

NRCan/IERI Regulatory Innovation for Project Proposal Review

The Nova Scotia Experience

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**Nova Scotia
Utility and Review Board**



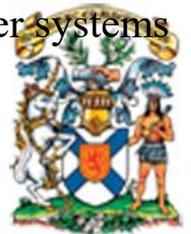
NSUARB Regulatory Functions

- Automobile insurance rates
- **Electricity**
- Gaming
- Halifax Dartmouth Bridge Commission
- Liquor Licencing
- Natural Gas
- Payday Loans
- Petroleum Products Pricing
- Public Passenger
- Railways
- **Water**



The Nova Scotia milieu

- One, vertically integrated, investor owned utility – Nova Scotia Power
- Generation sources – renewables (wind and hydro) approx. 38%; solid fuel about the same percentage; natural gas and oil, biomass and imports make up the remainder)
- ***Public Utilities Act***
 - s. 18 – general supervision of the utility
 - s. 35AA-Board approval required for “new construction, improvements or betterments in or extension or additions to property, used or useful in furnishing, rendering or supplying any service - \$1M threshold
 - s. 79A-B – electricity efficiency and conservation activities pursuant to franchise (currently EfficiencyOne)
- ***Electricity Act***
 - Minister of Energy to establish *inter alia* policies and programs
 - Net metering
 - Retail supplier
 - Feed in tariffs
 - Under s. 4D Interconnection programs to research energy storage and other systems
 - May make regulations re research, development and testing



Capital Expenditure Justification Criteria

- Summary document approved by the Board
- Detailed document accepted by the Board for information and used by the utility
- Prior to 2018 no specific criteria for innovation projects
 - Projects which were driven by innovation considered under the general criteria
 - In 2018 Annual Capital Expenditure Plan decision (April 2018), the Board commented on the lack of criteria for such projects:
 - “During scoping, some of the projects are classified as innovation. The acceptance of such projects has had a mixed response from the Board. The Board does not want to discourage innovation especially when it is to the benefit of ratepayers. It may be beneficial to define innovative projects in such a way that they are unlikely to be challenged. This would help to minimize the chances that such projects would be rejected and make the process more efficient.” [Emphasis added]
 - Board suggested the utility “may wish to consider developing a definition of ‘innovation’ in the CEJC”
 - Developed through stakeholder consultation



Innovation Criteria

- Approved in November 2018
- “Innovation capital projects are justified on the basis that there is a reasonable expectation that they will provide customer value in some or all of the areas of reducing upward pressure on revenue requirement, reliability and grid stability, government policy compliance, and customer experience, through the deployment of proven technologies in innovative ways. In addition, innovation capital investments may be justified on the basis that they are reasonably expected to allow for testing before deploying at scale, provide valuable data and learning, or aid in the development of business cases where applicable.” [Emphasis added]
- Sub-Justification Criteria
 - reduce upward pressure on revenue requirement
 - reliability and grid stability
 - environmental and other compliance
 - customer experience improvements



Examples of innovation projects (for electricity and water)

- Approved
 - Load Control Demonstration Project – NS Power- 2010
 - Parrsboro Tidal Interconnection – NS Power 2011
 - Maritime Link (NSPML) - 2013
 - Trenchless Pilot Project – Halifax Water - 2014
 - Co-operative Dispatch NS/NB – NS Power – began 2015
 - Smart Meters/AMI – Halifax Water – 2014; NS Power- 2016
 - Intelligent Feeder Project – NS Power - 2017
 - Smart Grid Nova Scotia Project – 2020
- Not approved – both NS Power
 - Customer Experience – Streetlight Improvements – repair map – 2017
 - Electric Vehicle Charging Station Network Pilot Project - 2018



NSUARB Expectations

- The Amherst Smart Grid project was the first decision where the Innovation Criteria formed the justification
- Under the second branch of the test
- Board still requires detailed and rigorous supporting material, especially with respect to benefits
- Board noted the benefits to ratepayers from the reduced cost due to partnerships and external funding – cost-effectiveness
- Board noted the learning expected to be gained (in this case shared among partners)
- Board expects quantifiable outcomes – need for meaningful analysis before full scale roll-out
- Board said it is reasonable and appropriate to test emerging technologies in a pilot
- Board imposed cap on spending envelope
- Board directed application at the end of the project to deal with termination/decommissioning of assets/discrete accounting
- Board directed detailed reporting throughout the project to be filed semi-annually



- Questions?

