

CANADA
PRINCE EDWARD ISLAND

BEFORE THE ISLAND REGULATORY
AND APPEALS COMMISSION

IN THE MATTER of Section 2.1(2) of the
Electric Power Act, R.S.P.E.I. 1988,
Cap. E-4, and

IN THE MATTER of an Application by
the City of Summerside Electric Utility
for a Permit to provide service in the
form of transmission from the Ottawa
Street Substation to the Bedeque
Substation.

Commission Docket UE30402

Interrogatories of the City of Summerside/Summerside Electric ("SE") to
Maritime Electric Company, Limited

All references are to the Affidavit of John D. Gaudet sworn February 10, 2012 and Exhibits A through G thereto, unless otherwise indicated.

IR-1

Reference:

Affidavit, paragraph 3: *"Most recently, I was involved in all aspects of MECL's Y-115 transmission line project, which involved the design, costing, routing, approval, construction and interconnection of a 138 kV transmission line from Sherbrooke to West Cape."*

Question:

(a) *Please supply stamped designed drawings for Y-115.*

IR-2

Reference:

Affidavit, paragraph 7: *"Based on our review, we verily believe that the Transmission Line Project would cost \$7,058,000."*

Question:

Please provide a line by line comparison of this cost estimate of \$7 million and the cost estimate made by MECL in 2009.

IR-3

Reference:

- (a) Affidavit, Paragraph 9, Page 3: *“If a fault on equipment connecting directly to the Bedeque substation bus (existing transmission lines or the proposed COS 138 kV line) is not cleared quickly enough, the backup protection on the interconnection to New Brunswick will operate, causing an Island-wide outage. It is essential to have a reliable, dedicated and direct communications link between Bedeque and Ottawa Street in order to ensure fast and reliable fault-clearing on the proposed COS 138 kV line, thereby avoiding operation of the submarine cable’s backup protection and an Island-wide outage.”*
- (b) Exhibit D Report of Nick Strum, page 4 of 11: *“If the line requires optical fiber to be under-built, a further contracted out cost in the range of \$15-\$20 per meter would need to be added, which in this instance would be an additional \$300,000 to \$400,000.”*

Question:

- (a) Is there a communication link from Bedeque to Sherbrooke?
- (b) Is there a communication link from Sherbrooke to Ottawa Street?
- (c) Please provide MECL’s policy for communications equipment on its transmission system. Specifically, please indicate whether MECL has built a dedicated communications system on every one of its own transmission lines, or whether the communications systems of other parties are sometimes used. Please provide the capital cost per km of communications equipment for MECL’s three (3) most recently constructed transmission lines, if MECL owns the communications equipment, and the annual rental or usage cost per km if MECL does not own the equipment.
- (d) Please provide a detailed breakdown to explain MECL’s \$500,000 communication cost estimate. Please indicate the level of confidence that MECL places in the estimate (eg. Class “A” – Class “D”).
- (e) Does the design of the Bedeque substation not include the ability to protect other parts of the system from a fault on one line connecting with the substation? If not, why not?

- (f) Does MECL not agree that it would be the responsibility of COS to communicate to the MECL system and this responsibility would be met at the Sherbrooke Substation?
- (g) Please explain in detail the difference of \$100,000 to \$200,000 between Mr. Strum's estimate of communication equipment costs and MECL's estimate.
- (h) Given MECL's apparent view that a \$500,000 communication system is "essential", please explain in detail why Mr. Strum indicates that such a cost would only be incurred "if" optical fibre is required to be under-built.
- (i) Please confirm that MECL currently owns or has access to a communication system along some or all of the route proposed for COS' transmission line. If so, would MECL be prepared to negotiate in good faith use of its system by COS for an annual charge and at what cost to COS? If MECL does not have its own communication system, would they be prepared to negotiate for MECL's use of a system constructed by COS on a rental basis?

IR-4

Reference:

Affidavit, Paragraph 11, page 3: "In the Y-115 project, MECL undertook a public consultation process, which included community information sessions and public open houses when proposing its preferred routing of the 138 kV transmission line. One result of this public consultation process was the required rerouting of the proposed line from a roadside route to a predominantly cross-country route (see Exhibit B)."

Question:

- (a) Please provide a copy of the order or other document that required re-routing of the Y-115 line, and specify the government department or regulatory agency that established the requirement. If there was no legal obligation to re-route, then why did MECL do so?
- (b) What was the impact of the additional re-routing costs on:
 - i. MECL's rate base and
 - ii. shareholder return?
- (c) Please specify the environmental and/or public health considerations that specifically caused the re-routing.
- (d) Please clarify whether there was an existing transmission facility along either the originally proposed route or the final route for Y-115.

IR-5

Reference:

- a) Affidavit, paragraph 19: *“As COS has not filed an application with MECL to undertake a System Impact Study or a Facilities Impact Study as per the guidelines of the OATT, COS is likely unaware of many of the system integration details required of the Proposed Project and their resulting costs.”*
- b) Exhibit F, Open Access Transmission Tariff, filed with IRAC October 3, 2007:
 - (i) Section 1.11 Definition
 - (ii) Section 8.2 Study Costs and Revenues
 - (iii) Section 19.4 Facilities Study Procedures
 - (iv) Section 19.5 Facilities Study Modifications
 - (v) Section 32.4 Facilities Study Procedures
 - (vi) Attachment D – Methodology for Completing a System Impact Study
- c) Exhibit F, Open Access Transmission Tariff, filed with IRAC October 3, 2007, Section 1.43 System Impact Study: *“An assessment by the Transmission Provider of:*
 - (i) *the adequacy of the Transmission System to accommodate a request for either Firm Point-to-Point Transmission Service or Network Integration Transmission Service; and*
 - (ii) *whether any additional costs may be incurred in order to provide Transmission Service.*

Question:

- (a) It is COS’ understanding that the OATT provisions requiring a System Impact Study and/or a Facilities Impact Study are triggered when an “Eligible Customer” submits a “service request” for Firm Point-to-Point or Network Integration Service. According to this definition, COS’s requirements do not constitute a “service request”. If MECL believes that COS’ connection requirement would be a “service request” triggering a System Impact Study according to the terms of the OATT, please explain why.
- (b) Does MECL agree that a System Impact Study, if required, would be premature when detailed engineering protection synopsis has not yet been prepared? Why or why not?
- (c) Does MECL agree that the appropriate time for a System Impact Study to be requested, if required, is when COS has IRAC’s order approving construction of the proposed facilities? Why or why not?
- (d) Please explain the process through which any benefits to MECL or to other customers of MECL from the changes or upgrades to MECL’s system will be

identified and reflected in the sharing of costs, both of the facilities themselves and of the Facilities Impact Study.

- (e) Please explain the process through which MECL anticipates that COS will participate in the planning necessary to minimize the long term incremental costs resulting from connection of its proposed transmission line to MECL's system.
- (f) Please confirm MECL's understanding that COS has made repeated offers to participate in system planning processes, and that no process for such participation has yet been instituted.

IR-6

Reference:

Affidavit, Paragraph 29, Page 7 and Paragraph 34, Page 8:

Question:

Please provide a detailed breakdown as to how the figure of \$290,000 was computed.

IR-7

References:

- (a) Affidavit, Paragraph 31 page 8: *"There is no technical requirement for a third transmission line. MECL has been providing transmission service to COS since 1963 via a 69 kV transmission line (T-11) that connects MECL's substation in Sherbrooke to COS' substation on Ottawa Street. The MECL transmission line is properly maintained and in a good state of repair. It has an estimated remaining service life of 25 years before requiring a rebuild."*
- (b) Affidavit, Paragraph 31 page 8: *"With the significant amount of self-supply wind energy it is difficult to forecast COS' peak transmission usage in the future; however assuming a 2% load growth there are approximately 14 years of future operation before reaching T-11's capacity."*

Question:

- (a) On the basis of the statements above, please clarify the earliest point at which MECL would consider it necessary to rebuild or supplement the capacity of the T-11 line? Is this 25 years, 14 years, or some other point in time?
- (b) Since T-11 serves only COS, is it true that the proposed COS transmission line would potentially enable MECL to cancel or at least

defer rebuild or upgrade costs on T-11? How should the resulting savings to MECL be reflected in the business case for the proposed COS transmission line?

- (c) Please provide an estimate of the costs for rebuild or upgrade as planned, and timing.
- (d) Please explain, or provide if documented, MECL's policy for transmission line upgrades when the load forecast indicates a line will soon reach capacity.

IR-8

Reference:

Affidavit, Paragraph 34, Page 8: "MECL's electricity consumers would be responsible for recovery of the current year OATT revenue loss of \$290,000 that COS would avoid paying annually to MECL for transmission service."

Question:

- (a) Please provide an estimate or computation of the dollar impact of a \$290,000 revenue loss on the monthly bill of an MECL customer consuming 650 kWh of electricity.
- (b) Please provide an estimate or computation of the dollar and percentage impact of a \$290,000 revenue loss on MECL's gross annual revenue?
- (c) Please provide an estimate or computation of the dollar impact of a \$290,000 revenue loss on MECL's dividends to its shareholders?
- (d) Given the Decision of the Appeal Court in this matter, why does MECL believe that the Commission should take account of rate impacts on MECL's customers in deciding whether to approve COS proposed transmission line?

IR-9

Reference:

Exhibit A, Table A.1 Construction Costs, Item 1 Subtotal.

Question:

- (a) It is typical utility policy for a customer's contributions in aid of construction to be reimbursed in whole or part, when the facilities constructed begin to be used in the service of the utility's other customers. MECL has adopted such

a policy in its OATT. If COS contributes to the Bedeque rebuild cost of \$429,000 (\$536,000-\$107,000), what portion would be reimbursed to COS when MECL exits a new line from the station?

IR-10

References:

- (a) Exhibit A, p. 11, paragraph 3, Table (unmarked)
- (b) Paragraph 12: *“Judging from its responses to interrogatories, COS does not intend to acquire strategic spares for critical equipment, but rather rely on COS’ backup generators and MECL and other utilities, through agreements and goodwill, to provide transmission service and/or equipment in the event of a short-term or long-term failure of a critical piece of equipment. This approach can result in unexpected future costs and reduced reliability for COS’ customers.”*

Question:

- (a) According to the table, MECL anticipates that COS will use T-11 as a backup facility for the proposed COS line, and that a charge of \$27,086 will apply to that backup service. Given the existence of a reliable backup facility (T-11), please explain in terms of good utility practice why additional redundancy in the form of critical spares would also be required.
- (b) If in MECL’s view, backup from T-11 would eliminate COS’ requirement for spares of some types of equipment but not other types, please specify the types of equipment for which spares would be required and not required, and explain the basis on which MECL has distinguished them.

IR-11

Reference:

Exhibit A, paragraph 3, Table (unmarked)

Question:

- (a) Please reconcile the amount of \$27,086 for T-11 related charges to the charge of \$5,000 for T-11 as a direct assignment facility under the OATT. An excerpt from MECL’s October 3, 2007 filing, Open Access Transmission Tariff - Stakeholder Technical Sessions Questions and Answers is attached for your convenience. If the amount of \$27,086 was computed on a basis that does not reconcile, please explain fully and describe the IRAC approvals that would be required for the charge to be implemented.

- (b) Please indicate where in the project cost estimated by MECL in its September 25, 2009 submissions backup charges for T-11 are included. If they are not included please explain why they were not included at that time, and why it is appropriate to include them now.

IR-12

Reference:

Exhibit A, paragraph 3, Table (unmarked)

Question:

- (a) The item of \$137,830 is the charge paid by COS for transmission over MECL's system of energy supply from West Cape, and is not an operating cost. This amount will be paid by COS whether or not the proposed transmission line is constructed. Given that information, please explain why it is included in the table as an operating cost of the proposed transmission line.

IR-13

Reference:

Exhibit A, paragraph 3, Table (unmarked).

Question:

- (a) Please provide a detailed breakdown as to the derivation of \$13,492 as representing the Schedule 9 ongoing annual charges required for the Bedeque substation modifications.
- (b) Please explain why each line item in the response to sub-paragraph (a) is due to COS' proposed interconnection.
- (c) Please provide / compare with the amounts, if any, included in the estimates provided in Mr. Gaudet's Affidavit of September, 2009.
- (d) If an amount for these alleged Schedule 9 costs was not included by Mr. Gaudet in 2009, please explain why it is now included.

IR-14

Reference:

Exhibit A, page 11, paragraph 4: "MECL determined the Year 1 cost of operation and maintenance of the new facilities is \$122,030. This figure is determined by applying the Non-Capital Support Charge Rate of 1.92% (as per Schedule 9 of MECL's OATT filed with IRAC) to the initial construction cost of \$7,058,424, less the capital support charges for those facilities located within the Bedeque substation which are broken out separately and detailed below. This does not include any direct time, materials or equipment charges that are incurred when operating and maintaining these physical assets which would be an incremental cost, unaccounted for in this analysis."

Question:

- (a) Please confirm that the Non-Capital Support Charge Rate of 1.92% is computed:
 - On the basis of MECL's cost information and not COS'; and
 - On the basis of fully allocated average costs, and not the incremental cost of an individual project.
- (b) Please confirm that if the proposed transmission line is constructed, COS, and not MECL, will be responsible to perform directly or through contractors the operations and maintenance activities for the line.
- (c) Please explain why it appears to be MECL's position that its own fully allocated cost levels should be an appropriate basis to estimate incremental OM&A costs that may be incurred by COS in respect of the proposed line.

IR-15

Reference:

Exhibit A, Note 10, page 12: "MECL currently has six (6) element bus protection equipment on the Bedeque substation. The addition of the 138 kV circuit breaker for COS' transmission line would result in seven (7) elements on the bus, requiring MECL to upgrade the Bedeque bus protection. MECL has estimated that the Bedeque bus would require an approximate eight (8) hour complete outage to perform the final commissioning of new equipment. The labour and materials for this are included in the '138 kV Bus Protections Modifications' line item in Table A.1. However, a Bedeque bus outage severs the Island connection to New Brunswick, and as such MECL and COS would have to supply their respective loads with on-Island fossil-fuel generation in order to perform the commissioning. Wind energy generation cannot be relied upon to supply any energy given its inherent

variability. The projected incremental cost to run generation is estimated to be \$208,000 based on future energy supply contract pricing and current fuel prices.”

Question:

- (a) Please provide the assumptions used as to time of day and season, to support the estimate of load to be served by fossil fuel generation during the time when work would need to be performed at the Bedeque substation. If times of minimum load have not been assumed, please explain why.
- (b) Please provide the prices for fossil fuels used in the estimate.
- (c) Given that the requirement for the work would be foreseen, please explain why the work could not be planned for times when wind generation has the highest probability of being available and/or when weather forecasts indicate that wind generation is likely to be available.
- (d) Please quantify the impacts on cost if wind generation is available to supply load during the interruption of supply from New Brunswick.
- (e) Please clarify whether the estimated cost includes the cost to serve both MECL's loads and COS' loads, or only MECL's loads.
- (f) Please provide support for the estimate of eight (8) hours as the duration required for the work.

IR-16

Reference:

Exhibit A page 11, paragraph 6: “The Transmission – NB to Bedeque charge of \$77,970 is in relation COS' share of the costs for use of the existing submarine cables, transmission lines Y-101 and Y-103, the Bedeque substation facilities, and the Island's ongoing financial responsibilities for certain transmission equipment connecting PEI to the Memramcook Substation in New Brunswick.”

Question:

- (a) Please direct us to the corresponding cost item in the material filed by MECL in this proceeding on September 25, 2009. If no corresponding cost item was included at that time, please explain what change supports its inclusion now.
- (b) Please indicate where this amount is included in MECL's transmission revenue requirement as filed in support of the OATT.

IR-17

Reference:

Exhibit A, Note 10, page 12: “... a Bedeque bus outage severs the Island connection to New Brunswick, and as such MECL and COS would have to supply their respective loads with on-Island fossil-fuel generation in order to perform the commissioning.”

Question:

- (a) Does this paragraph imply that any major problem or requirement for work on the Bedeque bus would sever the New Brunswick connection? If not, please clarify the difference between the effect of other potential problems at Bedeque and the requirement to add a circuit breaker for COS’ transmission line, in terms of its effect on the connection.
- (b) Is it not possible to isolate the components being worked on, in order to continue the connection to New Brunswick? If not, what are the specifics of the station design that prevent this? Please explain how it is good utility practice to maintain a station design that does not provide for work at the station without an Island-wide disconnection from its major and most economic source of supply?
- (c) Please provide a line diagram of the Bedeque substation, showing the relevant configurations. If appropriate, please compare this diagram with Coles’ diagram provided as Schedule E-2 of COS’ response to MECL Interrogatory #6, on January 13, 2012.
- (d) If major problems or work requirements on the Bedeque bus would sever the New Brunswick connection, requiring the use of fossil fuels, has MECL developed any plans for upgrades at the Bedeque substation? If so, when are such upgrades intended to be implemented? If not, has MECL conducted any studies of the risks to the system, or developed any business case for the cost of upgrades, based on the potential for savings in fuel costs? If no such studies have been carried out, please explain why not. If such studies have been carried out, please provide the executive summaries or otherwise summarize the results.
- (e) What is the current fossil fuel generation capacity on the Island? Is that capacity sufficient to meet existing loads at all times of day and seasons? If not, please provide a load duration curve or other summary graphic illustrating the number of hours in a year of normal weather for which the fossil fuel generation capacity would not be adequate, and the amount of the shortfall.
- (f) Please provide a forecast indicating the expected number of hours in the year for which the existing fossil fuel generation capacity would be

inadequate to service the load, for the years 2013, 2015 and 2017, and the amount of the shortfall in each year.

IR-18

Reference:

Exhibit A, Table A.1

Question:

- (a) Is Item 2 Subtotal a Class D estimate? If not, please supply an itemized unit cost.

IR-19

Reference:

Exhibit D Strum Report, page 1: *“At the request of MECL, we have been retained to undertake a technical review of the electrical transmission system design philosophy (two options), developed by MECL in connection with a proposed new 138kV transmission line to interconnect MECL’s existing Bedeque 138 kV switching station to the COSEU’s Harvard Street/Ottawa Street substation.”*

Question:

- (a) Please provide complete copies of the electrical transmission system design philosophies of the two (2) options mentioned above.
- (b) Please provide a schedule that compares the costs of the two options with each other at the highest level of detail available, and with the design philosophies put forward by COS.

IR-20

Reference:

Exhibit D Strum Report, page 2: *“After reviewing MECL electrical single line diagrams entitled “Summerside 138kV Supply Option A” and Summerside 183Kv Supply Option B”, we note that, should the COSEU application be approved, MECL would plan to configure the new 138kV transmission line to exist the Bedeque switching station in a manner consistent with the established station design philosophy.”*

Question:

Please provide MECL electrical single line diagrams as mentioned above. ***Received on February 17, 2012 as per COS’ request. Thank you.***

IR-21

Reference:

- (a) Exhibit D Strum Report, page 2: *“The single line diagrams indicated that at the COSEU end, for either system configuration option, the equipment would be provided with isolating switches and circuit breakers, which in our opinion are appropriate for the configurations presented, and consistent with good power utility engineering practices.”*
- (b) Affidavit, Paragraph 13, page 4 (Gaudet Affidavit): *“COS’ design also did not include a 138 kV breaker at the Ottawa Street substation.”*

Question:

These statements appear to conflict. Please clarify which statement is correct.

IR-22

Reference:

Exhibit D Strum Report, page 2: *“While this type of design and construction does not necessarily provide the degree of security and reliability offered by standard 138kV H-Frame construction with its greater phase spacings and structural integrity, under the circumstances of limited space for the line and considering the cost implications (H-Frame construction installed costs are typically at least twice the cost of armless construction installed costs), armless 138 kV construction should be considered acceptable for this application.”*

Question:

- (a) Does MECL use single pole construction for 138kV lines anywhere else in its current transmission system? Is a single pole structure design an acceptable construction practice for MECL currently?
- (b) Please supply a detailed breakdown of MECL’s current per kilometer costs for:
 - i. 138kV H-Frame construction
 - ii. 138kV Armless construction

IR-23

Reference:

Exhibit D Strum Report, page 3: *“After a review of the MECL Option A single line diagram, we conclude that the MECL Option A concept represents a technically acceptable configuration and a minimum capital cost approach to establishing a new 138kV line terminal, transmission line, and step-down substation if the COSEU proposed interconnection were to proceed.”*

Question:

Please provide the one line mentioned above. **Received on February 17, 2012 as per COS' request. Thank you.**

IR-24

Reference:

Exhibit D Strum Report page 3: *“In order to achieve fault location discrimination, two overlapping zones of protection would be required, one being line protection which would include the 138kV line and the two 183kV circuit breakers, the other being transformer protection which would include the 138kV and 69kV breakers and new power transformer all located at a new or expanded COSEU substation. Protection zone overlap would occur in the COSEU 138kV circuit breaker.*

“Line protection for the new twenty km 138kV line, such as provided by an SEL 311L line current differential system with optical fiber interconnection, would be an appropriate, cost effective solution to consider for the transmission line protection system for this option. An overlapping transformer protection scheme such as that provided by an SEL 387E current differential and voltage relay system, would be applied to the new autotransformer, and would be configured to trip the local (COSEU end) 138kV and 69kV circuit breakers directly.”

Question:

Does MECL use this protection scheme (311 and the 387E relays) and equipment in all aspects of its transmission system currently? Does MECL currently utilize and operate any protection schemes other than the one mentioned above?

IR-25

Reference:

- (a) Exhibit D Strum Report, page 1: *“At the request of MECL, we have been retained to undertake a technical review of the electrical transmission system design philosophy (two options), developed by MECL in connection with a proposed new 138kV transmission line to interconnect MECL’s existing Bedeque 138 kV switching station to the COSEU’s Harvard Street/Ottawa Street substation.”*
- (b) Exhibit D Strum Report, page 3: *“We received updated installed cost estimating information from MECL on February 7, 2012, which included for Option A, a summary page which indicated all costs related to Option A, including Bedeque switching station work, 138kV line construction costs and COSEU substation 138kV and 69kV work, along with a supporting spreadsheet showing a breakdown of costs pertaining to the changes proposed to occur in the existing 138kV Bedeque switching station, and a spreadsheet showing a breakdown of costs related to the 138kV and 69kV installations required at the COSEU substation, and finally a page of recent quotations from electrical equipment suppliers capable of supplying the major electrical components of this project.”*

Question:

- (a) It appears from Strum’s scope of work as identified in Reference (a), that MECL has supplied Strum with two (2) Options (Option A and Option B) which are configured somewhat differently from what COS has actually proposed in its configuration. Why is MECL adding an additional 138kV breaker located in the Ottawa Street Substation into the single line diagram provided by COS as Schedule E-1 to City of Summerside Responses to Interrogatories of MECL Filed: January 13, 2012?
- (b) If the information referred to has been provided as evidence in this proceeding, please clarify which piece of evidence it is, by party, date, and number or page if applicable. If this information has not been filed as evidence in this proceeding, please provide both the summary page and the spreadsheet of costing details.

IR-26

Reference:

Exhibit D Strum Report, page 3: *“... in order to avoid outages when transferring from one source to the other, auto-synchronism capability or at least synchronism check features would need to be integrated into the control systems of the new 69kV*

circuit breaker and the existing line T11 69kV circuit breaker at the COSEU substation, if not already installed.”

Question:

Please confirm that Strum was the author of this entire report. Mr. Strum has performed work for COS in the past and should be well aware that the COS currently maintains a synchronism check feature.

IR-27

Reference:

Exhibit D Strum Report, page 4: “...the introduction of another circuit to the Bedeque 138kV bus would result in the number of current sources exceeding the available current source inputs to the existing bus current differential relay, the result would be significant costs arising from a re-design/re-build/re-commission exercise as well as consequential costs resulting from a typically costly station outage which would be required to rework this protection scheme. We estimate the costs to carry out the rework, including supply and installation of new cables/conduit, and to re-design/re-build/re-commission the 138kV bus protection to be in the order of \$25,000-\$35,000.”

Question:

- a) Is MECL planning on supplying the protection integration to the current source inputs or providing COS space for their protection equipment?
- b) Does MECL have a more detailed estimate available than the Class D estimate of \$25,000 to \$35,000? If so, please provide.

IR-28

Reference:

Exhibit D Strum Report, page 4: “...the introduction of another circuit to the Bedeque 138kV bus would result in the number of current sources exceeding the available current source inputs to the existing bus current differential relay, the result would be significant costs arising from a re-design/re-build/re-commission exercise...”

Question:

As a major distributor of electricity supplied through the Bedeque switching station, the apparent condition of the Bedeque switching station and the power security of PEI are of great concern to COS.

- a) Please confirm that the meaning of this paragraph is that the Bedeque station is currently not configured for additional connections that will be needed in the future to support load growth on the Island—for example a 3rd cable to the mainland or an additional line to serve Charlottetown.
- b) How has MECL's past practices and future planning allowed the condition of the protection to get to this precarious state?
- c) In what year does MECL expect a 3rd line to Charlottetown will be required, according to MECL's forecasts of load growth? Is the line included in MECL's multi-year capital plan?
- d) Many jurisdictions have a system operator who is independent of the transmission owner(s), to oversee the process of planning for and sustaining the adequacy and reliability of system facilities. Does MECL agree the situation described in the referenced paragraph supports the need for an independent System Operator in PEI to oversee such important matters? If not, please explain why.

IR-29

Reference:

Exhibit D Strum Report, Page 4: "The cost of 138kV transmission line construction is identified by MECL as a cost item of \$2,000,000. Based on recent similar installed cost experiences in the Nova Scotia and PEI region, for 138kV single pole, armless construction, for new construction on an unobstructed route, using sixty meter pole spacings, with the supply of materials and installation work carried out by qualified electrical contractors in the Atlantic Canada region, we estimate the installed costs would be \$2,900,000. If the line requires optical fiber to be under-built, a further contracted out cost in the range of \$15-\$20 per meter would need to be added, which in this instance would be an additional \$300,000 to \$400,000."

Question:

- (a) Please confirm that these figures represent a Class D estimate.
- (b) Has Mr. Strum or his company created a cost estimate beyond the Class D level?
- (c) For comparison purposes, please provide a detailed construction estimate delivered in the same line by line format as the MECL Exhibit A Table A.1 together with any back up information relied upon by Strum in its estimate.

IR-30

Reference:

Exhibit D Strum Report, Page 5: *"We understand MECL has assumed space within an existing control building would be available for protection, control and SCADA equipment from COSEU at no cost. If a new control building is not required the difference between the estimates would reduce to approximately \$190,000."*

Question:

- (a) Given that COS has an existing control building - which both MECL and Strum (having been MECL's representative on COS's wind farm project) ought to be well aware of - does MECL agree the \$190,000 can be removed from the cost estimates?

IR-31

Reference:

Exhibit D Strum Report, Page 6: *"An additional hour of delay in restoring power in mid winter in PEI could have serious consequences."*

Question:

- (a) Did the Strum report take into consideration in either Option A or Option B the backup capacity of COS's generating station, wind energy and interruptible customers when evaluating the impact of a transmission outage on customers?

IR-32

Reference:

Exhibit D Strum Report, Page 7: *"The basic line construction costs presented by Coles Associates are less than 40% of our estimated costs, ..."*

Question:

- (a) Did Mr. Strum or his company perform anything more detailed than the Class D Rule of Thumb estimate provided in this report?
- (b) Are Mr. Strum's rules of thumb based on historical public tendered projects or historical in-house utility performance?

IR-33

Reference:

Exhibit E, Incremental Property Taxes, Year 1 of Operation

Question:

- (a) Please confirm whether or not MECL agrees that COS' property tax payments in respect of its electricity system are computed on a provincial government formula as 2% of net sales, where net sales are sales revenues less cost of purchased power and transmission.
- (b) Given that COS would continue to pay approximately \$137,830 annually to MECL for transmission of energy from West Cape, does MECL wish to revise its \$10,000 estimate of incremental property taxes?

IR-34

Reference:

- (a) Exhibit E, Line "Transmission Rate Savings"
- (b) Exhibit SE-1 Rev filed December 2, 2011, page 21: *"As explained in the introductory section of this Exhibit SE-1-Rev, SE anticipates that rates under the OATT will increase to reflect increases in the transmission requirement, and will not, at least for the next several years, be reduced by the addition of significant amounts of wind generation for export to the system. As shown in the attachments, MECL has a study supporting a 23% increase in the transmission revenue requirement (from \$6,052,000 as initially filed in the OATT application to \$7,446,000) in 2008). The business case analysis has therefore assumed a 20% transmission rate increase in Year 2. It is SE's view that this scenario is conservative, given that cost increases from the 2008 levels are likely to have occurred. Beyond Year 2, annual increases of 2% are assumed."*
- (c) Exhibit SE-1 Rev filed December 2, 2011, Attachments

Question:

- (a) COS has assumed an increase in transmission rates of 20% in Year 2, for the reasons provided in the reference. Please explain why MECL has used a factor of 2% to increment transmission cost savings to COS in operating years 2-5. In your answer, please explain specifically if there is any reason why the transmission revenue requirement increase indicated by the 2009 Chymko study (as attached to Exhibit SE-1 Rev) would not be reflected as an increase in rates to transmission customers within the next several years. If

MECL expects to delay an application to the Commission to pass through increases in transmission rate base or operating costs, please explain the expected length of delay and the reasons.

- (b) Please explain the reduction in value of transmission cost savings from \$703,085 in year 15 to \$612,485 in year 16.**
- (c) Please specify any assumptions about wind capacity development in PEI that are factored into MECL's estimate of transmission rate savings.**