

**Proposal:****Green Highway: Fast Charging stations for Electric Vehicles****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:**

Current battery technology in electric vehicles have a limitation on the distance, being able to travel to around 150 kilometers on a charge. Travels between cities for electric vehicles require DC fast-charge stations to accommodate the power requirements.

At the moment there are a limited number of available DC fast-charging stations in Alberta with many pockets of “energy deserts” making travel across Alberta with electric vehicles impractical or impossible.

**Problem:**

Fear of range limitations on electric vehicles is one of the biggest stumbling blocks in the transition from combustion engines. Until gas station infrastructure equivalent is established for electric vehicles, people will be reluctant to adopt them.

Due to regulatory obstacles, private businesses and individuals cannot create and sell electricity, making it impossible to create a business case for electric vehicle infrastructure in Alberta.

Achieving the emission reduction desired for the Climate Leadership Program may not be met without the transition to non-emission-creating electric vehicles.

Travel and tourism is impacted in the inability to travel effectively across Alberta and Canada with electric vehicles.

**Key Analysis:**

In order to gain adoption of electric vehicle ownership the experience must be similar to that of

combustion engine vehicles. One electric vehicle DC fast-charging station within 100 kilometers of another on every major highway is required for a minimum coverage.

**Recommendation:**

A “Green Highway Initiative” should be instituted to encourage electric vehicle ownership adoption with funding allocated to establish the DC fast-charging network.

The province should require that all new gas stations and gas station upgrades include fast charging stations.

Encouragement of both public and privately funded charging stations, including government funding for establishing them.

Remove regulatory obstacles for being able to produce electricity for businesses and individuals and allow for the sale of electricity.

Modify the term of “Public Utility” with a person not otherwise a public utility who provides the service or commodity only for the purpose of electric vehicle charging.

Encouragement of fast-charging stations at shopping malls, coffee shops, rest areas, parks and other recreational facilities.

**Potential Pitfalls:**

Without the modification to the regulatory obstacles on public utilities with electricity creation and sales, a monopoly is likely to be created (if not already in play) by the established electrical companies and legislators which could further dissuade adoption of electric vehicle use.

**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 for green / eco- tourism on the new green highway.

**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