

Proposal:**Home Retrofit rebates****Submission Relevant To:**

Rachel Anne Notley, Premier of Alberta
Sara Marjorie Hoffman, Deputy Premier, Minister of Health
Brian Mason, Minister of Transportation / Minister of Infrastructure
David Manson Eggen, Minister of Education
Deron Bilous, Minister of Economic Development and Trade
Joseph Anthony Ceci, President of Treasury Board and Minister of Finance
Danielle Marie Larivee, Minister of Municipal Affairs
Margaret Ellen McCuaig-Boyd, Minister of Energy
Christina Gray, Minister of Labour
Marlin Robert Schmidt, Minister of Advanced Education
Brandy Lynn Payne, Associate Minister of Health
David Wheeler, Chair of Alberta Energy Efficiency Panel

Situation:

Implementing the ability to charge an Electric Vehicle (EV) at home can be costly due to the equipment needed as well as permits, electrical installation and construction. The additional costs impede the abilities of adoption of EVs, especially in Multi-Urban Residential Buildings (MURBS) where EVs offer some of the biggest gains.

Charging at home is usually the primary and preferred location, offering off-peak charging to level load demands on the electrical grid and the convenience of get in and go traveling.

Establishing a charging station can cost a few hundred dollars to several thousands of dollars per plug, depending on location. The lack of being able to charge the vehicle at a home location ahead of purchase impedes the buying of the vehicle by the consumer. Being able to ready the location for a charge station and purchase a charger ahead of EV purchase would be an added benefit.

Problem:

Many homes in Alberta including those of rental suits and multifamily structures are not equipped for electric vehicles owners to charge their vehicles. The lack of available electrical outlets for charging in the home environment creates an obstacle for electric vehicle adoption the cost of implementation compounds that problem.

Key Analysis:

The majority of electric vehicles owners take advantage of the down time at home to charge their vehicles and also attempt to take advantage of charging in off peak hours at night, minimizing the demand on the infrastructure and attempting to cut power costs where applicable. Without the

electrical connection to the electric vehicle at home, the majority of people are unable to transition from a combustion engine vehicle.

Recommendation:

Rebates should be offered for the installation and retrofitting for charging station infrastructure in home settings in accordance with the Alberta Building Code, with rebates based on per plug for MURBS.

Justification:

The implementation of these suggested changes will offer an increase the adoption of electric vehicle ownership.

EV Ownership and use will lower greenhouse gas emissions (by potentially 23% using 2015 statistics) and cut noise pollution which will reduce healthcare costs.

Infrastructure development will create jobs for skilled Alberta workers stimulating the economy.

The demand for skilled labour will stimulate post-secondary education within the province.

Potential Funding:

The Alberta Energy Efficiency Panel is currently taking suggestions on how best to use the \$645 Million in funding earmarked for the agency. Using some of the funds available for these initiatives is perceived to be a perfect fit for the agency and the resources available.

There also seems to be an opportunity for funding from the Federal Government and Infrastructure Canada's \$120 Billion investment over the next 10 years through Infraconsults, located at <http://www.infraconsults.ca/>.

Reference:

Electric Vehicle Adoption Proposal In Alberta – Terms of Reference – Version C1.0