

CLIMATE SOLUTIONS PORTFOLIO

#4: Plug-In Hybrid Electric Vehicles (PHEVs)

Proposed Measure

Plug-in Hybrid Vehicles are being promoted as a breakthrough vehicle technology in the US due to their many benefits (see below). Ford, GM and Toyota have all intimated that they will have a mass production model by 2012. Austin Energy, the City of Austin's public utility, has created Plug-In Partners to leverage future purchases to encourage a mass market with lower prices. Plug-in America has created a supportive presence. Google's philanthropic arm, google.org, has invested \$11 million to promote the adoption of PHEVs and vehicle-to-grid technology. (See www.pluginpartners.com and www.pluginamerica.org)

To accelerate the future uptake of PHEVs, the BC government could:

- (a) Place soft advance fleet orders as an indication of support, specifying the types and quantity of vehicles that BC would likely purchase: cars, vans, light duty trucks, heavy trucks.
- (b) Work with Manitoba, Ontario, Quebec and others to pool fleet buying power, and then hold informal discussions with the key players in advance of announcing an RFP for vehicles equivalent to a PHEV.
- (c) Announce a future rebate of \$5,000 per vehicle for the first 1,000 PHEVs bought in BC, \$4,000 for the next 2,000, and \$3,000 for the next 10,000 vehicles. (Total cost \$43 million over maybe 5 years)
- (d) Announce that starting in 2012, 1% of the cars sold in BC must be zero CO₂ emission vehicles, rising annually to 100% in 2030.
- (e) Give prominence to the benefits of PHEVs in the Climate Action Plan.

Benefits

- PHEVs run on electricity for all local trips within range of the battery, representing 85% of all trips (US data). BC produces 88% green electricity; by 2016 almost 100% of BC's electricity will be green, producing zero carbon emissions. Transport produces 38% of BC's GHG, so the province-wide adoption of PHEVs would make a substantial contribution to BC's GHG reduction targets.
- By becoming a leader in PHEV promotion and adoption, BC could become a leader for R&D and intellectual property ownership, leveraging our existing advantages in the fuel cell and other sectors to become a global center of excellence in electric drive, exporting this know-how around the world.
- The transition to PHEVs would make a large contribution to the elimination of air pollution and smog, bringing many health benefits and reduced healthcare costs.
- Operating a PHEV using BC electricity would reduce driving costs by up to 75%, bringing a substantial financial benefit to all BC drivers and to the BC economy through reduced oil imports.
- The combination of green electricity and low power prices positions BC to become a global leader in the uptake of the new vehicles if there is substantial government support.

Execution Plan

- Ministry of Transport or Environment – Prepare a report on the multiple benefits of PHEVs.
- Ministry of Finance: Prepare a costing of PHEV rebates, and net benefits to the BC economy based on differing PHEV uptake scenarios.
- Premier's Office: Work with others for a PHEV to tour BC so that the public can appreciate its benefits.

Areas for Cabinet approval:

- Commit to a PHEV package as part of the province's Climate Action Plan.