



EcoHack-a-City Ottawa - Final presentation Group 1



THE CHALLENGE

Problem: Prevalence of fossil fuel vehicles in Ottawa (ie not enough people are driving electric)

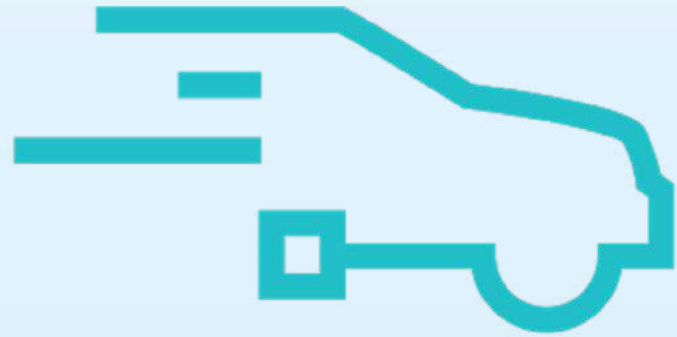
Victims: Entire population, emphasis on low-income communities, the environment (increased emissions)

Big Obstacles:

- Fossil fuel car technology is more established
 - Consumer comfort around fossil fuel vehicles
 - Consumers do not have enough understanding of the technology and awareness of EV simplicity
 - Many communities do not have EV representation
 - **Greater variety and availability of fossil fuel cars, especially at lower prices**
 - Many gas stations, fewer chargers
- Barriers for potential EV customers
 - Many dealerships are less willing to sell EVs because of reduced profit on maintenance
 - Not enough hands on experience with EVs
 - Disinformation campaigns around EVs
 - Lack of social influencers and trusted voices that make EVs an accessible option for the general public

THE CURRENT SOLUTIONS THAT ARE BEING TRIED

- For car availability there are several non profit groups with online listings for what vehicles are available in Canada but none of them provide real time data of available vehicles
- TrueCar exists in the US market which allows customers to find actual vehicles

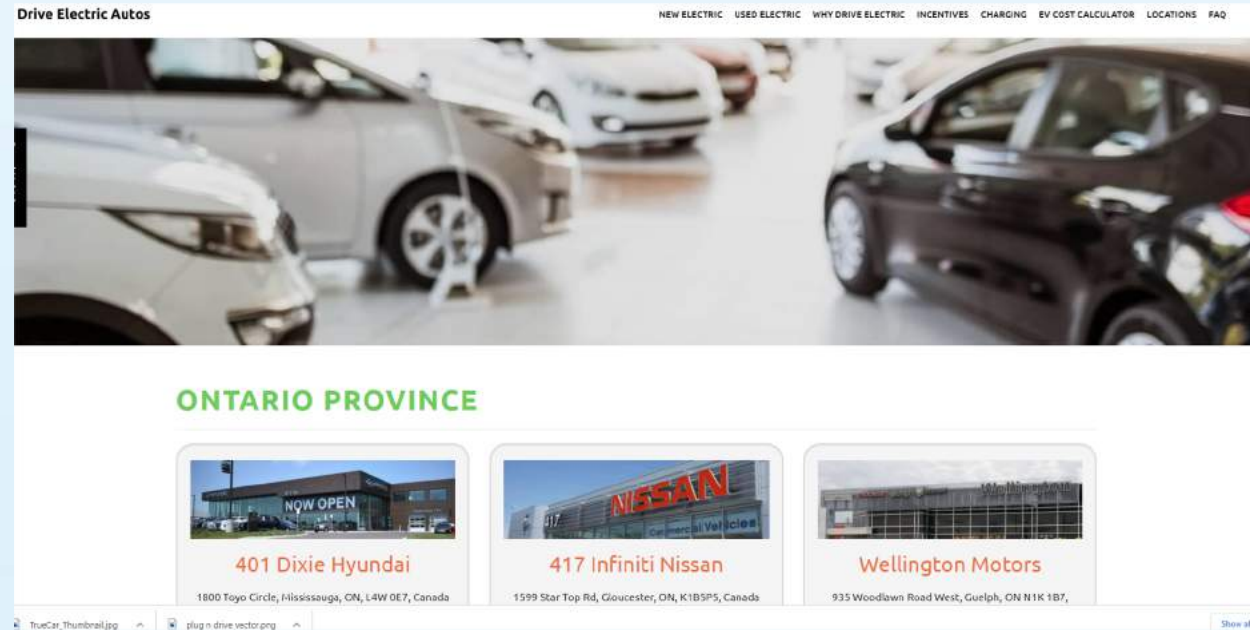
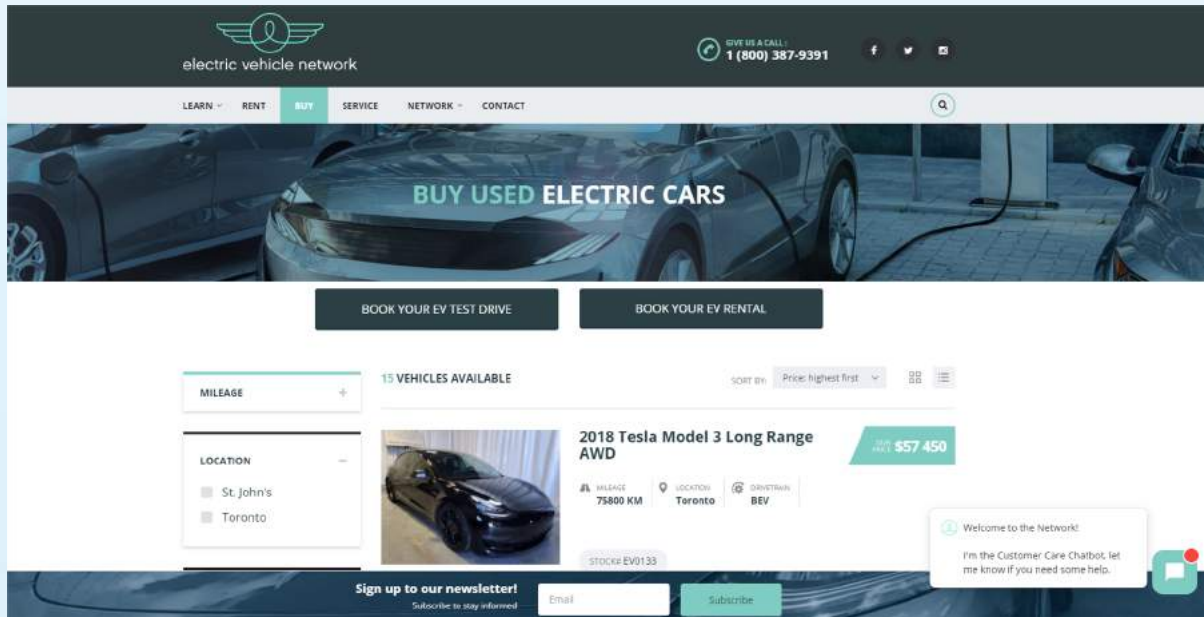


PLUG 'N DRIVE



THE CURRENT SOLUTIONS THAT ARE BEING TRIED

- Some websites exist in Canada that list used EV vehicles and EV dealerships
 - evnet.ca
 - driveelectricautos.com



THE CURRENT SOLUTIONS THAT ARE BEING TRIED

- There is currently no national organization that is advocating for EVs with key influencers. Nothing is directly targeting who is buying an EV and why



THE GAPS THAT EXIST AND WHO/WHAT IS PRIMARILY IMPACTED? WHAT IS THEIR SPECIFIC NEED?

- Potential EV buyers can not access available vehicles in their market. Often times it can be confusing to find EVs and going direct to some dealerships is proving difficult
- Buyers need a way to be able to find available EVs in markets across Canada
- Knowledge of EVs and maintenance is low to non existent in some areas. Markets exist where there are very few early adopters of Electric Vehicles
- There is a need for EV ambassadors in underserved communities across Canada. How can we connect the EV enthusiasts with those who know little about the vehicles?
- The Canadian market lacks key influencers who can help with the widespread adoption of EVs throughout the country. These influencers should range between industries and professions so as to hit all walks of life (ie famous people and those in your social circle)

WHAT ARE THE IMPACT ZONES (1 TO 3) TO ACT ON IN THE NEAR FUTURE? AND WHY?

Mentoring with EV owners and vehicles

Research has shown that **test drives** and 1:1 conversations with owners are **very influential**. The task is to determine what mechanisms would allow us to scale those interactions to as many consumers as possible. Leveraging the AVÉQ's model for test drives might be interesting

Mapping of available vehicles

This web-based mapping tool would allow consumers to sort through the maze of dealers to find those that carry their specific vehicle.

Identifying Key Influencers and Trusted Voices

Getting outside the environmental echo chamber to the broader public is difficult, yet we need to reach the large percentage of the population that is not active in the environmental movement.

There are a number of influencers that might help amplify the message : these would include everyone from “petrol heads”, trusted members of one’s social circle to public figures such as politicians, media personalities or sports figures.

OUR KEY LEARNINGS DURING THE PROCESS (AND HOW WE CAN USE IT IN OUR FUTURE WORK)

Process	EV Awareness and Outreach
Best ideas come out of discussions, leading to better understanding of what works and what doesn't	Local awareness raising is important, but should also be tied to national programs
Local solutions exist that have the potential to scale locally, rather than nationally	Partnerships are needed to scale the project
Breadth of stakeholders provide different angles of analysing a problem	
Stakeholders brought together note that there are still stakeholders that are not at the table (renters, low-income communities)	There are many examples of programs run in other parts of the world from which we can learn



EcoHack-a-City Ottawa - Final Presentation Group 2



THE CHALLENGE : The lack of charging infrastructure is a challenge for electric vehicle ownership for people residing and commuting in Ottawa.

Who Is Affected By The Challenge And How?

PEOPLE	BUSINESSES	GOVERNMENT
<ul style="list-style-type: none">• No charger = No EV car• Cost of installation• Lifestyle change• Lack of knowledge	<ul style="list-style-type: none">• ROI vs cost, absence of business case• No knowledge about trends• Lifestyle change	<ul style="list-style-type: none">• Lack of ownership• Lack of talent and capacity• Lack of incentives for consumers ; esp. in Ontario.

THE SOLUTIONS THAT ARE BEING TRIED

- Federal funding upto \$5K, however no funding to install the charger itself especially in Ontario
- NRCan (Natural Resources Canada) has infrastructure programs – ZEVIP
- City of Ottawa – Installing public use chargers
- Parking privileges

ZEVIP

How much can you receive?

NRCan's contribution through this Program will be limited to fifty percent (50%) of Total Project Costs up to a **maximum of five million dollars (\$5,000,000) per project and up to a maximum of two million dollars (\$2,000,000) per project for Delivery Organizations**. Applications from Ultimate Recipient to Delivery Organizations will be limited to less than \$100,000.

The maximum funding per type of infrastructure is as follows:

Type of Infrastructure	Output	Maximum Funding
Level 2 (208 / 240 V) connectors	3.3kW to 19.2kW	Up to 50% of total project costs, to a maximum of \$5,000 per connector
Fast charger	20kW to 49kW	Up to 50% of total project costs, to a maximum of \$15,000 per charger
Fast charger	50kW to 99kW	Up to 50% of total project costs, to a maximum of \$50,000 per charger
Fast charger	100 kW and above	Up to 50% of total project costs, to a maximum of \$75,000 per charger
Hydrogen refuelling station	Dispensing at 700 bar or 350 bar minimum	Up to 50% of total project costs, to a maximum of \$1,000,000 per site

THE GAPS THAT EXIST AND WHO/WHAT IS PRIMARILY IMPACTED? WHAT IS THEIR SPECIFIC NEED?

There are some gaps that affect people, businesses and government. Some of them are:

- Affordability of charging stations for common people
- Lack of predictability in number of EVs on road
- Grid capacity
- Developing technology (unlike fossil fuel cars we have not mastered EVs)

What do they need?

- Affordability
- Accessibility
- Clear focus especially for Government – can follow foot steps of other cities and countries

WHAT ARE THE IMPACT ZONES TO ACT ON IN THE NEAR FUTURE? AND WHY?

- The city should support better incentives and review international best practices (tax privileges, plates, utility bills, etc.)
- Encourage B2B Associations, Chambers of Commerce to take a leadership role to establish EV infrastructures.
- Support gas stations and grocery stores to install EV stations.
- Engage with all internal and external stake holders
- Engage financial institutions to provide support for the infrastructure

OUR KEY LEARNINGS DURING THE PROCESS (AND HOW WE CAN USE IT IN OUR FUTURE WORK)

Our Key Learning during this process is that there is a dire need to make changes for a positive impact on citizens in general, consumers in particular, with EVs and charging stations making for cleaner air, reducing GHGs, meeting our net zero target, better health outcomes for all.

Having said that we also learned that there is a definite gap in understanding roles and responsibilities of the various stakeholders.

We are really pleased that our proposed next steps are extremely do-able. To reiterate they are:

- **Governments** to bring all stakeholders to the table to work on legislation and policies, funding programs, incentives, grid capacity etc.
- **Businesses** can then play a more prominent role in marketing the EVs and charging stations, as the new norm is for consumers to support businesses who are both purpose driven and profit driven.
- **People** will move to a new mindset, when adequately and effectively shown the advantages of EV and charging stations in terms of Caring for our planet and reduced cost of the vehicle in the long term.