

# Northern Bruce Peninsula Electric Vehicle (EV) Charger Program for Accommodators



## A Case Study in Climate Change Action

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## ***EV Charger Incentive Program Achieves 90% of Target Take-Up by Partnering with local Environmental Association***

### **Policy Recommendation**

Climate Change incentive programs should use local NGOs  
for maximum effectiveness and lower cost delivery

### **Summary**

As demonstrated in the case study below, using local non-profit environmental organizations to deliver Climate Change incentive programs increases take-up at substantially reduced delivery costs. Local non-profit organizations have local roots and contacts, volunteer power, and ability to reach target populations not as easily accessed by larger, more complicated programs.

### **A Case Study in Climate Change Action**

#### **Context**

In early 2021, the Bruce Peninsula Biosphere Association (BPBA) attracted a grant from the M.H. Brigham Foundation to support the installation of level 2 overnight chargers at hotels, motels, bed and breakfasts, and campgrounds. The program was run as a pilot project, to make our community an exemplar, and of course to improve the EV charging environment locally. A typical level 2 charger provides about 40 km of range per hour, and so it is suitable for overnight accommodations, but not useful for a coffee shop, grocery store or restaurant.

The BPBA <https://www.bpba.ca/> is an organization with deep local roots. We have run a variety of environmental initiatives, including solar water pumping for cattle troughs to keep cattle out of streams, providing grants to replace failing septic systems, and the popular EcoAdventures program <https://www.facebook.com/brucepeninsulaecoventures/>, which is widely promoted by local tourist operators. BPBA has a volunteer board, and staff who are well connected in the local community, where everyone knows everyone.

#### **Northern Bruce Peninsula**

The Municipality of Northern Bruce Peninsula (MNBP) occupies the northern half of the Bruce/Saugeen Peninsula, which separates Georgian Bay from Lake Huron. It has 4,000 full time residents, but in the summertime, the population swells considerably, with cottagers and

visitors. There are over 500,000 visitors to the Peninsula per year. Almost all of these visitors come by car, as there is virtually no public transit.

## **The Problem**

Internal combustion vehicles emit a lot of carbon dioxide. A single trip from Toronto to MNBP (Tobermory) and back is about 600 km. At 8 litres/100 km (like a Honda Accord), this trip emits 110 kg of CO<sub>2</sub>. Driving an EV, this trip would use about 90 kWh, which with Ontario's low emitting grid, is about 2.8 kg of CO<sub>2</sub> emissions, a decrease of over 98%.

One of the biggest barriers to the adoption of EVs is range anxiety. Where will I charge it? While it is true that for most people 90% of charging happens at home, what do you do when you go on vacation? The BPBA EV charger program for accommodators is designed to overcome this problem, at least in our small area.

## **Accommodators**

The Municipality of Northern Bruce Peninsula has no franchise or corporately owned campgrounds or motels. All of the facilities are locally owned and family run. They range in size from a small Bed and Breakfast with a few rooms, to over 100 campsites. At the time the program was contemplated, there were just three level 2 chargers at the tip of the Peninsula in Tobermory. The next nearest chargers were in Owen Sound, 125 Km away, where there are a handful of Level 2 and Level 3 chargers.

## **Marketing and Program Implementation**

The program was launched in Feb/March of 2021. The communication began with talking about EVs in Facebook posts on the BPBA active Facebook page, emphasizing the cost savings on fuel, the cost savings on maintenance, and the dramatic decrease in CO<sub>2</sub> emissions. An article was submitted to the local bi-weekly<sup>1</sup> newspaper and it ran on the front page. The paper is distributed to all residents for free, and so has good readership. A web application form and FAQ sheet were developed <https://bpba.ca/ev-charger-program>, with an application deadline of March 1. When an application was received, an email was automatically generated to the volunteer program administrators. A simple spreadsheet was set up to record the applications. The deadline was put in place in order to create some urgency, so that accommodators would take early action. We wanted the chargers to be installed by May, when the tourist season begins. Electricians tend to be busy and need some lead time to complete installations. The deadline was extended, once it was established that we had sufficient budget to handle the number of requests.

A Google search of motels and campgrounds produced a list of prospective targets for the program – about 60. Emails were sent to operators outlining the program. After the application deadline, anyone on the list who had not applied were contacted by phone. This

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<sup>1</sup> The Bruce Peninsula Press is published 20 times per year.

required about 20 calls. We didn't want anyone to feel left out, and we wanted to make sure that people understood the program.

Operators were encouraged to list the availability of EV charging in their marketing materials. We developed a logo, and will encourage operators to use it on their online material in particular. Operators were also encouraged to list their site on Chargepoint and Plugshare.

The program was simple. Submit an application online – about a 2 minute process. Receive approval by email. Pick up the Electric Vehicle Supply Equipment (EVSE, or “J1772 wall charger”) at a central location, and arrange to get it installed. Submit an expense claim form on the web, attaching copies of receipts. The program supplied one or two EVSEs, plus up to \$1,000 towards the cost of installation. Expense re-imbusement could include electrician or contractor, cord ramps, signage etc. In order to encourage prompt installation and processing of claims, expense re-imbusement drops to 90% after July 1. Expense claim reimbursement excludes HST, as the operator can claim that themselves.

Many operators asked about how to charge customers for use of the charger. Most include it in the room rate, but some will charge a member of the general public \$5/hour. Some will put up a donation box. And some will re-assess once the usage rate, and impact on power consumption is established.

## **EVSE Selection**

The EVSE selected was the Grizzl-e from United Chargers <https://grizzl-e.com/>. It was selected because it is competitively priced, rugged, and is made in and ships from the Toronto area. It is a simple J1772 charger, with no Wifi, or timer options, as it was thought that simple was best. It has an optional 24 foot cable (vs 18), and comes with a NEMA 14 50 or NEMA 6 50 plug, that can be removed for direct connection if the operator preferred. It also comes with an optional lock, as some operators were concerned about the general public using the charger even if they weren't a customer. The standard selected was 24 foot, winter grade cable, with a NEMA 14 50 plug. It will accept input from 20 amp up to 50 amp by changing dip switches internally. If someone wanted an alternate charger, we would provide up to \$500 towards its purchase, in addition to the \$1,000 towards installation. No one chose an alternate. We set ourselves up as a dealer with United Chargers, to receive a 15% discount. A benefit of a standardized EVSE is that local electricians could become familiar with it, making installations easier.

## **Outcome**

At the time of this writing, the program resulted in the placement of 33 EVSE's, to 27 different operators (some requested 2), that have a total of 667 rooms or campsites. A few more applications may come in, as some operators are not in the area until May. We achieved almost 100% uptake among our most important targets, and have good geographic coverage, including Hope Bay, Pike Bay, Ferndale, Lion's Head, Stokes Bay, Miller Lake, Cape Chin, and Tobermory.

Feedback from applicants has been outstanding. Many report that they had been considering installing a charger, but didn't know where to start. This program solved that, by making the selection of the EVSE for them, and by reimbursing all or a portion of the installation cost. The deadlines encouraged operators to make a decision, and to make installation a priority. Most reported that customers had asked about charging, or had been letting customers charge at 110 V.

In the process of engaging with the owner-operators, a lot of information about EVs has been provided. At least one operator said, "My next vehicle will be an EV for sure." We expect EV purchases by our community will increase because of the number of operators who are gaining experience and knowledge, and the publicity this program has garnered locally. EVs are creating quite the buzz on the Northern Bruce Peninsula!

People are starting to ask, "Why *wouldn't* you buy an EV?"

### **Policy Implications**

Non-profit organizations have the potential to provide rocket fuel (renewable of course) to EV charger deployment, when funding is available. Owner-operator facilities are common throughout tourism and cottage areas across the country. Local non-profit organizations have local roots and contacts, volunteer power, and ability to access operators that may not be easily accessed by larger more complicated programs. Environmental groups, tourist associations, EV owners' clubs, or chambers of commerce would all have the potential for efficient delivery of a deployment program.

Programs can be designed with sufficient uptake to make Level 2 chargers ubiquitous at overnight accommodation throughout the country, and at an affordable cost. With thoughts of a post covid recovery, especially for the hard hit tourist sector, a country that has widespread availability of chargers would be very attractive to EV owners in border states. States like New York, Massachusetts, and Washington all have large and growing EV numbers, and are drivable distances to Canadian destinations. Marketing on social media to EV owners would be very low cost compared to other broader campaigns.

It is estimated that there are 9,000 hotels and motels in Canada.

<https://www.ibisworld.com/canada/market-research-reports/hotels-motels-industry/>. The program outlined here could place at least one charger at all of them for \$13 million, assuming 100% uptake. In practice, some hotels have already installed chargers, some would have the need for many more outlets, some would have partnered with third party providers etc. But the program described here is an important way to reach owner-operator facilities, that are common in rural area and cottage country.

EV charging is an important part of tourism promotion and is poised to be even more important in the future.