CANADIAN Energy Efficiency Alliance

Alliance de l'efficacité énergétique DU CANADA

Government of Nova Scotia

Electricity future: scope of work

The Canadian Energy Efficiency Alliance is pleased to have this opportunity to submit its comments to the Government of Nova Scotia on its review of the scope of work related to its Electricity Future undertaking.

The Canadian Energy Efficiency Alliance (CEEA) is Canada's leading independent advocate promoting the economic and environmental benefits of energy efficiency. Established in 1995, CEEA works with both federal and provincial governments as well as other stakeholders to ensure energy efficiency is a priority for all sectors of the economy. By monitoring, examining and developing public policy ideas, programs and codes and standards, CEEA is an effective resource for policy makers, consumers, energy companies and environmental groups. CEEA's membership includes all economic sectors related to energy efficiency, including manufacturers, utilities, governments, building, labour and consumer groups and environmental organizations.

This document will first address CEEA's view of why conservation is a critical first principal for Nova Scotia's Energy Future undertaking.

We have included here a link to CEEA's first "white paper" entitled "Priorities for Energy Efficiency Market Development: Canadian Energy Efficiency Alliance's national advocacy plan," which was released in the Fall of 2013. In addition we have also included a link to a national consumer survey that we undertook in February 2013 that indicates that Canadians – regardless of age, gender, language or region – see the value of energy efficiency and they want to do more.

Nova Scotia is well positioned to do more for its citizens through Energy Efficiency Nova Scotia – which is an acknowledged North American leader in the area of demand side management/conservation.

There are many reasons for conserving energy or for energy efficiency whether they be environmental benefits, a more effective use of natural resources, health issues and cost savings. However, the following defines very simply the reality of energy efficiency/conservation:

- *The energy we use affects the environment and everyone in it.*
- *When you conserve energy you also save on the cost of living and the cost of doing business.*

We depend on energy for virtually everything in our lives. Energy doesn't just make our lives more comfortable, in many ways it's imperative for our survival.

In December of 2011 in a paper entitled "Energy-wise Canada: Building a culture of conservation" the Canadian Council of Chief Executive Officers (CCCEO) noted:

> "The focus of energy and environmental policy has too often been on questions of energy supply, whereas it is really on the demand side of the equation where the greatest potential for positive change exists. There are understandable reasons why Canadians are high per capita users of energy, but there are many ways in which we are wasteful in our energy use. The reality is that 80 percent of the GHG emissions from fossil fuels, and a considerable portion of other environmental stressors associated with energy, come from end-use, and only 20 percent from energy production and transmission. The best answer to rising energy costs and environmental impacts associated with energy use is to work effectively to reduce the country's energy consumption."

The Canadian Green Building Council states that the annual energy costs for Canada's commercial building sector amounts to $17.6 billion and lighting, heating and cooling of buildings representing 50-60% of annual greenhouse gas emissions, so there is much room for improvement. Striving for better existing building performance has to be a provincial goal with the province taking a "lead by example approach".

In July of 2009, McKinsey and Co. released a report entitled "Unlocking energy efficiency in the US economy". In this report, McKinsey offered a detailed analysis of the magnitude of the efficiency potential in the United States as well as a thorough assessment of the barriers that impede the capture of greater efficiency, as well as an outline of the practical solutions available to unlock the potential.

While this report deals with a national plan, it does touch on the potential for regional or state participation. Given Nova Scotia's plans for this area, this report provides excellent insight for any long term energy plan that has as its first objective conservation or energy efficiency first.

As early as 1976, California Pacific Gas and Electric adopted its "energy efficiency first" rule. The intent of this program is clear as stated on PG&E's website :

> "Using energy more efficiently is more than simply the right thing to do—it saves our customers money on their energy bills. It is also the fastest, most cost-effective way to reduce greenhouse gas emissions. In fact, since 1976, PG&E and our customers have kept more than 180 million metric tons of carbon dioxide (CO_2) out of the atmosphere, based on cumulative lifecycle gross energy savings."

Nova Scotia's regulatory structures may be different – however from an energy efficiency perspective we need to strive to continue for excellence as Energy Efficiency Nova Scotia has demonstrated.

What do Canadians Know and Want?

As noted above, to understand the knowledge of and potential for energy efficiency in Canada, CEEA engaged the Gandalf Group in February 2013 to undertake a national survey on energy efficiency knowledge and practices in Canada. The key general findings were as follows:

- Over one third of respondents said they have done a great deal to conserve energy in the last year – they are strong conservers;
- Most said they have done some things – moderate conservers;
- Just 22% believe they are doing everything they can;
- Regardless of region, age, gender or income, a majority of Canadians and Ontarians intend to do more to conserve.

From this we now know that there is strong support and little real opposition to government acting to mandate or help encourage citizens to do more.

In the end, this survey proved the following. **Three** factors must be in place to really spur on conservation/energy efficiency:

1. Perceived cost savings;
2. Environmental motivation; and
3. Knowledge of how to conserve.

All three factors matter and must work together and none can take the place of the other.

It should be noted that while consumer (homeowners, commercial clients) views and acceptance are clearly important to successfully achieving better conservation returns, energy efficiency/conservation efforts also encourage innovation and industry capacity (builders and the building trades, contractors, car and equipment manufacturers etc).

In a recent study (2012) entitled *Energy Efficiency – Engine of Economic Growth in Eastern Canada* by Environment Northeast for Natural Resources Canada's Office of Energy Efficiency looked at the potential benefits – economic, job creation and environmental – for the four Eastern provinces of Quebec, Prince Edward Island, New Brunswick and Nova Scotia. They used a methodology that they had used previously when undertaking a similar study for the eastern states of the US. That study suggested that:

> "Benefits from increased efficiency investments in New England are significant for each fuel type. Increasing efficiency program investments in all six states to levels needed to capture all cost-effective electric efficiency over 15 years ($16.8 billion invested by program administrators)

would increase economic activity by $162 billion (2008 dollars), as consumers spend energy bill savings in the wider economy. Sixty-one percent of increased economic activity ($99 billion) would contribute to gross state products (GSPs) in the region, with $73 billion returned to workers through increased real household income and employment equivalent to 767,000 job years (one full-time job for a period of one year). Over 15 years, increased natural gas efficiency ($4.1 billion invested by program administrators) would increase regional economic activity by $51 billion, boost GSPs by $31 billion, and increase real household income by $22 billion while creating 208,000 new job years of employment. Unregulated fuels efficiency programs ($6.3 billion invested by program administrators) would increase regional economic activity over 15 years by $86 billion, boosting GSPs by $53 billion, and increasing real household income by $37 billion while creating 417,000 job years of new employment. "

The study focussing on Canada's four Eastern provinces indicated that:

"Cost-effective efficiency savings can be found in any energy system, and this region is no exception. This study illustrates that the economic benefits exceed the cost of implementing efficiency measures, and that efficiency investments quickly pay for themselves through increased economic activity and job creation. In fact, the analysis shows that the benefits are greater than commonly recognized even by program administrators and proponents, since expanding the assessment beyond traditional benefit/cost tests introduces the impressive impact to the wider economy. The region is already accruing economic benefits through existing efficiency program, but as show by this study, provinces have significant incentive to move beyond current investment levels. Positioning themselves among the leading jurisdictions with respect to energy efficiency will require policies that include comprehensive efficiency programs and incentives, and market and workforce development strategies, to overcome barriers to efficiency implementation and deliver lasting benefits. By establishing mandates and complementary policy that lead to the procurement of all cost-effective efficiency across all fuel types in the near-term, government will facilitate significant new, local economic growth that is in line with consumer interests and economic and environmental goals. Avoiding expensive upgrades to aging energy infrastructure; facilitating new industry and centers of excellence; reducing the need for energy assistance programs; and, the value of energy security – not quantified or qualified by this study – further increases the attractiveness of this important energy resource. "

Putting Energy Efficiency First

Energy– clean and affordable energy – is clearly an important part of Nova Scotia's future. The Scope of Work document does discuss the future of energy needs for Nova Scotia but the emphasis on energy efficiency/demand side management needs to be more clear – it needs to be a major objective.

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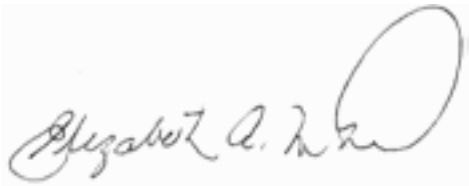
CEEA is very pleased to have this opportunity to offer its views and input into this undertaking. We urge the Government of Nova Scotia to recognize the outstanding role that Energy Efficiency Nova Scotia has played and its ability to work with the province to develop programs that can help Nova Scotia's consumers to enjoy the benefits that energy efficiency can deliver to the province as it moves forward.

Sincerely,



Elizabeth A. McDonald
President and CEO

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