

# PLUG 'N DRIVE

CAP EV Strategy  
June, 2019





PLUG 'N DRIVE

# Greenhouse Gas Emissions – The Big Three

A photograph of a busy city street with a traffic jam. A white bus is in the foreground on the left, followed by a yellow taxi, a blue car, a red SUV, and a white van. A sign on the right reads 'RED LIGHT CAMERA'.

**TRANSPORTATION**

**34%**

A photograph of an industrial facility, likely a refinery or chemical plant, featuring large white storage tanks, complex piping, and metal scaffolding under a clear blue sky.

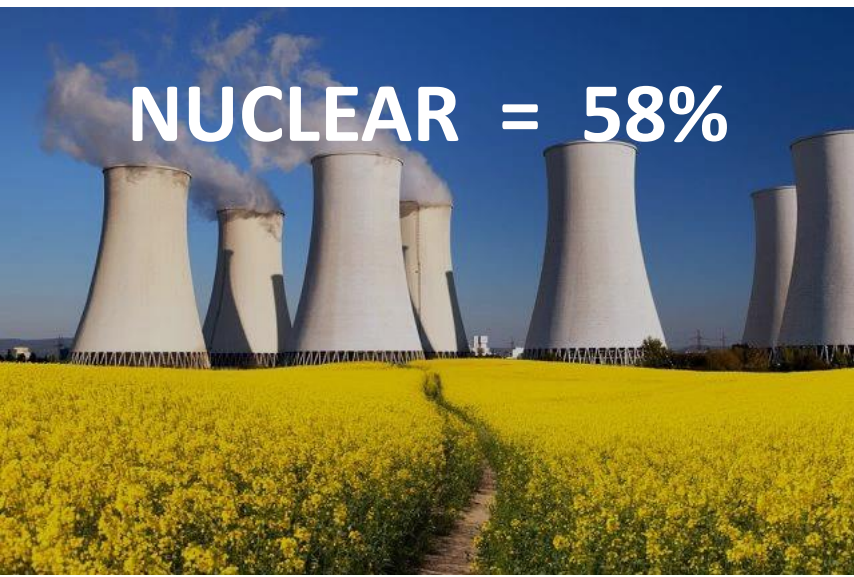
**INDUSTRY**

**30%**

A photograph of a dense city skyline with numerous skyscrapers and buildings, viewed from an elevated perspective during the day.

**BUILDINGS**

**17%**





## OUR VISION

**To be Canada's champion for electrified transportation**

## OUR GOAL

Work with government and industry to increase EV sales to 5% of new passenger car sales by 2020. Currently, EVs account for less than 1%.



5%

## BARRIERS TO EV UPTAKE



#1

**Consumer Knowledge.** Education is needed about the ease, benefits and cost savings of driving electric.



#2

**Range anxiety:** Public and workplace charging is needed

## EVs SAVE MONEY



**\$2000** (approx)

ANNUAL SAVINGS ON  
FUEL AND MAINTENANCE

## EVs REDUCE GREENHOUSE GAS EMISSIONS



UP  
TO **90%**

FEWER GREENHOUSE GAS EMISSIONS  
THAN AN EQUIVALENT GAS CAR

## EVs GO THE DISTANCE



**1** CHARGE  
PER WEEK

200+ KM OF RANGE ON A FULL CHARGE

## EVs ARE FOR EVERYONE



**40+**

MODELS STARTING AT \$20,000  
(AFTER INCENTIVES)



## Electric Vehicle Discovery Centre Features

**Electric Vehicle Test Drives**

**Home Charging Station Gallery**

**Electrifying History Wall**

**Public Charging Powered by Toronto Hydro**

**OPG PowerPlace Conference Centre (Brought to you by Ontario Power Generation)**

**Interactive Touchscreen Displays (Brought to you by the Power Workers' Union)**

**TD Insurance Zone**

**Bruce Power Coffee Bar**

**Plug'n Drive Head Office**



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# OPG PowerPlace

Sponsored by Ontario Power Generation

Premium event venue that can accommodate workshops, seminars, presentations, etc.

Seating for upwards of 150 guests

Equipped with high-definition video display, podium and webinar/conferencing tools



**POWERPLACE**  
ONTARIO **POWER**  
GENERATION 





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## A Recipe for Success

**PUBLIC/PRIVATE  
PARTNERSHIPS**

**No pressure, sales  
free, all makes and  
models – ONE STOP  
SHOP**

**ANCILLARY REVENUE  
EVENT VENUE /  
SERVICES**

**STAKEHOLDER  
ENGAGEMENT – two  
way referral**

# ELECTRIC VEHICLE DISCOVERY CENTRE

APRIL 2017 to May 2019



**# OF TEST DRIVES**

**7,700+**

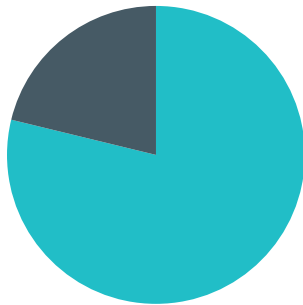


**# OF VISITORS**

**17,400+**

**Percentage of Visitors That Are More Likely to Purchase an EV**

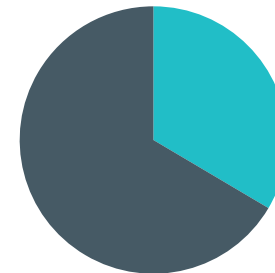
As Likely or Less Likely  
21%



**More Likely**  
79%

**Percentage of Visitors that Opt-In to Receive a Follow-Up from an Auto Manufacturer**

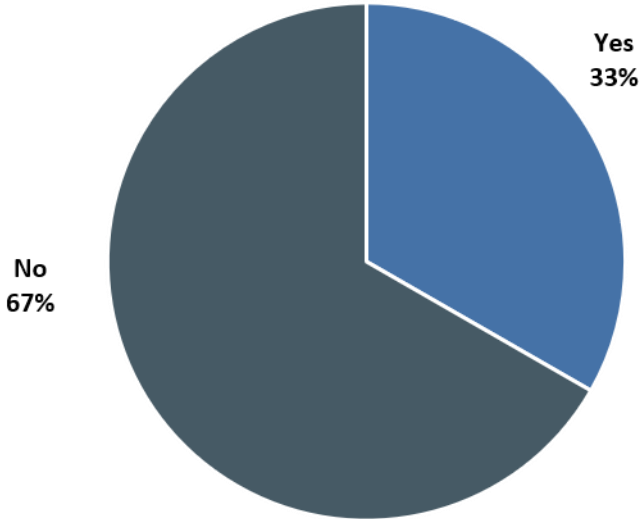
No  
71%



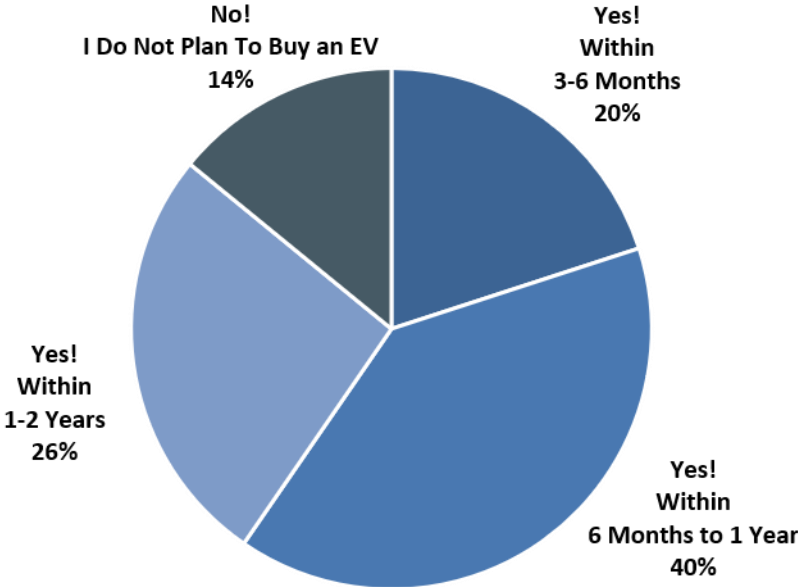
**Yes**  
34%

# EV DISCOVERY CENTRE VISITOR FEEDBACK

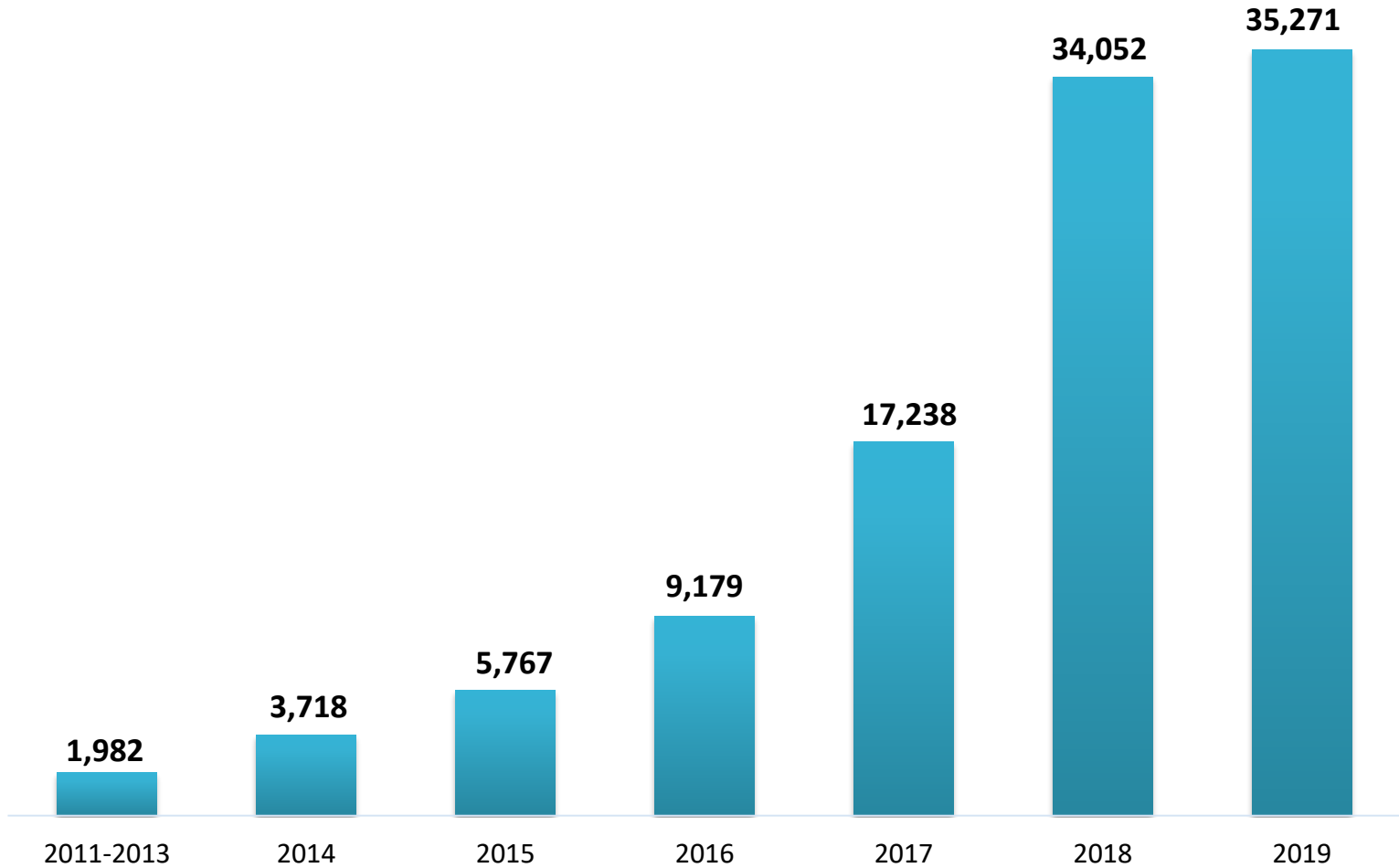
Since your last visit, have you purchased or leased an EV?



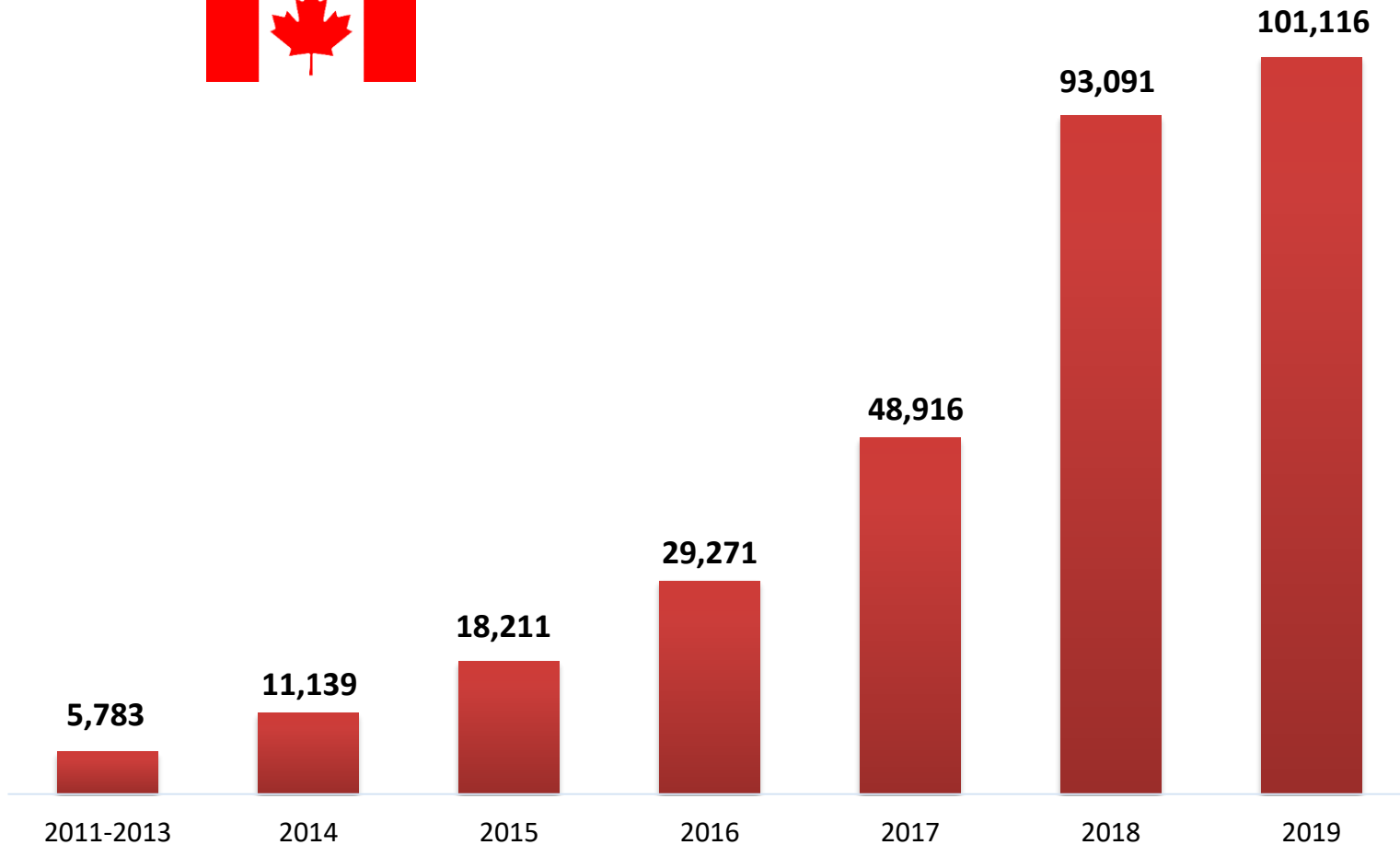
If you have not purchased or leased an EV, do you plan to?



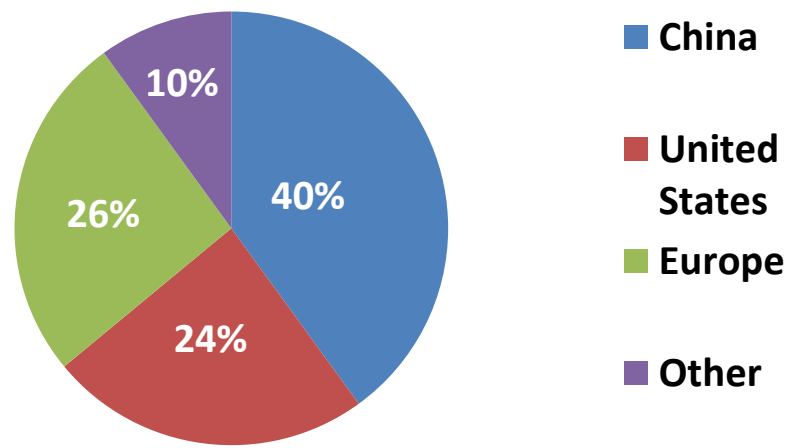
**35,271** EVs on the Road in Ontario (as of Q1 2019)



**101,116** EVs on the Road in Canada (as of Q1 2019)



## 5.1 Million Electric Cars Worldwide



Source: International Energy Agency

## Top 5 EV Countries

China (39.5%)

United States (24.5%)

Japan (6.6%)

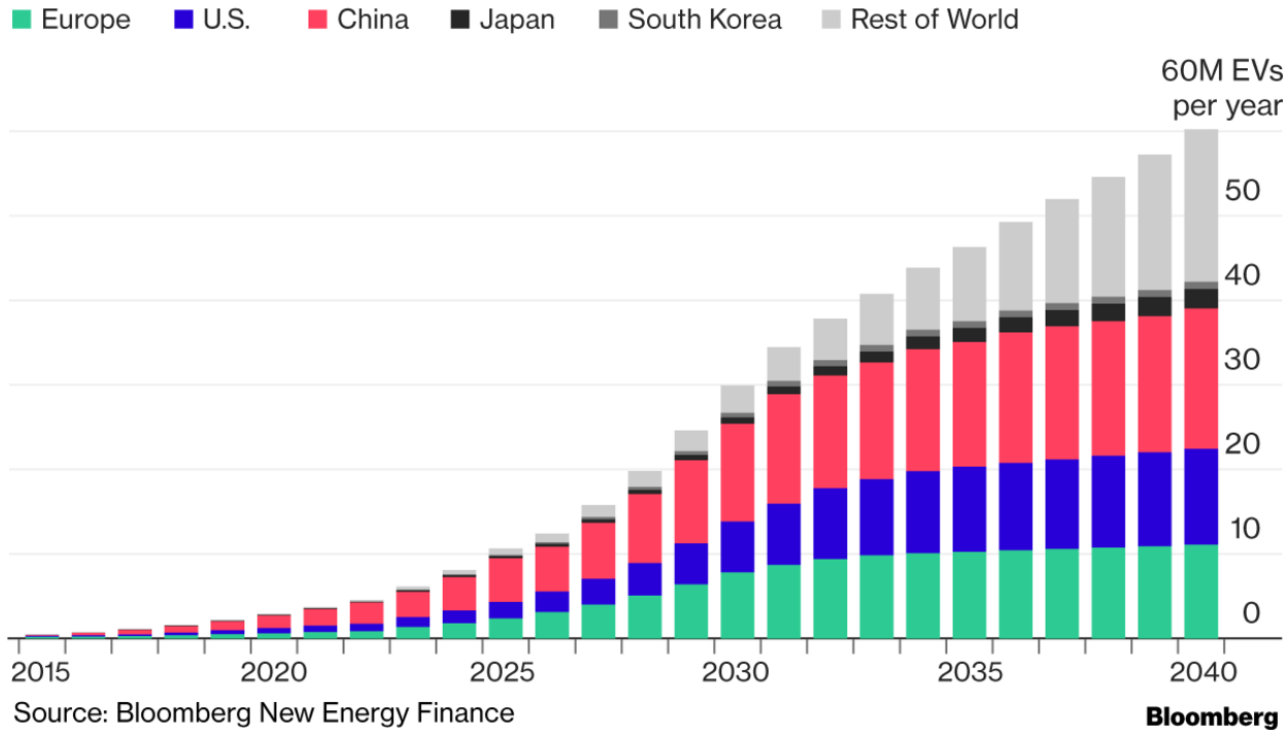
Norway (5.7%)

United Kingdom (4.3%)

## The Global Electric Car Fleet Has Reached 5.1 Million

### Global Electric-Car Revolution Set to Take Off

China set to lead EV market





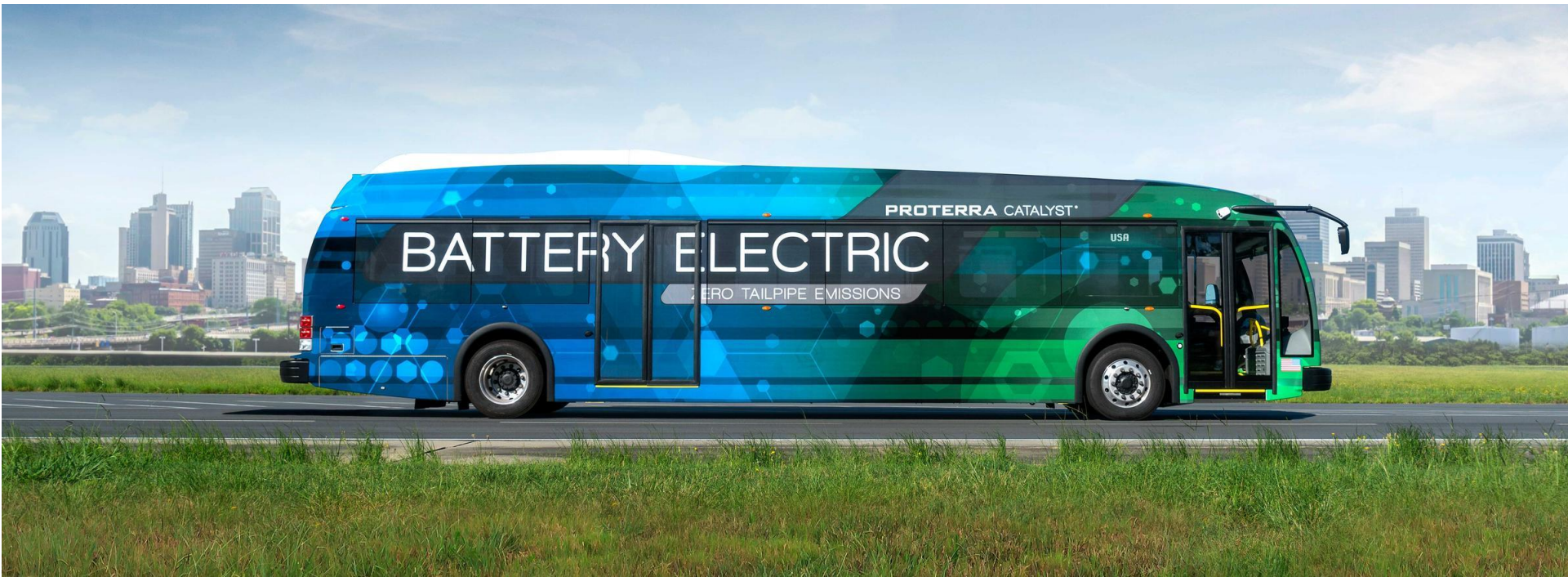
# Electric Transit Opportunities

**The Province of Ontario invested \$13 million in an electric school bus pilot project**

**14 Electric Buses are beginning service in 2019 in York Region and Brampton**

**Edmonton Transit will deploy 40 electric buses by 2020**

**TTC is purchasing 30 electric buses in 2019**





**New Federal incentive announced March 19, 2019:**

- **\$5000** Incentive on EV under \$45k
- **Funding for infrastructure**
- **Tax write off for business adding EV to fleet**





# Used EV Incentive - \$1000!!



- Take our seminar, take a test drive, qualify for \$1000 off a used EV!
- E-mail [info@plugndrive.ca](mailto:info@plugndrive.ca) for more details and to join the list
- Launched April 14<sup>th</sup> – loads of interest!



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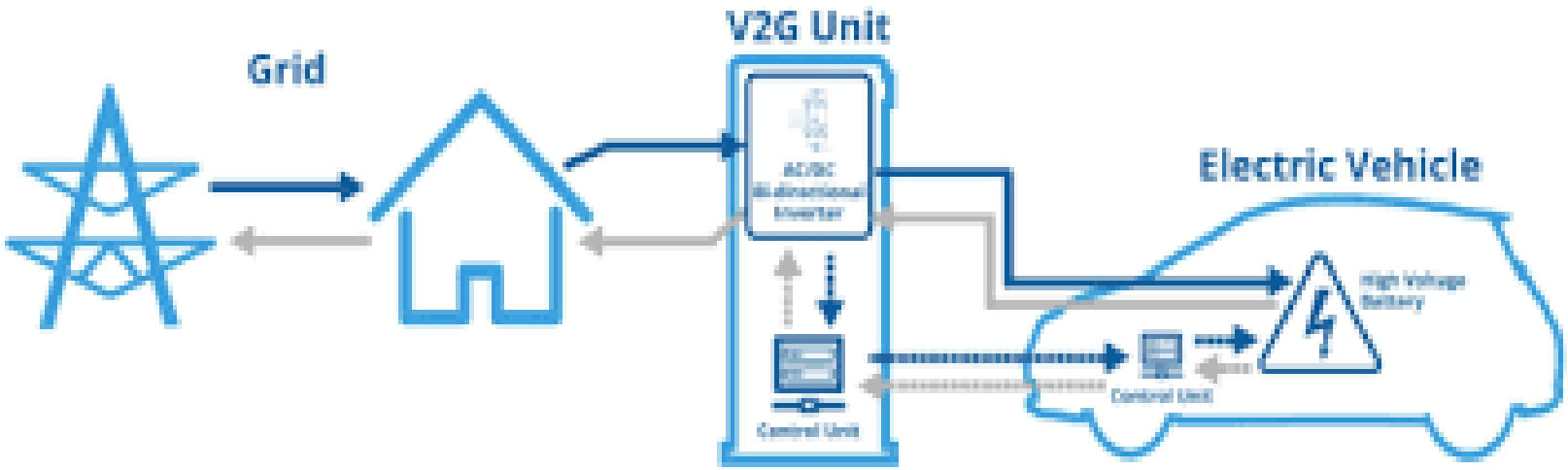
# Ideas for Fleets

- **Education first!**
  - Lunch and Learn at the Workplace
  - Vehicle orientation sessions for fleet vehicles
  - Host an Event at the EVDC with Test Drives
- Assessment of gas vehicle use (people are usually wrong!)
- Pool vehicles for opportunity to expose
- Plug'n Drive will have a fleet program soon! Stay tuned



# Vehicle to Grid or 'V to X'

- This exists! Developing market
- Used EV batteries for storage (or storage in the vehicles)
- Used EV batteries to back up charging stations (microgrid)
- Not just emission reductions, but climate adaptation/resilience





# EVs – Not 'IF' but 'WHEN'!!

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Quebec implements ZEV mandate

United Kingdom to ban diesel and gas cars sales by 2040

Volvo to electrify entire line-up from 2019 on

China plug-in electric vehicle sales in 2017: almost four times those in the U.S

Japan now has more charging stations than gas stations

BMW to offer 25 electric car models by 2025

Shell CEO to make his next car electric



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Thank you!



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