
Leading the Charge: Driving EV Market Entry in Ontario

September 29, 2009

**Helen Graham, Director, Automotive Strategy Branch
Ontario Ministry of Economic Development**

Ontario Government Priorities

Ontario's commitment to fight climate change and continue to take action to improve air quality

- EV target of 4-12% of new vehicle sales in 2020 would support the numbers estimated in the 2020 Go Green Action Plan greenhouse gas (GHG) reduction targets. Contribution may be up to 0.6 MT (600,000 tonnes) of GHG savings by 2020.

Reducing the environmental impact of the Ontario government's operations

- Commitment to purchase 500 electric vehicles for the Ontario Public Service (OPS) passenger fleet by 2020.
- Contributes to the OPS goal of an annual 5% reduction in fuel consumption.

Supporting alignment and direction of Ontario's auto sector

- 'Greener', more sustainable and more competitive with a strong focus on high value-added development and production of innovative auto parts and technologies.

Supporting the government's research and innovation agenda

- Programs applicable to the research, development and commercialization of electric vehicles and their components parts

Context for Electric Vehicle Support in Ontario

Auto Manufacturing & Restructuring

Innovation & Research

Ontario is working with the federal governments in Canada and the US to stabilize the auto sector.

Strategic investments in research and development to realign Ontario industries to become 'greener' and more competitive.

Building
the Green
Economy
Fighting
Climate
Change

The Ontario government has made commitments to promote the adoption of green vehicles in the province

Ontario's Green Energy Act will place Ontario at the forefront of promoting green and renewable energy.

Initiatives include:

- Green Commercial Vehicle Program (GCVP)
- Alternative Fuel & Hybrid Vehicle Rebates
- ***Stimulating EV Market Entry***

Green Infrastructure

Consumer Demand for Green Technology

Anticipated Demand for EVs in Ontario

Anticipated Demand for EVs

- Market analysis for North America suggests that EVs will account for less than 0.1% of new vehicle sales by 2010, less than 2.5% by 2015 and less than 9% of new vehicle sales by 2020 (based on analysis of the U.S. market).
- The cumulative on-road population in Ontario between now and 2020 is estimated to be about 130,000 to 360,000 (This would include BEVs, but the majority would be PHEVs.)

EV Targets in the United States

- The US federal government has set an aspirational goal of 1,000,000 PHEVs for the entire US by 2015 (this represents less than 1% of the on road vehicle population of ~137 million vehicles)

But significant technical, market and consumer barriers remain....

Driving EV Market Entry: 1 in 20 by 2020

Ontario will be at the forefront in supporting the adoption of electric vehicles into the market

Buying

Price premiums are a significant barrier to EV purchase in Canada. An EV can be \$7-10K more than a conventional vehicle with the same functionality

- *Financial purchase incentive of \$4,000 to \$10,000 for plug in hybrid and battery electric vehicles based on the battery capacity of the vehicle.*
- *The Ontario government will add about 500 electric vehicles to its passenger fleet*

Driving

Canadians have concerns about the performance and reliability of EVs.

- *To reward early adopters of green technology, single occupant electric vehicles with green vehicle licence plates will be allowed to use HOV lanes for a limited time.*

Charging

Canadians have significant concerns about being able to charge their electric vehicles in a convenient manner

- *Green vehicle license plates allowing EV drivers access to public charging facilities & parking at Ontario government and GO Transit lots*

Driving EV Market Entry: 1 in 20 by 2020

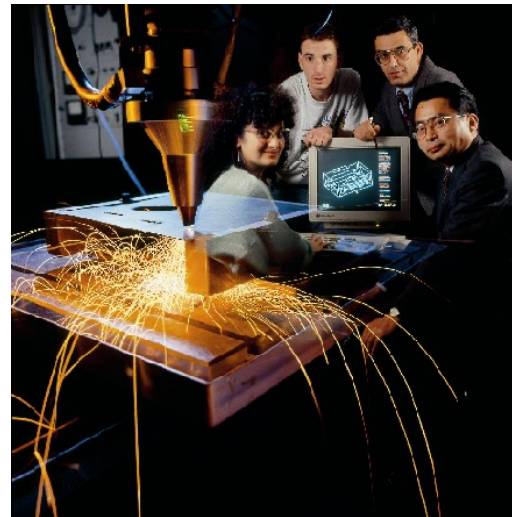
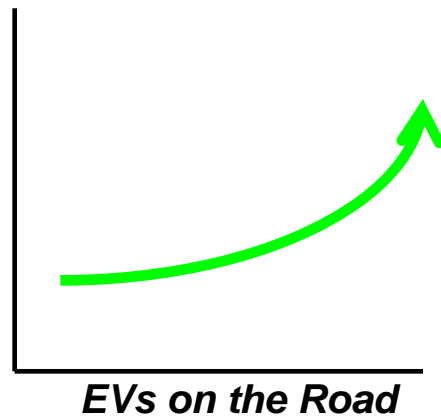
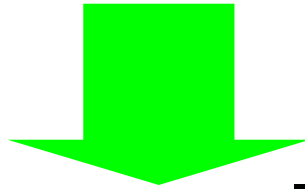
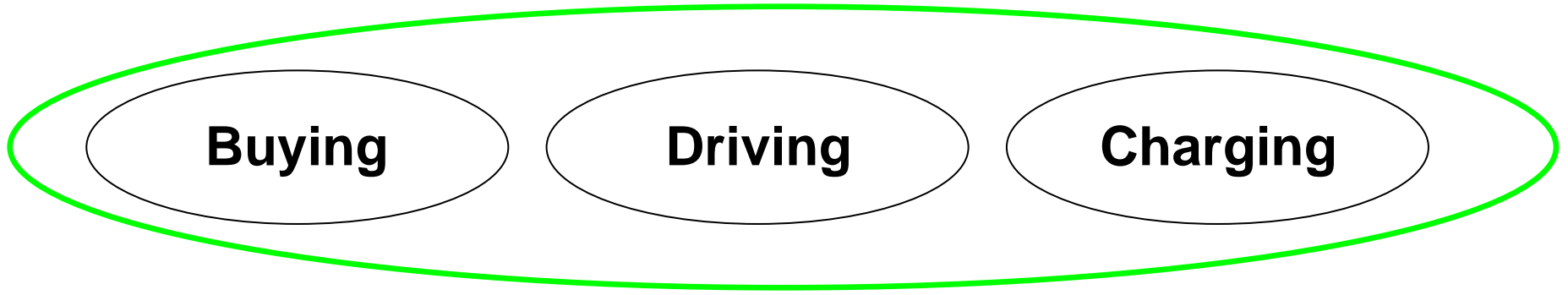
Ontario will be at the forefront in supporting the adoption of electric vehicles into the market

Consumer

Public education campaign to promote benefits and performance of EVs:

- *Education campaign to be launched by 2011.*

EV Market Development → Economic Development



Manufacturing