conflicts of interest.

5.1 Suppliers

a. Situations or circumstances that could give a supplier an unfair advantage during the procurement process or compromise the ability of a supplier to perform its obligations.
b. EGD reserves the right to solely determine whether a conflict of interest exists and disqualify prospective Suppliers.
c. EGD reserves the right to terminate an agreement where a supplier fails to disclose any actual or potential conflict of interest or fails to resolve its conflict of interest as directed.

5.2 Consultants

Any consulting organization involved in the development of the Competitive Documents cannot be a respondent to those Competitive Documents.

5.3 Employees and Advisors

a. All employees or advisors must sign EGD's *Statement on Business Conduct* and are ultimately responsible to disclose any conflicts of interest.
b. Situations that might result in conflict of interest including the following:
   - Engaging in outside employment;
   - Providing assistance or advice to a particular supplier participating in a Competitive Process;
   - Having an ownership, investment interest, or compensation arrangement with any entity participating in a Competitive Process;
   - Having access to confidential information;
   - Accepting favours or gratuities from those doing business with EGD.

SUPPLY CHAIN MANAGEMENT PROCESS

1. PROCUREMENT CHANNELS

1.1 Service Contracts

a. There are two forms of Service Contracts used within Gas Distribution, Standard and Non-Standard. Standard Contracts are typically used in the routine, ordinary course of business. Standard Contracts should be used when there is no unusual or significant risk to GD. Standard Contract templates have been pre-approved by the Law Department for these situations.

b. Non-Standard Contracts are Contracts that do not fall into the definition of a Standard Contract and where the Standard Contract template has been amended, modified or supplemented in any way.

c. To minimize risk, it is Enbridge's general policy to use Enbridge's form of Contract as opposed to the counterparty's form of Contract.

1.2 Purchase Orders

a. The SCM Department is responsible for purchasing Goods and issuing Purchase Orders to Vendors.

b. Purchase Orders must be used for purchases of Goods made by authorized individuals for operational and capital expenditures that exceed $5,000. There is no maximum value of purchase orders.

1.3 Purchasing Card (P-Card)

a. Purchasing Cards (P-Card) offer authorized employees a method of purchasing certain low risk/low cost Goods using credit cards issued by Enbridge.

b. The authorization and approval guidelines for Purchasing Cards should follow the *Enterprise Business, Travel and Purchase Card Expense Policy.*

1.4 Stand Alone Invoices

a. Authorized field personnel can purchase Goods and provide their employee number to the supplier for purchases under $5,000 providing the supplier does not require an order. P-cards are the preferred payment method.

b. Any purchase of Goods or Services greater than $5,000 that is considered an asset for Gas Distribution requires a Service Contract or Purchase Order.

2. REQUISITION

Any procurement of Goods or Services must start with a form of requisition that is approved in accordance with the Authorities Spending Limits Policy.

2.1 Requisition Form

All Goods used by the Company are procured through the Purchasing Department. Requests for Goods are provided to Purchasing through a Bill of Materials or through a *Material Requisition Form* in Oracle.

a. A *Material Requisition Form* is required to procure Goods used by the Company, except where allowed through a P-Card purchase;

b. A *Material Requisition Form* must be completely documented for more information refer to the *SCM Team Site*;

d. A Competitive Process is performed when the Good being purchased exceeds 10,000.

2.2 Service Requisition Form

A Service Requisition Form is required to procure all new Services, including new scopes of work related to projects where the Company is undertaking a Competitive Process. Forms must be sent to the Contract Manager accountable for the procurement for your business area. Refer to the *SCM Team Site* for more information.

Where the strategy recommends Single or Sole Sourcing, a *Competitive Bypass Approval Form* is required to be approved by the Director accountable for the Operational area.

3. *AGREEMENT INFORMATION FORM*

An *Agreement Information Form* is required to change or extend the Services provided by an existing Contractor.

An *Agreement Information Form* must be documented completely for more information contact *the Law Department* or *SCM* for assistance with identifying the appropriate *Agreement Information Form* for the circumstances.

4. *SUPPLIER PRE-QUALIFICATION*

4.1 Contractor Pre-Qualification:

a. Only qualified Contractors are to be awarded a Contract. The pre-qualification process may consist of technical and/or quality and/or safety and/or financial reviews.
b. Safety pre-qualification requirements are determined by the *Contractor Safety Qualification Policy.*
c. Where an exception to the pre-qualification requirement has been approved in accordance with the *Contractor Safety Qualification Policy*, documentation of such Approval must be retained by the Contract Manager.
d. All Contractors working for, or seeking work with, the Company are required to subscribe to, and be evaluated by, ISNetworld unless considered an “excluded Contractor” as per the *Contractor Safety Qualification Policy*.

4.2 Supplier Pre-Qualification:

a. Only qualified Goods, as determined by Technical Experts in the Company or through the New Product Integration process are to be purchased and only Suppliers that are qualified through the pre-qualification process (ie. Approved Vendors List) are to be awarded a Contract.

5. *COMPETITIVE PROCESS*

The purchasing Specialist will provide direction on the appropriate Competitive Process, taking into account the situation, industry practice and the Contract Owners Requirements.

There are two main types of Competitive Documents used at EGD are:

a. Request for Proposal (RFP)
   i. Purpose of the RFP is to request Suppliers to supply solutions for delivery of complex Goods or Services or to provide alternative options/solutions.
   ii. Uses pre-defined evaluation criteria where price is not the only factor.

b. Request for Quotation (RFQ)
    i. Purpose of the RFQ is to request Supplier Proposals to supply Goods or Services on stated delivery requirements, performance or specifications and terms and conditions.
    ii. Evaluation criteria are mainly focused on price and delivery requirements.

5.1 Request for Information

Where EGD has incomplete information about a Good, Service or solution that it requires or the capabilities of the market to deliver, a Request for Information (RFI) should be conducted. In many situations, an RFI is performed in advance of an RFP or RFQ to help the Contract Owner identify the specific requirements for an RFP or RFQ.

a. The information collected will help plan a fair and cost-effective procurement process, define the requirements or identify whether there are qualified and/or interested Suppliers.
b. The RFI may include targeted questions about the product or Service being sought but should not ask for proprietary information.
c. Information collected may also facilitate selecting the best possible competition method.
d. Information collected may contribute to the final version of the subsequent RFP.
e. A response to an RFI must not pre-qualify a potential Proponent in any subsequent RFP and must not influence their chances of being the successful Proponent on any subsequent opportunity.

5.2 Competitive Process Requirements

a. A Purchasing Specialist must be assigned and will be responsible for the development, maintenance and receipt of all documentation.
b. The Purchasing Specialist will also research the industry to identify Suppliers with the capabilities to perform the work.
c. Requires three (3) or more Suppliers to submit a Proposal.

5.3 Competitive Proposal Development

Competitive Documents must include a description of the Goods or Services required in generic and/or functional terms specific to the business needs, including quantities of Goods and volumes of work. When the use of non-generic and/or non-functional terms is appropriate, the specifications must deal with performance requirements and exclude all features that could unfairly confer an advantage to certain suppliers.

In addition, the documents must include:

a. Full disclosure of the evaluation criteria, process and methodology to be used in assessing submissions; must also identify those criteria that are considered mandatory and any technical standards that need to be met.

b. The name, telephone number and location of the person to contact for additional information on the procurement. The procurement document must include a statement that Suppliers who go outside of this contact person may be disqualified.
c. Conditions that must be met before obtaining procurement documents such as conflict of interest declarations, confidentiality agreements and/or non-disclosure agreements if necessary.
d. The address, date and time limit for Proposal submissions. Submissions received after the closing date and time must be returned, unopened.
e. The process, date and time limit for the submission of questions.
f. The time and place of the opening of the Proposal.
g. The submission rules and Competitive clauses to be followed, which may include proposal format, language, inclusion of an executive summary, number of copies required, attendance at a proponents' conference and any additional rules to be followed in order to be considered a compliant proposal.
h. A draft copy of the Contract or purchase order to be signed for Goods or Services in the event of an award of the procurement.
i. A request for a list of any subcontractors to be used to complete the procurement.
j. The period of irrevocability of Proposals where Proponents cannot withdraw (typically 120 days from the closure of the Competitive Process).
k. Competitive Proposal submissions may be subject to discovery.

5.4 Communication during Competition

a. During the Competitive Process, all communication with Proponents in relation to the Proposal, including but not limited to Proposal questions and clarifications, must be coordinated through the Purchasing Specialist in writing.
b. Competitive Documents may be clarified through the use of:
   - An addendum response;
     - Prepared if modifications to the Competitive Documents are necessary (eg. Amending, adding, deleting information due to errors, conflicts or deficiencies in the document).
     - Must be issued at least seven days prior to the closing date of the Competitive Process.
     - If issued within seven days of the closing date, the date should be extended accordingly.
   - A question-and-answer (Q&A) response:
     - Prepared if clarification of the RFP/RFQ documents is required without the need to modify the Competitive Documents.
     - Questions are requested to be submitted no less than seven days prior to the closing date and if, warranted, consideration may be given to extending the closing date.
   - Proponents Conference
     - Held if the requesting department believes there is information that potential Proponents will better understand if the information is presented (e.g. Site visit).

- Held shortly after posting of the Competitive Documents to allow ample time for Proponents to submit.
- Only the procurement in question can be discussed and all questions and responses should be documented and provided to all Proponents regardless of whether they attended.
- Must state in Competitive Documents whether attendance at Proponents Conference is mandatory (if Proponents do not attend, their Proposal will be returned).

6. COMPETITIVE PROPOSAL EVALUATION

6.1 Proponent Submission Receipt

a. All eligible Proposals must be received by the closing date and time specified in the Competitive Documents to the Purchasing Specialist, or Purchasing Manager in the case of Goods.

b. Sealed Proposal Opening

- All Proposals (including modifications) received before the date/time set for the opening of Proposals shall not be opened or viewed before such time and shall remain secure in a locked cabinet or in an electronically restricted folder under the control of the Purchasing Specialist or Purchasing Manager.
- Before the Proposal opening, information concerning the identity and number of Proposals received shall be made available only to Purchasing Specialist or Purchasing Manager and Business Lead. Such disclosure shall be only on a "need to know" basis.
- Envelopes marked as "Proposals" but not identifying the Supplier or the RFP/RFQ number may be opened solely for the purpose of identification, and then only by the Purchasing Specialist or Purchasing Manager.
- If a sealed Proposal is opened by mistake (ie. because it is not marked as being a Proposal), the envelope shall be signed by the opener, whose position shall also be written, and delivered to the Purchasing Specialist or Purchasing Manager.
  - The Purchasing Specialist or Purchasing Manager shall immediately write on the envelope (1) an explanation of the opening, (2) the date and time opened, and (3) the RFP/RFQ number, and shall sign the envelope. He/she shall then immediately reseal the envelope.
- There are to be two Proposal Opening Participants made up of the Purchasing Specialist, Purchasing Manager and/or the Contract Manager and/or another SCM designate.
- Proposal opening participants are accountable to ensure the Proposal information made available during the Proposal opening process is maintained as confidential and not disclosed to unapproved parties, both internally or externally to the Company.

c. Recording of Proposals

- The *Proposal Opening Record* must be completed and certified as to its accuracy by the Purchasing Specialist. Where Proposal items are too numerous to warrant complete recording of all items, abstract entries for individual Proposals may be limited to item headings and Proposal pricing.
- Each page containing pricing information as well as the signatory page of each proposal shall be initialed by the Proposal Opening Participants.
- The Proposal Opening Participants shall sign and date the Sealed Proposal Opening Record.
- If an RFP/RFQ is cancelled before the time set for Proposal opening, this fact shall be recorded together with a statement of the number of Proposals invited and the number of Proposals received.
  - Due notice of RFP/RFQ cancellation must be provided to all Proponents who submitted a Proposal.

d. Safeguarding of Opened Proposals
e. All opened Proposals shall remain secure in a locked cabinet or in an electronically restricted folder under the control of the Purchasing Specialist or Purchasing Manager. Information contained within Proposals may be forwarded to the Evaluation Team for the purposes of completing the technical evaluation.
f. Commercial information (ie., pricing) contained within Proposals is to be treated as confidential, is to remain under the control of the Purchasing Specialist and is not to be distributed until after the technical evaluation is complete.

6.2 Evaluation Team

a. Team must have at least three members.
b. To ensure the integrity of the evaluation process, the evaluations must be conducted independently.
c. Price is to be evaluated by the Purchasing Specialist or SCM designate in the case of Goods and will be evaluated as a team in the case of Services.
d. Any Contract language changes are to be evaluated by the Law Department.
e. Evaluations must be consolidated by the Purchasing Specialist.
f. Evaluation Team members are to be included in the development of the evaluation criteria and weighting.
g. Team members may include SCM experts, subject matter experts, the Law Department, finance and representatives of the operational business requesting the procurement.

6.3 Evaluation Criteria

a. The evaluation criteria and weighting are to be applied as determined prior to the Competitive Proposal being issued.
b. Evaluation criteria should focus on the total cost of ownership and not just on price, examples of evaluation criteria that could be included:
   - Quality;
   - Capacity of the supplier to meet requirements;
   - Experience;
   - Financial capacity of the supplier;

- Safety ;
- Transition costs; and/or,
- Environmental considerations.

c. The Purchasing Specialist will determine whether submissions are compliant and provide a summary of the Supplier's responses to the Contract Owner.

d. Full disclosure of the evaluation methodology and process must include the following:
- A clear articulation of all mandatory requirements. Indicate if the mandatory requirements will be assessed on a pass/fail basis and indicate how Suppliers achieve a passing grade. Where a supplier is disqualified for non-compliance with a mandatory requirement, no further evaluation will take place;
- Description of any short-listing processes, including any minimum rated score requirements;
- The need for, if applicable, reference checks, oral interviews/presentations and demonstrations; and
- Descriptions of the price/cost evaluation methodology, including the use of scenarios in the evaluation process to determine costs for specific volumes and/or service levels.

6.4 Selection Process

a. All documentation related to the evaluation process is subject to audit and therefore must be fair, consistent and fully defensible.

b. The method to resolve a tie score must be identified in the evaluation criteria of the RFP, including weighting, if applicable.

c. If no Proposals are acceptable and it is not reasonable to go through any other method, EGD may choose to negotiate directly with a specific supplier.

6.5 Risk Management

a. Prior to Contract award, when circumstances exist that could result in significant risk to the Company should the supplier become insolvent or unable to deliver the contracted scope of work in a timely manner, or where the full contract value is greater than $1,500,000 the Purchasing Specialist will request a financial review of the supplier based on the estimated value and term of the agreement.

b. The Company must consider, as appropriate, the use of Contract clauses that permit cancellation or termination at critical project life-cycle stages for all Goods and Services.

c. Ensure that all Suppliers providing a Service categorized as high consequence work:

d. Meet the insurance requirements established by the EGD Risk Department.

e. Meet the criteria established within the *Contractor Safety Qualification Policy.*

f. Proponent is notified that membership in *ISNetworld* is required as part of the qualification process.

7. CONTRACT AWARD

7.1 A formal Contract award letter is to be sent to the chosen supplier by the Purchasing Specialist.

7.2 The agreement between the Company and the successful Supplier must be defined formally in a written Contract or Purchase Order before the provision of Services.

7.3 Supplier signatures are required prior to obtaining the designated Company's signatures for all Service Contracts as per the Authorities and Spending Limits Policy.

7.4 Where an immediate need exists for Services, a Letter of Intent, Memorandum of Understanding or interim purchase order may be used along with written EMT approval, to allow for immediate needs to be met while final negotiations take place.

7.5 Once the preferred supplier has been selected and the Contract has been awarded and signed, a notice is issued to all Proponents advising that a Contract has been signed and the Competitive Process is complete.

8. NON-COMPETITIVE PROCESS

8.1 A *Competitive By-Pass Approval Form* is required in the following circumstances:

a. Where an unforeseen situation of urgency exists and the Goods or Services cannot be obtained by means of open procurement.
b. Where Goods or Services regarding matters of confidential or privileged nature are to be purchased and the disclosure of those matters through an open Competitive Process could reasonably be expected to compromise confidentiality, cause economic disruption or otherwise be contrary to the public interest.
c. Where construction Goods are to be purchased and it can be demonstrated that transportation costs or technical considerations impose geographical limits on the available supply base, specifically in the case of sand, stone, gravel, asphalt compound and pre-mixed concrete for use in the construction or repair of roads.
d. Where an open Competitive Process could interfere with EGD's ability to maintain security or order or to protect human, animal or plant life or health.
e. Where only one supplier is able to meet the requirements of procurement.
f. Where there is an absence of any proposals in response to an open Competitive Process that has been conducted in compliance with this document.
g. Where there is an absence of competition for technical reasons and the Goods or Services can only be supplied by one particular supplier and no alternative or substitute exists.
h. For the purchase of Goods on a commodity market.
i. To ensure compatibility with existing products, to recognize exclusive rights, such as exclusive licenses, copyright and patent rights, or to maintain specialized products that must be maintained by the manufacturer or its representative.
j. For work to be performed on property by a Contractor according to provisions of warranty or guarantee held in respect of the property or the original work.

k. For the procurement of a prototype or a first Good or Service to be developed in the course of and for a particular Contract for research, experiment, study or original development, but not for any subsequent purchases.

l. For the procurement of real property.

8.2 A *Competitive By-Pass Approval Form* is not required in the following circumstances:

a. Where the estimated Contract Value for Goods is less than $10,000 and for Services is less than$150,000.

8.3 When required a *Competitive By-Pass Approval Form* must be documented and must contain the following:

a. Business justification why a Competitive was not followed. Lack of project planning and/or perceived constraints of the Competitive Process are not adequate justifications. See 8.1 above for acceptable business justification;

b. Confirmation that the Supplier is qualified as per the *Contractor Safety Qualification Policy*. Where the Supplier is not qualified, a Pre-Qualification *Exemption Form* and process is to be complied with.

8.4 A *Competitive By-Pass Approval Form* must be authorized by the Director accountable for the operational area prior to engaging the Supplier in negotiations.

8.5 The Authorized *Competitive By-Pass Approval Form* must be retained by the Contract Manager.

9. CONTRACT DISTRIBUTION

9.1 Fully executed Contracts are to be distributed to the Supplier and the Law Department.

9.2 Additional copies of the fully executed Contract may be distributed to personnel approved by the Contract Manager, who require copies of the Contract in order to execute their functional role.

9.3 Fully executed Contract s to be treated as confidential and remain secured in a locked cabinet or in an electronically restricted folder under the control of the Purchasing Specialist or Purchasing Manager.

9.4 All Contracts are to be uploaded to the Contract Management System.

CONTRACTING STANDARDS

1. CONTRACTING REQUIREMENTS

1.1 Contracts to which EGD is a party shall be in writing, as defined in the *Contracts Policy*;

1.2 Work cannot be commenced until:

a. A fully signed written agreement is in place;
b. A valid Certificate of Insurance is received as per the insurance term in the Contract;
c. A valid certificate of WSIB Clearance has been provided or waived if the work is performed on a Supplier's site. These certificates are to be retained in CMS, and maintained to ensure the certificates are valid throughout the term of the Contract; and,
d. If the work requires ISNetworld registration as per the *Contractor Safety Qualification Policy*, the Contractor must have an A or B rating in ISN.

CONTRACT DEVELOPMENT

1. CONTRACT TYPES

1.1 A large number of diverse Contracts are utilized throughout the Company. The Contracting Standards contained within the Protocol apply to all Standard and Non-Standard Contracts as defined as applicable in the *Contracts Policy*. Examples of such agreements include but are not limited to:

a. Consulting Services Agreements;
b. General Services Agreements;
c. Master Services Agreements;
d. Purchase Orders;
e. Work Orders;
f. Construction Contracts;
g. Confidentiality Agreements;
h. Letters of Intent;
i. Memorandums of Understanding; and
j. Any draft form of Contract that has been provided to the Company by an outside party.

Except where explicit exceptions are noted, the use of the term Contract within the Protocol refers to any and all of the above forms of Contracts for more information refer to the *Contract Management* page on eLink.

2. CONTRACT INFORMATION

2.1 When initiating a Contract through the Non-Competitive Process, an *Agreement Information Form* must be completed.

3. LIEN HOLDBACK

3.1 Lien holdbacks are used to meet statutory requirements or can be imposed to meet business needs.

3.2 Lien holdbacks are required when contracting for construction related work and can be used to drive behavior in terms of meeting deliverables, expectations and timelines.

3.3 SCM and the Law Department must be consulted on a case by case basis to determine if the scope of work and deliverables requires a lien holdback.

CONTRACT MANAGEMENT

1. ONBOARDING

1.1 Once a fully signed Contract is in place and all pre-qualification obligations are met as noted in the Supplier Pre-Qualification section above, work can commence.

1.2 The Contract Owner is accountable for providing an orientation to the Contractor to ensure that expectations are understood in terms of the work to be performed.

1.3 Contract Owners are accountable to ensure that competencies are confirmed before work is performed, including validating training and certifications if required and coordinating any EGD training that may be required.

1.4 Orientation should also include training of safety expectations, such as Life Saving Rules, Drug and Alcohol Policy and Respectful Workplace Policy as amended and updated from time to time.

2. PERFORMANCE MANAGEMENT

2.1 The Contract Owner is accountable for the operational communications with the Contractor.

2.2 Contractor performance must be actively managed and monitored by the Contract Owner including ability to perform the work, quality of the work being performed, ability to meet service levels defined with the Contractor as well as the Contractor's Safety performance and adherence to the Company's Safety Standards. For more information refer the EH&S Contractor Safety Page.

2.3 In order to assess a Contractor's safety performance, Safety related audits and inspections are to be performed and any findings resolved with the Contractor.

2.4 At the end of the Contract or at the completion of any project/initiative, the Contract Owner must perform a Post Contract Evaluation providing an assessment of overall performance and provide feedback regarding whether the Contractor should be used again by the Company.

2.5 If the Contract Owner identifies an issue with respect to the Contractor's performance that is in contravention to the Terms in the Contract, the Contract Owner will advise the Contract Manager in SCM or the Law Department of the issue.

2.6 The Contract Manager and the Law Department will work with the Contract Owner to initiate next steps as required, including dispute resolution.

2.7 In the case of Goods and equipment used by the Company, any quality issues identified should be reported through the *Material Fault Process*.

3. CLAIMS MANAGEMENT

3.1 The Contract Owner will advise the Contract Manager or the Law Department of any claim made against the Company or any dispute that may need to be raised with the Contractor.

3.2 The Contract Manager will work with the Law Department when a claim or dispute exists.

3.3 Where the arbitration article(s) of a Contract have been invoked, the Law Department will develop and/or review all communications with the Supplier.

3.4 Where a request for compensation has been submitted by a Supplier and the Department/Project is considering making a settlement for payment, SCM will involve the Law Department must be notified prior to negotiation of settlement to ensure the settlement language mitigates the risk to the Company of any future claims.

3.5 All communications regarding the claim or potential claim are to be documented and filed securely in the Contract file.

4. CHANGE EXECUTION

4.1 All Contract changes must be administered in accordance with the Contract documents.

4.2 All Contract changes are to be executed by the Supplier prior to Company Authorization.

4.3 All Contract changes must be approved.

4.4 All Contract changes must be authorized in accordance with the Authorities and Spending Limits Policy.

5. CHANGE DISTRIBUTION

5.1 Fully executed Contract changes are to be distributed to the Supplier.

5.2 Additional copies of the fully executed Contract change may be distributed to personnel approved by the Contract Manager, who require copies of the Contract in order to execute their functional role.

5.3 Copies of the fully executed Contract changes are to be treated as confidential and remain secured in a locked cabinet or in an electronically restricted folder under the control of the Purchasing Specialist or Purchasing Manage.

5.4 All Changes for Contracts are to be uploaded to the ECMS.

GOODS MANAGEMENT

1. GOODS RECEIVING

1.1 Goods must be confirmed as received at the final destination, and quality and quantity confirmed as accurate, prior to receipt in the Company's Oracle system.

a. Confirmation of receipt must be in the form of signed and dated evidence (e.g. Packing slip, inspection report) from a Company representative or Contractor.

1.2 Where shipment is received in quantities over or short or the Goods are damaged, it must be documented with receipt and communicated to SCM to resolve with the Supplier.

2. GOODS INSPECTION

2.1 Inspections must be conducted on all Goods that are considered critical or high risk to the Company's operations, which include steel and plastic pipe, regulators and meters.

2.2 The Engineering Materials Evaluation Centre will test a sample or inspect these Goods before releasing them for installation.

3. EXPEDITING

3.1 All Goods must be expedited, as appropriate based on the criticality or risk associated with the Good, to provide an added degree of confidence that Good will be delivered as per the delivery date outlined in the Purchase Order.

3.2 Any delivery delays that result in a revised delivery date which is beyond the required at site date must be appropriately mitigated and communicated to the Business Lead or Project Manager.

3.3 Prior to issuing Goods for shipment, the following documents must be obtained, where applicable:
   a. Final inspection release; and
   b. Shipping release.

4. LOGISTICS

4.1 All shipments must be completed in accordance with applicable laws and regulatory requirements utilizing the Company's shipping Contractor.

4.2 Any logistics issues must be appropriately mitigated and communicated to the Purchasing Specialist where delayed delivery or additional risks are involved.

5. WAREHOUSE MANAGEMENT

5.1 Warehouse Management includes warehousing at EGD Facilities as well as the Facilities of our Contractors if Goods are stored.

5.2 Goods are to be stored, preserved and accounted for at all times.

5.3 Goods are to be protected from theft, damage, loss or deterioration.

5.4 All Supplier maintenance, preservation and storage requirements must be adhered to.

6. SURPLUS MANAGEMENT

6.1 Surplus Goods must be identified, recorded and communicated to Purchasing as soon as identified.

6.2 SCM will determine next steps as appropriate, including redistribution, returning to the Supplier, liquidating and scrapping any unusable Good.

6.3 Surplus management transactions must be transparent and documented. All documentation must be retrained in SCM.

DEFINITIONS

Agreement Information Form –

AODA - Accessibility for Ontarians with Disabilities Act "AODA" applies to every person or organization in the public and private sectors in Ontario. Enbridge Gas Distribution is committed to providing accessible service to its customers. EGD has Customer Service Standards policy, practices and procedures on providing goods and services to people with disabilities.

Bill of Materials - A list of pipes, fittings and appurtenances contained on a Construction Drawing.

CMS – EGD's Contract Management System . All EGD contracts must be entered into CMS, unless they are specifically excepted under the Contract Selection, Review and Administration Policy (the "Contracts Policy").

Competitive By-Pass Approval Form – The form used to document the business justification why a Competitive was not followed when a competitive process is required by this Protocol.

Competitive Document – documents issued by the Company to solicit proposals from Suppliers for the provision of Goods or Services, usually in the form of RFPs, RFQs or RFIs.

Competitive Process – The process utilized to ensure the procurement of Goods and Services with high quality, competitive prices and stable supply. Refer to the Competitive Process Requirements Checklist for requirements.

Contract –a legally binding agreement among two or more willing parties under which rights, acts or properties are exchanged for lawful consideration. Refer to the Contract Approval Sheet for requirements prior to executing a contract.

Contractor – a legal entity with whom GD may enter into an agreement for the provision of labour, Goods (materials and/or equipment) by the Contractor in the delivery of a specified scope.

Goods – refers to materials or equipment.

ISNetworld– "ISN" is the enterprise system used to monitor and manage our medium and high consequence Contractors. ISN provides an online contractor safety management database, through the collection of health and safety program and performance data. To support EGD's partnering decisions and reduce risk.

Material Requisition Form – One of the forms used to request procurement of Goods.

Non-Standard Contract - Are Contracts that do not fall into the definition of a Standard Contract and where the Standard Contract template has been amended, modified or supplemented in any way.

Proponent – a party who submits a proposal as a response to a request from the Company.

Proposal – a document submitted by a Proponent in response to a request from the Company, as known as a proposal submission.

Proposal Opening Record – A record of opening proposals must be completed and certified as to its accuracy by the Purchasing Specialist leading the Competitive Process.

Service Requisition Form – The form used to request procurement of service.

Services – Includes; consulting, IT, educational, communications, research, storage, processing, solutions and many others. In the Procurement process Services provided by a Supplier are defined in the scope of work.

Single Sourcing – When the Company chooses for various reasons to bypass the Competitive Process and enters into an agreement or purchase order with one Supplier.

Sole Sourcing – When the Company has no choice due to the nature of the work or Goods being purchase but to enter into an agreement or purchase order with one Supplier.

Standard Contract – Are typically used in the routine, ordinary course of business. Standard Contracts should be used when there is no unusual or significant risk to GD

Supplier – A generic term referring to third party. A legal entity with whom EGD may enter into a Purchase Order for the provision of Goods (materials and/or equipment) or a Service provider in the delivery of a specified scope including Contractors and Vendors.

Supply Chain Management –Is a strategic function. Contracts and Purchase Orders are to be documented, standardized and managed as much as practical to deliver the best overall value to Enbridge in terms of Cost, Safety and Quality.

PSCM Process Model - Reference

Application

This reference aligns with the Union Gas Major Projects 6-Phase Project Lifecycle and applies to the Strategic Sourcing, Contract Formation and Contract Conformance functions within PSCM. It describes how sourcing strategies are developed and implemented, the resulting services and materials contracts are formed and executed, and how these contracts are managed through to the project closeout phase of the Major Project's six phase project lifecycle.

Overview

This procedure outlines the steps, roles and outcomes that guide PSCM's activities across the 6-Phase Project Life Cycle when procuring Third Party services and goods for Major Projects within Union Gas. In summary this encompasses:

- Development and Approval of Sourcing Strategy Process
- Implement Sourcing Strategy Process
- Contract Formation and Execution Process
- Project Execution Process
- Project Closeout Process

References

PSCM

- Spectra Energy Purchasing and Commitments Policy
- Spectra Energy Approval of Business Transactions Policy
- Spectra Energy Delegation of Authority Approval Level Matrix
- Spectra Energy Corporate DOA – Canadian Use Only
- Spectra Energy Contract Approval Policy
- Spectra Energy Delegation of Authority Policy
- Contract Administration Manual – Union Gas PSCM

EHS

- Contractor EHS Management – Practice; Section 7, Contractor Management, EHS Programs, Processes and Procedures

Major Projects

- Union Gas Project Lifecycle – VI Phase Macro Summary

Procedure: Development and Approval of Sourcing Strategy Process

1. Determine Need for Work.

    a. Upon request for assistance from a Project Manager within BDST, SMCC or Major Projects, or a Project Engineer in the development of a project, PSCM will assign specific subject matter experts in the areas of strategic sourcing, contract formation and contract conformance.

    b. Strategic Sourcing Review with Initiator – *note this is a FFG Initiative - Work in Progress:* PSCM strategic sourcing and procurement SME's shall utilize their knowledge of the market place, Spectra PSCM resources, previous RF(x), past projects, and bill of material purchasing experience to provide advice on factors that could influence the assurance of supply, quality, cost and innovation (ASQCI) for the major services and materials (i.e. pipeline, compression station requirements) required on the project.

2. Identify and Develop Preferred Strategy for Procuring Materials and Services.

    a. As the project concept matures, PSCM SME's will provide project-specific market intelligence, input on risks, costing and scheduling for alternative scenarios, develop the sourcing strategy for the preferred solution (encompassing competitive, single or sole source approaches as well as pricing structure), and contract formation guidance for use as applicable in the development of the project charter, scope, feasibility schedule, Phase Gate reviews.

    b. Early and ongoing consideration will be given to the consideration of goals within the procurement plan associated with the purchase of materials or services from First Nation and Métis owned companies in Ontario.

    c. With respect to long-lead items, PSCM shall provide input to a Development Project PFA:

        i. Development Project PFA's are required for the anticipated amount of development costs to be incurred while investigating the feasibility and cost of a potential capital project.

        ii. Development PFA's must include the cost of long-lead items if early commitment (i.e., prior to project approval) for these items is deemed crucial for project success.

        iii. Development PFA's must be approved by the CEO or one of their direct reports based upon the authority granted in the Expenditures column of the DOA.

        iv. Development PFA's shall be based upon the best estimate of the total development cost to be incurred (including any long-lead items that must be contracted for).

v. Cancellation penalties related to contracts for long lead times may be included in the Development Project PFA rather than the whole contract value (source: Spectra Energy Approval of Business Transactions Policy).

d. A new, and key component of the Preferred Strategy, will be a clearly articulated "internal endorsement and approvals path" that will be developed and agreed upon with Major Projects (note: Work in Progress: work assigned to PSCM to layout and optimize the stream of approvals currently called for by numerous policies affecting procurement and business transactions) by ULG Jan 23rd meeting). The path will:

i. Illustrate all of the anticipated steps, participants, accountabilities, roles and guiding policies that must be followed to bring sourcing initiative from its strategy phase through to ultimate issuing of a purchase order under the resulting contract(s).

ii. The approvals path for each of the following will be laid out:

- Development and Approval of Sourcing Strategy
- Implementing the Sourcing Strategy
- Contract Formation and Execution
- Creation and release of a Purchase Order / Service Release Order under the contract

iii. This critical path will take into account all of the sourcing strategies called for within the Project Execution Plan (i.e., both materials and services).

iv. The path will be used to identify, organize, plan and communicate the type, level and order in which all necessary approvals to procure Third Party services and materials (i.e., those referenced in the Project Execution Plan) will be secured within Union Gas and Spectra Energy.

v. PSCM will also ensure that any directions, endorsements, consultations, approvals or assumptions impacting the approvals path that were included in the Project Charter, PFA's, or Project Development PFA's for prespend approval have been incorporated.

vi. The purpose of this approach is to develop, agree upon, communicate and maintain one version of how and when materials and services sourcing initiatives will be internally approved all the way through to the ordering of a material or having a service contractor commence work.

vii. This will expedite the approvals process while avoiding confusion, recycling, inefficiencies and insufficient information being included in the request for approvals packages.

viii. The path will identify the roles and levels within Union Gas/Spectra - as well as the governing policy - that calls for the approval to be included in the critical path.

ix. The path will commence with a description of all of the approvals needed for the overall Sourcing Strategy, the subsequent approvals to move through an

RFP process to award contracts, and the resulting approvals needed to execute the contracts for services or materials.

x. A timeline showing the pace, order and accountability for gaining these approvals will be laid out.

xi. As these approvals are secured, the critical path will be updated to communicate progress and the remaining steps required towards execution of the ultimate contracts.

e. PSCM shall continue to consult the Project Manager or delegate throughout the development process to ensure the final procurement strategies serve their requirements and are in accordance with Spectra Energy purchasing controls and commitments policy (PCCP).

i. With respect to Materials, PSCM shall begin developing and populating a "responsibility matrix" (a version of this template being used for the Lobo C station work that is attached for reference). In summary, this matrix that lays out material procurement responsibilities (including Third Party Engineering and Procurement activities), a lead time chart for critical materials, a recommended supplier chart for critical materials, logistics matrix and inspection matrix. As the project matures from concept through execution, Materials will maintain, update and communicate this document with Major Projects/Project Manager.

ii. With respect to station projects, PSCM shall work with the Project Manager to populate and adhere to a "station projects procurement planning tool."

iii. With respect to pipeline projects, PSCM shall work with the Project Manager to populate and adhere to their "activity checklist and resource assignment" (ACRA) document.

3. Develop Recommendation and Gain Approvals.

a. The sourcing strategy shall be created through collaboration with the Project Manager as well as affected functional group SME's assigned to the core/extended project team.

b. PSCM shall populate its section of the Project Execution Plan (PEP); the timing, format and content of which resides within the Major Projects section of the ECS manual under the Project Controls tab.

c. Updates to the PEP will be required for each phase of the project lifecycle. PSCM shall maintain and update its section of the PEP based upon an update schedule to be communicated to PSCM via the Projects Controls group.

d. Over the course of preparing this material for the PEP, PSCM's activities include but are not limited to:

- Developing a work strategy which shall lay out how PSCM is assisting in the development and execution of the project.
- Identifying all service and materials procurement timelines and milestones for use in project scheduling and work plans.

- Meeting with the individual functional groups over the course of developing its work strategy to share, refine and define agreed-upon assumptions that will impact the project and/or the alternative sourcing scenarios.
- Documenting the finalized, agreed-upon, and approved work strategy which shall be stored within the Project Execution Plan residing with Major Projects.
- Providing input to Major Projects on the selection of the pricing method (lump sum/fixed price, cost plus, time and materials, incentive contracts).

4. Receive Approval for Strategy.

   a. The Directors and VP's within ECS, BDST or SMCC and Spectra PSCM who are responsible as a matter of Spectra policy for the review and ultimate approval of the sourcing strategies will be consulted over the course of developing this strategy in order to be assured that their concerns and expectations have been addressed in support of their ultimate role in reviewing and formally approving the preferred sourcing strategy.

   b. PSCM shall support the Project Manager, if requested, in the development of the presentation to be delivered to Spectra Senior Management and Board of Directors that requests full capital funding to construct the facilities sought.

Procedure: Implement Sourcing Strategy Process

1. Develop a Request for Proposal/Quotation with the Initiator.

   a. PSCM Services and Materials Buyers will prepare the Bid Package(s). These will be used to communicate the Company's requirements and expectations to the perspective contractor/vendor. This process in turn will be used to allow the contractor to provide a proposal that conveys their intended performance and required compensation.

   b. Bid Package will describe/detail the project-specific requirements (deliverables, schedule and costs), special instructions and any other pertinent information concerning the service or material being contracted that must be communicated to the contractor or vendor.

   c. PSCM and Initiator and any other impacted member of the core/extended project team will collaborate to develop and detail the RFP(x) process which shall include, but is not limited to, the following:

      i. Determine Contractor qualifications and list of potential Contractors.

      ii. Review/create requirements for service.

      iii. Contract term (start/end dates)

      iv. Preferred and alternative pricing method(s) (if applicable) that were approved in the Sourcing Strategy

      v. Invoice payment terms (note Spectra Energy is moving to a Net 45-day cycle from 30 days)

vi. Develop performance measurements the contractor will be held in compliance to under the contract (for example balanced scorecards).

vii. Goals associated with the purchase of goods/services from First Nations and Métis owned companies based in Ontario

viii. Define the bid evaluation strategy and templates.

ix. Decide questions to ask.

x. Technical factors, codes, specifications, budgets and schedules

xi. Provision of qualifications of company and their personnel (valid license/certification)

xii. Requested listing of subcontractors that bidder would use

xiii. Demonstration of a proven ability to work professionally and cooperatively with company staff

xiv. Determine EHS Project-specific risks, and mandatory Contractor mitigation responses that must be part of the selection criteria at the time of bid evaluation.

xv. Insurance requirements

xvi. Financial condition of bidders, frequency/method of review, and proactive mitigation strategies (for example, performance bonds)

xvii. Bid evaluation and rating model which shall identify the qualitative and quantitative factors to be used in the comparative evaluation, their relative weights, and if they are mandatory and desirable performance factors

d. For RFP's where criteria other than price are to be used in the evaluation of bids, these requirements must be clearly communicated in the bid package.

e. Mandatory requirements shall be clearly called out in the bid and made clear that they must be met if a proposal is to be allowed to compete with the others.

f. All bid documentation shall be retained on file in accordance with applicable policy (Spectra records retention, PSCM, Union Gas and, if applicable, OMS standards).

Issuing the Bid Package

PSCM will collaborate with the Project Manager in a final review of the scope of work and commercial/technical documentation for completeness. Ensure supporting documentation is included in the bid package which, depending upon the service or material, may include but is not limited to:

- IFB drawings
- BOM if applicable
- Scope of work

- Approved vendor drawings, if applicable
- Specific EHS risk documentation for medium and high EH&S risk work

The list of eligible bid recipients (by company and contact individual) will be identified and agreed upon in collaboration with the Project Manager.

Invitations to bid will be issued by PSCM to eligible contractors/vendors signed by the appropriate person.

The bid period and contact persons within Union Gas the Contractor/Vendor may contact for clarifications/questions will be clearly identified.

Receive/Respond to Questions from Bidders

All contacts between Union and bidders need to documented in order to ensure timelines and records of external/internal communications are accurate, coordinated, maintained and in accordance with policy.

Any communication from bidders to persons within Spectra Energy/Union Gas, other than the designated contact person should be immediately referred to the contact person on the bid without further comment.

A pre-Bid meeting and site tour, if required, may be scheduled. Information on these pre-Bid meetings will be contained in the RFP. Formal meeting notes will be kept and distributed to all bidders.

Any changes to terms, closing date, schedule, design or scope of work during the bid period will be covered by a formal addendum.

Pitfalls the Bid Team is cautioned to avoid during bidding

- Communication of any additional information which is not in the documents.

  Direction: Additional pertinent information will be provided via an addendum and issued to all bidders
- Interpreting bid documents for bidders.

  Direction: The interpretation is the bidder's responsibility. If it comes to pass that there are ambiguities or clarifications required, an addendum will be issued.
- All communications must be with the prime contractor, not with their subcontractors or suppliers.

  Direction: To accomplish this end, all such communications will be directed to the prime contractor.
- Any communication of a bid extension prior to an official addendum.

  Direction: Any such communication will be made via a formal communication issued jointly to all
- Any release of information prior to an award.

Direction: PSCM and Project Manager will develop, agree upon and ensure a standard and approved communication protocol is in place.

- Confidentiality of Bids.

  Direction: All quotations and pricing information will be received and maintained as confidential information. The Bid Team will not divulge bid information or let a respondent know their standing in reference to other bids.

Receive Final Proposal from Bidders

Submission of offers from contractors in response to the invitation to bid will be received by PSCM.

In accordance with the agreed-upon strategy when the RFP/RFQ was developed, bids will either be examined on receipt or held unopened until such time as all bids are returned and a comparison of bids is ready to be done.

Review Results

Documentation of competitive bid information is mandatory.

Bid evaluation criteria as well as the evaluation and scoring system developed in concert with the RFP/RFQ are the standards and measures that will be used to objectively and consistently assess each proposal. These will be used to determine how satisfactorily a bid has addressed the requirements in the bid document.

Criteria, such as technical and pricing will typically be evaluated using a weighted point rating scale. It shall also be determined whether a criterion is mandatory or desirable.

Assigning points and scales to each factor and each rating will permit the team to conduct cross comparisons of contractors.

A proposal must respond to the mandatory requirements of the bid package. If it does not, it is not compliant and should be rejected.

If a proposal is abnormally lower in price than others, the bidder may be contacted to confirm and verify to the satisfaction of the review team that they are capable of fulfilling the terms of the contract.

EHS requirements will be forwarded to EHS for risk mitigation review.

Perform Vendor Interviews/presentations

In accordance with the RF(x) strategy and/or needs of the bid evaluation team, a clarification meeting/conference call with a short list of contractors may be held to address any outstanding bid package items. Discussions will be documented and distributed to all in attendance.

Develop Award Recommendations and Gain Approvals

The contract award recommendation will go to the contractor who has been judged to be fully capable of undertaking the contract and whose proposal is judged to be the best in accordance with the selection method that has been chosen.

It is common practice for the Bid Selection Team to make a collective determination. Each member of the team should concur in the selection of the contractor and sign the summary page to indicate their concurrence to the proceedings. If a member does not concur in the proceedings, the matter will be referred to the department heads involved.

Endorsement of Recommendation

The Project Manager, PSCM Buyer and members of the Bid Evaluation Team shall prepare a report and recommendation for presentation and endorsement by their respective Directors and Executive Sponsors.

This recommendation will summarize the solicitation process, (i.e., method, respondents, rankings), how the recommendation aligns with the approved Sourcing Strategy (and any conditions that were attached to that approval), conditions met within the RFP, other endorsements received/pending, and next steps enroute to contract formation with the recommended bidder.

Successful Bidder Notified

A conditional award letter and/or phone call will be placed to the successful bidder by an individual(s) from the Bid Selection Team. When the notification has taken place, they will advise the Team and extended management.

Unsuccessful bidders will be notified after the award to the successful bidder.

Procedure: Contract Formation and Execution Process

The “Contract Formation” phase begins after the Contractor/Vendor has been selected. Contract formation encompasses the PSCM-led contracting activities to structure, draft, negotiate, review internally, obtain approvals and sign a contract.

PSCM shall drive and lead the contract formation process (including leading negotiations with the counterparty to the Contract), ensure its proper review and approval has occurred and is documented in accordance with the Spectra Energy Contract Approval Policy, PCCP, Approval of Business Transactions and DOA Approval Level Matrix.

Standard Contract Documents

Union Gas has standard PSCM contract documents that have been reviewed by Legal, Risk, Insurance, Tax, Controllers, Credit. Contracts may be issued using these standard contract documents without further review. All Contracts developed without utilizing standard contracts or that has been revised in any way must be reviewed by Legal and other CAP functional departments as directed by Legal.

When the service/material being contracted for is too complex or specialized to use the standard contract templates, PSCM will work with the Project Manager and Legal to draft a custom contract with mutually agreeable clauses. Legal must be involved.

This review and negotiation with the vendor is described in the following section.

Review and Negotiate Contract with Vendor

In consultation with, and based on advice from Legal and Major Projects, PSCM shall ensure the contract accurately captures:

1. Key commercial terms:
   - Pricing schedule
   - Invoice Payment Term – (note in 2015, Spectra Energy is moving from a Net 30 Days to a Net 45 Days invoice payment term on new contracts. There are/will be, however, some case-by-case exceptions (for example, suppliers unable to absorb a 45-day payment cycle). Contractors who propose price increases due to a longer payment cycle or discounts to shorten the payment cycle will be evaluated on a case-by-case basis.
   - Quantity and specifications for goods
   - Scope of Work for services
   - Project schedule and delivery date(s) for goods
   - Workforce and equipment schedule
   - Term
   - Termination rights
   - Liquidated Damages provisions
   - Warranties
   - Contractual limitations on liability as to dollar amounts and claim time limits
2. Performance Measurements

   KPI’s will be used to help define and evaluate progress toward service work goals. They will be quantifiable and will highlight all of the areas that affect the project, material and/or contractor’s performance. These measures, the source data, roles and responsibilities for reporting shall be agreed upon before work starts. Consistent reporting and evaluation thereafter will help to maintain good project controls.

   KPI’s may include:
   - Safety
   - Workforce performance
   - Quality
   - Schedule adherence
   - Reporting
   - Financial targets

- Achieving milestones
- First Nations and Metis opportunities

Vendor relationship management reviews will be scheduled by PSCM to bring Major Projects and the Supplier/Service Provider together for this purpose.

Additional Performance Sections:

- Terms and Conditions – standard or negotiated
- Appropriate insurance coverage requirements as established by Corporate Risk Management
- EHS provisions
- Spectra Energy's audit clause
- As well as those matters falling under accountabilities of Insurance and Credit
- Contract formation shall take into account the input and requirements of any other impacted functional departments on the project team (which may include but is not limited to Regulatory, Land, EH&S, Treasury, Economic Development - First Nations & Métis, IT, Engineering, STO).

Endorsements

The Project Manager, PSCM Buyer and members of the Contract Formation Team shall prepare a report and recommendation for presentation and endorsement by their respective Directors and Executive Sponsors.

This recommendation will summarize the contract formation process, the contracts key commercial and operational aspects, term, pricing model and expected price, risks and how they are mitigated, explanation of non-standard clauses, and how the contract serves the overall project and approved Sourcing Strategy.

It shall also layout the other endorsements received/pending and next steps enroute to contract execution by both the bidder and internal Union Gas/Spectra executive.

Final Review/Approval Signoff – By Contractor/Vendor

The contractor/vendor will be sent the contract for their signature before it is executed by Union Gas / Spectra Energy.

Circulate Contract for Approval in Accordance with Business Transaction and DOA Policies

PSCM will complete the internal company execution process by getting the appropriate company signatures in accordance with policy and the Approval Level Matrix.

The executing party must have sufficient authority to address the entire monetary commitment envisioned over the term of the contract.

PSCM shall obtain (and maintain evidence of) all required Spectra internal approvals (or exemptions granted) for each Contract which shall include:

- Purchasing Controls and Commitments Policy (PCCP) required approvals
- Required approvals under Approval of Business Transactions (ABT) policy
- Obtaining signature/execution of the Contract per CAP.
- Obtaining any required certificate(s) of insurance (COI) from the counterparty.
- Administrating and maintaining the Contract (including complying with Spectra's Records Management Policy and its related Records Retention Schedule).

Copies of the executed contract will be distributed to internal stakeholders. PSCM shall retain the hard copy and upload an electronic version into the CLM (Ariba starting Q2 2015) module in SAP sourcing. Contracts will be retained in compliance with Supply Chain records retention rules.

A copy of the signed contract will be returned to the Contractor/Vendor.

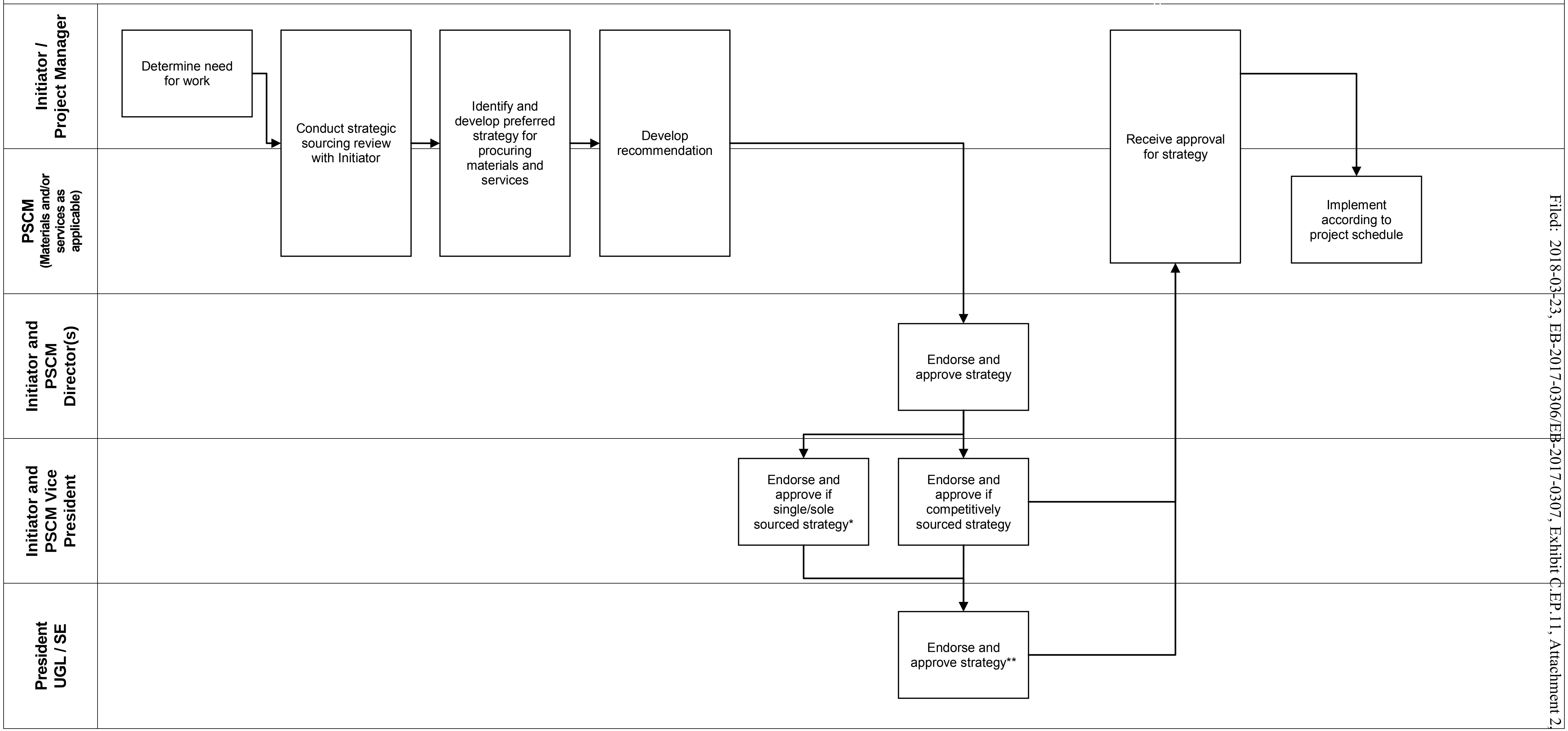
Filed: 2018-03-23, EB-2017-0306/EB-2017-0307, Exhibit C.EP.11, Attachment 2, Page 13 of 16

Supply Chain - Buying Services Process Model

Determine Need	Sourcing	Purchase the Service	Project Execution	Project Closeout
• Determine Sourcing Strategy	• Implement Sourcing Strategy / RFP Process	• Contract Review and Approval Process • Contract Signing Process • ISN Vendor Setup Process • Service Shopping Cart Process • Shopping Cart Requisition Medium/ High Risk Process • CMS Oversight Process • WSIB Approval	• Incident Reporting Process • ISN Tracking / Maintenance • CMS Tracking / Maintenance / CMS Oversight Process • Change Order Process • Contract Amendment • Blocked and Parked Invoice Process	• Performance Summary Process • SRO Closeout Process • Holdback Process
• Review stakeholder need, market, and history of service • Finalize strategy and obtain approval	• Develop/Complete Single/Sole Source Procedure or issue complete RFx • Approval / Award recommendation or Single/Sole source	• Contract Review and Approval Procedure • Service Shopping Cart Requisition Procedure • Low Risk Procedure - Associate Buyer • Medium / High Risk Procedure - Services Buyer • Contract Storage Procedure	• Change Order Procedure (Shopping Cart) • Maintenance or Required Risk/ Training Docs in ISN • Contract Amendment Procedure • Contract Amendment Storage Procedure	• SRO Closeout Procedure • Holdback Procedure • Performance Summary Procedure
• Sourcing Strategy Approval Presentation/ Document	• Single/Sole/Premium Over Low Bid Exception (Form 10036C) • Sourcing Strategy Approval Presentation/ Document	• EHS Risk Communication Tool (Form 10072) • Contract Templates • Officer Approval Routing Document	• Mobilization, Worksite Review, Incident Report • Contract Amendment Template • Officer Approval Routing Document • Corrective Action Plan (CAP) Form	• Performance Summary • Holdback Checklist

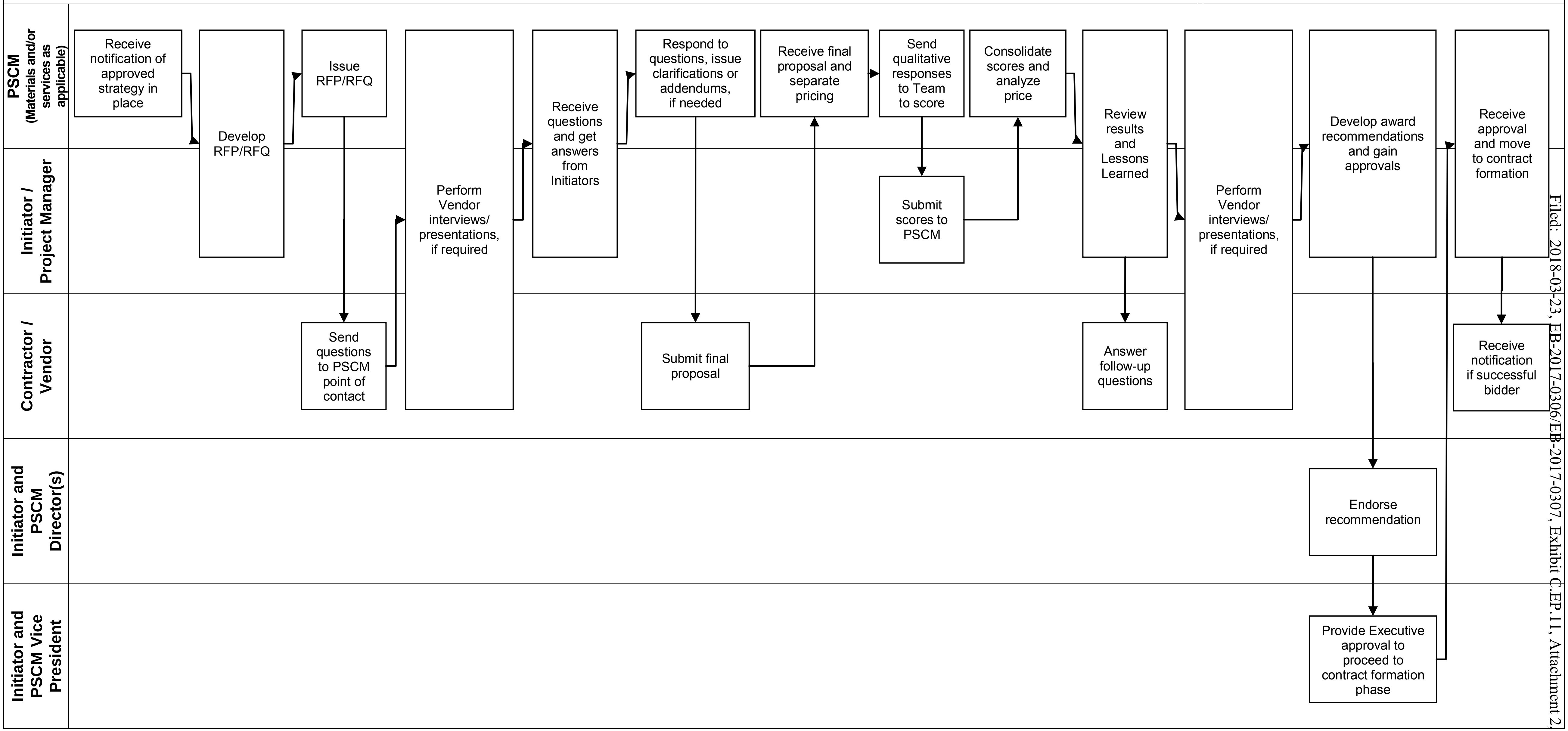
NOTE: *CMS = Contract Management Agreement; EHS = Environment, Health & Safety; ISN = ISNetworld; RFP = Request for Proposal; RFx = Request for; SRO = Service Release Order; WSIB = Workplace Safety and Insurance Board*

Development and Approval of Sourcing Strategy Process



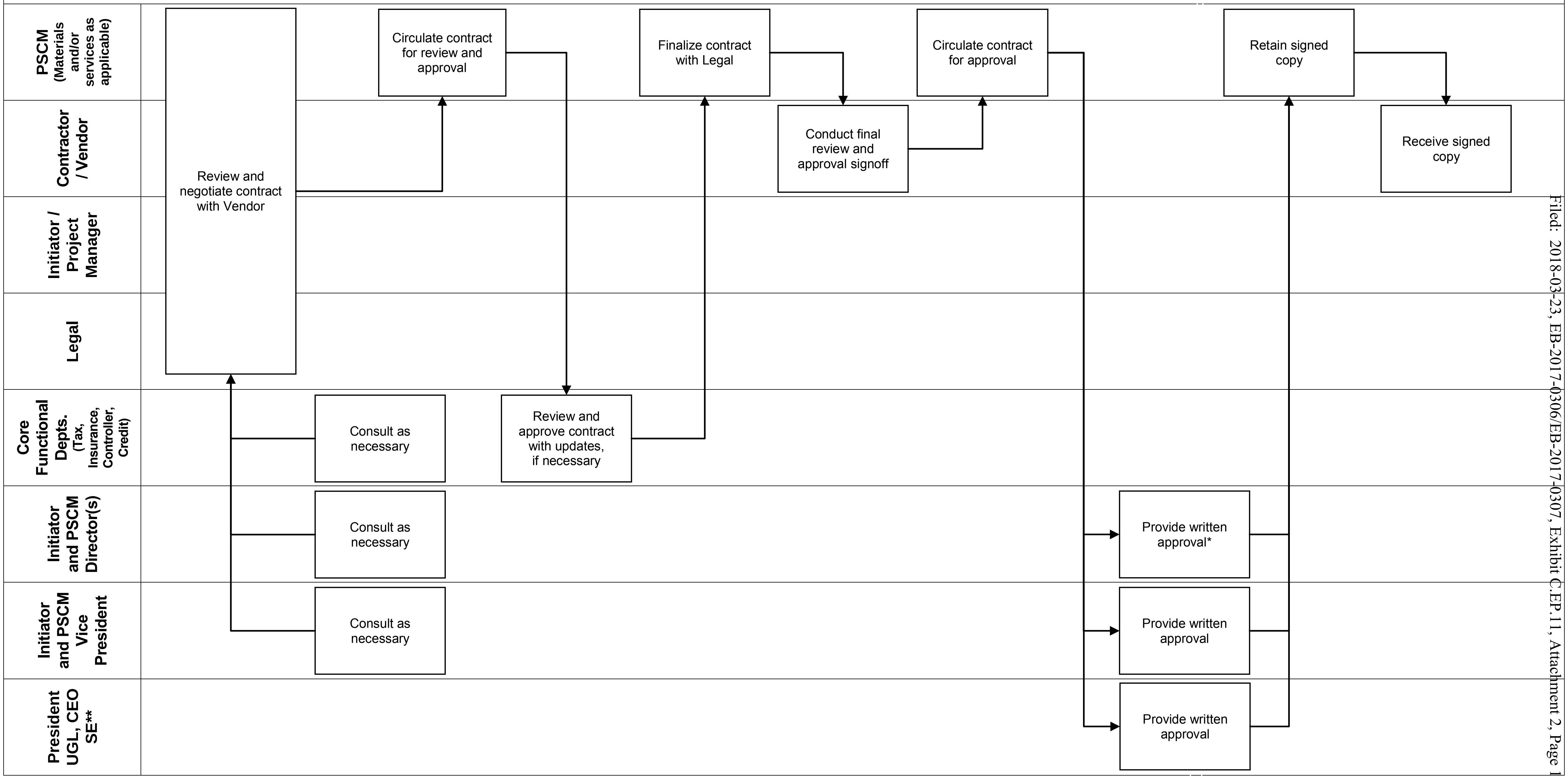
NOTES: *1) *Sole source or single source procurement method between $250K and $5MM require written Vice President approval and review by the Director or Vice President of PSCM.*
*2) ** Sole source or single source procurement methods of greater than $5MM require the written approval of a representative with appropriate DOA and review by Director or Vice President of PSCM.*
3) Single source above President UGL DOA must go to Greg Ebel. Unwritten policy exists that all single/sole source must be signed by Direct Report of Greg Ebel regardless of value (Steve Baker for UGL).
4) DOA = Delegation of Authority, PSCM = Procurement and Supply Chain Management, SE = Spectra Energy, UGL = Union Gas Limited

Implement Sourcing Strategy Process



NOTES: *1) PSCM = Procurement and Supply Chain Management, RFP = Request for Proposal, RFQ = Request for Quotation*

Contract Formation and Execution Process



NOTES: *1) *Transactions must be approved by an individual with proper authority prior to executing or otherwise committing to any legally binding agreements and may not be disaggregated to avoid higher approval limits.*
*2) **The CEO may delegate authority to other individuals within the Company.*
3) PSCM = Procurement and Supply Chain Management, SE = Spectra Energy, UGL = Union Gas Limited

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 29

Question: .
Please provide the 2018 total cost and cost per billed customer of the two billing systems used by Enbridge and Union (broken down by utility).

Response

EGD and Union have very different approaches to the billing systems they use, with EGD using an internally supported system and Union being outsourced. In addition, the systems in place are not strictly limited to "billing" activities. As a result, EGD and Union believe the appropriate costs to consider are their Customer Care costs, which are provided in the response to VECC Interrogatory #9(b) found at Exhibit C.VECC.9.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 29

Question:
Please provide the initial cost estimate, compared to the final cost of $85 million, of the Maximo software platform.

Response

Attached please find Exhibit B2, Tab 8, Schedule 2 (EB-2012-0459) for details on the original Work and Asset Management System (WAMS).

Work and Asset Management Solution Program

Summary

1. The Work and Asset Management Solution ("WAMS") Program includes the evaluation of alternatives, procurement and implementation of a new integrated work and asset management solution. The WAMS Program will enable the Company to continue to operate primary functions into the future. It will become the primary system for creating and tracking work requests and transactional asset information related to functions such as construction, maintenance, service. WAMS will provide data that will contribute to tracking required for productivity monitoring. WAMS will also be accessed by groups such as Customer Care to respond to customer calls that relate to current and scheduled work. Furthermore, it will interface with other systems that store data required to conduct work and track related asset information.

2. WAMS is just one component of the broader Information Technology (IT) infrastructure which includes other existing systems (e.g., CIS, financial and GIS) and future systems (e.g., leak survey, asset investment planning and asset risk management) and forms part of a broader business and technology roadmap. Enbridge will mitigate significant technology risks and be in a position to make prudent decisions about related technologies in the future, by implementing the WAMS Program. Once Enbridge selects the specific replacement technology, Enbridge will be in a better position to optimize and leverage future technologies such as asset investment planning and asset risk management.

3. In April 2003, Enbridge entered into a multi-year capital project service agreement with Accenture to provide work and asset management services which supported

the Company's construction, maintenance, and service activities. To provide the services under the agreement, Accenture used work and asset management hardware and software ("Existing Technology"). This agreement expires April 1, 2014. Enbridge has made the decision for the longer term to provide similar services internally. This approach is a more cost effective solution.

4. Enbridge expects to have WAMS Go-Live December 2015. In the interim period from April 2014 to the implementation of WAMS, Enbridge intends to extend the work and asset management services with Accenture and maintain the same Board approved treatment for these services from Settlement Agreement RP-2003-0203. Enbridge is currently in negotiations with Accenture for the extension. Enbridge believes that this will continue to maintain an effective solution in the short term. This approach also assists in reducing transitional and operational risks and will maintain the current level of work and asset management services through the transition period.

5. Initiatives like the WAMS Program are infrequent. As a result, this represents a significant increase to Information Technology (IT) spending compared to typical years. Forecasted costs during 2014, 2015 and 2016 related to the WAMS Program are outlined in Exhibit B2, Tab 6, Schedule 2 (page 1) and replicated in Table 1 below. Activities in 2013 are largely preparatory for the WAMS Program and costs are lower than the other years. The capital cost in 2014 is greater than 2013 due to the need for the majority of technology purchases and detailed design to be done in that year. In 2015, spending is allocated to the configuration, testing and deployment. Activities in 2016 relate to the warranty, stabilization period and

program close-out activities. Based on forecasted activities, $59.9 million will close to rate base in 2015 and $7.7 million in 2016.

Table 1: Capital Cost Summary ($000)				
	Budget	Forecast		
DESCRIPTION	2013	2014	2015	2016
WAMS Program	500	35,700	23,700	7,700
TOTAL	500	35,700	23,700	7,700

6. The process for procuring the new system and associated services will employ a competitive bid process. For this reason, details that have the potential to prejudice the bid process have not been included in this evidence. The proposed budget for the WAMS Program is based on best available information and several inputs were used including diligent inquiries with utilities in North America on similar initiatives, system vendors, system integrators and industry experts. Sync Energy has been retained to provide an independent expert review of the WAMS Program. Sync Energy has more than 23 years of experience in the electric and gas utility industry, including EAM related projects. Please refer to Exhibit B2, Tab 6, Schedule 2, Attachment for the Sync Energy Report outlining the third party review of the WAMS Program and the reasonableness of the proposed budget, schedule and approach. The Company is confident in the cost estimate based on best available information, and a few milestones will assist in reconfirming this budget. One such milestone is the system vendor / system integrator RFP that is scheduled to be completed in fall 2013. This milestone will occur after the Company has filed its evidence with the Board. The Company intends to update any relevant information to the Board once it is available.

7. A program of this magnitude takes significant time to plan and execute effectively. A diagram showing the timeline is included in the WAMS Program Description section below. In order to meet the 2015 "Go Live" date, significant activities need to occur in advance of that date. The schedule developed and proposed by the Company aligns well with other similar implementations in the industry.

Background

8. In April 2003, Enbridge entered into a multi-year capital project service agreement with Accenture to provide work and asset management services which supported the Company's construction, maintenance, and service activities. To provide the services under the agreement, Accenture used work and asset management hardware and software ("Existing Technology"). This agreement expires April 1, 2014. Enbridge has made the decision for the longer term to provide similar services internally. This approach is a more cost effective solution.

9. Enbridge expects to have WAMS Go-Live December 2015. In the interim period from April 2014 to the implementation of WAMS, Enbridge intends to extend the work and asset management services with Accenture and maintain the same Board approved treatment for these services from Settlement Agreement RP-2003-0203. Enbridge is currently in negotiations with Accenture for the extension. Enbridge believes that this will continue to maintain an effective solution in the short term. This approach also assists in reducing transitional and operational risks and will maintain the current level of work and asset management services through the transition period.

10. As part of Enbridge's consideration of undertaking the services internally it necessarily had to assess the viability of the Existing Technology to support the long term needs. For the longer term, the Existing Technology is problematic because it is based on an operating system (Windows Server 2003) that will no longer be software vendor supported after 2015 and because other critical software would similarly be losing support in the near term. Furthermore, the Existing Technology cannot be practically upgraded to the next version, Windows Server 2008.

11. Utilizing systems that are not Windows supported provides an unacceptable security risk to online attacks and other threats to the Company network. Enbridge currently receives on average 1 million external attacks per month. The Existing Technology is interfaced to many other key systems (e.g., CIS, Oracle), providing additional risk since having one system compromised, also compromises the other systems that interface. If a vulnerable component is attacked and the damage spread to other system components, resulting failures could force movement to manual processes and in many cases could prevent critical Company functions (e.g., customer billing). Current staffing levels and protocols at Enbridge are not aligned to operate on this type of manual basis for more than a very short period of time. This scenario could result in focusing on emergency only functions and delaying other non-emergency related work. In short, Enbridge cannot risk operating an unprotected system within its enterprise network.

12. In an effort to assess the long term technology needs for WAMS, the Company considered a number of options which are discussed later in the WAMS Program Description.

13. The Company has been receiving services from Accenture which has utilized the Existing Technology as a primary operational system. The Existing Technology supports approximately one million work requests every year and stores asset records associated with servicing approximately two million customers. Over 1,000 people use the related data, processes and technologies. The Existing Technology is a fundamental business tool and is foundational to providing safe and reliable service to our utility customers.

14. The principal functions of the Existing Technology include:
    - Creating work related to primary functions such as construction, maintenance, service, etc. (includes compatible units for material, time and labour)
    - Scheduling and coordinating work (includes responding to related customer inquiries and emergency requests)
    - Completing work and asset records related to that work
    - Assisting in program planning related to areas such as Leak Survey or government inspection programs for meters
    - Providing a key source of data for forecasting, workload planning, asset planning, etc.
    - Providing a source for performance measurement related to work and asset management activities

    A new integrated EAM solution will provide this functionality and more.

15. The primary components of the Existing Technology are Severn Trent Operational Resource Management System ("STORMS") v.3.5.2, iScheduler, and Pipeline

Mains Tracking System ("PMTS"), currently branded as Optimain Asset Compliance Management ("Optimain ACM"). These systems are not certified to operate on the latest software vendor supported versions of the underlying Windows Server operating systems and Oracle database. Windows Server 2003 is at the end of life and Microsoft has announced that support will expire in 2015. After that time security patches will no longer be available.

16. Enbridge is the last utility using STORMS ver. 3.5.2 and there is no practical upgrade path to the vendor's current EAM product "ARMS" since it is based on a different technology platform. CGI (Logica) is the current owner of the former STORMS product suite. Their new EAM product "ARMS" will be assessed among the other EAM products available in the market as part of this competitive bid process.

17. Over the past decade, industry practice has evolved with similar utilities moving to Enterprise Asset Management (EAM) systems that provide integrated work and asset management functionality. EAM is a common industry term that relates to the integrated work and asset management system. A more integrated solution requires fewer interfaces and reduces system complexity. The Existing Technology is not an integrated EAM system nor can it be practically upgraded to be one.

WAMS Program Description

18. The Work and Asset Management Solution ("WAMS") Program includes the evaluation of alternatives, procurement and implementation of a new integrated work and asset management solution. The WAMS Program will enable the Company to continue to operate primary functions into the future. WAMS will be the

primary system for creating and tracking work requests and transactional asset information related to functions such as construction, maintenance, service. WAMS will provide data that will contribute to tracking required for productivity monitoring. WAMS will also be accessed by groups such as Customer Care to respond to customer calls that relate to current and scheduled work. Furthermore, it will interface with other systems that store data required to conduct work and track related asset information.

19. WAMS is just one component of the broader Information Technology (“IT”) infrastructure which includes other existing systems (e.g., CIS, financial and GIS) and future systems (e.g., leak survey, asset investment planning and asset risk management) and forms part of a broader business and technology roadmap. Enbridge will mitigate significant technology risks and be in a position to make prudent decisions about related technologies in the future, by implementing the WAMS Program. Once Enbridge selects the specific replacement technology, Enbridge will be in a better position to optimize and leverage future technologies such as asset investment planning and asset risk management.

20. At the time the Existing Technology was implemented, asset management was secondary to work management in the product offerings. Today, asset management is better understood and has risen to a much higher priority and as such, EAM products provide a better balance for both work management and asset management. This aligns with the industry trend and asset related focus at Enbridge. The EAM system will provide a foundation for Enbridge to provide its day-to-day utility services and support other requirements (e.g., safety, integrity and asset planning). The EAM solution will also provide a vendor supported product

that aligns with current underlying technology platforms (e.g., Windows Operating Systems), controlling the overall business and technology risks.

21. Below are the criteria that are used to assess Enbridge's IT infrastructure. These criteria have been applied to assess the WAMS Program and alternatives to the WAMS Program.
    a) Reliability – The ability of an Application to perform the required functions over a period of time without failure
    b) Security – Underlying controls/checks in an Application and operating system that protects against vulnerabilities through flaws in the design, development, deployment, upgrade, or maintenance and external attack.
    c) Availability – The probability that an Application will work as required and when required.
    d) Supportability – The ability of Application Support, Service and Vendor are able to install, configure, and monitor the Application, identify exceptions and faults, isolate defects and issues that would prevent the application from functioning as expected, and provide maintenance services.
    e) Maintainability – The ease with which an Application can be maintained in order to isolate and correct defects, prevent unexpected breakdowns, maximize the Application's useful life, meet new business requirements, and make future maintenance and upgrades easier.

22. As outlined later in this Exhibit, the WAMS Program will provide the best solution in satisfying these criteria.

23. EAM will be a foundational system for work and asset management, and it will be a primary source for that data. This includes performance data related to work and asset management, but is also a key source for data that will be used in assembling and optimizing the Company's Asset Plan.

24. While WAMS will provide the primary system related to work and asset management, there are a number of supplemental initiatives planned that relate to the collection and consolidation of additional asset data that integrate or will integrate into WAMS to deliver a more cohesive asset management structure. Other initiatives such as the MOP (Maximum Operating Pressure) project and DRM (Distribution Records Management) program are primarily focused on harvesting the asset data from historical paper records and other scanned documents. These individual initiatives are aligned and coordinated to ensure that there is consistent governance, standards, processes and technology and that there is no duplication of activities or costs. Figure 1 illustrates the connections between an EAM system and the types of Enbridge systems that will be leveraged to achieve the goals outlined in the DRM and MOP initiatives.

Figure 1: EAM Context Diagram

The Maximum Operating Pressure (MOP) initiative will harvest critical Asset information from paper records, new data items and other historical repositories related to MOP. The data items will be maintained in a temporary location until the data migration phase of WAM's project.

Some data will be combined and migrated with the other data elements to create a comprehensive view of the an asset that will be defined in the new EAM solution.

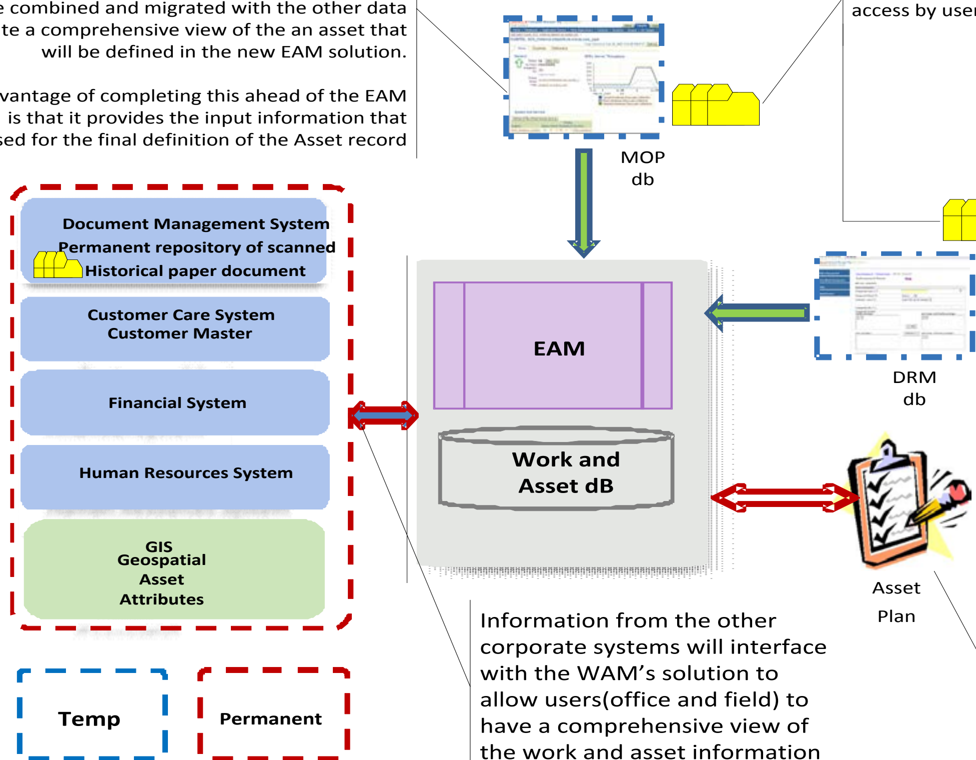
The advantage of completing this ahead of the EAM implementation is that it provides the input information that will be used for the final definition of the Asset record

The historical paper records will be moved to the Document Management System with link to the Asset records for later access by users (office and field)

The Distribution Records Management initiative will harvest critical Asset information from paper records, new data elements and other historical repositories related to the Distribution Network.

Some of the data items will be maintained in a temporary location until the data migration phase of the WAM's project. This data will be combined and migrated with the other data elements to create a comprehensive view of the asset that will be defined in the new EAM solution.

The advantage of completing this ahead of the EAM implementation is that it provides the input information that will be used for the final definition of the Asset record.



Information from the other corporate systems will interface with the WAM's solution to allow users(office and field) to have a comprehensive view of the work and asset information

WAMS will use the direction and plans in the Asset Plan to execute the work activities .

The Asset Plan is a living process that will be refreshed on a regular basis reflecting any revised asset maintenance requirements

In the future the Asset Plan in conjunction with the new WAMS will be used for other asset management functions such as Asset Investment Planning (AIP)

25. The WAMS Program includes all elements required to ensure that the EAM selected will deliver the functions required to run critical activities. The Program includes data preparation and transfer, hardware and software for the EAM solution, stakeholder readiness, process review and compliance, training and execution related to successful use of the EAM solution.

Alternatives considered for the Existing Technology

26. Several alternatives were considered that resulted in the recommendation to proceed with the replacement of the Existing Technology. These include:
    1. Do nothing
    2. Upgrade current software to most recent supported version
    3. Reconstruct current software on custom technology platform
    4. Replacement

27. The alternatives were assessed against Enbridge's IT Infrastructure criteria, as previously defined:
    a. Reliability
    b. Security
    c. Availability
    d. Supportability
    e. Maintainability

28. The following describes each option assessed. At the end of the section a summary table shows a comparison of the options when assessed against the IT Technology criteria.

Alternative Option 1: Do Nothing

29. As previously mentioned, the underlying Microsoft platform for this system will not be supported after 2015 (Windows Server 2003). This will result in system instability and unacceptable risk to external threats. The challenges with supporting the aging application and infrastructure will get worse over time. This will significantly increase technology and vendor risk which magnifies support issues. Enbridge has concluded that this level of risk is unacceptable. Having an enterprise system that is not supported exposes the utility to an unacceptable lack of security to online attacks and other threats to the enterprise network. Enbridge currently receives on average 1 million attacks per month. This foundational system is interfaced to many other key systems (e.g. CIS, Oracle, etc.), providing additional risk since having one system compromised, also compromises the other systems that interface. Having a non-supported system also means that the system will no longer receive the regular maintenance updates from the supporting vendor leading to operational risks. Failure of these systems could force movement to manual processes and in many cases could prevent critical utility functions (e.g. customer billing). Current staffing levels and protocols at the utility are not aligned to operate on this type of manual basis for more than a very short period of time. This scenario could result in focusing on emergency only functions and delaying other non-emergency related work. Therefore, the Do Nothing option was not deemed prudent.

Alternative Option 2: Upgrade Current Software to Most Recent Supported Version

30. The vendor's (CGI/Logica) current product is an EAM product ("ARMS") that was created from a different platform than STORMS. There is no standard upgrade path to the vendor's current product, ARMS, so it was not considered as an upgrade

option. ARMS is included as a replacement option and will be assessed among the other EAM products available in the market as part of the competitive bid process.

31. There is a more recent version of STORMS than what Enbridge currently has, which is STORMS ver. 3.7. This is not a product that the vendor currently sells in the marketplace. This product is also not compatible with operating systems later than Windows Server 2003 and will longer supported after 2015. Therefore, this option is equivalent to Option 1 - Do Nothing option above. There will also be the need to upgrade PMTS and iScheduler since the Existing Technology is not an integrated suite. The upgrade requires a significant effort in testing and migration of the changes that were implemented which are not available in the current version. Therefore, this alternative was not deemed prudent.

Alternative Option 3: Reconstruct Current Software

32. Enbridge has also considered a custom reconstruction of the current software. This would be a short term option that would enable these products to work on Windows Server 2008. Enbridge is not aware of any utility in North America that has taken a vendor’s older product and asked them to make it a custom application. This option would be a short term option since it would not have an upgrade path for the future. It would also require Enbridge to incur costs and risks associated with the vendor having a product that does not align with the rest of their product suite.

    a) Furthermore, the reconstruction does not address Existing Technology obsolescence related to the Storms / iScheduler application that will need to be rebuilt to operate on the latest version of the database and operating system. The version of the software would be custom for Enbridge, therefore further upgrades will become more difficult and costly. The version will only be certified to the current supported database version and operating system, requiring continuous custom rebuilds to address the technological obsolescence problem again with the product support cycle.

b) Additionally, there is no archive function in the application for the Existing Technology. The archive functions are a form of system maintenance where the size of the database is optimized on a regular basis. Without this function the unsupported database growth will not be sustainable.

c) Other deficiencies include the foundation of STORMS which is developed using a product called PowerBuilder. This was a technology used in earlier applications but have since been replaced with modern development standards that are more supportable and maintainable. The version of PowerBuilder currently used in the Existing Technology is also no longer supported and at end of life. Skill sets in the market related to these older technologies are not readily available and pose a problem to address issues as they occur.

d) For all of these reasons, the Reconstruct Current Software option was not deemed prudent.

Preferred Option: Replacement Option (WAMS)

33. The WAMS option includes selecting an EAM system for implementation to replace the Existing Technology. There are several EAM products in the current market and Enbridge will be moving forward with a competitive bid process culminating in the fall of 2013. This option will provide a more integrated system that is supported

and can follow a planned upgrade path. Given the complexity of the replacement it is prudent to examine other leading EAM solutions that will address both the technology issues and the evolving business needs. This option is the only one that sustains at an acceptable level the Reliability, Security, Availability, Maintainability and Supportability of business systems and applications that are critical to the operations of Enbridge. Enbridge intends to include the vendor's current EAM product, ARMS, in the evaluation of products. Therefore, replacement with the vendor's current product is considered a choice under this option, but only based upon the comparison to other viable bids. The Replacement option was deemed the only prudent option and was selected by Enbridge.

34. Figure 2 shows each option and whether they met or failed when compared against Enbridge's IT Infrastructure criteria.

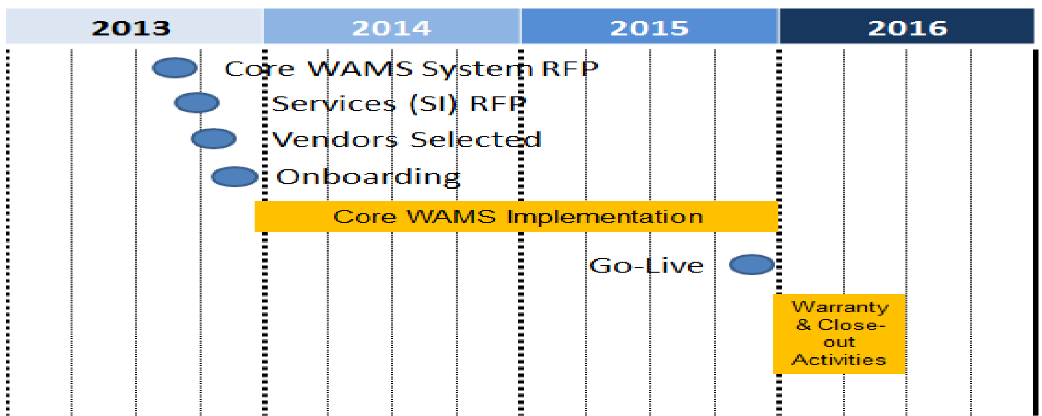
Figure 2: Option Comparison Against IT Infrastructure Criteria

	Criteria				
	Reliability	Security	Availability	Supportability	Maintainability
Option 1: Do Nothing	✗	✗	✗	✗	✗
Option 2: Upgrade to Vendor Supported Version	✗	✗	✗	✓	✗
Option 3: Reconstruct on New Platform	✗	✓	✗	✓	✗
Option 4: Replacement	✓	✓	✓	✓	✓

35. As indicated in Figure 3, Enbridge is evaluating business and system requirements in preparation for evaluation and procurement in the fall of 2013. The Company is

planning for a Go Live date in December 2015. Activities in 2016 relate to the warranty, stabilization period and program close-out activities.

Figure 3: WAMS Program High-Level Timeline



Required Capital

36. Initiatives like the WAMS Program are infrequent. As a result, this represents a significant increase to Information Technology ("IT") spending compared to typical years. Forecasted costs during 2014, 2015 and 2016 related to the WAMS Program are outlined in Exhibit B2, Tab 6, Schedule 2 (page 1) and replicated in Table 1 below. Activities in 2013 are largely preparatory for the WAMS Program and costs are lower than the other years. The capital cost in 2014 is greater than 2013 due to the need for the majority of technology purchases and detailed design to be done in that year. In 2015, spending is allocated to the configuration, testing and deployment. Activities in 2016 relate to the warranty, stabilization period and program close-out activities. Based on forecasted activities, $59.9 million will close to rate base in 2015 and $7.7 million in 2016.

Table 2: Capital Requirements ($000)				
	Budget	Forecast		
DESCRIPTION	2013	2014	2015	2016
WAMS Program	500	35,700	23,700	7,700
TOTAL	500	35,700	23,700	7,700

37. The process for procuring the new system will be a competitive bid process, so details that have the potential to prejudice the bid process have not been included in this evidence. The major components included in this estimate are the following:

- Hardware
- EAM License
- Other required Software / interfaces
- System Integrator (SI)
- Internal Cost (technical)
- Internal Cost (business)
- Training / Rollout
- Warranty
- Data Management / Migration

38. The process for procuring the new system and associated services will employ a competitive bid process. For this reason, details that have the potential to prejudice the bid process have not been included in this evidence. The proposed budget for the WAMS Program is based on best available information and several inputs were used including diligent inquiries with utilities in North America on similar initiatives, system vendors, system integrators and industry experts. Sync Energy has been retained to provide an independent expert review of the WAMS Program. Sync Energy brings more than 23 years of experience in the electric and gas utility industry, including EAM related projects. Please refer to Exhibit B2, Tab 6, Schedule 2 Attachment for the Sync Energy Report outlining the third party review

of the WAMS Program and the reasonableness of the proposed budget, schedule and approach. The Company is confident in the cost estimate based on best available information, and a few milestones will assist in reconfirming this budget. One such milestone is the system vendor / system integrator RFP that is scheduled to be completed in fall 2013. This milestone will occur after the Company has filed its evidence with the Board. The Company intends to update any relevant information to the Board once it is available.

39. A program of this magnitude takes significant time to plan and execute effectively. A diagram showing the timeline is included in the WAMS Program Description section above. In order to meet the 2015 “Go Live” date, significant activities need to occur in advance of that date. The schedule developed and proposed by the Company aligns well with other similar implementations in the industry.

40. All WAMS Program related costs supporting successful implementation of the EAM solution are included in the IT Capital capital budget. This includes all elements related to the WAMS Program as described above.

41. The Company is proposing to implement the EAM solution in December of 2015, with warranty extending into 2016. Similar to Enbridge’s SAP Customer Information System the technology asset will be depreciated over 10 years. Enbridge is proposing to apply Capital Cost Allowance (CCA) in the first 2 years, as allowed by Canada Revenue Agency, thereby minimizing the impact on rates for 2015 and 2016. Enbridge will continue to apply the Board approved treatment to costs in the interim related to the services for the Existing Technology.

Witnesses: W. Akkermans
M. Brophy

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 38

Question:
Enbridge and Union currently hold annual Stakeholder Meetings.

How does moving to Biennial Stakeholder Meetings meet the Objectives of the RRF? Consider the number of customers and rate classes post-amalgamation in your response.

Response

Please see the response to OAPPA Interrogatory #8 found at Exhibit C.OAPPA.8.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1, page 40

Question:

a). How many storage and transportation contracts will remain between the two utilities at the start of 2018?

b). When will these contracts expire?

Response

a - b) Please see the response to SEC Interrogatory #2 found at Exhibit C.SEC.2.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: Exhibit B, Tab 1 Page 42

Preamble: If, in any calendar year from 2024 to 2028, the actual utility ROE is greater than 300 basis points above the allowed ROE as set out under the OEB's policy, the excess earnings above 300 basis points will be shared 50/50 between the ratepayers and the shareholders

Question:
a). Why does this ESM only start in year 6?
b). What is the difference between this proposal and the off-ramp provision specified in the RFE and Rate Handbook? Please explain in detail.

Response

Please see the response to Board Staff Interrogatory#37 found at Exhibit C.STAFF.37.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

MAADs Application

Reference: None

Question:
The applicants have not suggested any conditions of approval.

What Conditions of Approval do the applicants suggest may be appropriate, for example related to Undertakings, Head office(s), shared services, etc.?

Response

Please see the response to Board Staff Interrogatory #12 found at Exhibit C.STAFF.12.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 9

Preamble: Amalco will be required to refinance approximately 50% of its existing long-term debt during the deferred rebasing period. Higher interest rates combined with refinancing a significant portion of existing long-term debt could put significant pressure on Amalco's earnings.

Question:

a) To support this claim, please provide the 2018 baseline debt schedules for EGD and Union
b) Please provide a schedule showing Amalco debt maturities and additional debt requirements over the period 2019-2023.
c) Based on current yield curves please provide a five-year projection for incremental short term and long term debt.

Response

a) Please see tables on the following page for the 2018 baseline debt schedule. Table A shows the EGD debt schedule and Table B shows the Union debt schedule.

Table A

Enbridge Gas Distribution

Line No.	Coupon Rate	Issue Date	Maturity Date	Principal
				($Millions)
1.	9.85%	June 2, 1995	December 2, 2024	85.0
2.	4.04%	November 22, 2010	November 23, 2020	200.0
3.	4.77%	December 19, 2006	December 17, 2021	175.0
4.	6.05%	July 3, 1998	July 5, 2023	100.0
5.	8.85%	October 2, 1995	October 2, 2025	20.0
6.	7.60%	October 29, 1996	October 29, 2026	100.0
7.	6.65%	November 3, 1997	November 3, 2027	100.0
8.	6.10%	May 19, 1998	May 19, 2028	100.0
9.	6.90%	November 15, 2002	November 15, 2032	150.0
10.	6.16%	December 16, 2003	December 16, 2033	150.0
11.	5.21%	February 24, 2006	February 25, 2036	300.0
12.	4.50%	November 22, 2013	November 23, 2043	200.0
13.	4.04%	November 23, 2013	November 23, 2020	200.0
14.	4.95%	November 22, 2010	November 22, 2050	200.0
15.	4.95%	September 7, 2011	November 22, 2050	100.0
16.	4.00%	August 22, 2014	August 22, 2044	215.0
17.	3.15%	August 22, 2014	August 22, 2024	215.0
18.	3.31%	September 11, 2015	September 11, 2025	400.0
19.	4.00%	September 11, 2015	August 22, 2044	170.0
20.	2.50%	August 5, 2016	August 5, 2026	300.0
21.	3.51%	November 27, 2017	November 27, 2047	300.0
				-
			Total	3,780.0

Table B

Union Gas

Line No.	Coupon Rate	Issue Date	Maturity Date	Principal
				($Millions)
1.	5.35%	April 28, 2008	April 27, 2018	200.0
2.	8.75%	August 5, 1993	August 3, 2018	125.0
3.	2.76%	June 2, 2014	June 2, 2021	200.0
4.	4.85%	November 23, 2006	April 25, 2022	125.0
5.	3.79%	July 2, 2013	July 10, 2023	250.0
6.	3.19%	September 17, 2015	September 17, 2025	200.0
7.	8.65%	November 10, 1995	November 10, 2025	125.0
8.	2.81%	May 31, 2016	June 1, 2026	250.0
9.	5.46%	September 11, 2006	September 11, 2036	165.0
10.	6.05%	September 2, 2008	September 2, 2038	300.0
11.	5.20%	July 23, 2010	July 23, 2040	250.0
12.	4.88%	June 21, 2011	June 21, 2041	300.0
13.	4.20%	June 2, 2014	June 2, 2044	500.0
14.	3.80%	May 31, 2016	June 1, 2046	250.0
15.	8.65%	October 19, 1993	October 19, 2018	75.0
16.	2.88%	November 22, 2017	November 22, 2027	250.0
17.	3.59%	November 22, 2017	November 22, 2047	250.0
			Total	3,815.0

b) Please see the response at part a) for debt maturities. Please see below for the debt requirement for the years 2018-2021.

$MM-Debt Issuance	2018	2019	2020	2021
Union Gas	650	300	200	250
Enbridge Gas Distribution	300	300	400	400
Total	950	600	600	650

c) The Utilities do not base their future funding decisions on the current yield curve. Incremental short term and long term debt decisions are based on the forecast funding requirements of Amalco. The Utility will have the option to finance the requirements using fixed rate financing with various maturity tenors based upon the shape of the yield curve at the time the issuance is made.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 15

Preamble: Management anticipates a need for incremental capital investment to reinforce existing pipeline systems where capacity is not available to support future growth and to replace pipeline systems (or portions of systems) where programs to extend the life of the asset are no longer the most cost-effective option. These types of capital investment 1 are beyond what is funded through approved rates without adjustments.

Question:
Please clarify/confirm whether relative to Issue 1g), under the proposed Price Cap IRM, major transmission expansion, reinforcement and compression projects will be:

a) treated as Y factors and will not be part of the ICM. What will be the threshold? Or

b) included in the ICM, but again, what will be the threshold?

c) Please provide a schedule that shows annual distribution capital additions under the current EGD and Union IRM Plans, broken down by mains replacement, expansion, services and other.

d) Please calculate/apply the ICM formula to the historic distribution capital additions and show the amounts for each year and the total.

e) Assuming that future distribution capital additions mirror historic, please project the ICM amounts for Amalco for the period 2019-2024.

Response

a) Not confirmed.

b) Major transmission expansion, reinforcement and compression projects will be applied for under the ICM provided they meet the Board's criteria and the ICM threshold is exceeded.

c-d) Please see the response to LPMA Interrogatory #23 found at Exhibit C.LPMA.23.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1 page 13 and Page 14 Table 1

Preamble: The level of capital spend that can be managed under the Price Cap approach is determined by the OEB's calculation of the ICM materiality threshold value.

Question:

a) Please provide the continuity table 2013-2018 for the following parameters in the ICM threshold calculation
   - Rate base
   - Depreciation
   - Gross assets and
   - Net assets

b) With regard to 2019 opening rate base amount(s) and threshold calculation please confirm that the additions to rate base from 2013 approved to 2018 have not been subject to prudence review.

c) How will the overrun on the EGD GTA Project be addressed?

d) Please provide the detailed working papers for the threshold calculation in Table 1.

e) Please discuss how the number of years since rebasing affects the threshold and also why EGD is shown as one-year since cost of service rebasing.

Response

a) Please see the response to LPMA Interrogatory #23 found at Exhibit C.LPMA.23.

b) Capital expenditures for Union's major capital projects are reviewed through the annual non-commodity deferral account proceeding. Capital expenditures for EGD will have been implicitly subject to prudence reviews within the annual actual earnings and ESM applications and reviews through 2018.

c) Any GTA cost overages have not been included in any rate base calculations to date which underpin EGD's ongoing rates and therefore will not be resident in any Price Cap derived rates during the 10 year deferred rebasing period.

d)

EGD

- The threshold calculation in table 1 for EGD can be found in table 12 of the response to FRPO Interrogatory #11(a) found at Exhibit C.FRPO.11.
- The 2018 rate base and depreciation are filed as part of EGD's 2018 custom IR update and can be found in EB-2017-0086, Exhibit B1, Tab 1, Schedule 1 and Exhibit F1, Tab 2, Schedule 1 respectively.
- The growth factor calculation is shown in table 13 of the response to FRPO Interrogatory#11(a) found at Exhibit C.FRPO.11.
- The GDP-IPI factor calculation is described at EB-2017-0306, Exhibit B, Tab 1, page 22, line 9 and 10.

Union Gas:

- The threshold calculation in table 1 for Union Gas can be found in table 15 of the response to FRPO Interrogatory #11(a) found at Exhibit C.FRPO.11.
- The 2013 rate base and depreciation are filed as part of 2013 rebasing application and can be found in EB-2011-0210, Rate Order, Working Papers, Schedule 2 and Schedule 3
- The growth factor calculation is shown in table 16 of the response to FRPO Interrogatory #11(a) found at Exhibit C.FRPO.11.
- The GDP-IPI factor calculation is described at EB-2017-0306, Exhibit B, Tab 1, page 22, line 9 and 10.

e) The OEB's ICM materiality threshold calculation uses Board-approved rate base, depreciation and revenue inputs. These inputs are annualized before they are included in the calculation.

EGD has been under a custom IR, therefore EGD has 2018 Board approved inputs. Union has been operating under a price cap since 2013, therefore the last Board approved inputs for Union are 2013.

Even though each distributor is using a different number of years since rebasing, the inputs are annualized so there is no material impact on the calculation.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 24

Preamble: Both utilities have earnings sharing mechanisms as part of their current incentive regulation framework. Union does not have a Board-approved deferral account; the ratepayer portion of any earnings sharing is recorded as a liability. EGD's existing deferral account will be eliminated. Amalco will be subject to earnings sharing beginning in 2024 and will record any earnings sharing amounts as a liability at that time.

Question:

a) Please confirm that the ESM for 2019 and beyond is a matter for consideration in the proceeding and accordingly whether an ESMDA is appropriate.

b) What alternatives has Amalco considered should the Board find that an earlier ESM is appropriate? Please discuss.

c) Amalco proposes an ESM starting in 2024 with a deadband of 300 basis points and 50:50 sharing above. Please provide a review/summary of recent Canadian regulatory decisions regarding ESM.

Response

a) The Board has included ESM in it's March 1, 2018, Rate Setting Mechanism Issues List.

b) Please see the response to Board Staff Interrogatory #4 found at Exhibit C.STAFF.4.

c) The Applicants have not performed such a review and to do so would require significant effort .

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 23

Preamble: As part of the Settlement Agreement approved by the OEB in the 2015 Disposition of Deferral Account Balances proceeding (EB-2016-0118), Union agreed to file a study assessing the continued appropriateness of its methodology for determining the NAC.

Question:

a) Please confirm that Amalco is requesting a Normalized Average Use adjustment and Deferral Account.

b) Please provide details on the NAC adjustment proposal and compare to the current NAC treatment for EGD and Union.

c) Please provide status/timing of the NAC review and any additional information.

d) Since EGD is also experiencing declining average use, please comment why the study/review should not be extended for the EGD service areas post amalgamation.

Response

a) Confirmed. Amalco is requesting the continuation of the normalized average use adjustment and the associated deferral accounts.

b) The proposal is a continuation of the current approaches currently in place and previously approved by the Board within the respective IRMs. As such, there is no difference between the current treatment and the proposed.

c-d) Please see the response to Board Staff Interrogatory #59 found at Exhibit C.STAFF.59.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 27

Preamble: To help ensure a greater understanding and transparency of overall operations during the deferred rebasing term, the applicants propose to jointly host a funded stakeholder meeting every other year starting in 2019.

Question:

a) Confirm that during a period of two years under the current IRM Plans, Union and Enbridge will hold four Stakeholder Meetings
b) Please explain why, with the complexities of the amalgamation, only one meeting every two years is appropriate?
c) The requirements for gas supply planning may require annual meetings. Will this determine the overall schedule? Please comment
d) With regard to Affiliate Relations Code how often will corporate charges for Amalco be reviewed with Stakeholders? Consider previous stakeholder engagement for RCAM for EGD in the response.

Response

a) Confirmed.

b) Please see the response to OAPPA Interrogatory #8 found at Exhibit C.OAPPA.8.

c) The Applicants will determine how to address the Board's findings once the Framework for the Assessment of Distributor Gas Supply Plans is final.

d) As indicated in evidence and many interrogatory responses, there is no completed analysis and/or planned organizational structure for an amalgamated entity. Any corporate charges analysis and review cannot be completed for Amalco until there is single entity.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 20 and Exhibit B, Tab 1, Attachment 2 Scorecard

Preamble: The Applicants propose a Scorecard to measure and monitor performance over the 10-year deferred rebasing period. The proposed Scorecard is modelled after the electricity distributors' scorecard and includes measures for customer focus, operational effectiveness, public policy responsiveness and financial performance.

Question:

a). Please indicate which performance measures are the same as the preceding measures for EGD and Union and which are new for Amalco

b). Please provide a list of potential cost-effectiveness measures for gas distribution such as total costs/customer and costs per m3 similar to those for Electric Distribution

c). For each potential cost-effectiveness measure, please provide the five-year historic and projected 2018 baseline data for Union and EGD.

d). Please provide proposed targets for Amalco for 2019

Response

a) All of the proposed scorecard metrics are preceding metrics at EGD and/or Union. No new metrics have been proposed for Amalco at this time.

b-c) Please see the response to CME Interrogatory #9 found at Exhibit C.CME.9.

d) There are no proposed targets for Amalco for 2019.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Attachment 4

Question:

a) Has a review of deferral accounts been made? If so please file this.

b) Please indicate why a "zero base" review of deferral accounts cannot be undertaken prior to 2019 rate application

c) Specifically, please indicate in detail, if the following accounts are to be closed and or why they are required post amalgamation:

179.02_ Transition Impact of Accounting Change Deferral Account
179.18_ Customer Care Services Procurement Deferral Account
179.30_ Manufactured Gas Plant Deferral Account
179.36_ Pension and OPEB Forecast Accrual versus Actual Cash Payment Differential Variance Account
179.48_ Open Bill Revenue Variance Account
179.60_ Electric Program Earnings Sharing Deferral Account
179-138 Parkway Obligation Rate Variance
179-142 Lobo C Compressor/Hamilton to Milton Pipeline Project Costs
179-144 Dawn H/LoboD/Bright C Compressor Project Costs
179-156 Panhandle Reinforcement Project Costs

Response

a) Please see the Attachment 1.

b) All deferral and variance accounts are relative to some base information required to support the maintenance of both EGD and Union Rate Zones (except Pensions and other accounts which Amalco must choose a method), assumptions and/or amounts included or not included in rates, the Applicants assume the reviews outlined in part a) achieve this.

c) With the exception of EGD's account 179.18, the Customer Care Services Procurement Deferral Account, all of the accounts listed are required post amalgamation, as discussed in the response to SEC Interrogatory #45 found at Exhibit C.SEC.45. As indicated at Exhibit B, Tab 1, page 22, EGD did not request continuation of the Customer Care Services Procurement Deferral Account as part of its 2018 Rates Application, EB-2017-0086, and as a result the account has been closed.

DEFERRAL AND VARIANCE ACCOUNTS

PURPOSE:

To summarize changes proposed to deferral and variance accounts as a result of the amalgamation of EGD and Union.

BACKGROUND:

Deferral and variance accounts are approved by the OEB to address the risk of windfall gains or losses arising from certain utility activities. Approval of a deferral or variance account does not imply acceptance of the amounts recorded in these accounts. Disposition of account balances requires and order from the OEB under section 36 (4.1) or (4.2) of the OEB Act, subject to finding that amounts are just and reasonable.

Accounts are maintained in sufficient detail to segregate activities, provide transparency of transactions and to permit review by the OEB.

For 2017, UNION has 38 and EGD has 25 approved deferral accounts, these accounts have been reviewed to determine the implication of the amalgamation of UNION and EGD. In some cases the treatment of activities subject to deferral or variance accounting is the same or substantially the same between the two utilities, although there may be differences in the administration. In other cases, there are activities subject to deferral and variance accounting in one utility and not in the other.

CONCLUSION:

The following accounts will be eliminated as a result of the amalgamation, or are related to EGD's 2014 to 2018 Customized Incentive Rate Application (EB-2012-0459) will not be continued after 2018

Account Number	Account Name
EGD	
179.187	Customer Care Services Procurement Deferral Account
179.167	Customer Care CIS Rate Smoothing Deferral Account
179.347	Constant Dollar Net Salvage Adjustment Deferral Account
179.967	Relocations Mains Variance Account
179.987	Replacement Mains Variance Account
179.247	Post-Retirement True-up Variance Account
179.587	Earnings Sharing Mechanism Deferral Account
Union	
179-120	IFRS Conversion Costs
179-134	Tax Variance Deferral Account
179-139	Energy East Pipeline Consultation Costs

DISCUSSION:

EGD's and Union's deferral and variance accounts are listed in Table 1 and Table 2 respectively.

Table 1 EGD's Deferral and Variance Accounts

	Account Number	Account Name
1.	179.707	Purchased Gas Variance Account
2.	179.807	Transactional Services Deferral Account
3.	179.877	Unaccounted for Gas Variance Account
4.	179.887	Storage & Transportation Deferral Account
5.	179.007	Deferred Rebate Account
6.	179.187*	Customer Care Services Procurement Deferral Account
7.	179.167*	Customer Care CIS Rate Smoothing Deferral Account
8.	179.667	Average use True-up Variance Account
9.	179.337	Greenhouse Gas Emissions Impact Deferral Account
10.		Greenhouse Gas Emissions Customer and Facility Cost Variance Account
11.	179.587	Earnings Sharing Mechanism Deferral Account
12.	179.307	Manufactured Gas Plant Deferral Account
13.	179.207	Gas Distribution Access Rule Impact Deferral Account
14.	179.607	Electric Program Earnings Sharing Deferral Account
15.	179.487	Open Bill Revenue Variance Account
16.	179.087	Ex-franchise Third Party Billing Services Deferral Account
17.	179.347*	Constant Dollar Net Salvage Adjustment Deferral Account

	Account Number	Account Name
18.	179-027	Transition Impact of Accounting Changes Deferral Account
19.	179.247*	Post-Retirement True-up Variance Account
20.		Pension and OPEB Accrual vs Cash Deferral Account (EB-2015-0040)
21.	179.067	Demand Side Management Variance Account
22.	179.107	Lost Revenue Adjustment Mechanism
23.	179.267	Demand Side Management Incentive Deferral Account
24.	179.967*	Relocations Mains Variance Account
25.	179.987*	Replacement Mains Variance Account
26.	179.047	Demand Side Management Cost-efficiency Incentive Deferral Account
27.	179.407	Dawn Access Costs Deferral Account
28.	179.947	OEB Cost Assessment Variance Account

* denotes accounts approved by the Board in EGD's 2014 to 2018 Customized Incentive Rate Application (EB-2012-0459) that will not be continued after 2018.

Table 2 Union's Deferral and Variance Accounts

	Account Number	Account Name
29.	179-070	S&T - Balancing Services
30.	179-075	DSM - Lost Revenue Adjustment Mechanism
31.	179-100	TCPL Tolls & Fuel - Northern & Eastern Operations
32.	179-103	Unbundled Services Unauthorized Storage Overrun
33.	179-105	North Purchase Gas Variance Account
34.	179-106	South Purchase Gas Variance Account
35.	179-107	Spot Gas Variance Account
36.	179-108	Unabsorbed Demand Cost (UDC) Variance Account
37.	179-109	Inventory Revaluation Account
38.	179-111	Demand Side Management Variance Account
39.	179-112	Gas Distribution Access Rule ("GDAR") Costs
40.	179-120	IFRS Conversion Costs
41.	179-123	Conservation Demand Management
42.	179-126	Demand Side Management Incentive
43.	179-131	Upstream Transportation Optimization
44.	179-132	Deferral Clearing Variance Account
45.	179-133	Normalized Average Consumption (NAC) Account
46.	179-134	Tax Variance Deferral Account
47.	179-135	Unaccounted for Gas (UFG) Volume Variance Account
48.	179-136	Parkway West Project Costs
49.	179-137	Brantford-Kirkwall/Parkway D Project Costs
50.	179-138	Parkway Obligation Rate Variance
51.	179-139	Energy East Pipeline Consultation Costs
52.	179-141	Unaccounted for Gas (UFG) Price Variance Account

	Account Number	Account Name
53.	179-142	Lobo C Compressor/Hamilton to Milton Pipeline Project
54.	179-143	Unauthorized Overrun Non-Compliance Account
55.	179-144	Dawn H/ Lobo D / Bright C Compressor Project Costs
56.	179-145	Transportation Tolls and Fuel – Union North West Operations Area
57.	179-146	Transportation Tolls and Fuel – Union North East Operations Area
58.	179-147	Union North West Purchase Gas Variance Account
59.	179-148	Union North East Purchase Gas Variance Account
60.	179-149	Burlington Oakville Pipeline Project
61.	179-150	DSM Cost-Efficiency Incentive Deferral Account
62.	179-151	OEB Cost Assessment Variance Account
63.	179-152	Greenhouse Gas Emissions Impact Deferral Account (C&T)
64.	179-153	Base Service North T-Service TransCanada Capacity Deferral Account
65.	179-154	Greenhouse Gas Customer-Related Obligation Cost Deferral Account
66.	179-155	Greenhouse Gas Facility-Related Obligation Cost Deferral Account

For discussion purposes accounts have been grouped into the following categories to align with the process used by the OEB for review and approval of account balances for disposition.

1. Quarterly Rate Adjustment Mechanism (QRAM) – Gas supply and related transportation deferral or variance accounts are filed for review and disposition quarterly with the OEB-approved QRAM process.
2. Demand Side Management (DSM) – lost revenue, performance incentives, cost-efficiency incentives and additional DSM expenditures are reviewed for disposition as part of the OEB-approved DSM framework.
3. Cap & Trade Compliance (C&T)
4. Non-commodity deferral and earnings sharing – remaining deferral and variance accounts are reviewed annually in a separate application following the utilities year-end to dispose of the balances in these accounts and any earnings sharing if applicable.

1. QRAM - Gas Supply

EGD has one account and UNION has nine (9) accounts to capture the variances between the actual cost of gas purchased and the forecast on which rates are based. The intent of the accounts is consistent; the differences are related to the administrative processes for accounting and reporting. No changes to these accounts are being proposed at this time. During the deferred rebasing period as part of the integration activities the processes will be reviewed to establish a common approach. Changes in the accounting and reporting process will be addressed as required as part of the Board's QRAM process, or at the end of the deferred rebasing period.

Table 3 Cost of Gas (QRAM) Deferral and Variance Accounts

EGD		UNION	
179.707	Purchase Gas Variance Account	179-100	TCPL Tolls & Fuel - Northern & Eastern Operations
		179-105	North Purchase Gas Variance Account
		179-106	South Purchase Gas Variance Account
		179-107	Spot Gas Variance Account
		179-109	Inventory Revaluation Account
		179-145	Transportation Tolls and Fuel – Union North West Operations Area
		179-146	Transportation Tolls and Fuel – Union North East Operations Area
		179-147	Union North West Purchase Gas Variance Account
		179-148	Union North East Purchase Gas Variance Account

2. <u>DSM</u>

The accounting for DSM activities is consistent between EGD and UNION. No changes are being proposed at this time. Process changes as a result of the amalgamation will be addressed as required as part of the Board's DSM process, or at the end of the deferred rebasing period.

Table 4 DSM Deferral and Variance Accounts

EGD		UNION	
179.067	Demand Side Management Variance Account	179-111	Demand Side Management Variance Account
179.107	Lost Revenue Adjustment Mechanism	179-075	DSM - Lost Revenue Adjustment Mechanism

EGD		UNION	
179.267	Demand Side Management Incentive Deferral Account	179-126	Demand Side Management Incentive
179.047	Demand Side Management Cost-efficiency Incentive Deferral Account	179-150	DSM Cost-Efficiency Incentive Deferral Account

3. Cap & Trade

The accounting for the impact of Greenhouse Gas Emissions is consistent, UNION separates customer related and facility related obligation costs from the cost to implement the government regulations. No changes are being proposed at this time. Process changes as a result of the amalgamation will be addressed as required.

Table 5 Cap and Trade Related Deferral and Variance Accounts

EGD		UNION	
179.337	Greenhouse Gas Emissions Impact Deferral Account	179-152	Greenhouse Gas Emissions Impact Deferral Account (C&T)
	Greenhouse Gas Emissions Customer and Facility Cost Variance Account	179-154	Greenhouse Gas Customer-Related Obligation Cost Deferral Account
		179-155	Greenhouse Gas Facility-Related Obligation Cost Deferral Account

4. Other

The other deferral accounts have been grouped into the following categories based on the activity being recorded.

- 4.1. Revenue
- 4.2. Cost of Gas
- 4.3. CDM
- 4.4. Capital Related
- 4.5. Operating Expenses
- 4.6. Earnings Sharing

4.1. Revenue

Table **6** lists the various revenue related deferral and variance accounts. There are no changes being proposed as a result of the amalgamation.

Table 6 Revenue Related Deferral and Variance Accounts

Notes	EGD		UNION	
1	179.667	Average use True-up Variance Account	179-133	Normalized Average Consumption (NAC) Account
2	179.807	Transactional Services Deferral Account	179-070	S&T - Balancing Services
3	179.087	Ex-franchise Third Party Billing Services Deferral Account	N/A UNION does not provide third party billing service	
4	179.487	Open Bill Revenue Variance Account	N/A UNION does not provide open bill service	
5	179.407	Dawn Access Costs Deferral Account	179-153	Base Service North T-Service TransCanada Capacity Deferral Account
6			179-103	Unbundled Services Unauthorized Storage Overrun
7			179-143	Unauthorized Overrun Non-Compliance Account
8			179-138	Parkway Obligation Rate Variance

1. Both utilities defer variances in average use in the general service rate classes. Changes in average use are a Y-factor recognized in the annual rate adjustment mechanism. The variance accounts true up to actual normalized average use.
2. EGD defers variances in storage & transportation transaction service revenue; UNION defers variances in revenue from the sale of excess utility space and other balancing services. UNION does not defer variances in transportation service revenue on its own assets.

3. Deferral of the ratepayer portion of net revenue generated from EGD's third party billing services provided to ex-franchise parties. Union does not provide third party billing services.
4. Deferral of the ratepayer portion of revenue above or below approved threshold levels for EGD's open bill services. Union does not provide open bill services.
5. Recovery of EGD's costs incurred to provide customers access to Dawn. UNION defers the variance between revenues and costs for the excess capacity purchased from TransCanada to provide North T-service customers transportation from Dawn.
6. To record unauthorized storage overrun charges incurred by customers.
7. UNION defers the revenue from unauthorized overrun charges to interruptible distribution customers for not complying with a distribution interruption.
8. UNION defers rate variances related to the differences between the effective date of changes in the Parkway delivery obligation and the inclusion of the cost in approved rates.

4.2. Cost of Gas

The various cost of gas related deferral and variance accounts addressed as part of the annual non-commodity deferral disposition process are shown in

Table 6. No changes are being proposed as a result of the amalgamation.

Table 7 Cost of Gas Related Deferral and Variance Accounts

Notes	EGD		UNION	
1	179.877	Unaccounted for Gas Variance Account	179-135	Unaccounted for Gas (UFG) Volume Variance Account
			179-141	Unaccounted for Gas (UFG) Price Variance Account
2	Included in account 179.707 PGVA		179-108	Unabsorbed Demand Cost (UDC) Variance Account

Notes	EGD		UNION	
3	179.887	Storage & Transportation Deferral Account	Included in QRAM deferrals	
4			179-131	Upstream Transportation Optimization

1. Both utilities defer variances in unaccounted for gas. UNION has a $5 million dead band before amounts are recorded in the volume variance account. UFG variances will continue to be tracked and recorded in the appropriate deferral account for recovery.
2. Variances in unabsorbed demand charges (UDC) on upstream transportation contracts are deferred by both utilities. UNION has a separate deferral account that is disposed of in the annual process for the disposition of non-commodity deferral accounts. EGD records variances in UDC in the PGVA. UDC will continue to be tracked separately based on the associated gas supply plans. Changes to accounting or reporting as a result of the amalgamation will be brought forward if required during the deferred rebasing period.
3. EGD records variances in cost of storage and transportation services purchased, any comparable variances for UNION are captured in the QRAM deferral accounts.
4. UNION records the variance between actual optimization revenue realized on upstream transportation contracts and the amount credited in customer’s rates.

4.3. CDM

The accounting for CDM activities is consistent between EGD and UNION. No changes are being proposed as a result of the amalgamation.

Table 8 CDM Related Deferral and Variance Accounts

EGD		UNION	
179.607	Electric Program Earnings Sharing	179-123	Conservation Demand

EGD		UNION	
	Deferral Account		Management

4.4. Capital Related

EGD and UNION defer variances on capital investment approved by the OEB for rate recovery beyond what can be funded by existing rates. The investment subject to deferral depends on the circumstances of the utility. No changes are proposed as a result of the amalgamation. EGD's accounts will not continue at the expiry of the term of the custom incentive regulation period. Union's accounts will continue during the deferred rebasing period to capture the impact of changes in income tax timing differences.

Table 9 Capital Related Deferral and Variance Accounts

EGD		UNION	
179.967	Relocations Mains Variance Account	179-136	Parkway West Project Costs
179.987	Replacement Mains Variance Account	179-137	Brantford-Kirkwall/Parkway D Project Costs
		179-142	Lobo C Compressor/Hamilton to Milton Pipeline Project (2016 Dawn Parkway System Expansion)
		179-144	Dawn H/LoboD/Bright C Compressor Project Costs
		179-149	Burlington Oakville Pipeline Project

4.5. Operating Expenses

As a result of the amalgamation the accounting and reporting of common operating costs will be integrated. Allocations of costs to various rate classes will continue to be required. Where each utility has an existing deferral account to capture variances these accounts will continue to be used. These accounts are listed in Table 10.

Table 10 Operating Expense Related Deferral and Variance Accounts

Notes	EGD	UNION

Notes	EGD		UNION	
1.	179.007	Deferred Rebate Account	179-132	Deferral Clearing Variance Account
2.	179.207	Gas Distribution Access Rule Impact Deferral Account	179-112	Gas Distribution Access Rule ("GDAR") Costs
3.	179.947	OEB Cost Assessment Variance Account	179-151	OEB Cost Assessment Variance Account
4.	179.307	Manufactured Gas Plant Deferral Account		

1. EGD and UNION both defer amounts payable or receivable related approved deferral account disposition amounts for customers that can't be located.
2. EGD and UNION both defer costs related to implementation of the OEB's Gas Distribution Access Rule.
3. EGD and UNION both defer costs related to variances in the OEB's cost assessment. While the amalgamated utility will have a single assessment the variance between the actual assessment and the amount recovered in approved rates will be allocated to the legacy rate zones. Changes to the variance accounting and reporting processes will be proposed for approval if required during the deferred rebasing period.
4. EGD will continue to captures all costs incurred in managing and resolving issues related to the company's Manufactured Gas Plant legacy operations.

There are several accounts that are unique to either EGD or Union. These accounts listed in Table 11 will be eliminated effective January 1, 2019.

Table 11 Operating Expense Accounts to be eliminated

Notes	EGD		UNION	
1.	179.187	Customer Care Services Procurement Deferral Account		
2.	179.167	Customer Care CIS Rate Smoothing Deferral Account		
3.	179.247	Post-Retirement True-up Variance Account		
4.	179.347	Constant Dollar Net Salvage		

		Adjustment Deferral Account		
5.			179-120	IFRS Conversion Costs
6.			179-134	Tax Variance Deferral Account
7.			179-139	Energy East Pipeline Consultation Costs

1. EGD defers the difference between forecast CIS costs and amounts collected in rates for the period of 2013 through 2018 period as approved in EB-2011-0226.
2. EGD has approval to capture costs up to $5 million associated with benchmarking and tendering for a potential transition to a new CIS service provider. The recovery of this amount will be removed from base rates effective January 1, 2019.
3. Under EGD's Custom IR mechanism pension and OPEB related O&M costs are re-forecast annually and approved to be recovered in rates (EB-2012-0459) subject to deferral of the variance between the forecast and actual costs.

   Union's rates under the Price Cap mechanism are not adjusted for changes in pension and OPEB costs, variances are managed in the overall cost of operations. Over the period from 2014 through 2018 Union's pension and OPEB costs have decreased significantly from the 2013 forecast level used to set rates in EB-2011-0210. This cost reduction has been used to offset increases in other costs to provide service.

   Under the Price Cap mechanism going forward will not be adjusted for changes in pension and OPEB costs. Pension and OPEB costs will be harmonized and managed by the amalgamated utility. Continuing to defer variances for the EGD portion alone is not appropriate and proposing to defer a Union variance will significantly reduce revenues that have been used to manage the cost to provide service.
4. EGD has recorded amounts for refund to ratepayers during the period 2014 through 2018 incentive period related to the reduction in the reserve for net salvage approved by the OEB. This account is cleared at the end of 2018 and will no longer be required.

5. Union has recorded for recovery from ratepayers the IFRS conversion costs incurred prior to 2013. This account will be cleared at the end of 2016 and is no longer required.
6. Union treats changes in the amount of taxes payable resulting from changes to federal and/or provincial legislation as a Z-factor sharing 50% of the impact with ratepayers (EB-203-0202). Over the past few years this account has been used to capture variances in HST input tax credits only.

   As purchasing and payment processes are integrated developing processes to continue to capture variances in HST input tax credits related to purchases for legacy Union rate classes is unnecessarily complex. This account will be eliminated.

   Z-factor treatment will continue to be available during the deferred rebasing period in the event of significant changes to taxes that are outside of management's control.
7. Union has approval to defer the consultation costs related to the Energy East pipeline project allocated by the Board. This account is no longer required and will be eliminated.

4.6. Earnings Sharing

Both utilities have earnings sharing mechanisms as part of their current incentive regulation framework. Union does not have a Board approved deferral account; the ratepayer portion of any earnings sharing is recorded as a liability.

The existing deferral account will be eliminated. Amalco will be subject to earnings sharing beginning in 2024 and will record any earnings sharing amounts as a liability at that time.

Table 12 Earnings Sharing Deferral Account

EGD		UNION	
179.587	Earnings Sharing Mechanism Deferral Account		

CONCLUSION:

Table 13 provides the listing of deferral accounts effective January 1, 2019 for Amalco

Table 13 List of Deferral Accounts for Amalco

	Account Number		Account Name
1.	EGD	179.707	Purchased Gas Variance Account
2.	EGD	179.807	Transactional Services Deferral Account
3.	EGD	179.877	Unaccounted for Gas Variance Account
4.	EGD	179.887	Storage & Transportation Deferral Account
5.	EGD	179.007	Deferred Rebate Account
6.	EGD	179.667	Average use True-up Variance Account
7.	EGD	179.337	Greenhouse Gas Emissions Impact Deferral Account
8.	EGD		Greenhouse Gas Emissions Customer and Facility Cost Variance Account
9.	EGD	179.307	Manufactured Gas Plant Deferral Account
10.	EGD	179.207	Gas Distribution Access Rule Impact Deferral Account
11.	EGD	179.607	Electric Program Earnings Sharing Deferral Account
12.	EGD	179.487	Open Bill Revenue Variance Account
13.	EGD	179.087	Ex-franchise Third Party Billing Services Deferral Account
14.	EGD		Transition Impact of Accounting Changes Deferral Account
15.	EGD		Pension and OPEB Accrual vs Cash Deferral Account (EB-2015-0040)
16.	EGD	179.067	Demand Side Management Variance Account
17.	EGD	179.107	Lost Revenue Adjustment Mechanism
18.	EGD	179.267	Demand Side Management Incentive Deferral Account
19.	EGD	179.047	Demand Side Management Cost-efficiency Incentive Deferral Account
20.	EGD	179.407	Dawn Access Costs Deferral Account
21.	EGD	179.947	OEB Cost Assessment Variance Account
22.	Union	179-070	S&T - Balancing Services
23.	Union	179-075	DSM - Lost Revenue Adjustment Mechanism
24.	Union	179-100	TCPL Tolls & Fuel - Northern & Eastern Operations
25.	Union	179-103	Unbundled Services Unauthorized Storage Overrun
26.	Union	179-105	North Purchase Gas Variance Account
27.	Union	179-106	South Purchase Gas Variance Account
28.	Union	179-107	Spot Gas Variance Account
29.	Union	179-108	Unabsorbed Demand Cost (UDC) Variance Account
30.	Union	179-109	Inventory Revaluation Account
31.	Union	179-111	Demand Side Management Variance Account
32.	Union	179-112	Gas Distribution Access Rule (“GDAR”) Costs
33.	Union	179-123	Conservation Demand Management
34.	Union	179-126	Demand Side Management Incentive
35.	Union	179-131	Upstream Transportation Optimization
36.	Union	179-132	Deferral Clearing Variance Account
37.	Union	179-133	Normalized Average Consumption (NAC) Account
38.	Union	179-135	Unaccounted for Gas (UFG) Volume Variance Account
39.	Union	179-136	Parkway West Project Costs
40.	Union	179-137	Brantford-Kirkwall/Parkway D Project Costs

41.	Union	179-138	Parkway Obligation Rate Variance
42.	Union	179-141	Unaccounted for Gas (UFG) Price Variance Account
43.	Union	179-142	Lobo C Compressor/Hamilton to Milton Pipeline Project
44.	Union	179-143	Unauthorized Overrun Non-Compliance Account
45.	Union	179-144	Dawn H/ Lobo D / Bright C Compressor Project Costs
46.	Union	179-145	Transportation Tolls and Fuel – Union North West Operations Area
47.	Union	179-146	Transportation Tolls and Fuel – Union North East Operations Area
48.	Union	179-147	Union North West Purchase Gas Variance Account
49.	Union	179-148	Union North East Purchase Gas Variance Account
50.	Union	179-149	Burlington Oakville Pipeline Project
51.	Union	179-150	DSM Cost-Efficiency Incentive Deferral Account
52.	Union	179-151	OEB Cost Assessment Variance Account
53.	Union	179-152	Greenhouse Gas Emissions Impact Deferral Account (C&T)
54.	Union	179-153	Base Service North T-Service TransCanada Capacity Deferral Account
55.	Union	179-154	Greenhouse Gas Customer-Related Obligation Cost Deferral Account
56.	Union	179-155	Greenhouse Gas Facility-Related Obligation Cost Deferral Account

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Attachment 5

Preamble: Directives of the OEB and or Commitments made by EGD and Union, are expected to be addressed when Amalco rebases in 2029.

Question:

a) Please provide a table showing the status/timing of each of the directives/commitments
b) Provide a column that indicates if/why each item should be deferred or abandoned past 2019.
c) In the Applicants' opinion, what are the priorities that would be important for Amalco to address post amalgamation. Please provide a list and timing.

Response

Please see the response to LPMA Interrogatory #13 found at Exhibit C.LPMA.13.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2

Question:
Please file an excel files related to calculations used in Dr. Makholm's TFP study.

Response

Please see the response to Board Staff Interogatory #34(a) found at Exhibit C.STAFF.34.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Mechanism Application

Reference: Exhibit B, Tab 2, Page 4

Question:
What experience has Dr. Makholm and NERA had with TFP studies for Canadian Gas and Electricity regulated utilities since the 2011-12 AUC assignment, up to the recent retainer with Enbridge Gas Distribution and Union Gas? Please provide additional information.

Response

Dr. Makholm has not conducted an update of his long-standing TFP Growth Study since the 2012 proceeding referred to in the question.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 4 and Page124 Exhibit JDM-3, Tab 1, Figure 9

Preamble: The AUC also adopted my "capital tracker" proposal to ensure the collection of necessary capital expenditures not covered by other elements of an incentive regulation plan. Subsequently, I provided testimony for ATCO Gas in 2013 before the AUC on the implementation of that company's capital tracker mechanism.

Question:

a) Confirm that in a recent Decision the AUC has modified the Capital Tracker (aka capital factor), for ATCO. Please indicate the main reasons for this.
b) Given the availability of an ICM in the proposed Amalco IRM formula, how does this modify the capital index and recommendation for the X Factor? Please discuss in detail with reference to the database used for the Capital Index.
c) Please provide the dataset from the NERA Industry Study for the Capital Index in second Reference.
d) Please provide the weighted average service life of the dataset utilities and the assumptions used for estimating the current Capital Index factor.
e) Please provide and compare the service life of sample data set to that for EGD and Union
f) Please provide the adjustment to the Capital Index to bring the average service life to that for each of EGD and Union and the combined utility post amalgamation.

Response

a) The AUC modified its capital tracker in Decision 20414-D01-2016 and updated the methodology for calculating the capital tracker in Decision 22394-D01-2018. This capital tracker (called k-bar) incorporates incentive regulation principles through the use of the I-X mechanism in each year and applies to all gas and electric utilities in Alberta.

b) The ICM does not affect Dr. Makholm's recommendation of the X-factor.

c) Please see the response to Energy Probe Interrogatory #27 found at Exhibit C.EP.27.

d) 33 years. For full discussion, please see the response to Board Staff Interrogatory #43(a) found at Exhibit C.STAFF.43.

e) 33 years. For full discussion, please see the response to Board Staff Interrogatory #43(a) found at Exhibit C.STAFF.43.

f) Dr. Makholm does not perform such adjustments in his TFP growth analysis

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Mechanism Application

Reference: Exhibit B, Tab 2, Page 4

Question:

a) Please confirm that the IRM terms for the Alberta Electric and Gas Utilities ended in 2017.
b) Was NERA retained by any of the AUC utilities or intervenors for the next phase? If so please provide a copy or reference to the Evidence.

Response

a) Confirmed.

b) No.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 4

Preamble: Recent Evidence provided by Pacific Economics Group summarizes some recent Productivity Studies and trends in X factors (provided as Attachment to this Interrogatory).

Question:

a) Please confirm Dr. Makholm is familiar with these recent studies
b) Please explain why Dr Makholm's evidence does not provide a summary of these studies.
c) Confirm that the current AUC IRM Price Cap Plans established an X factor of 0.3 % for both gas and electric utilities

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Productivity "X" Factor: Recent Trends

The negative trend in productivity is confirmed across multiple experts and sources

Year	StatCan MFP Utility Sector Multifactor Productivity	2012 AUC Proceeding NERA Results	2016 AUC Proceeding Brattle Update of NERA	2016 AUC Proceeding PEG Study for CCA	2016 AUC Proceeding Christensen Study	Christensen Eversource Industry TFP	PSE + Hydro One Ontario Industry TFP	Makholm EGD TFP Growth
2000	2.4%	2.1%	2.1%	1.0%	2.0%			1.9%
2001	7.9%	3.4%	3.4%	1.0%	3.2%			2.9%
2002	7.8%	1.2%	1.2%	1.7%	1.8%	-0.1%		2.2%
2003	3.0%	2.4%	2.4%	1.4%	2.1%	2.1%	0.8%	2.8%
2004	3.0%	2.8%	2.8%	1.4%	3.0%	1.9%	1.3%	3.3%
2005	2.8%	2.1%	2.1%	1.2%	2.2%	0.1%	2.2%	2.4%
2006	3.1%	2.5%	2.5%	0.0%	-2.2%	1.0%	0.2%	3.0%
2007	4.2%	0.5%	0.5%	0.0%	0.5%	-0.4%	1.5%	0.8%
2008	0.5%	-4.9%	-4.9%	0.2%	-4.4%	-2.3%	-0.6%	-4.9%
2009	6.7%	2.6%	2.6%	0.8%	3.7%	2.0%	-0.1%	2.9%
2010	1.5%		2.2%	0.4%	1.7%	-2.2%	0.8%	2.1%
2011	1.0%		-4.5%	0.5%	3.9%	-1.9%	-1.3%	-4.4%
2012	2.4%		-2.0%	1.2%	-2.0%	0.6%	-3.9%	-2.1%
2013	3.1%		-0.2%	0.0%	-0.6%	-0.2%	-4.5%	-0.4%
2014	1.9%		1.8%	-0.1%	1.7%	1.0%	-2.0%	1.9%
2015	2.1%					0.2%	-2.8%	-1.4%
Post-2000 Average	-1.1%	-0.7%	-0.9%	0.5%	-0.8%	-0.5%	-0.9%	-0.9%
Last 5 Years Average	-2.1%	-1.5%	-1.3%	0.4%	-1.3%	-0.5%	-2.9%	-2.0%

MRI for Hydro-Québec Distribution

PEG
Pacific Economics Group Research, LLC

Response

a) Dr. Makholm is familiar with the first study listed (his own in Alberta) and some familiarity with a number of the other studies (to they extent the employ his data set—i.e., the 2016 AUC studies by Brattle and Christensen Associates that the study presented before the Massachusetts DPU by Christensen Associates for Eversource.

b) Dr. Makholm does not conclude that a survey or summary of such studies (whether using his basic data set or other data) would be a useful part of the evidence he presents in this case.

c) Dr. Makholm's understanding is that the AUC's current IRM Price Cap of 0.3% represents a combined X-factor and positive stretch factor for both electric and gas utilities.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 33 and JDM-3 Tab 2 Figure 2

Preamble: A30. For the distribution industry I use sales volume as the output quantity. I create an output index by combining sales volume for several different customer categories as follows:

Residential, Commercial, Industrial and Public. EGD provided sales volume (106 m3) data for roughly the same customer categories. However, I measure sales volume (106 m3) for Union using two customer categories, a General Service category and a Contract category.

Question:

a) Confirm that the options for output quantity are sales volume (MWh electricity or m3 gas) or number of customers. Please justify why sales volume rather than number of customers is appropriate in this case.
b) Did NERA/Dr. Makholm examine output factor growth using the number of customers? If so please provide this analysis.
c) Confirm that Enbridge and to a lesser degree, Union, have experienced declining average use per residential customer.
d) Confirm that the current Revenue Cap Mechanism for EGD rates is based on costs per customer.
e) Has NERA/Dr. Makholm analyzed how trends in declining average use affect output quantity and total factor productivity? If so please provide these data for the industry sample used in the TFP analysis. If not, please explain why.
f) Please discuss in detail, with mathematical analysis, how declining residential average use per customer affects output quantity and utility productivity. Specifically, confirm why Sales Volume is the appropriate output quantity, rather than number of customers.

Response

a) Sales volume and number of customers are two of the options for output quantity. The Alberta Utilities Commission also considered other measures in its PBR proceeding (see AUC Decision 2012-237, ¶392). Dr. Makholm recommended a kWh output index in that case, among the alternatives, and the AUC agreed agrees with his recommendation in the following way:

> The Commission agrees with the experts in this proceeding that each possible output measure (for example, energy sales, number of customers, line miles, peak usage, etc.) or combination thereof has its own merits and disadvantages.
> …
> In light of this uncertainty, the Commission is not persuaded that NERA's output measure of kWh sold is an inferior output measure compared to the variety of alternatives proposed.
> …
> Overall, the Commission agrees … that NERA's output index measuring kWh sold is an acceptable measure to use for the purpose of calculating TFP growth for electric distribution companies (see AUC Decision 2012-237, ¶¶392-397).

b) No.

c) Both EGD and Union have been experiencing declining average use per customer.

d) Not confirmed, EGD's current rates are established using the OEB approved Custom Incentive Regulatory mechanism.

e) No. Any trends that affect output will show up in the measure of output included in the TFP growth calculation.

f) Because the number of customers does not appear in Dr. Makholm's TFP growth analysis, a decline in such a number does not affect his analysis. Please see the response to part a, above with respect to Dr. Makholm opinions and results of using sales quantities at the output index

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
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Rate Setting Application

Reference: Exhibit B, Tab 2, Page 33

Preamble: A41. I also do not recommend the imposition of a stretch factor. It is fair to say that the consensus, among economists performing productivity studies in PBR plans in North America, is that the purpose of a stretch factor is to reflect the expected productivity growth due to the heightened incentives that accompany a *transition* from a cost-of-service regime to PBR.

Question:

a) Please comment further on your recommendation for a zero stretch factor in context that post amalgamation EGD and Union are projecting up to $410 million in efficiency savings.
b) Please compute an appropriate stretch factor using this savings projection.

Response

a) Dr. Makholm provided an extended discussion of this topic in his pre-filed evidence that explains his opinion on the subject fully. See Exhibit B, Tab 2, Expert Report and Direct Testimony of Jeff D. Makholm, Q&As 19, 20, and 24.

Please see response to LPMA interrogatory #17, found at Exhibit C.LPMA.17.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Page 13 and 14

Preamble: Qualifying incremental capital investments are discrete projects that satisfy the criteria documented in the OEB reports. One of the qualifying criteria is that the capital investment will cause the total capital budget to exceed the threshold value of capital expenditures that can be funded through approved rates.

Question:

a) Is Amalco proposing that to qualify for ICM a discrete single project must exceed $503 million for Enbridge and $330 million for Union?

b) Considering that the both Enbridge and Union will be owned by the same Amalco shareholders please explain why the there should not be a combined ICM threshold of $833 million.

Response

a) No. To access the ICM, the total capital requirements must exceed the ICM materiality threshold (for Union - illustrative $330 million and for EGD - illustrative $503 million). The ICM materiality threshold is dependent on different parameters as per the ICM board formula and will be calculated annually in the Applicants' annual rate application. If capital spending exceeds the materiality threshold, and a discrete project meets all of the other ICM eligibility criteria, then approval of cost recovery under the ICM should be approved.

b) Please see the response to VECC Interrogatory 331 found at Exhibit C.VECC.31.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 1, Attachment 5, Page 1

Preamble: Amalco expects to address commitments that it made in past proceedings in 2029.

Question:
Please explain Amalco's understanding of the concept of commitments made to the OEB in a regulatory proceeding.

Response

Commitments and requirements outlined in past regulatory proceedings are important. In looking at meeting and the intentions of such commitments, it is important to consider the most useful manner and timing for their completion in relation to the circumstances of the regulatory applications made by entities as well as the related OEB policies / guidelines goals and principles under which the applications are made.

As an illustration, as the Board's MAADs policy is intended to incent the consolidation or amalgamation of two or more utilities, requiring utilities who have filed for amalgamation to complete previous commitments of studying existing depreciation methodologies of each utility would not be a productive or useful exercise or informative for the Board.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, page 10

Question:

a) Is lengthening "regulatory lag" necessary to "better expose regulated utilities to the types of incentives faced by competitive firms"?
b) If it is, what is a reasonable length of regulatory lag for regulated utilities?

Response

a) See Exhibit B, Tab 2, Expert Report and Direct Testimony of Jeff D. Makholm, Q&A 14. See also response to SEC Interrogatory #56 found at Exhibit C.SEC.56.

b) The length of time that balances competing objective can depend on many factors and is ultimately up to the regulator to judge, as informed by recommendations from the companies that it oversees in a PBR plan. Apart from those opinions, Dr. Makholm does not have a general answer on the "reasonable length" of regulatory lag. See Exhibit B, Tab 2, Expert Report and Direct Testimony of Jeff D. Makholm, Q&A 14. See also AUC Decision 2012-237, ¶¶823-839 (Section 11 – Term). In particular, the AUC states:

> All of the parties recognized that, in setting the term of a PBR plan, the Commission must achieve a balance between two competing interests, namely, ensuring that the term is long enough to permit the company to achieve and capture efficiencies but not so long that the company's revenues are substantially out of sync with costs. As NERA stated, ―ultimately we base rates for North American ratepayers on cost, and while we want to -- while it is a praise-worthy pursuit to want to avoid a disruption of frequent base rate cases, it is hard over the course of years to base rates on cost if you don't once in a while look at the costs.

> The Commission considers that a five-year fixed term for each of the PBR plans is reasonable. The Commission has chosen this period recognizing that some of the elements approved in the PBR plans in this decision are novel and this term is consistent with the typical term for PBR plans in North America. Although a shorter term tends to blunt the incentives for companies to identify and implement productivity

improvements, the Commission has approved the inclusion of an efficiency carry-over mechanism to mitigate this effect (AUC Decision 2012-237, ¶¶824 and 836).

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 15

Question:

a) Please confirm that that none of EGD's previous the multi-year rate plans were price cap?
b) Please confirm that this will be EGD's first price cap plan.

Response

a - b) Confirmed.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 18

Question:
If it is not "reasonable to impose a stretch factor for a PBR regime that will be nearly 20 years old when the next price cap framework period begins", what is the maximum age of a PBR regime where a stretch factor would be reasonable?

Response

See Exhibit B, Tab 2, Expert Report and Direct Testimony of Jeff D. Makholm, Q&A 19, in particular footnote 26.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 18

Question:

a) Please provide a list of all North American utilities that have merged in the past 20 years.

b) Have any of those mergers resulted in savings "in the service of consumers"? If they have, please provide the numerical amount of savings and the number of years that it took the utilities to achieve such savings.

c) Has Dr. Makholm performed any work on incentive rate applications that are part of a merger? If so, please provide that work.

Response

a-b) We decline the opportunity of the effort and work required to provide such research/summary.

c) No.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 34

Question:
Is Dr. Makholm's position that stretch factors undermine incentive regulation?

Response

In the context of investor-owned utilities, not municipal or otherwise publicly-owned utilities, Dr. Makholm agrees with the consensus of the economists in the first AUC PBR proceeding about the purpose of the stretch factor representing a transition to a new form of pricing control. With that context in mind, his answer is that stretch factors do not undermine incentive regulation, as long as it is used to reasonably anticipate the transition to PBR. But, his answer is yes, the use of a stretch factor can undermine incentive regulation if the stretch factor is used for purposes for which it does not have such a well-recognized foundation.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, page 35

Question:
a) What accounts for the differences in TFP growth between EGD and Union?
b) Did the differences in PBR/ Incentive Regulation plans have an impact on TFP growth of the two utilities?

Response

a) Differences between the measured inputs for the two companies account for the differences in TFP growth.

b) Dr. Makholm does not have an answer to this part of the question, as he does not have a method by which to separate out from any other activity the effect of any past incentives regulatory plan to which the respective companies were subject.

ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("EP")

Rate Setting Application

Reference: Exhibit B, Tab 2, Page 74

Question:

a) Please list the characteristics of a "well formulated PBR plan" and explain each one.
b) Does the price cap plan proposed by Amalco have all of the characteristics of a well formulated PBR plan? Please explain the reasons for your answer.

Response

a-b) In its context, "well formulated" refers to a PBR plan that is objective, consistent, and transparent in terms of method and inputs:

> We conclude that transparency is the *sina quo non* of useful inputs to PBR plans. (See Exhibit B, Tab 2, Total Factor Productivity Study for Use in AUC Proceeding 566 – Rate Regulation Initiative, p. 74)

The Alberta Utilities Commission found that NERA's analysis met these standards, stating:

> the parameters of the PBR formula will be used to determine customer rates in a contested regulatory process and those rates will be in place for a number of years, the significance of the objectivity, consistency, and transparency of the TFP analysis to be employed in calculating the X factor cannot be understated. In this respect, the Commission observes that having extensively scrutinized and tested NERA's study, the companies were satisfied that NERA's TFP analysis complies with these criteria. The Commission agrees (AUC Decision 2012-237, ¶353).

NERA has employed the same methodology and data sources in its analysis for this proceeding, thus the "well formulated" would apply to the characteristics of Amalco's PBR plan.