

Electric Vehicle Council of Ottawa



Electric Vehicle Society

April 29, 2019

Electric Vehicle Council of Ottawa Monthly Meeting

Agenda

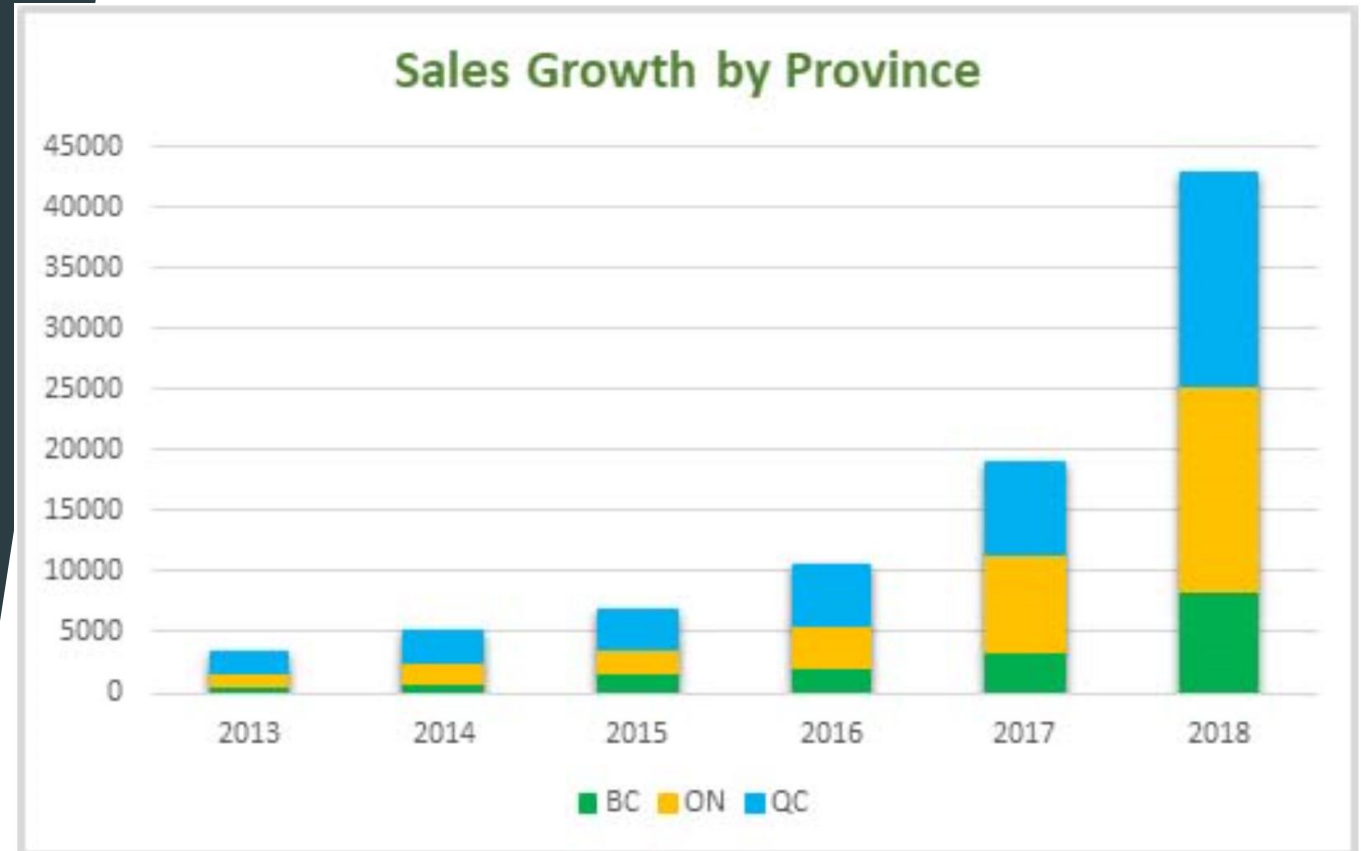
- ▶ - Electric delivery vans (Nicolas)
- ▶ - E-bus Campaign update (Kathleen)
- ▶ - Federal EV incentive (Raymond)
- ▶ - Heavy duty EV's (Raymond)
- ▶ - EV News (Gérard)
- ▶ - Upcoming/past events
- ▶ - Round table discussions

Federal EV Incentive

- ▶ **\$300 million over three years**
- ▶ **Up to \$5,000 for electric battery or hydrogen fuel cell vehicles with a manufacturer's suggested retail price of less than \$45,000**
- ▶ **No H2 vehicles sell for anywhere close to under 45K**
- ▶ **60,000 vehicles - BEV or FC**

Federal EV Incentive

- ▶ Targets
 - ▶ 10% by 2025
 - ▶ 30% by 2030
 - ▶ 100% by 2040
- ▶ 2.2% in 2018 - ~42,000



Eligibility

- ▶ vehicles with six seats or fewer, where the base model (trim) Manufacturer's Suggested Retail Price (MSRP) is less than \$45,000
 - ▶ higher priced versions (trims) of these vehicles, up to a maximum MSRP of \$55,000, will also be eligible for an incentive
- ▶ **Or**
- ▶ vehicles with seven seats or greater, where the base model MSRP is less than \$55,000
 - ▶ higher priced versions (trims) of these vehicles, up to a maximum MSRP of \$60,000, will also be eligible for an incentive

Eligibility

- ▶ In all cases, to be eligible under the iZEV program, all vehicles must:
 - ▶ ...
 - ▶ have at least **four functioning wheels** and be highway capable (e.g. not a low-speed vehicle)
- ▶ There are two levels of incentive:
 - ▶ **Battery-electric, hydrogen fuel cell, and longer range plug-in hybrid vehicles (battery capacity is 15kWh or more)** are eligible for an incentive of **\$5,000**
 - ▶ **Shorter range plug-in hybrid electric vehicles (battery capacity is less than 15kWh)** are eligible for an incentive of **\$2,500**

Federal EV Incentive - BEV - \$5,000

Vehicle Name	Sug. Retail Price	Battery	Range
smart fortwo Electric	\$29,050	17.6kWh	93km
Ford Focus Electric	\$34,998	33.5kWh	185km
Kia Soul Electric	\$35,895	27kWh	150km
Volkswagen e-Golf	\$36,720	36kWh	201km
Hyundai IONIQ Electric	\$37,889	28kWh	200km
Nissan LEAF/Plus	\$40,698	40kWh	241km
Chevrolet BOLT	\$44,800	60kWh	383km
Hyundai KONA Electric	\$44,999	64kWh	415km
Kia Niro Electric	\$44,995	64kWh	385km

Federal EV Incentive - PHEV - \$5,000

Vehicle Name	Suggested Retail Price	Battery	Range
Chevrolet Volt	\$39,095	18.4kWh	85km
Chrysler Pacifica Hybrid	\$51,445	16kWh	53km
Honda Clarity PHEV	\$40,100	17kWh	77km

Federal EV Incentive - PHEV - \$2,500

Vehicle Name	Sug. Retail Price	Battery	Range
Audi A3 Sportback e-tron	\$40,900	8.8kWh	26km
Ford Fusion Energi	\$34,950	7.6kWh	35km
Hyundai Ioniq PHEV	\$32,299	8.9kWh	47km
Hyundai Sonata PHEV	\$44,799	10kWh	43km
Kia Niro PHEV	\$33,965	32kWh	42km
Kia Optima PHEV	\$42,995	10kWh	47km
Mini Countryman Cooper S E	\$43,490	8kWh	19km
Mitsubishi Outlander PHEV	\$42,998	12kWh	35km
Toyota Prius Prime	\$32,990	9kWh	40km

Federal EV Incentive

- ▶ Our job?
 - ▶ Support the program
 - ▶ Make sure every cent is spent as fast as possible!!
 - ▶ Suggest improvements
 - ▶ Letter from EV leaders across Canada

Lion Class 8 Truck

- ▶ Can be used for
 - ▶ Garbage truck
 - ▶ Delivery
 - ▶ Etc.
- ▶ SAQ has pre-ordered
- ▶ Fall 2019



TECHNICAL SPECIFICATIONS

WEIGHT & DIMENSIONS	Cabin Length	60.25 in
	Cabin Width	101.5 in
	Cabin Height	107 in
	Wheelbase	220 in **
	Curb Weight	24 600 lbs
	Gross Vehicle Weight Rating (GVWR)	54 600 lbs
ELECTRIC POWERTRAIN	Top Speed	65 mph
	Maximum Power	470 HP
	Maximum Torque	2507 ft·lbs
	Range	Up to 250 miles // 400 km
	Battery Capacity	Up to 480 kWh
	Motor & Inverter	SUMO HD HV3500-9 Phases // TM4 / Dana
	Transmission	Direct Drive // Without Transmission
	Charging Power	20 - 100 kW
	Charging Time	2.5 - 16 hours
	Charging Type	Level II & III
Front Axle	14 600 lbs // Hendrickson	

Tesla Semi

- ▶ 2 prototypes have been in service/testing for a year
- ▶ Available in 2020



Tesla Semi Specs

- ▶ Autopilot
- ▶ Platooning

Acceleration 0-100 km/h with 36k kg	25 sec
Speed up a 5% Grade	100+ km/h
Kilometer Range	475 or 800 kilometers
Powertrain	4 Independent Motors on Rear Axles
Energy Consumption	Less than 125 kWh per 100 kilometers
Expected Base Price <i>(475 kilometer range)</i>	\$190,000
Expected Base Price <i>(800 kilometer range)</i>	\$230,000
Base Reservation	\$26,000
Expected Founders Series Price	\$257,000
Founders Series Reservation	\$257,000

Mercedes eActros

- ▶ 200km range
- ▶ 10 delivered to Hermes in Sept 2018
- ▶ Series production in 2021?
- ▶ Two variants of the eActros with a gross vehicle weight of 18 or 25 tonnes.
- ▶ 240kWh battery



Freightliner eCascadia

- ▶ 730 HP
- ▶ 550 kWh
- ▶ 250 miles range
- ▶ 80% charge in <90 min
- ▶ Available 2021
- ▶ Pairing



Volvo FL Electric

- ▶ Available 2019
- ▶ for urban distribution and refuse operations
- ▶ Up to 300km
- ▶ The first two Volvo FL Electric trucks will be operated by refuse collection and recycling company Renova and haulage firm TGM.



Volvo VNR Semi

- ▶ Available in US in 2020
- ▶ Early deliveries in California in 2019
- ▶ 124 miles
- ▶ 300 kWh
- ▶ 2 speed transmission
- ▶ 20,651 lb-ft to the rear axle



Past Events

Reaching outside the bubble!

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Past Events

- ▶ Apr 8 - Ward 13 - Rideau-Rockcliffe
 - ▶ Environment Debate - 12 candidates attended
- ▶ Apr 11 - Green Drinks
 - ▶ The Fox & Feather Pub & Grill - 283 Elgin Street
- ▶ Apr 14 - Kemptville Sustainability Fair and EV Show

Past Events

- ▶ Apr 14 - Ottawa EV Day at IKEA
 - ▶ Plug'n Drive attended
 - ▶ (Will have an electric school bus)
 - ▶ **Needed lots of volunteers!! We distributed 400 cards!!**
- ▶ Apr 17 - EV Drinks
 - ▶ Arrow and Loon - Bank and 5th
- ▶ Apr 28 - First Unitarian Eco Day - 40 signatures
- ▶ Apr 28 - Canvassing with Healthy Transportation Coalition - 140 signatures

Apr 14 - Kemptville Sustainability Fair and EV Show

bullfrogpowered[™]
WITH 100%
GREEN ELECTRICITY

Get Charged Up About The **EVent** **Indoor Electric Vehicle Show!**

- Large variety Electric, Plug-In and Hybrid models on display
- **Tesla, Chevrolet Bolt, Nissan Leaf, Pacifica Hybrid Minivan, Honda Clarity, Hyundai Ioniq, more!**
- EV presentation – Speak with EV owners & find out what its really like to own and drive an EV!



Sign up to take an electric vehicle
for a test drive*!! (*Dealer conditions apply)

▶ Great turnout with good questions



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Apr 14 - Ottawa EV Day at IKEA

- ▶ Plug'n Drive attended
- ▶ Electric school bus - could not make it
- ▶ Publicize the eBus campaign, Hydro Charger program
- ▶ Spoke to:
 - ▶ Mayor Watson
 - ▶ follow-up meeting on Wed with Councillor Hubley
 - ▶ Minister McKenna

Apr 14 - Ottawa EV Day at IKEA

- ▶ Over 700 attendees



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Upcoming Events

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Upcoming Events - regular

▶ May 9 - Green Drinks

- ▶ The Fox & Feather Pub & Grill - 283 Elgin Street
- ▶ Vignettes - Nicolas to report on eBus campaign

▶ May 15 - EV Drinks

- ▶ Arrow and Loon - Bank and 5th

▶ May 27 - Next EVCO meeting

Upcoming Events

- ▶ May 3-5 - Salon du véhicule électrique - Montréal
- ▶ May 6-9 - EV 2019 VÉ Conference - Québec
 - ▶ Early bird registration (\$700) ended March 15th
 - ▶ Optional Day 1 - City - buses or fleet
- ▶ Jul 1 - Aviation Museum Event - ideas?
- ▶ Aug 4 - Automotion 2019 - Brockville
- ▶ Aug 17 - EV Day in Brockville
- ▶ Sep 21 - GEDO - will have test drives

Other

- ▶ Hydro Ottawa EV Charging Program
 - ▶ <http://hydroottawa.com/ev-register>
- ▶ Become a member of EV Society
 - ▶ <https://evsociety.ca/join/>

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