

# PLUG 'N DRIVE

March 2023





## Who are we?

Not for profit accelerating EV adoption in Canada

## What do we do?

- Provide virtual and in-person EV education and awareness
- Offer test drives in the latest EV makes and models in a sales-free, no-pressure environment – EVDC, MEET, Roadshow
- Research and reports to help support education efforts
- Consulting projects



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## Electric Vehicle Discovery Centre

- Science Centre meets Car Show room!
- A place to come and learn about EVs, test drive makes and models, with no pressure to buy!
- Currently located in Vaughan, ON





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## The Electric Vehicle Roadshow

- Offering test drives in your community
- Tend to be 1-3 day events
- Great way to learn about EVs close to home!
- PND has been offering Roadshow for over 12 years

# The MEET – Mobile EV Education Trailer!



- Hybrid between EV Discovery Centre and Road Show
- Launched in Ottawa, Drive Electric Week, October 2 – Nov 29, 2020
- 5 municipalities in Ontario, plus 3 other provinces in 2022
- Check our events page for opportunity near you!

<https://plugndrive.ca/events>

DISCOVERY SPONSORS



ELECTRIFYING SPONSORS



ACCELERATOR SPONSORS



MEET PRESENTING SPONSORS



AMPLIFIED SPONSORS



PARTNERS







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# 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 'RED LIGHT CAMERA' sign is visible on the right.

**Transportation**  
**33%**

A photograph of an industrial facility, likely a refinery or chemical plant. It features a complex network of pipes, metal structures, and large cylindrical tanks under a clear blue sky.

**Industrial**  
**29%**

A photograph of a dense city skyline, likely New York City, showing numerous skyscrapers and buildings under a clear sky.

**RESIDENTIAL**  
**22%**





**NUCLEAR = 59%**



**HYDRO = 24%**



**RENEWABLES = 9%**



**NATURAL GAS = 7%**



# The Benefits of Electric Cars



**ELECTRIC CARS REDUCE  
GREENHOUSE GAS EMISSIONS**



**90%**

**Less GHG Emissions**



**ELECTRIC CARS ARE FOR EVERYONE**



**50+**

**Models Available**

# The Benefits of Electric Cars



ELECTRIC CARS GO THE DISTANCE



**300+ km**

Per Charge



ELECTRIC CARS SAVE MONEY



**\$2,000**

Per Year





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# EV Match Tool

**Total Cost of Ownership hard to explain  
Until now, using averages...**

**Introducing FIND YOUR EV MATCH**

**[EV.PLUGNDRIVE.CA](http://EV.PLUGNDRIVE.CA)**



# Charging

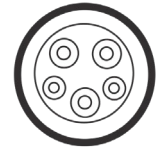
## Level 1

1 Hour of Charge ~ 8 km of Driving



## Level 2

1 Hour of Charge ~ 30 km of Driving



## Level 3

1 Hour of Charge ~ 250 km of Driving





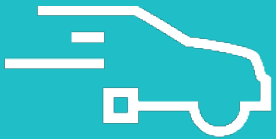


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# Charging

## CHARGEMYCAR.CA

### One of Canada's Largest Selection of Home Charging Stations




**CHARGE MY CAR**

A PLUG'N DRIVE INITIATIVE





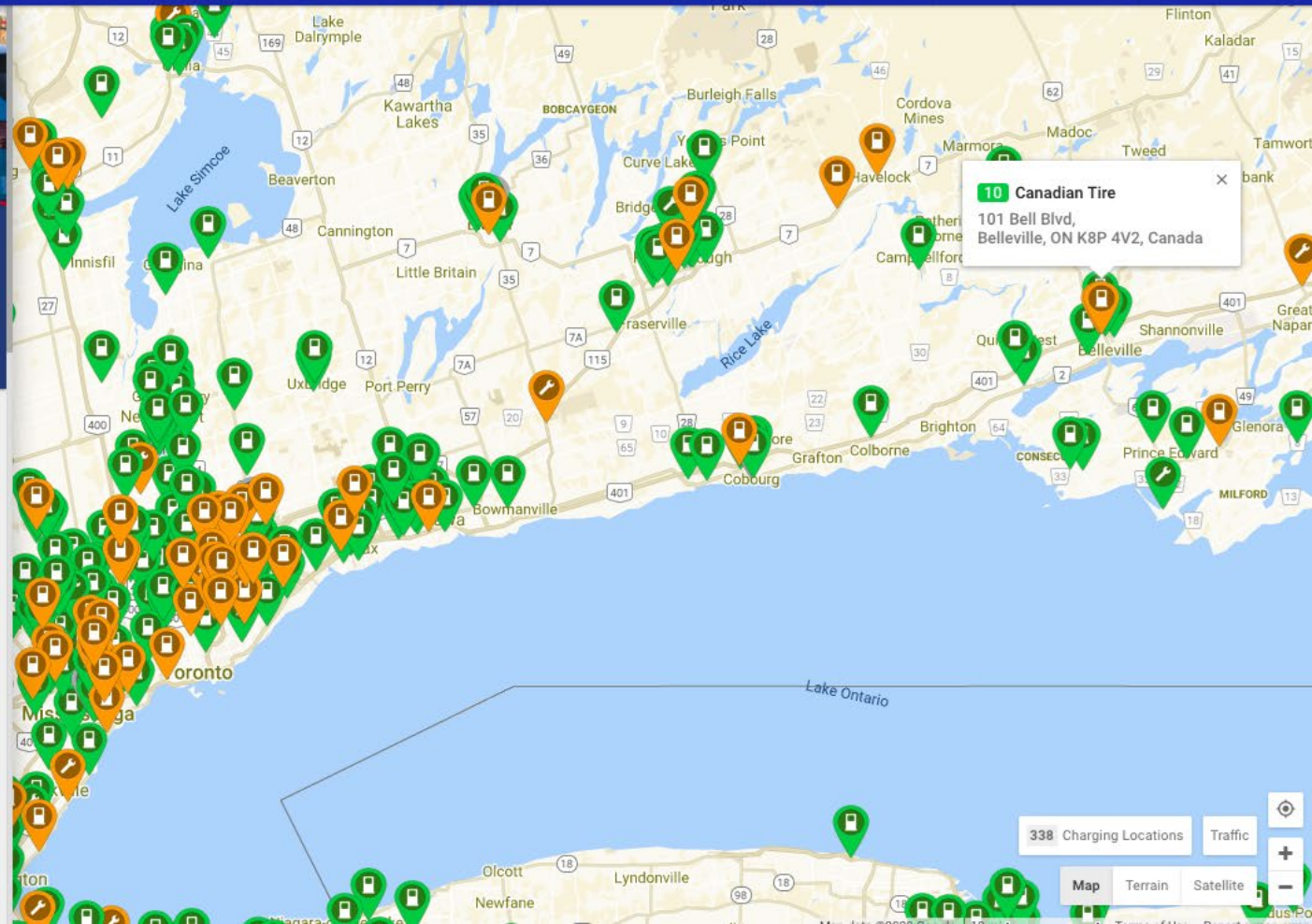
**10 Canadian Tire** 

J-1772, CCS/SAE, CHAdeMO  
FLO 7.2 - 50 kW

Check In

BOOKMARK ADD PHOTO DIRECTIONS EDIT

- 101 Bell Blvd, Belleville, ON K8P 4V2, Canada
- +1 613-968-5119
- L2: \$1.5/hourly Fast Charging: \$20/hourly
- Parking: Free
- EV Parking, Dining, Shopping, Restrooms
- Open 24/7
- Located south of gas bar beside coin operated car vacs.



338 Charging Locations Traffic

Map Terrain Satellite





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# Public Charging Networks

-chargepoint+

flo

greenlots®

myEVroute™



Shell Recharge

Circuit électrique

electrify canada



HYPERCHARGE™  
GO FURTHER WITH CONFIDENCE





## Lead the Charge

2020 Guide to Workplace Charging

### Comprehensive Guide to Help Businesses Prepare for and Install Workplace Charging

Includes:

- Reasons to invest
- How to assess your workplace's demand for EV charging
- Policy considerations
- How to select the right charging equipment
- Installation considerations
- Cost considerations and pay-per-use payment models
- Operation and maintenance considerations

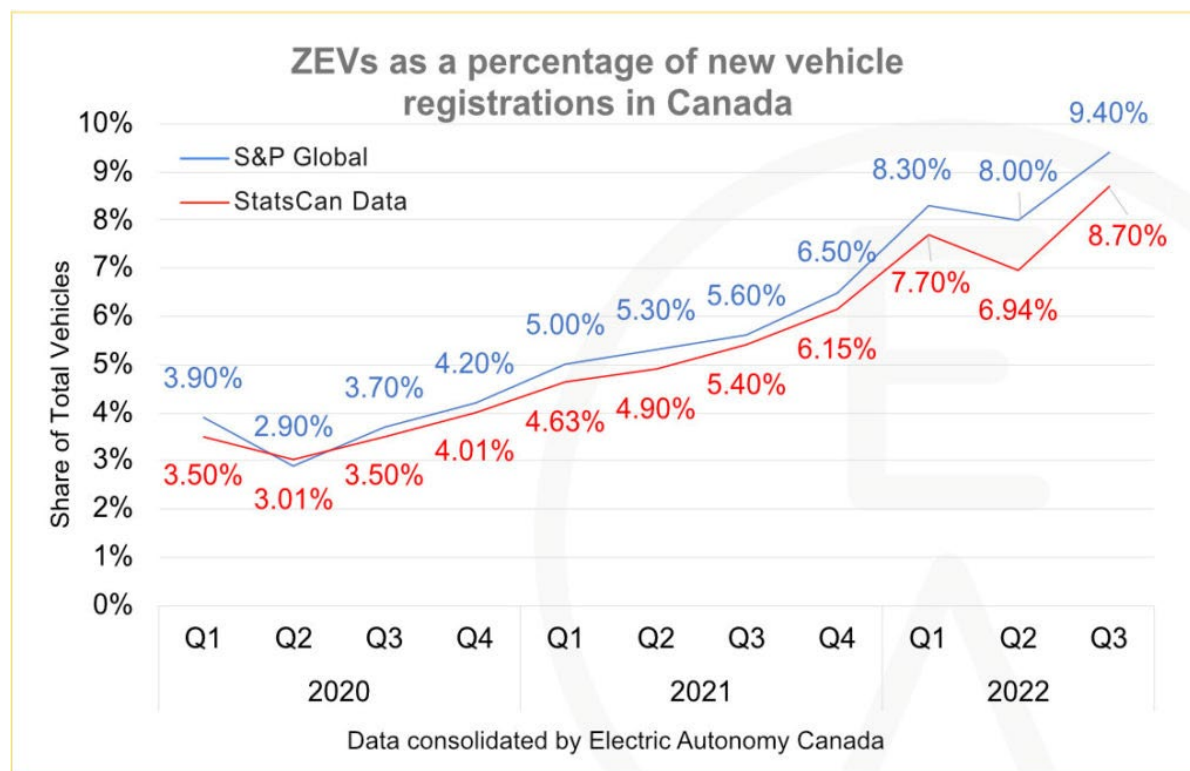
**Interested?**

**[contact@plugndrive.ca](mailto:contact@plugndrive.ca)**



# How are we doing in Canada?

- ZEV's account for **1/11** new vehicles registered in Canada.
- ZEV's = **10.2** per cent market share (first time ever!) in Q4 2022 vs. 6.7 per cent in Q4 2021.
- Total # of ZEV's on the road **up 38.8%** in Q4 2022 vs Q4 2021 YTD.



- **Incentives:** \$1.7B commitment to extend existing EV incentives
- **ZEV Mandate:** 20% of all new light-duty vehicles sales must be ZEVs by 2026; 60% of all new vehicles sold in 2030 must be ZEVs; 100% in 2035
- **Charging infrastructure:** \$2.9 Billion in charging infrastructure



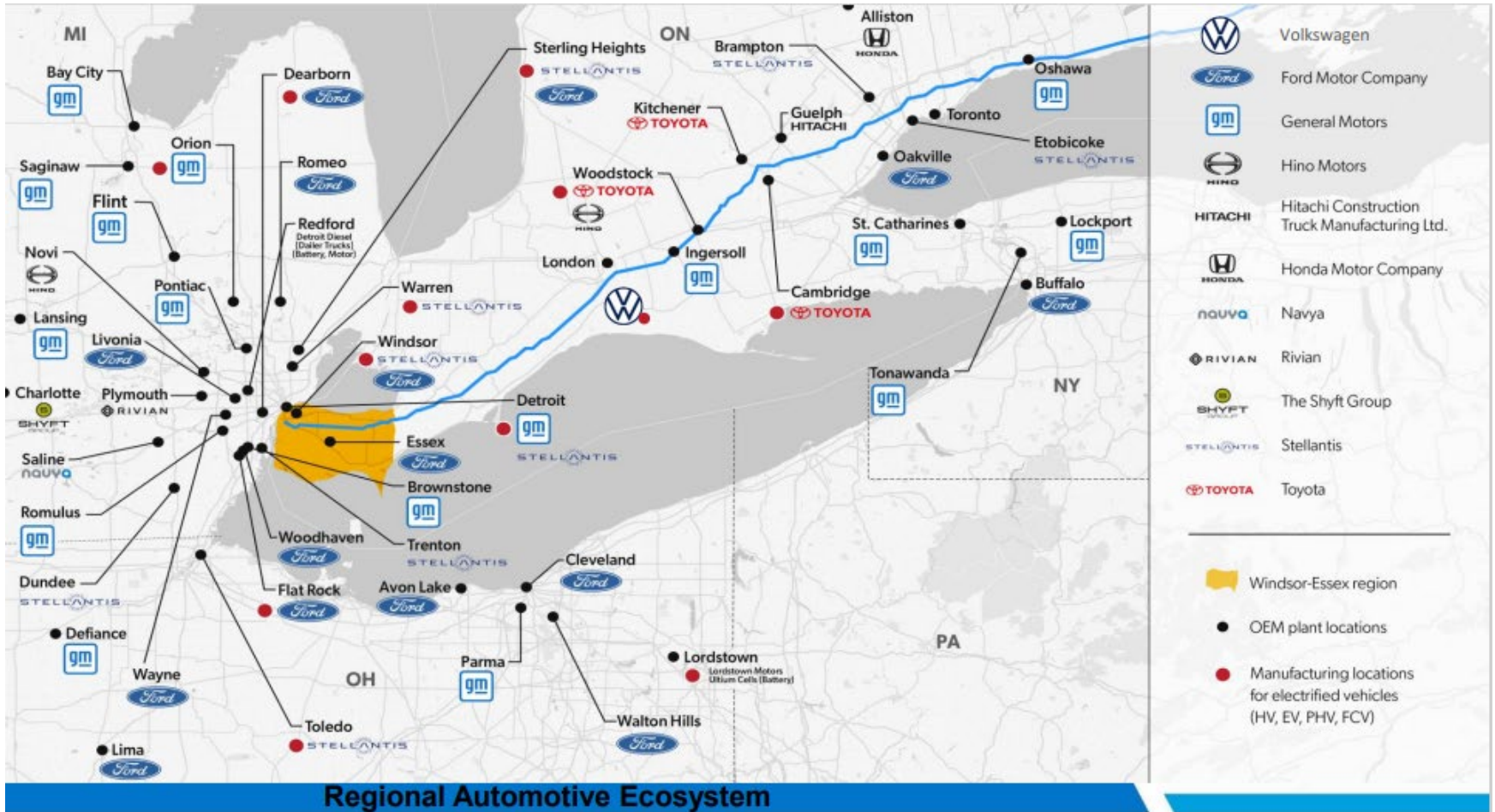
The plan also includes:

- Support for medium and heavy duty vehicles
  - Support for bus/school bus fleets
- Support for 'clean electricity grid' initiatives



# EV/Battery Production - Automaker Investments

Canada has received over 10 major EV-related commitments (red) totaling more than **\$16 Billion** in the past two years.



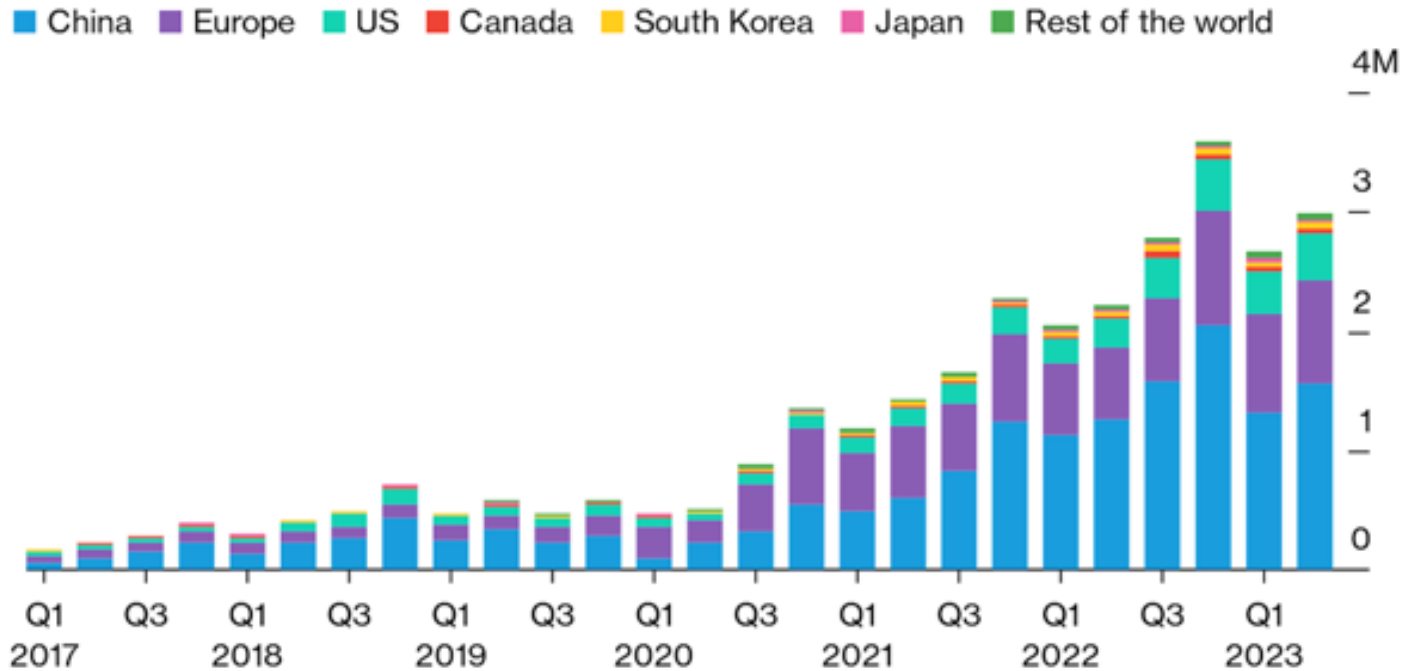
Source: Invest WindsorEssex, 'Growing a Regional Economy', InvestWE presentation

**1 in 7 cars** sold globally is now electric. EV car sales increased by 60% in 2022, with 10.6 million EV sales globally.

There are **16.5 million electric vehicles on the road globally**.  
 As of December 2022, there were over 300,000 EVs on the road in Canada (Electric Mobility Canada).

## Motoring Along

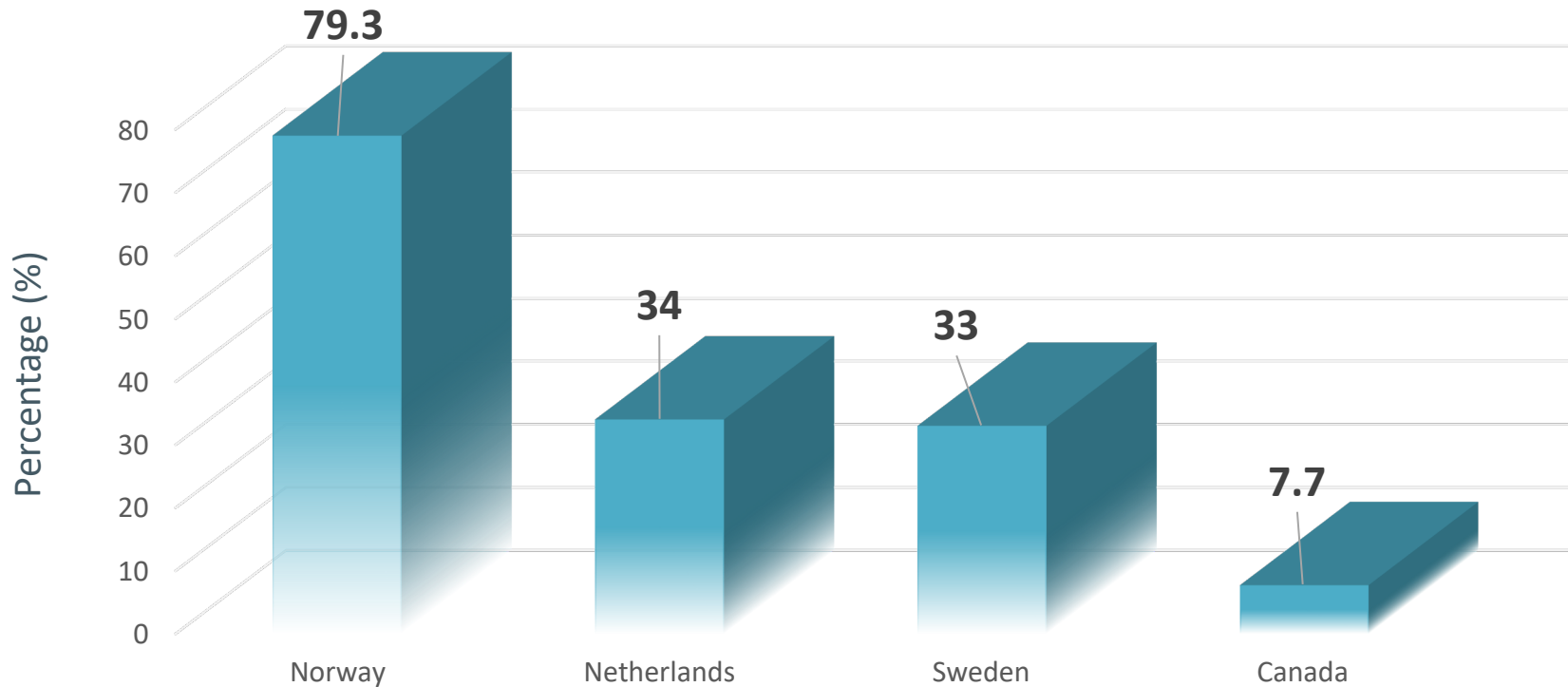
China and Europe are driving passenger electric vehicle sales



SOURCE: BloombergNEF– ‘The Road to Electric Car Supremacy in 5 Charts’  
<https://about.bnef.com/blog/the-road-to-electric-car-supremacy-in-five-charts/>, August 30, 2022



## EV % of New Vehicle Sales (2022)



ElectroMaps, "Electric Vehicle Sales in Europe in 2022"  
<https://www.electromaps.com/en/blog/electric-vehicle-sales-2022-Europe/>, January 18, 2023

Electric Autonomy, "Zero-emission vehicle market share hits record 8.7 per cent in Q3 2022: StatsCan"  
<https://electricautonomy.ca/2023/01/24/zero-emission-vehicles-market-share/>, January 24, 2023

- Manufacturing – looking good for Canada! Add in supply chain and mining, we have a huge opportunity.
- Infrastructure – good, but not enough
- Education – we can do a lot better!!
- Companies can step up – infrastructure, incentives, education
- **Policies we need – incentives (used), building codes, financing, ZEV standards...**





**If all cars and SUVs in GTHA were electrified:**

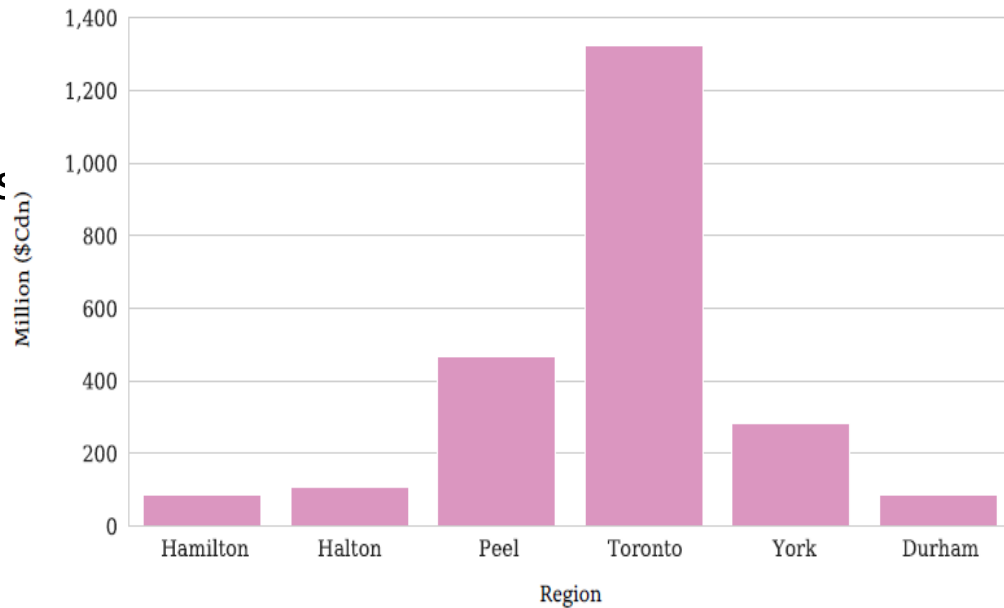
**313 premature deaths prevented**

**\$2.4 billion per year in social benefits**

**7.6 mega tonnes (68.5%) annual GHG reductions**

**\$9,850 social benefits per electric car deployed**

ANNUAL SOCIAL BENEFITS WITH 100 PER CENT ELECTRIC CARS AND SUVs BY REGION (IN MILLIONS \$CDN)



environmental  
defence





Thank you!

# QUESTIONS



[contact@plugndrive.ca](mailto:contact@plugndrive.ca)

647-717-6941