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December 2, 2015

**Standing Committee on Infrastructure and Energy
First Report of the First Session, Sixty-fifth General Assembly
Committee Activities**

Mr. Speaker and Members of the Legislative Assembly;

The Standing Committee on Infrastructure and Energy is charged with matters concerning transportation, infrastructure, energy policy and mineral resources development, telecommunications, internet and broadcasting.

Committee Membership

Permanent members of your committee are:

- Sonny Gallant, Chair (District 24, Evangeline – Miscouche)
- Peter Bevan-Baker (District 17, Kellys Cross – Cumberland)
- Bush Dumville (District 15, West Royalty – Springvale)
- Hon. Jamie Fox (Leader of the Opposition; District 19, Borden – Kinkora)
- Sidney MacEwen (District 7, Morell – Mermaid)
- Tina Mundy (District 22, Summerside – St. Eleanors)
- Pat Murphy (District 26, Alberton – Roseville)

Kathleen Casey (District 14, Charlottetown – Lewis Point) served as a substitute member.

Committee Activities

On September 17, 2015 your committee met to discuss its work plan.

On October 15, 2015 your committee met to receive presentations by representatives of Maritime Electric Company Limited on the Northumberland Strait power cable and CT4 generator projects; and by Greg Gaudet and Bob Ashley of the City of Summerside on energy conservation and renewable energy.

On October 22, 2015 your committee met to receive presentations by representatives of the Island Regulatory and Appeals Commission on the regulation of petroleum products; and by Carl Brothers of Frontier Power Systems on renewable energy.

On October 29, 2015 your committee met to receive a presentation by Hon. Paula Biggar and other representatives of the Department of Transportation, Infrastructure and Energy on renewable energy.

On December 1, 2015 your committee met to discuss its report to the Legislative Assembly.

Recommendations

1. Your committee recommends that the upcoming PEI energy strategy include a significant public education component.

Greater public education is warranted so that Islanders can better understand how our energy is obtained, converted, used, measured and conserved. As Carl Brothers of Frontier Power Systems pointed out to your committee, the simple fact that several types of units are used to measure energy can make it difficult for non-engineers and non-scientists to compare energy sources. We all use energy but do not always understand it. Greater knowledge of the true costs and efficiencies of the various options for producing electricity, heat and locomotion would help Islanders make better choices for their homes, businesses and means of transportation. It has been suggested to your committee that UPEI's new School of Sustainable Design Engineering could be an important partner in leading public education on energy, though your committee has not yet discussed this with the School.

2. Your committee also recommends that the upcoming PEI energy strategy be informed by the concept of an "energy warehouse": a comprehensive understanding of our current energy sources and a prediction of those we can realistically expect to access in the coming decades.

In crafting a new strategy, government and Islanders need to look ahead in the near- and far-terms to evaluate what energy sources we, our children and their children, will be able to access for our needs on PEI. We are already using wind to generate electricity, and solar technology continues to develop. Biomass, tidal generation, and crop-based fuels have potential. Access to natural gas is currently limited and uncertain into the future. Oil and gas prices are currently lower, but this is not a long-term trend; fossil fuel supplies will not last, and what remains takes massive resources to extract and import. A solid understanding of the existing and potential energy sources that can form PEI's energy warehouse over the next several decades is fundamental to a forward-thinking energy strategy.

3. Your committee cautions Government and electric utilities to not yet conclude that wind energy has reached its development capacity.

Wind energy has been a success story for PEI, allowing us to meet a significant portion of our needs and also export energy off-Island. The public ownership model of the majority of PEI's wind turbines has also benefitted communities and your committee has been told that additional communities have made inquiries about further development. However, Maritime Electric informed your committee that, due to wind's intermittent nature and the fact that we must sell excess wind-generated energy at a discount, the economic case for developing additional wind generation capacity is lacking. That may be the current situation, but the likelihood of a carbon pricing system being imposed on the energy market in the future could increase the demand for and return on PEI's wind energy exports as a carbon-free source. As

energy storage technologies improve and become more affordable it will also be possible to store wind-generated energy for later use. The City of Summerside is already capturing excess wind energy in residential electric thermal storage systems; if these storage systems were available across the Island additional wind development might soon be in order.

4. Your committee encourages Government, Maritime Electric and the Summerside Electric Utility to convene their energy working group without delay in order to expand the innovative efforts already underway in Summerside for the benefit of all Islanders.

Your committee is pleased that both electrical utilities and Government have committed to forming this working group. This shows promise in terms of addressing common issues in electrical generation, transmission, distribution, and regulation. Your committee was impressed by the various innovative programs the City of Summerside has undertaken, such as Heat For Less Now, LED Street Lighting, and the Smarter Homes Incentive Program. Island-wide expansion of these and other programs in a spirit of innovation, efficiency and ratepayer engagement makes very good sense. Also, these innovative approaches could perhaps inform Maritime Electric's new Energy Efficiency and Demand Side Management Plan to be submitted to the Island Regulatory and Appeals Commission.

5. Your committee questions whether construction of a new diesel combustion turbine is truly the best choice for backup electrical generation, and recommends that Government and Maritime Electric investigate alternative courses of action more thoroughly.

There are various reasons for Maritime Electric's application to IRAC for approval on the construction of a new diesel combustion turbine generator, commonly referred to as CT4. Primarily it is meant to address the worst-case single contingency event, which is an interruption in energy supply that would occur if the largest component of PEI's energy system was not in service. Once the new submarine transmission cables are installed between PEI and New Brunswick, the worst-case single contingency event will not be the loss of a transmission cable. Instead, it will be the potential for a transmission constraint that exists in southeastern New Brunswick to limit the amount of energy that can flow to the cables during the highest annual period of consumption. A generator is meant to overcome the loss in supply that constraint could cause. However, in view of the fact that the proposed CT4 generator will cost \$68 million, will have a life expectancy of 50 years, and will generate electricity by using a fossil fuel that is non-renewable and contributes to climate change, questions remain. Is the transmission constraint in southeastern New Brunswick, a region with a growing population, expected to remain in place beyond the next two to five years? If the constraint proves to be temporary the CT4 generator may become an unnecessarily expensive commitment. Have alternative generation solutions, especially those involving forms of renewable energy, truly been assessed to the fullest extent? They are briefly discussed in Maritime Electric's application to IRAC, but the sheer cost of the CT4 project warrants wider and deeper consideration of alternatives. As a new PEI energy strategy is developed with an expected emphasis on renewable energy, it seems very ironic to make a multi-decade commitment to a turbine that uses yesterday's fuel. Approval of the CT4 generator project rests with the Island Regulatory

and Appeals Commission, not the legislature or Government. But it is worth noting the project also requires provincial approval of an environmental impact assessment.

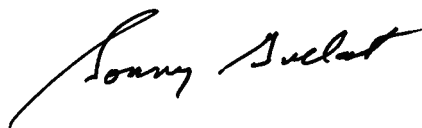
6. Your committee encourages the Island Regulatory and Appeals Commission to develop a robust communications model that effectively explains the commission's role and functions.

It seems that certain misconceptions exist in the public sphere regarding IRAC's regulatory and quasi-judicial roles, petroleum price setting mechanisms, and the operational cost of the commission. The public may not be fully aware of when it can provide input and seek information from IRAC in its role as regulator and quasi-judicial commission. The means by which gasoline prices are set are not commonly understood, and it is often questioned why prices have not plummeted to the same extent as the price of a barrel of oil. Sometimes the value of IRAC as a regulatory body may be questioned in comparison to the cost of its existence. Your committee was presented with very useful information that addresses these and other questions and misconceptions. For example, the price of a barrel of oil is typically quoted in US dollars and then compared to the price of gasoline in Canadian dollars, without acknowledging the disparity in dollar values. Several factors play in to the price of gasoline, and while the equation may not be simple, it is not so complicated that it would be beyond the understanding of the general public if it was communicated more frequently and widely. Furthermore, it cannot be stressed enough that in its regulatory roles IRAC is entirely funded by the industries it regulates; the petroleum industry and electrical utilities pay for IRAC in this regard, not the public. A dedicated communications effort would help the public understand and appreciate IRAC's role. That said, your committee would also point out that the media play a role in disseminating accurate and comprehensive information about the commission's role and functions, and it is also the responsibility of the public to become informed about and engaged with the commission.

Conclusion

Your committee thanks the individuals and organizations that met with the committee and shared their views on energy issues and petroleum regulation.

Respectfully submitted,



Sonny Gallant, MLA
Chair

Standing Committee on Infrastructure and Energy