

2019

Annual Report



***Highlights and achievements from Canadian
EV owners and Owners' Associations in 2019***

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Message from the President

Four years ago, I travelled across Canada in my electric car. At that time, I was mostly reliant on Level 2 chargers, but with time on my side and planning, I was able to make it successfully without any 'unplanned' stops.

As I think about the status of electric vehicle chargers at the end of 2019, it is incredible to see how far our country's infrastructure has grown since 2016. In addition to several regional initiatives, we now have not only one, but also two countrywide DC fast charging networks courtesy of Tesla and Petro-Canada. In addition, there is the promise of more to come.

The purpose of my road trip was to meet with local EV owners and enthusiasts so that I could listen and learn from their experience. It became clear that individual and local group efforts were making a big impact as a result of a huge amount of volunteer time and effort. However, many of the people I spoke to felt we needed to coordinate our efforts and organize ourselves on a broader level. There was clearly an opportunity to find efficiencies in our processes and to find greater influence in the power of our combined voices. In fact, it struck me that was one of the founding principles of the EV Society of Canada many years ago.

"A meaningful difference has been made as a result of a huge amount of volunteer time and effort."

I am pleased that for the first time in our annual round up, we are able to present some of the successes from the hard work of regional volunteers in EV owners groups across the country. Collectively, you have all contributed so much to advancing the adoption of electric vehicles, not just with the development of the charging infrastructure I mentioned earlier, but also in influencing policy, regulation and the all-important education – sharing your experience with the public, one person at a time. I am immensely grateful for the hours-upon-hours of time and expertise you have poured into achieving the vision of widely adopted electric transportation in Canada.

Because of our strength in numbers, we plan to bring onboard more partners and more special benefits, creating even more value for our individual members. In addition, we will be working even harder on our two focus areas of educating the public and influencing



Wilf Steimle, Chair
EV Society

policy – both nationally and by expanding our support and services for regional groups and EV Society chapters.

The document you are reading is a report on the progress of a movement, and the outcomes that have been made possible by the hard work of committed volunteers whose contributions – large and small – have combined to make an impactful and permanent step forward on the path to electrification. I hope you enjoy reading it and will continue to work with us in 2020 as we push further forward on the transition to EVs!

Wilf Steimle, President

Mission Statement

To utilise the expertise of electric vehicle owners and enthusiasts to help Canadians transition to electric transportation through education and advocacy.

Dedicated Volunteer

As our 2019 year ended, the EV Society said a goodbye to its' outgoing secretary, Rob Campbell. Rob began his secretarial role in June of 2017 and quickly became the 'go to' resource for many of us at the EVS. Rob never hesitated to immerse himself in whatever task was volunteered on him. He thoroughly researched and recommended new software for the Society and then quickly became a ready and willing administrator and coach for that software. Rob's patient and approachable manner combined with exceptional good humour, made him a pleasure to work with. Among other activities, Rob has a little more time now to work with his CNC cutting machine and Fusion 360 CAM... no doubt he will be taking on some interesting projects and going for more rides in his custom eTrike. Please join the board in thanking Rob for nearly three years of service with the EV Society.

Highway Traffic Act Respecting EV Charging

In December 2019, the Ontario provincial government passed Bill 123. This bill amended the Highway Traffic Act to make it an offense to park at an "electric vehicle charging station that is identified by a sign" unless "the vehicle is an electric vehicle and the vehicle is attached to the station's charging equipment". Violators can be issued a fine of \$125. Ontario joins Quebec in adopting a fine for blocking charge stations and a number of municipalities have established their own similar bylaws.

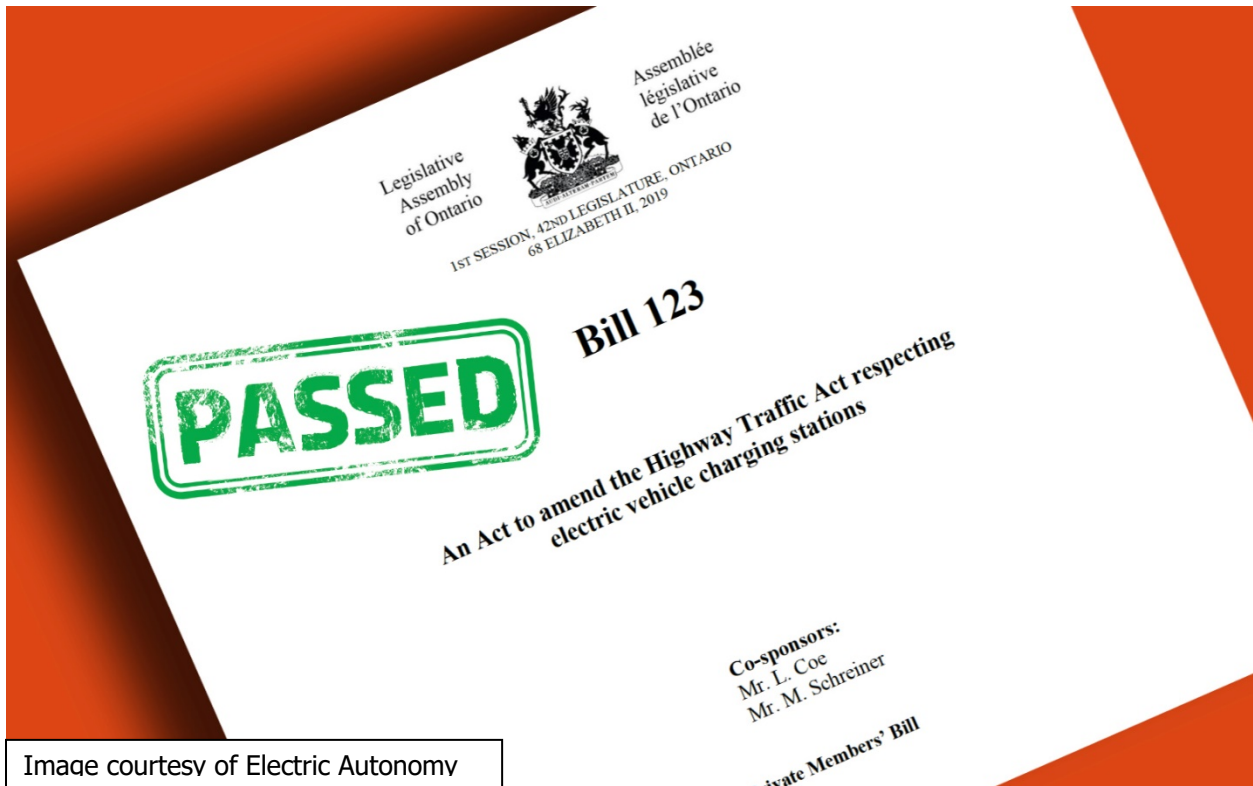


Image courtesy of Electric Autonomy

EV Society played an important role in the wording of this bill, collaborating with Conservative MPP Lorne Coe and Green Party MPP Mike Schreiner, to ensure the bill did not inadvertently target the wrong people, such as EV owners parked in their own driveway. Further work is required before the amendment takes effect, including finalizing wording of the signage required and issuing a proclamation by the Lieutenant Governor. EV Society will continue to support these efforts as required.

EV Society was very encouraged to see cross-party cooperation for regulation supporting EV ownership in Ontario and will continue to engage with all levels of government identify and promote similar opportunities in the future.

Regional Spotlight - Sask EV

The Saskatchewan EV Association (SEVA) hit several benchmarks throughout the year and hosted many events starting by formally organizing as a group and becoming incorporated as a nonprofit in April 2019. SEVA also brought together a group of nine directors with a variety of backgrounds to help move things along, from engineers to retired refinery workers. Through a group of talented individuals, SEVA developed a website and a social media presence to build the membership.

The organization has also been working to develop relationships with EV industry groups and multiple levels of government in Saskatchewan to promote and educate on the benefits of electric vehicles. SEVA regularly participates in EV Society leader's group conference calls, which has allowed us to learn best practices from other chapter associations and work collectively to lobby the Federal government on e-mobility issues.

We were pleased to work with SaskEV (another regional electric vehicle advocacy group based in Saskatoon) on a variety of EV initiatives and events throughout the province. SEVA is looking to grow relationships with new groups, host even more events and build greater awareness of electric vehicles in 2020.

SEVA has also developed a positive working relationship with SaskPower to push for EV programs and charging infrastructure in 2020. SaskPower has been working to update their internal policy related to EVs, focusing on EV-related website information and developing an EV master plan for 2020.

SEVA hosted several events in 2019 including Drive Electric Earth Day (DEED) on April 27th at the Saskatchewan Science Centre in Regina. With 16 electric vehicles on site and vendors including sponsors SkyFire Energy and SaskPower, the event was a great success. Since the Science Centre also hosted related Earth Day programming, SEVA benefited from incidental traffic from passersby.

SEVA also hosted National Drive Electric Week - Regina Event on September 15th at the Peavey Mart location in Regina. This was by far our largest event in 2019 with 21 electric vehicles on display and EV industry sponsorship.



2019 was also the year of Level 3 charging infrastructure in Saskatchewan. Many people have been waiting years to see an EV infrastructure investment in the prairies. Petro-Canada and Tesla arrived with several stations across the TransCanada highway. Canadian Tire is planning to break ground on DC fast charger stations at various locations throughout the province in spring of 2020.



Membership Booming in Atlantic Canada

The Electric Vehicle Association of Atlantic Canada (EVAAC) celebrated its two-year anniversary in 2019. An anniversary party fundraiser party was held at an electric go-kart track where 60 people took part in the celebration.

EVAAC has managed to form solid relationships with local dealerships, non-profits, power utilities and various levels of municipal, provincial and federal government departments in an effort to accelerate EV adoption in Atlantic Canada.

EVAAC monthly meetings have been growing steadily from just a hand full of people to 40 to 60 attendees on a regular basis.

Roughly, 40% of attendees at EVAAC meetings don't own an EV and come to simply hear from owners first-hand about their EV experience. In the second half of 2019, there was a significant increase in EVAAC's membership among prospective EV buyers looking to have their questions answered by a brand-agnostic group.

In summer 2019, EVAAC participated in the largest EV event in Atlantic Canada dubbed Electric Avenue. EVAAC members volunteered their time and vehicles to allow ride-alongs (insurance does not allow test drives in Nova Scotia). The event drew a crowd of 400-500 people and 118 EV ride-alongs were given in the afternoon.

In 2019, EVAAC PEI formed with meetings held on a regular basis. A vibrant online community has been formed with several events planned for summer 2020 led by events leader Michael Kenny.

EVAAC started with just five people and now has grown to 470 members in less than two years.

EVAAC members participated in the November 2019 Bedford Christmas parade with a Tesla Model X, a Chevy Bolt and a Kia Soul EV.



New EV Association on Vancouver Island

Comox Valley, on the east coast of beautiful Vancouver Island, B.C., is the home of one of Canada's growing number of active, enthusiastic EV owners' groups, the Comox Valley Electric Vehicle Association (CVEVA).

Late in 2018, Randy Chatterjee, Co-founder of the organization, was at Canada's most westerly Tesla Supercharger in Nanaimo, where he and fellow EV owner Christine van den Meersche were discussing their shared belief in EVs game changing technology. They discussed ways to help make EVs ubiquitous, the sooner the better!

In May 2019, less than six months after their chat, they had joined forces with a local non-profit, Watershed Sentinel, the Comox Valley Nurses for Health and the Environment, and the BC-wide advocacy group Emotiv to hold the first EV Show'n'Shine event.

On that Saturday morning, at a site near the area's local farmers' market, a dozen EVs, a fleet of e-bikes, dealers offering test rides, a food wagon and a big tent for hourly presentations were ready for what was hoped to be a crowd of perhaps 300 visitors.

During the five hours of the event over 1400 people showed up, filled with curiosity and asking countless questions. Eager guests flocked to presentations on EV purchase incentives, the used EV market, home charging, battery life and long- distance EV travel.



There were also EV owners, neighbours and fellow enthusiasts that they had not met before, and curious folks who wandered over from the farmers' market. Over the next few months, CVEVA meetings increased to every other week.

Attendees regularly showed up with new (or used) EVs, recently purchased. At the next EV Show'n'Shine in September, over 40 members were there, eager to extol the virtues of their newly acquired EVs. The popularity of e-bikes and e-scooters had also exploded. Vancouver Island's 2019 new car sales were 9.9% BEVs, the highest market share in North America.

Recently, Chatterjee had an opportunity to give a presentation on EVs to his local government, focusing on the need for the government to support the conversion to electrified transportation. He emphasized three areas where electrified transportation has a huge positive impact:

Air Quality – Comox Valley has an air quality problem: a temperature inversion layer that holds ozone, a dangerous product of burning fossil fuel, close to the ground where it hurts people and impairs the growth of plants in one of Canada's most productive agricultural regions.

Climate Change – Cars in BC account for more than 40% of the carbon footprint of its citizens. Switching from fossil- fueled to all-electric driving reduces a driver's personal emissions by about 30%, exactly what Canada has promised to do by 2030. Driving an EV makes its owner personally compliant with the Paris Treaty.

Economic Development – The 65 thousand people who call Comox Valley their home spend \$70 million a year on fossil fuel. Ninety percent of that money leaves the Valley,

most of it leaving Canada forever. The “fuel” for EVs is produced locally, in BC, and the revenue stays there.

There is much more to owning an EV than just a great driving experience.

Newfoundland and Labrador EV Association

Drive Electric Newfoundland and Labrador (DENL) formed in March 2018 to advocate for the adoption of EVs in Newfoundland and Labrador. The large geographic area presents challenges for fast charger coverage; however, the province will soon have a 98% renewable grid making owning an EV a sensible use of sustainable energy.

While producing much of this clean power, the Muskrat Falls hydroelectric project has gone well over budget. This has raised serious concerns of rising power rates, and efforts are being made to mitigate rates. Selling the surplus power from the project domestically is the ideal solution, and DENL see EVs as being the best way to do this. The surplus power from Muskrat Falls is enough to run all passenger vehicles on electricity, with a value of approximately \$250M annually in new power sales.

In addition to making appearances at a number of environmental and sustainability events, Drive Electric NL has made presentations on the benefits of EV ownership to various workplaces, municipalities, utilities and the City of St. John’s. DENL also made a detailed presentation to the NL Public Utilities Board for their rate mitigation hearings. This strong effort established DENL as a trusted source of information on the subject in the Province.

Most recently, DENL undertook to inform and inspire EV adoption to all Members of the House of Assembly (MHA) for Newfoundland and Labrador. This event included a showcase for members of a dozen different EVs that covered the front parking lot of the Confederation Building. With considerable media coverage, DENL gave rides to Premier Dwight Ball and other key ministers. Following the show, the House of Assembly debated a member’s resolution supporting the adoption of EVs in the Province. Great discussion followed, and the motion passed unanimously.



Jon Seary Joe Butler of DENL with Newfoundland political leaders

DENL advocacy efforts are paying off, with an investment from the Newfoundland Government and Newfoundland Hydro set to create the first cross-province network consisting of fourteen fast chargers. Located along the Trans-Canada Highway on the Island portion of the province, DENL sees this network

as the first phase of a number of investments to cover the entire province.

DENL is not without challenges with EV adoption in Newfoundland and Labrador: as of March 2020, there are no publicly available fast chargers in the province. While the NL Hydro fast chargers will change that, there has been no indication to include Newfoundland and Labrador in the Petro Canada network, the Canadian Tire network, nor have Tesla announced any plans for Superchargers.

In spite of significant interest in buying EVs, few dealers are either able to become authorized EV dealers or see the benefit of approaching their respective automakers to become an authorized EV dealer. These are major barriers for widespread EV adoption but our efforts to work with auto dealers to solve these issues continue.

We welcome all EV visitors to the province to get in touch with us. Always great to have a chat.

Member & Volunteer Profiles

Kira Antinuk of Victoria Electric Vehicle Association (VEVA)



Kira Antinuk is a registered nurse who lives in Victoria, BC with her two children. She has been interested in new technology for as long as she can remember and electric vehicles were no exception.

After a nearly two and a half year wait, Kira replaced her family’s aging gas vehicle with a Tesla Model 3 in June of 2018 and has taken her children on many epic zero emissions camping and road trips since then. Kira currently serves on the Board of the Victoria Electric Vehicle Club — one of the most active community EV organization in Canada — and provides interviews as the Media Liaison.

John Henderson of Sunshine Coast Electric Vehicle Association

An early adopter, John R Henderson took ownership of his Tesla Roadster (the first into BC) in May 2010. He already owned two Segways and since then he and his wife purchased a Signature Model Tesla Model S in 2013, which they traded in for a Tesla Model X in 2018.

John was instrumental in having one of the first DC Chargers in BC installed in Sechelt, on BC’s beautiful Sunshine Coast. During that time, he served as Mayor of Sechelt (hence, the unique “Sechelt” wrap using Tesla font on one side of the Roadster.)



Since 2015, John has led the organization of the highly successful Sechelt Electric Vehicle Festival held every year in September. Most recently, John and a small group of fellow EV owners organized the Sunshine Coast Electric Vehicle Association (SCEVA).

Charging Infrastructure Update 2019

The past year has been a breakout year for charging infrastructure in Canada. The two biggest highlights are the completion of the Trans-Canada corridor by Petro Canada, which installed a network of over 50 CCS- and CHAdeMO-capable DCFCs, and Tesla, which closed the gap in a long-awaited string of Superchargers from coast to coast. While it has been possible to traverse our country from coast to coast previously, and a few brave souls have done so, it is now possible to travel by EV from Victoria, BC to Halifax, NS with the confidence and convenience of DC fast charging.



In addition to this national achievement, the build-out of DCFC networks continues to accelerate in several provinces. Electrify Canada broke ground in Toronto, ON, on the first of many DCFCs spanning Ontario, Quebec, Alberta, and BC.

The newly formed Ivy Charge, a co-operation between Hydro One and OPG in Ontario, installed their first of many DCFCs in Huntsville, ON.

AddEnergie/ Flo has continued to expand in BC, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, PEI, and even Yukon with over 200 DCFCs in operation.

BC Hydro expanded their network from 58 DC fast chargers in June 2019 to over 80 at the end of 2019.

Canadian Tire announced a partnership with Electrify Canada, Flo, and Tesla to host DCFCs at Gas+ locations across the country, to expand upon their existing network.

Newfoundland and Labrador Hydro closed a tender in November 2019, ensuring their commitment to build out a network of DCFCs across Newfoundland, which are expected to come online in late 2020.



"This network is quite possibly the longest non-proprietary charging network in the world. And, it was built in less than a year."

Wilf Steimle, President, EV Society

For the Tesla nationwide network the final gaps were filled just before Christmas with 20 new stations updated or opened which completed their network along the Trans-Canada Highway. The network is made up of more than 50% of Tesla's new ultra-fast version three 250kW chargers, which can add 120 kilometres of range to a Tesla Model 3 in just five minutes.

In short, 2019 has been a tipping point in the build out of DC fast charging infrastructure across all 10 Provinces, and even one Territory, connecting the country and the EV drivers in it. This trend is poised to not only continue in the coming years, but also accelerate, breaking down the barriers to EV adoption.

Government Relations – King Township

As municipalities are required to do in Ontario, King Township (30 minutes north of Toronto) recently went through an exercise of looking at its GHG targets going forward. The community at large was quite engaged in this process. The township staff presented



a report on the major sources of GHG in the Township: facilities (i.e. arenas) and transportation. The township owns a fleet of vehicles including cars, light trucks and heavy trucks running on a mixture of gas and diesel. Additionally, like all townships, King owns a number of smaller engine devices such as mowers, leaf

blowers, chain saws, etc.

Through community action, local citizens impressed on the council that excellent battery-powered alternatives already exist for many of these gas-powered devices and that within a few years batteries could replace all internal combustion engines, with perhaps the fire engines being replaced last.

We presented the benefits of every purchased battery replacement as follows, with tangible benefits for staff, taxpayers and the environment:

- Significantly reduced operating costs
- Significantly reduced maintenance costs
- Reduced noise pollution
- Reduced local GHG emissions

The upshot was the township counsel pledging to no longer purchase internal combustion engines if a battery power alternative was available. A win for all.

Government Relations - Clean Fuel Standard

In 2016, the Canadian Federal Government announced plans to begin work on a Clean Fuel Standard (CFS) as part of their action plan on climate change. The CFS' goal is to reduce Canada's annual greenhouse gas emissions by 30 million metric tons by 2030.

The CFS will encourage the production and usage of cleaner fuels, as well as drive additional investment in related industries, such as electric vehicles and charging infrastructure. Regions such as the EU, British Columbia and several US states have already adopted similar approaches. The CFS applies to all fossil fuels: liquid, solid and gas, with the first phase focusing on liquid fuels (e.g. gasoline). In June of 2019, Canada published a proposed approach for liquid fuels for comment, with final regulations expected to go into effect in 2022.

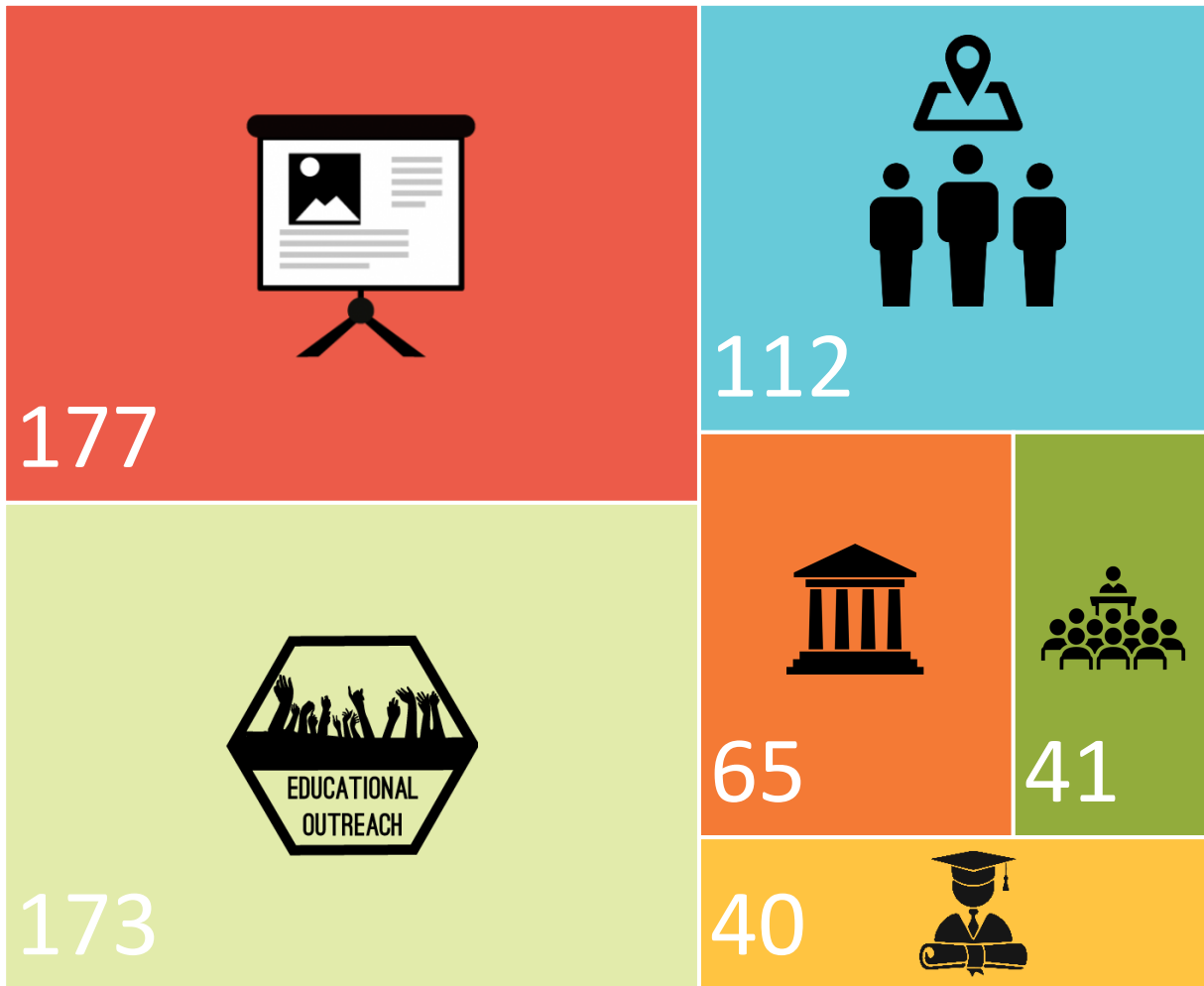
Fossil fuel suppliers will be required to meet performance standards based on the total carbon impact of a fuel over its full life cycle: extraction, refining, transport and actual usage. Fuel providers may achieve these standards by reducing the carbon impact of their existing products and operations, such as by adding biofuels into the fuel stream or completing projects designed to reduce GHGs in upstream sectors, but also can purchase credits from other sources of low-emission fuels.



The EV Society has been an active participant in the consultation process, ensuring that electricity and electric vehicles are included as components of the CFS framework. This includes direct discussions with government working groups, as well as email and Twitter correspondence directly from members to Environment Minister Catherine McKenna in support of electrification.

It is expected that the growth of EVs for personal transportation and commercial uses, such as busses, will be a major contributor to GHG reduction in the liquid fuel stream by 2030. The inclusion of EVs in the CFS allows EV manufacturers, charging network operators and sites that host charging locations to generate revenue from credits based on the electricity used to fuel vehicles. A portion of this revenue must be reinvested into projects and programs that expand charging infrastructure provide EV incentives and educate consumers about the benefits of EVs.

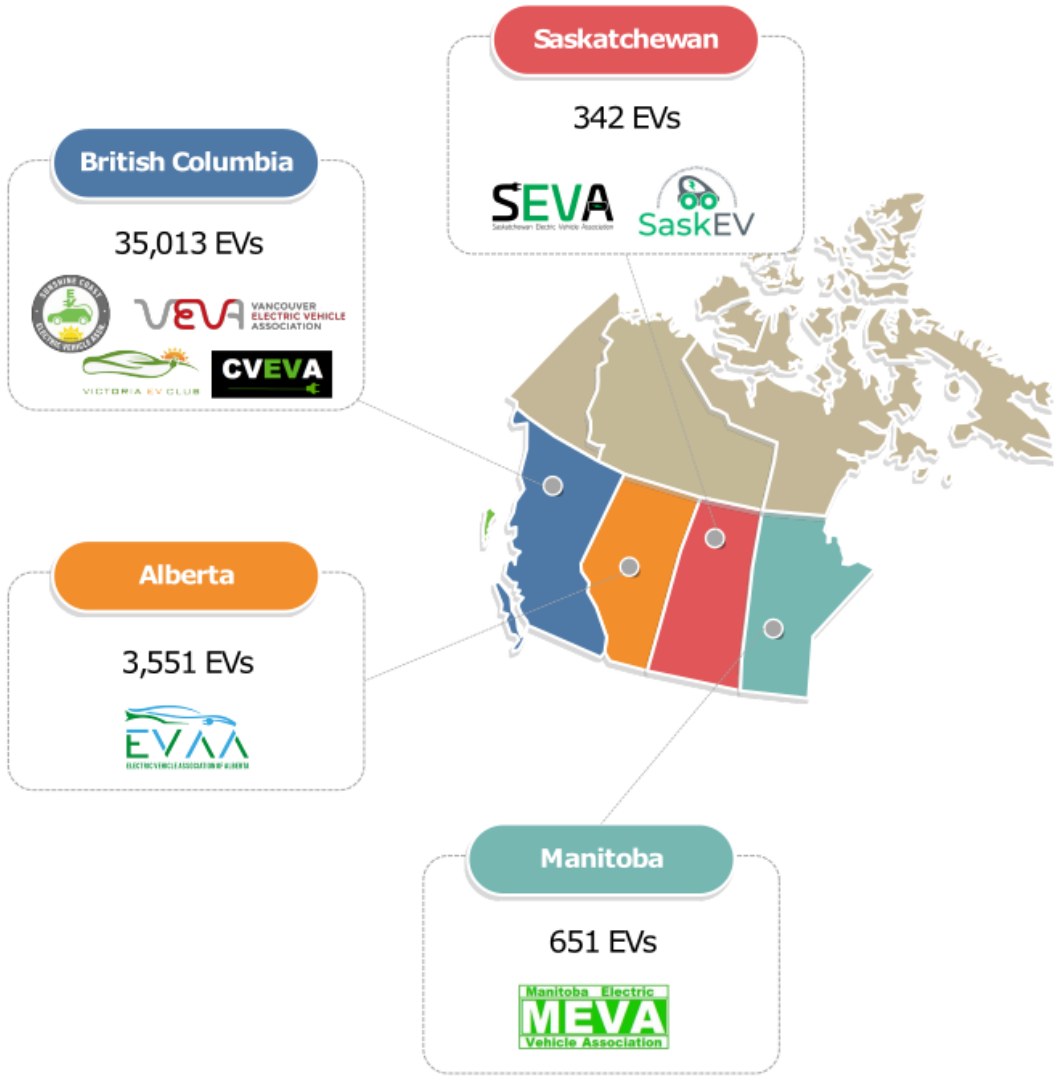
2019 EV Society and EV Owners Groups National Impact Survey

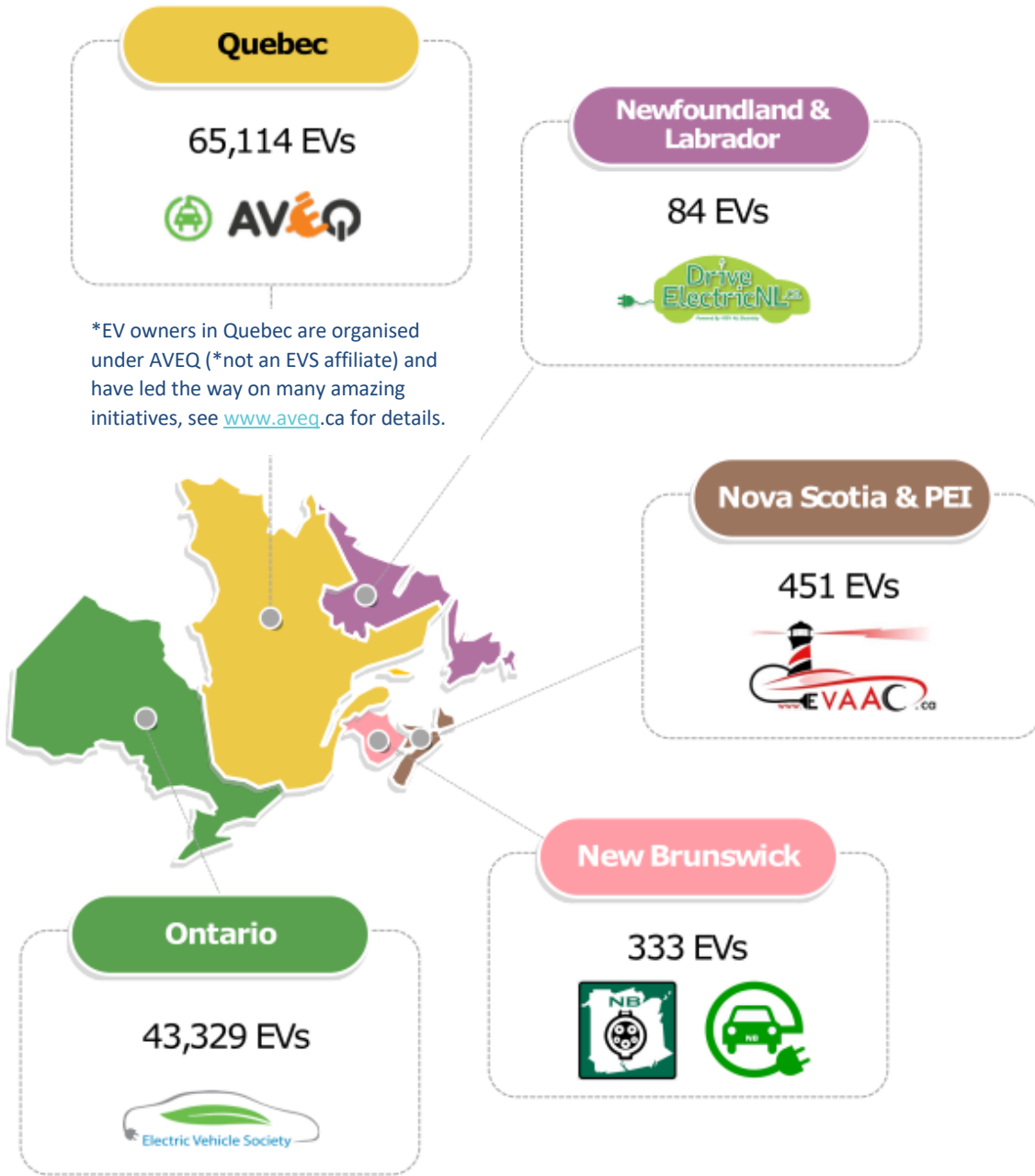


- # of presentations to community groups
- # of presentations to school groups
- # of advisory sessions with municipalities
- # of GR consultations
- # of community outreach events
- # of Chapter meetings

Uniting EV Owners Nationwide

Are you interested in joining an EV association near you? Check out the different groups across the provinces! We have also provided an estimate of cumulative number of EVs on the road in each province, as of end of 2019.





Corporate Members & Partners

EV Society is proud to have the support of the following organizations.



FEARLESS CHARGE
AND POWER INC.



EcoLimo
NIAGARA

"Developing a sound basis for financial management will ensure EV Society's sustainability. Building strong fundraising, sponsorship and member benefit programs will help us be more effective in supporting the many initiatives that our membership would like to see implemented." Wilf Steimle, 2019 Board Chair

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