Maritime Electric (MECL) 2015 CT4 Application – Comments to IRAC

Baseline Electricity Supply Strategy

The planned expenditure of $100M and the chosen route for the New Brunswick Power (NBP) /PEI cables is the most significant project in our Island's electricity infrastructure since it was first installed. This project sets a strategy that all of our future base load electricity will be purchased from the mainland and that on-island fossil fuel electricity generation should be gradually decommissioned. This expenditure also positions MECL to become a distributor of electricity and not a generator/supplier.

Further, with NBP owning the existing mainland transmission network to Murray Corner, any future PEI enabling extensions within New Brunswick (albeit funded by PEI) entrenches NBP as our single source, partner supplier of electricity. As a result, PEI needs to become an integral part of the NBP customer base (not simply an importer) and all future Power Purchase Agreement (PPA) conditions and restrictions must reflect this partnership and commitment.

Interrogatories Questions Commentary

This commentary offered to the Commission refers directly to some of the questions I presented to MECL and the subsequent responses:

1) I find some answers supplied by MECL on supply adequacy more confusing than clarifying. It appears that the 80MW firm transmission restriction now appears in both the 15% load planning reserve and the N-1 security calculations. Hitherto base load, PPA firm energy, PPA non-firm energy and sub-sea cable outage defined the adequacy calculations. The 80MW transmission curtailment probability is driven by load conditions in the significantly larger New Brunswick area, with only a minor influence of the PEI load.
2) In a response to a PEI Energy Commission question in 2012, MECL concluded that the potential supply outage impact of the (same) 80MW transmission limit for load projections to 2018 would be approximately 1 hour in 21 years compared to a system operator objective for a supply outage of up to 2.4 hours in 1 year. No reference to or update on this conclusion has been provided.
3) Reliability of our electrical infrastructure and the respective capital costs will always require a pragmatic compromise for both user and supplier. Examples enabling compromise are: a) a 2013 NBP peak load of 3117MW occurred between 7:00am and 8:00am; PEI peak loads occur between 5:00pm and 6:00pm. , b) a coincident curtailment of 10% means a power reduction of 312MW for New Brunswick and around 20MW for PEI.
4) The role of the CTGS has changed. One advantage of installing new mainland cables was in being able to retire the CTGS and provide the choice of purchasing capacity (rather than using or installing underutilized self-generation equipment) to meet the forecasted increase in PEI peak load. Previously the CTGS was also not required to assist the 80MW transmission issue, noting (as above) that the peak load periods for NBP and MECL occur at different times during the day.

5) MECL note that the NBP transmission limit is effectively an N-2 situation chosen by NBP; again the probability and associated risk for PEI is not defined, nor explained, nor quantified.
6) A number of references suggest that NBP supply conditions to PEI will be changing during 2019. If this potentially includes installation of additional transmission correcting generation in south-eastern New Brunswick, should not a commitment from NBP be sought now?

I conclude that the CT4 application approach of correcting a supplier mainland transmission problem by siting a back-up, underutilized generator in PEI is both a costly and inappropriate solution. The application should be rejected.

I also observe that with the recent surge in MECL applications presented to IRAC over the last two months and a new rate application expected soon, it is clear that the complexity of these connected applications requires a framework within which each can be individually evaluated and the influence and connection between each understood. This framework for Utilities is an Integrated Resource Plan (IRP) which includes forecasts, risks and costs for at least the next 10 years. Without such a future planning document that is frequently updated and frequently referenced, logical and connected decisions cannot be made. I urge the Commission to seek an IRP from MECL before making any new or revised application decisions.

Transmission Capacity Suggestions:

1) An urgent topic for clarification is a review of the siting, connection and appropriateness of the $100M new cables project. The current situation of committing an initial investment to build a 360MW electricity infrastructure for PEI that is to be immediately restricted by the (albeit low) probability of an 80MW mainland transmission limit cannot continue.
2) The customer/supplier partnership between New Brunswick and PEI has to be strengthened and extended beyond each PPA renewal date. Established at first by inter- Government discussions and agreements extending into the future, this partnership should then manifest between NBP and MECL and also include Summerside Electric Utility
3) The current transmission capacity restriction exists for all south-eastern areas of New Brunswick including PEI. As referenced above, it appears that NBP are considering adding Natural Gas (NG) fuelled generation south of Moncton; any PEI expenditure (if absolutely required) for generation should be in contributing (with our partner supplier) to the cost of this new generation.
4) NG (and not diesel) will become the preferred fuel for future electricity generation (assuming no added nuclear plants) and New Brunswick is best positioned to connect to this fuel. Once the NG supply is assured in New Brunswick, PEI will then have an option to consider a future NG pipeline to meet the continuing space heating transition from heating oil if the associated growth in the electrical infrastructure becomes impractical.