

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

The pressing PEI demand-side problem is the rapid growth in winter peak loading. Peak load in 2010 (after the winter challenge competition) was 205MW; 2015 Jan/Feb peak load is believed to be 260MW – a 55MW increase over 5 years.

Lighting contributes to load but no longer drives the timing of system peak load.

All elements of peak load timing should be addressed in a DSM plan; heat pumps are less than 30% of the annual peak load growth

The plan is a single set of initiatives spanning a long period. For the set 5 years, the plan cites annual energy savings of 0.2% and load peak reduction of 0.6% each year. Why does the plan not address tariff changes, “Time of Use” incentives or select more productive measures of demand control?

Perhaps because the consumer incentive is small, there is no consumer based message section in the plan, e.g. with an annual saving of \$28 and expectation that LED bulbs will last “many years”, the average \$50 consumer cost to purchase 8 bulbs (including the \$40 rebate) may be too high. Up-take could be low with the major target peak saving not materializing!

This plan endorses additional heat pump installations operating at and adding to peak load. The 2013 estimate of 3600 heat pumps installed added 3MW to peak load. Increasing any incentive will likely increase installation rates. With annual peak load increases of between 9MW and 11MW what other electricity uses are causing the remaining 6MW to 8MW increase in peak demand?

The cost of the \$10.9M, 5 year program includes debt financing costs of \$4.5M consisting of \$1.7M interest and \$2.8M added MECL profit. Customer-rate impact is delayed by incurring an increasing customer debt of \$8M by 2020 that will not be paid off until 2035.

How will the target annual savings be measured against the uncontrolled annual increases in both energy consumed and peak loading? An annual progress plan is proposed but again all claimed progress will be either subjective or indirect estimates.

Conclusion: With an aggregate benefit: cost ratio of 1.19 for a program spanning 5 years the financial risk for ratepayers is far too high. The plan must be rejected and IRAC should set new DSM objectives for the replacement plan

Alternative DSM Plan Ideas:

- 1) The DSM program should have a modest annual operating cost with timely, measureable objectives. The duration of the plan should be less than 5 years to allow for consumer use and technology changes.
- 2) The cost of the light bulb program should be reduced or eliminated; reconsider the higher Benefit/Cost ratio for CFL rebates? An objective here is to restrain the total DSM annual budget to previous years \$600K.

- 3) Negotiate a change to the OEE Heat Pump program to include only -25C units AND for resistance replacement. There should be no supplement rebate or cost from/to MECL for heat pumps.
- 4) Prioritize and publish all contributing elements of peak load and adjust DSM actions to curtail the primary drivers.
- 5) Start a customer awareness program by reporting aggregated system monthly demand power on bills and the cost to service this demand if all tariffs were to include a demand charge, e.g. \$1M+ for 1MW peak load.
- 6) Building upon the results of the PowerShift Atlantic program, start a set-time "Off-Peak" pilot program – perhaps for customers using electric Domestic Hot Water.
- 7) Tie all individual ideas together to get public awareness of the cost of peak load BEFORE the possible inclusion of a demand charge in future rate applications.