

Electric cars have been an environmental touchstone for decades—clean, efficient, economical, quiet, and easier on the environment than fossil-fuel vehicles. Now, a combination of leadership, policy changes, technological advancement, and public interest are making the dream a reality in Vancouver.

Imagine a Quieter, Cleaner City

ELECTRIC CARS—NO LONGER A DREAM

Highly efficient, zero-emission electric vehicles that protect our climate, clean our air, and save money, are no longer a distant possibility, but a reality the City is working to bring to Vancouver in the near future.

Cars and small trucks account for a third of Vancouver's greenhouse gas emissions, and nearly all run on fossil fuels that are unsustainable and polluting. Nonetheless, after a century of building cities around them, we can't replace these vehicles overnight. We will be using automobiles for the foreseeable future, so they had better be much cleaner and more efficient than today's fossil-fuel burners.

In concert with transit and cycling, electric vehicles will be an important part of the solution. They use energy far more efficiently than internal combustion machines, and electricity can readily be derived from renewable sources.

IDEAL FOR THE URBAN DRIVER

In Vancouver, we typically drive short distances, making us ideal electric car drivers. Fewer than four per cent of trips originating in the city cover more than 30 km. In gasoline powered vehicles, these urban trips are especially polluting and inefficient. In electric vehicles, they're ideal. The excellent torque and smoothness of electric motors make stop-and-go driving easy, and their range is a good match for urban journeys. What's more, their efficiency saves the driver money – electric cars typically run on a few cents' worth of energy per kilometre.



CLEANER FROM END TO END

Electric vehicles are cleaner than gas vehicles for many reasons:

- Electric cars use far less energy per kilometre, especially in urban driving
- In BC, 90% of that energy comes from renewable sources (mainly hydroelectric)
- Even when their power ultimately comes from coal or natural gas, electric vehicles pollute less because power plants are much more efficient than internal combustion engines, and use more sophisticated pollution controls
- Power transmission lines are efficient and less prone to risks to the environment than oil rigs, tankers, refineries, pipelines, tanker trucks and gas stations



BUT WHERE DO WE GAS UP?

The main worry for prospective users of electric vehicles is the lack of a suitable charging network. The City is working on this with BC Hydro, the provincial Plug-in Electric Vehicle Working Group, the Vancouver Electric Vehicle Association and Electric Mobility Canada.

To accelerate the transition, the City already requires charging outlets in all new single-family homes and at 20 per cent of parking stalls in new condominium buildings. The City has also approved a pilot program that sets up charging outlets in publicly accessible places like parking lots and community centres.

The City partnered with BC Hydro to introduce a new symbol for EV charging stations—already in use in Vancouver, and now nationally recognized. Look for the symbol at right in our community when you need a charge.

ON THE THRESHOLD

The City is leading by example, trying out electric vehicles in its own fleet, encouraging automakers to bring their new electric vehicles to Vancouver first, and working with automakers, BC Hydro, the Province of BC, and members of Green Fleet BC to test electric vehicles.

Though electric cars are not yet commercially available in Vancouver, we're well positioned to welcome this new generation of clean vehicles – earlier and more extensively than expected. Imagine a quieter, cleaner city – where driving no longer pollutes the air, damages the climate, or costs a fortune.



New charging symbol for electric vehicles in Vancouver.



THE CITY'S ELECTRIC FLEET

The City added an all-electric Mitsubishi iMiEV to its fleet in November 2009, as part of a larger vehicle-testing agreement with Mitsubishi, the Province of BC, and BC Hydro. The fleet also includes a Toyota Prius, modified to operate as a plug-in electric hybrid with more than five times the normal Prius' electric capacity. Vancouver is also part of a Renault-Nissan Zero-Emission partnership, and in 2011 will roll-out the Nissan LEAF all-electric car in Canada.

