



Montreal, Friday December 5, 2014

Electricity System Review
Nova Scotia Department of Energy
Joseph Howe Building
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By email: electricityreview@gov.ns.ca

Subject: Electric Mobility Canada's comments

Electric Mobility Canada (EMC) is pleased to present a summary of electric transportation considerations to help design the role of electric vehicles (EVs) in Nova Scotia's future electricity system. EMC is the only national association dedicated to the advancement of transportation electrification in all its applications. We recommend policies at federal and provincial levels that will encourage adoption of EVs, and that are consistent with government's energy and economic strategies.

Increased adoption of EVs in Nova Scotia is important to achieve greenhouse gas (GHG) reductions, improve urban air quality, and create jobs. Nova Scotia is a leader in pursuing emission reducing energy solutions. The benefits of EVs for GHG reductions are well known and result from the fact that transportation is the second largest contributor to greenhouse gases in the province. Furthermore, with the province's renewable energy and increased electricity efficiency, the introduction of this new "electric fuel" will enable Nova Scotians to choose a cleaner and more affordable fuel source. The expertise of Nova Scotia's industries, research centres, and academic institutions in the field of electric vehicles is impressive. The sectors related to batteries and other enabling technologies could benefit from provincial and national growth in EVs, contributing to the overall province's clean technology industry.

Electrification of the transport system would also create steady increased demand for electric power. Fortunately, most of this demand could be met with capacity during off peak hours. Smart grid technologies in the areas of vehicle to the grid (V2G) and vehicle to home (V2H) are being developed, with time-deferred charging technologies already on the market and real-time technologies under active



development. With these technologies, EVs can become instrumental for load management and energy storage as a distributed battery to help balance the grid, deliver electricity during outages, and cut down costs for the utility and the owner.

Based on the analysis of best practices in leading Canadian provinces and countries around the World, EMC can identify the policy options with a significant impact on increasing adoption rates of EVs in Nova Scotia. With targeted and scalable measures accessible to all regions, and ease of implementation, the government of Nova Scotia could benefit from all the advantages of a greener economy, regional jobs growth, and lead the way to a longer term strategy.

Electric vehicle adoption in Nova Scotia is underway. There are many measures to increase electric vehicle adoption in a jurisdiction such as awareness campaigns, financial support for EV buyers, infrastructure, the completion of fast charging stations at strategic highway locations, community AC charging stations, building code amendments and other non-financial measures such as green license plates and free parking. By considering and analyzing such measures in a particular region and leveraging the work already completed in the Electricity System Review, Nova Scotia could have on hand all the necessary information to help design Nova Scotia's future electricity system as it relates to the adoption of electric vehicles.

Electric Mobility Canada would be pleased to discuss these different options to accelerate the arrival of EVs in Nova Scotia.

Yours truly,

Chantal Guimont
President & CEO