



January, 2013

# Ontario's Challenge



**7.6 million** vehicles

**16 billion** litres of gasoline/year

**36.8 million** tonnes of CO<sub>2</sub>/year

**31%** of Ontario's GHG emissions

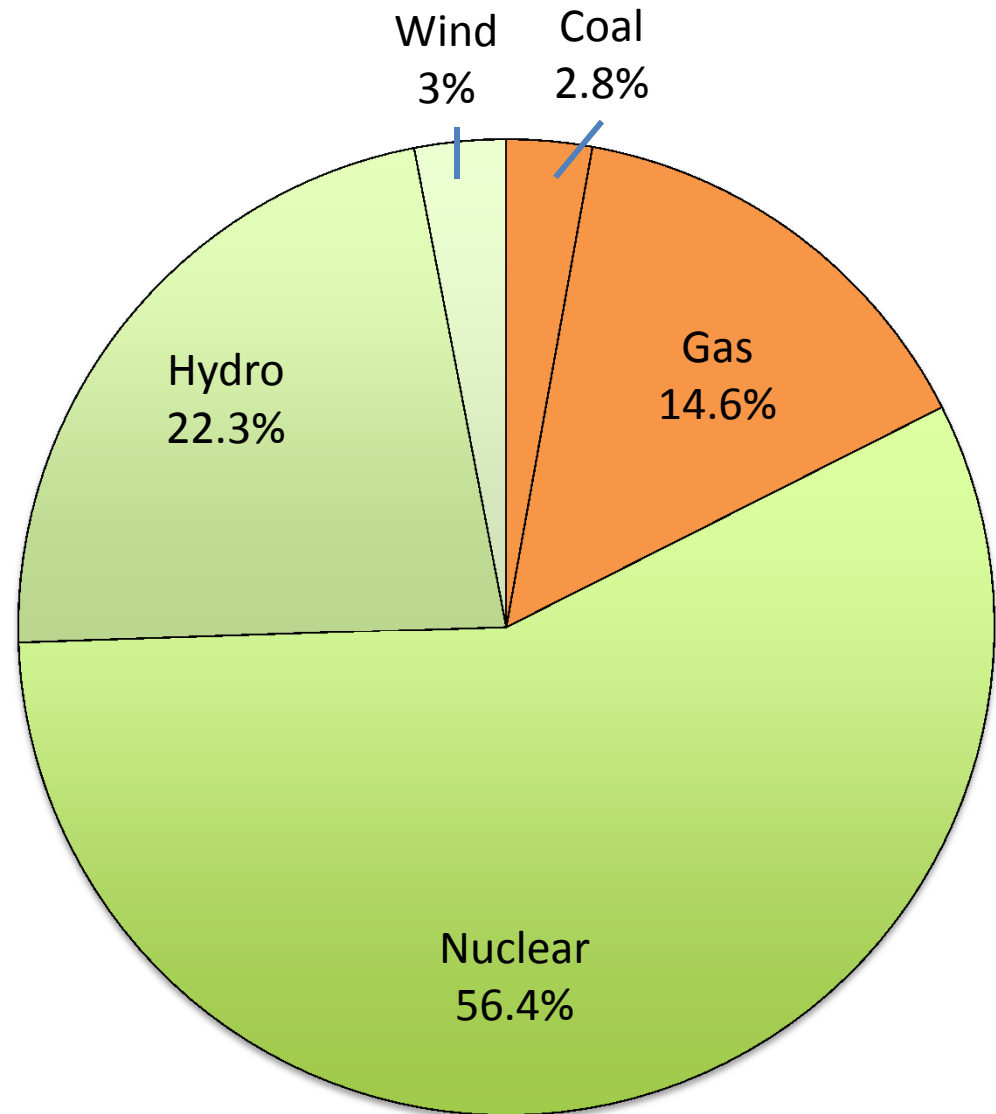
Source: Statcan



# Ontario's Energy Mix

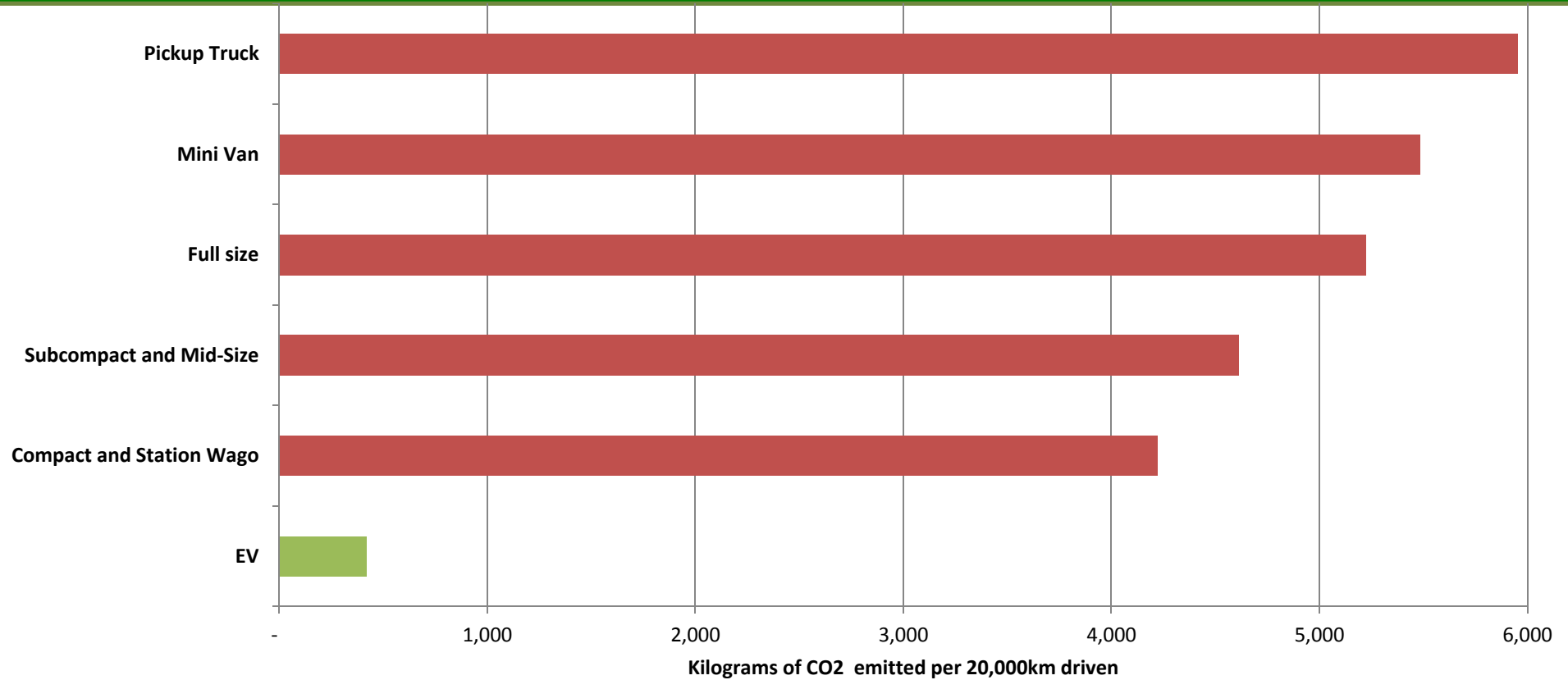


- **Locally made**
- **Low cost**
- **Low emitting**
- **Surplus at night!**



Source: IESO (2012)

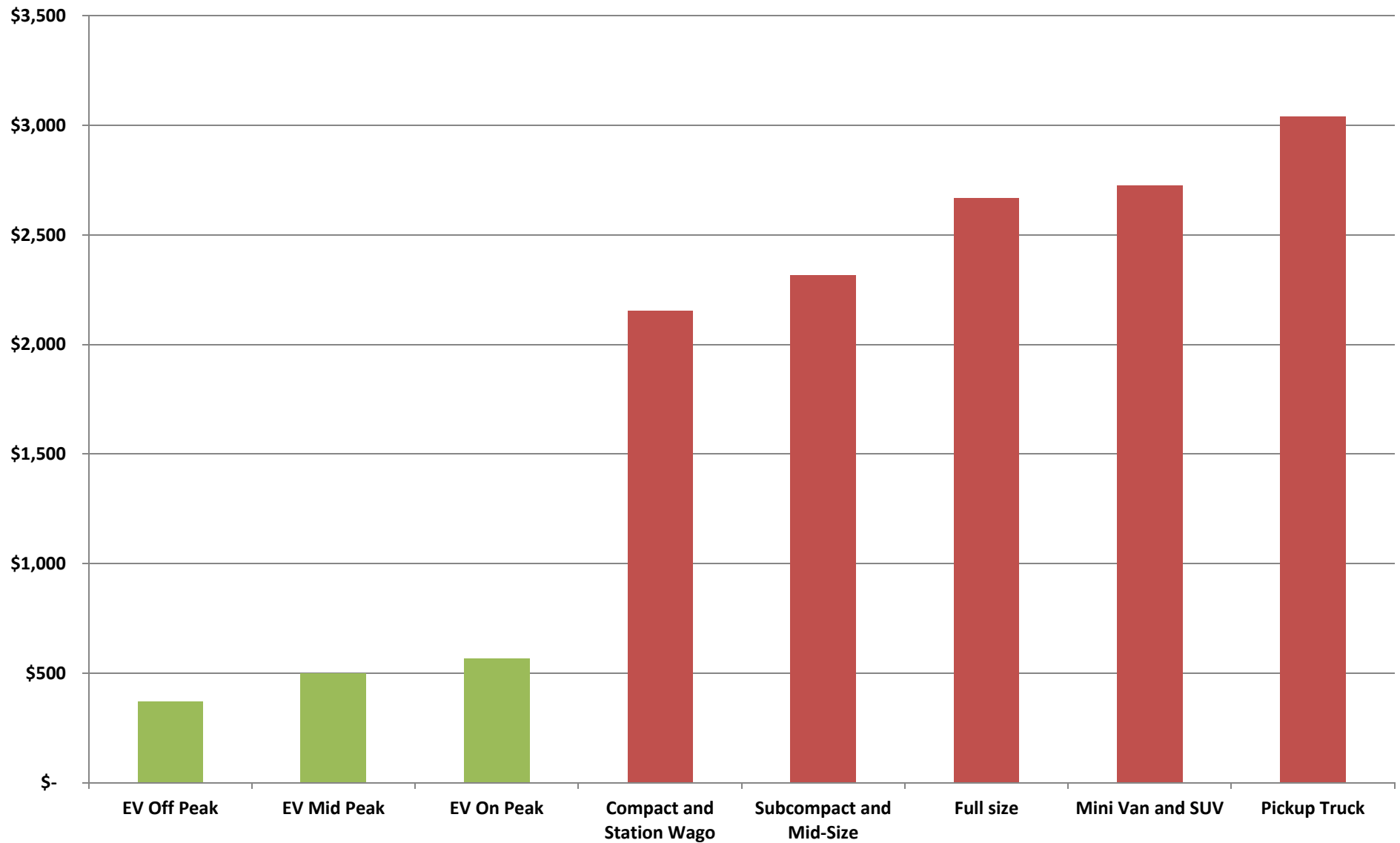
# Environmental Benefits



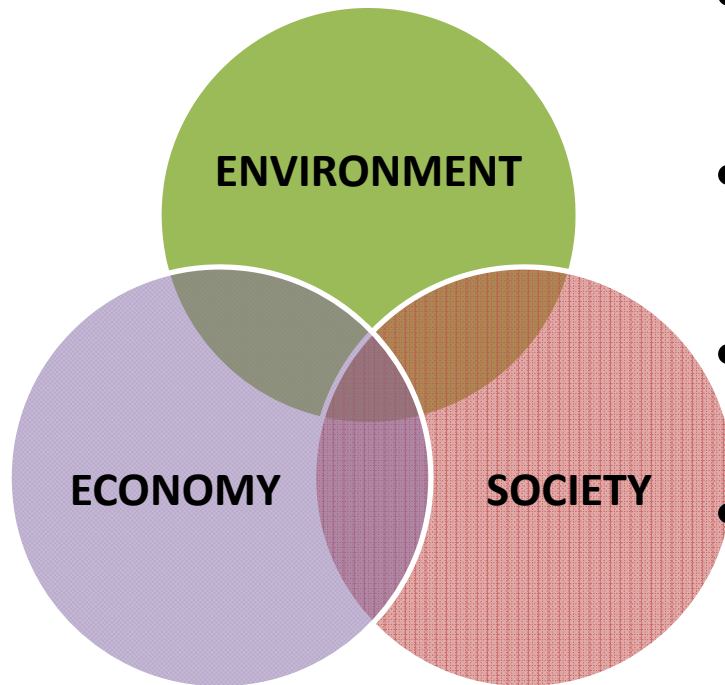
# Cost Savings



## Cost to Drive 20,000km



# Sustainability Winner



- Emit **90% less CO<sub>2</sub>** than a gas car
- 'Fuel' is **80% cheaper** than a gas car
- Electricity is **Made in Ontario**
- Charge batteries at night taking advantage of **surplus baseload** electricity

*Lost Productivity: \$13 billion*

*Healthcare Costs: \$9 billion*

*Quality of Life: \$7.5 billion*

*Loss of Life: \$150 billion*

(Canadian Medical Association, 2008)



# Plug'n Drive



**Formed in 2008**

**Independent NonProfit Organization since June, 2011**

**Mission:** Accelerate the adoption of electric cars to advance their economic and environmental benefits.

## **Board of Directors:**

- David Collie - CEO, Electrical Safety Authority
- Dennis Edell - CEO, Rain 43
- Laura Formusa - CEO, Hydro One
- Len Griffiths - Partner, Bennett Jones Law Firm
- Jim Keech - CEO, Kingston Utilities and Past Chair of EDA
- Don MacKinnon - President, Power Workers' Union
- Tom Mitchell – CEO, Ontario Power Generation
- Gerry Smallegange – CEO, Burlington Hydro
- Lawrence Zimmering – CEO, Autobank

[TD Video](#)

# How We Help



## Education and Outreach

Home Infrastructure

Public Infrastructure





# Charging



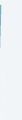
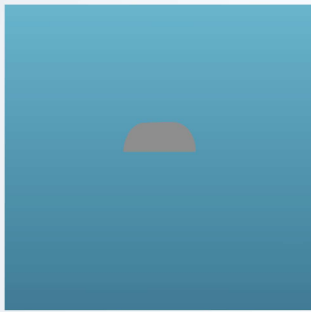
## Home Infrastructure

- 80-90% of charging will happen at home
- LDCs do not know where cars + chargers are located

## Public Infrastructure

- Reduces range anxiety
- Chicken and Egg Scenario





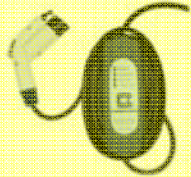
Ontario Centres of  
Excellence





## Get a Charger...

### FIRST, CHECK OUT THESE FEATURED CHARGERS



Brand Name  
MODEL NAME/NUMBER  
STARTING AT: \$5,111.00

Learn More



Brand Name  
MODEL NAME/NUMBER  
STARTING AT: \$5,111.00

Learn More



Brand Name  
MODEL NAME/NUMBER  
STARTING AT: \$5,111.00

Learn More

Featured chargers, on sale, incented by manufacturer or LDC

Sort chargers by variables:

- Brand
- Cost
- Voltage
- Indoor/Outdoor
- Rebate Available

### BROWSE CHARGERS BY:

BRAND:   COST RANGE:   VOLTAGE:   INDOOR/OUTDOOR:   REBATE AVAILABLE:

GO

Showing results for 'All Chargers'

COMPARE

PREVIOUS 1 2 3 NEXT

Brand Name  
MODEL NAME/NUMBER

VOLTAGE:  
208VAC OR 240VAC  
AMPERAGE:  
40A/30A

INDOOR / OUTDOOR: BOTH  
REBATES AVAILABLE: YES

STARTING AT: \$5,111.00

Compare

BUY NOW

Brand Name  
MODEL NAME/NUMBER

VOLTAGE:  
208VAC OR 240VAC  
AMPERAGE:  
40A/30A

INDOOR / OUTDOOR: BOTH  
REBATES AVAILABLE: YES

STARTING AT: \$5,111.00

Compare

BUY NOW

Brand Name  
MODEL NAME/NUMBER

VOLTAGE:  
208VAC OR 240VAC  
AMPERAGE:  
40A/30A

INDOOR / OUTDOOR: BOTH  
REBATES AVAILABLE: YES

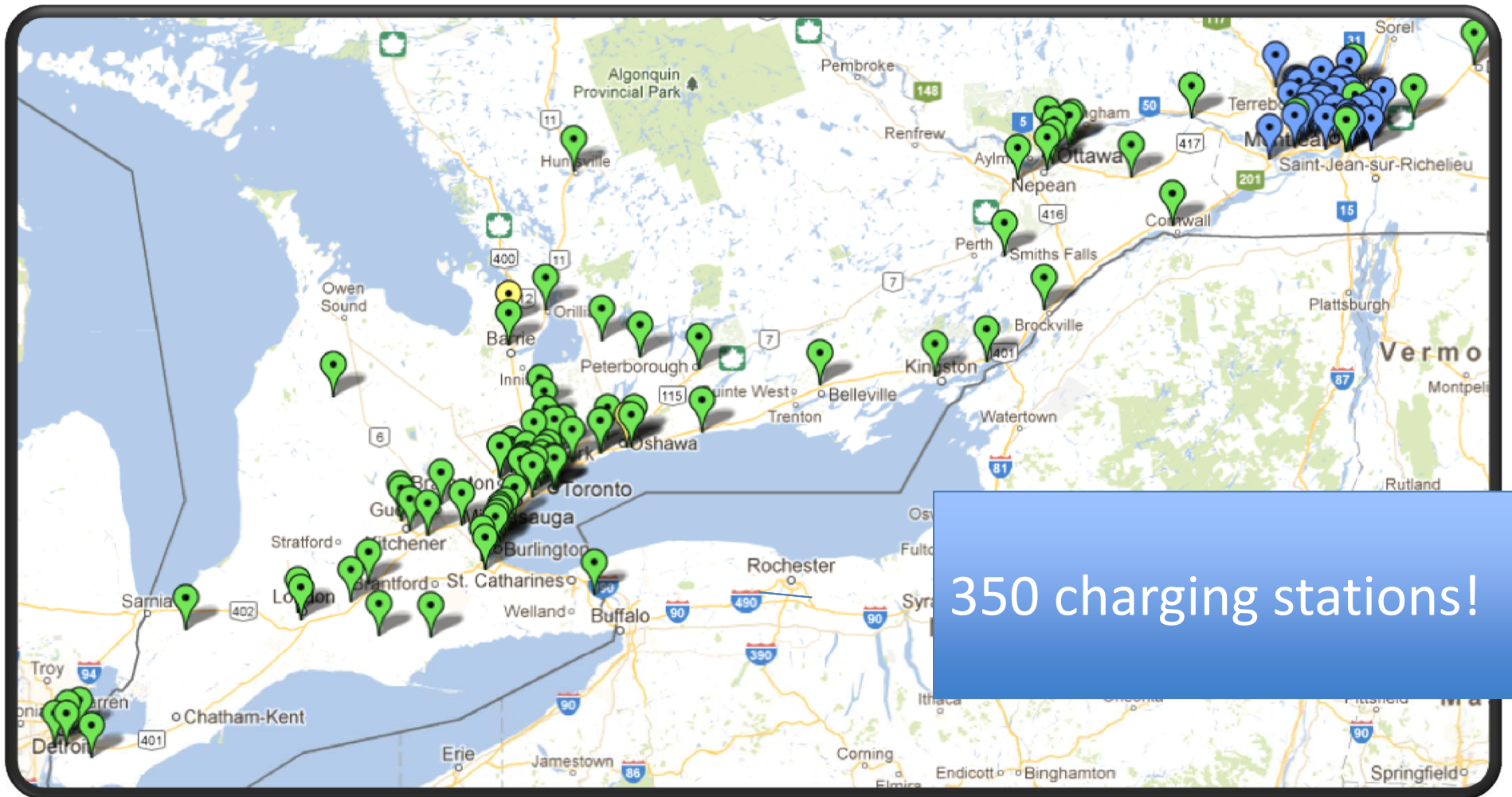
STARTING AT: \$5,111.00

Compare

BUY NOW

All available chargers will be on screen, click to get more detailed information or compare units

# Public charging Map + App



Map is available on CAA site – can download on your phone



# Nissan LEAF



**Starting Cost:** \$33,395  
**Range on Electric:** 150 km  
**Horse Power:** 107 hp

**BEV**



# Mitsubishi i-MiEV



**Starting Cost:** \$32, 998

**Range on Electric:** 155 km

**Horse Power:** 66 hp

**Top Speed:** 130 km/h

**Battery:** 26 kWh (Lithium-Ion)



**RFV**

# smartfortwo electric



**Starting Cost:** \$29,900

**Range on Electric:** 145 km

**Horse Power:** 70 hp

**Top Speed:**

**Battery:**  
(Lithium-Ion)

**144 km/h**

**16.5 kWh**



**BEV**



# Ford Focus Electric



**Starting Cost:** \$41,199  
**Range on Electric:** 120 km  
**Horse Power:** 123 hp

**Top Speed:** 135 km/h  
**Battery:** 23 kWh (Lithium-Ion)

**BEV**

# Tesla Model S



**Starting Cost:** \$59,900 – \$79,900  
**Range on Electric:** 255 km – 480km  
**Horse Power:** 362 hp  
**Battery:** 40/60/85 kWh  
**Top Speed:** 200 km/h



**BEV**

# Toyota Plug-In Prius



**Starting Cost:** \$35,700

**Range on Electric:** 22 km

**Total Range:** 870 km

**Horse Power:** 98 hp

**Top Speed:** 180 km

**Battery:** 4.4 kWh (Lithium-Ion)



**PHEV**



# Chevrolet VOLT



**Starting Cost:** \$42,000

**Range on Electric:** 60 km

**Total Range:** 600 km

**Horse Power:** 149 hp

**Top Speed:** 160 km

**Battery:** 16.5 kWh (Lithium-Ion)



**PHEV**

# Fisker Karma



Starting Cost: \$112,000

Range on Electric: 80 km

Total Range: 480 km

Horse Power:

403 hp

Top Speed:

200 km

Battery:

20 kWh (Lithium-Ion)



**PHEV**



# Future Pure Electric Models



**BMW i3**



**Audi A3 eTron**



**Tesla Model IX**



**FIAT 500e**

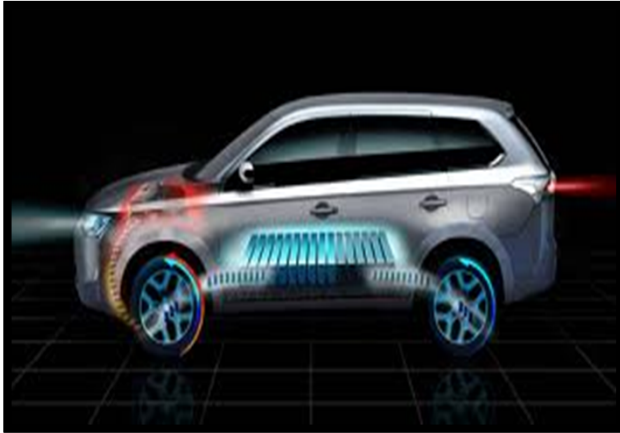


**Chevrolet Spark**



**Honda Fit EV**

# Future Plug-in Hybrid Models



**Mitsubishi Outlander**



**VIA Motors V-Trux**



**Cadillac ELR**

# Electric Car Sales/Forecasts



## SALES IN CANADA

Plug-In Hybrid Sales: **1,650**  
Pure Electric Sales: **700**

Total: (approx) **2,350**

## SALES IN THE U.S.

Plug-In Hybrid Sales: **46,581**  
Pure Electric Sales: **24,334**

Total: **70,915\***

\*Data Provided by the Electric Drive Transportation Association (EDTA) Dec/2012

---

## CANADA SALES FORECAST

By 2020: **107,146\*\***

## U.S. SALES FORECAST

By 2020: **400,073\*\***

\*\*Data Provided by Pike Research, "Electric Vehicle Geographic Forecast"



# Walking the Talk!!





THANK YOU!

plugndrive.ca

@PlugN\_Drive

