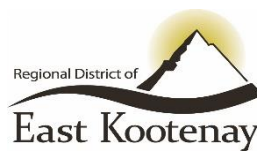




Pilot Project Completion Report  
April 2019

A Project of:



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The preparation of this pilot project was carried out with assistance from the Green Municipal Fund, a Fund financed by the Government of Canada and administered by the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.



**SCHEDULE E**  
**Pilot Project Completion Report**

<b>GMF number</b>	15149
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<b>Date of the Report</b>	April 2019

**Introduction**

Accelerate Kootenays is the result of an unprecedented collaboration between communities, regional government, funding partners and implementation partners. Spearheaded by the Regional Districts of East Kootenay, Central Kootenay and Kootenay Boundary representing over 25 communities across the Kootenay region of British Columbia, this project worked with 10 funding and implementation partners to design and install a network of 13 DC Fast Charging Stations and over 40 Level 2 stations. The project was facilitated by Community Energy Association (CEA), with staff working locally from both the East and West Kootenay to support implementation of the project. Leveraging an initial commitment from the Regional Districts of \$90,000, CEA worked to secure over \$2 Million of funding for the initiative.

The lead regional governments were:

Regional District of East Kootenay

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In addition to the three regional governments who provided seed funding for the project, the funding partners were:

- Columbia Basin Trust
- Federation of Canadian Municipalities, Green Municipal Fund
- Province of British Columbia, Ministry of Energy and Mines
- Province of British Columbia, Ministry of Transportation and Infrastructure
- Teck
- FortisBC
- BC Hydro

Further to their financial contributions, BC Hydro and FortisBC have committed to the long-term ownership and operation of the 13 DC Fast Charging stations across the region, alleviating the risk and liability to the local site hosts, many of which are small municipalities.

Additional partners who supported the initiative in ways that were in addition to the original proposal include:

- Ktunaxa Nation – partner in leveraging funding for the installation of a Level 2 station at their Government building with an associated solar array of 118 rooftop solar panels
- Kootenay Rockies Tourism – funding and support for attendance at the Portland EV Roadmap conference and integration of charging station information on their tourism website.
- Emotive – provision of content for collateral and promotion of the network.
- Solar Now – engaged with charging station site host communities to offer funding towards associated solar installations.
- FLO – network operator for the charging stations and partner in provision of at-home charging stations for winners of a summer-long contest.

### **The Pilot Project**

The key objectives of Accelerate Kootenays were:

- to address the gap of charging stations in the Kootenays
- support market transformation of EV purchases
- build capacity for EV station installation and servicing
- increase tourism by EV drivers
- reduce community-wide greenhouse gas emissions

Limited access to public charging infrastructure is a key barrier to electric vehicle adoption. In a region like the Kootenays, which is characterized by relatively small and dispersed communities, a regional approach to network design is critical to support reliable travel. Accelerate Kootenays sought to pilot the effectiveness of a comprehensive, collaborative and community-driven approach to enhance public charging opportunities.

The concept of a regional network design that integrated DC Fast Charging and Level 2 stations was strongly supported by site host communities, who recognized that without the broad regional design of the network, the Kootenays would continue to be a barrier for visitor travel to and within the region. The full network was initially mapped out using an on-line modeling tool developed by BCIT, which allowed for the integration of variables around temperature, vehicle type, occupants, etc. and incorporated impacts of terrain on vehicle range. Preliminary modeling of the proposed network was critical to ensuring that the siting of stations would support a reliable, region wide network. As a result, station siting is grounded in the local context where average battery range alone is not the only variable impacting driving range. This is the reason that fast charging stations were not sited according to predetermined distance between each station alone. The specific location of each station (Level 2s and DCFCs) was a process that each host community participated in, ensuring the station would enhance co-benefits to the community, such as easy access to amenities, tourist attractions or other key community facilities.

Once the initial network design was complete, the team facilitated a procurement process to identify the vendor for equipment and networking. Reliability of the equipment in the cold winter context was a

key consideration in the procurement process. The regional governments were committed to ensuring that the equipment would be functional throughout the winter, when vehicle range is impacted and access to charging is particularly critical. To that end, the procurement process required that the vendor selected for the infrastructure could warranty the equipment down to -40C. AddEnergie/FLO was identified as the successful vendor for the provision of equipment and networking services for the Accelerate Kootenays project. AddEnergie is a Quebec-based charging station manufacturer that was able to demonstrate installations in a climate similar to the Kootenays, across the province of Quebec. PowerPros Electric was selected as the contractor to manage the installations, however the Accelerate Kootenays partners required that an element of capacity building be integrated into the installation phase. As a result, PowerPros worked with Kootenay-based electricians for the installation of both DC Fast Charging and Level 2 infrastructure. This has the long-term benefit of developing capacity of a number of companies across the Kootenays who are now familiar with EV charging equipment and installation.

The Accelerate Kootenays project was the first time in B.C. that a collaboration of region and local governments had designed a network and managed procurement independently of utility partners. The request for utility partners as owner/operators was initiated once the funding was confirmed and the project scope was established. This project represented the first time that BC Hydro had responded to a community-led fast charging initiative and was also the first time BC Hydro had external service level expectations prescribed by the local partners. For FortisBC, Accelerate Kootenays became the first time that utility engaged with the ownership and operation of DC Fast Charging equipment. Subsequently, FortisBC has further invested in the Kootenays, receiving federal funding to expand the Accelerate Kootenays network to fill gaps on secondary highways. The collaborative approach of Accelerate Kootenays was a first for all of the players involved, and is now a replicable model applicable primarily in rural regions where communities and population is dispersed.

With over 61% of community-wide emissions across the Kootenays attributed to transportation, the pilot was an opportunity to lay the groundwork for significant reduction of transportation-related GHG's over the long-term. There is a reliance on personal vehicles for regional travel in the Kootenays – an element of rural living that is unlikely to change as the population size does not justify significant investment in broad, regional public transportation. The establishment of the regional network provides the infrastructure to support adoption of electric vehicles by local residents, and indeed was an exciting outcome of the project. Despite low supply of electric vehicles in the region early in the project, it is estimated that an additional 30 electric vehicles were purchased by Kootenay residents during the project period. This is almost double the expected adoption, recognizing that the project was focused on infrastructure deployment. Dealerships reported maintaining waiting lists due to supply issues associated with greater demand in higher population centres and jurisdictions with greater incentives or zero emission vehicle mandates (e.g. Quebec). It is anticipated that this number will increase significantly in the next 5 years as supply improves, more models of electric vehicles are brought onto the market and the Province of BC transitions toward implementation of the Zero Emission Vehicle Standard.

The regional governments saw an immediate opportunity to connect to the existing network in British Columbia in order to attract tourism by electric vehicle drivers. This was an element of the project that also piqued the interest of Chambers of Commerce, Visitors Centres and the regional destination marketing organization, Kootenay Rockies Tourism. Very soon after the first station was installed in Cranbrook, tourists from Idaho made the city a destination for vacation, citing the charging station as their reason for selecting the East Kootenay. With the charging station in place, they were now able to

visit the community in their electric vehicle. Over the course of the project, there have been visitors from across British Columbia, Alberta, and the northwestern United States, and the link between EV travel and tourism was firmly established. A two-year collaboration with Kootenay Rockies Tourism resulted in access to the Pacific NorthWest drivable market through the Portland EV conference, and a dedicated EV Circle Route highlighted on the Tourism website.

A statistic that supports the theory that the Accelerate Kootenays network is indeed supporting travel by tourists is the significant jump in station usage during the summer coinciding with existing tourism patterns. Local shops and restaurants nearby charging infrastructure have also anecdotally reported tourists visiting the community as a result of hosting a charging station.

## **Pilot Project Results**

### *Recommendations*

What started as a technical barrier to EV adoption has become an opportunity for tourism, economic development and emission reductions across the rural region. The impact of Accelerate Kootenays will continue for years to come and should be celebrated as a legacy project by the Regional Districts that demonstrated the leadership and innovation to make it happen.

It is recommended that region-wide clean transportation networks consider the Accelerate Kootenays model (community-led and reflecting local priorities and context) to be most the most effective approach and one that will result in optimal co-benefits to the station host communities. In order to create a usable, accessible network, it is further recommended that regional governments collaborate with neighbouring jurisdictions to ensure connectivity for drivers, rather than create an isolated network that precludes travel to and from the region.

An early learning in the Accelerate Kootenay project was the necessity of an external owner/operator for the DC Fast Charging stations. At the outset of the project, the regional governments and CEA considered the options of: 1) local ownership of the charging stations (by regional government); 2) site host ownership (by individual community); or 3) external ownership (to be identified through procurement or partnership with the local electrical utility).

Part of the ownership deliberations require that regulatory considerations be made. That is, who in the relevant jurisdiction has the authority to charge for electric vehicle charging? In the context of British Columbia, municipalities do have the authority to charge for electricity, however upon completing full cost implications of ownership and operation, it was determined that local ownership would unnecessarily burden very small communities. The electrical draw of DC Fast Charging stations results in significant electrical demand charges, and in the early years of the Accelerate Kootenays network, the usage would not cover the connection fees, demand charges and annual maintenance. Further, some of the site host communities did not have staff capacity to own and maintain infrastructure (in our smallest community, there are 5 municipal staff, for example). Municipalities are required to accommodate financially for asset renewal – it was estimated that approximately \$4000 per year would need to be allocated for that asset renewal, a cost that is untenable for small local governments. To that end, it became clear early on that an external owner/operator for the fast charging equipment would be more appropriate. Level 2 stations, being 240V equipment, requiring electrical capacity on the same level as a dryer or oven, are more manageable and significantly less costly to operate and are therefore appropriate to be owned by a small-medium sized municipality.

It is recommended that communities seeking to establish a regional network of fast charging infrastructure engage with their local electrical utility and determine what a partnership may look like for the ownership and operation of the equipment. Where electricity retail exists in a non-regulated environment, a competitive process could be facilitated to identify a long-term owner/operator of the equipment. Either way, it is recommended that small communities not assume the responsibility and liability for fast charging equipment. This recommendation may not apply to larger communities with greater capacity, both from a staff and budget perspective, and many examples exist in the Lower Mainland of British Columbia where municipalities currently and/or intend to own and operate fast charging infrastructure (see Vancouver and City of North Vancouver, for example).

### *Technical feasibility for full-scale implementation*

The regional approach to fast charging connectivity is certainly feasible for full-scale implementation, or replication in the case of this pilot. The caveat around this is the ability of the collaboration to identify and engage with an owner/operator for the fast charging equipment. However, the Accelerate Kootenays model could be replicated through the lens of tourism and economic development with the installation of only Level 2 stations, if more appropriate for the local context.

The Accelerate Kootenays project has been highlighted at major conferences and events, and as such has gained recognition as a feasible model for other regional collaborations. The approach is being replicated in southern Alberta, and is informing additional network development in Northern BC and Vancouver Island. Interest in the project has come from local and provincial governments in the Yukon and Ontario.

### *Financial feasibility for full-scale implementation*

At this point in time, establishing a base network of electric vehicle charging networks in Canada requires that public funding support the early transition. Though growing annually, the current number of EV drivers in rural regions of Canada make up a very small component of the community vehicle fleet. The business case for fast charging infrastructure in these regions of relatively low EV adoption is not yet a viable opportunity for the private sector to invest independently. Conversely, in large urban centres with higher EV adoption, the business case is significantly better due to more consistent and regular usage of the stations. For this reason, the private sector will tend to focus on opportunities in large centres, or across high density routes such as the TransCanada Highway.

The ownership and operation of DC Fast Charging stations in rural regions of Canada will require public support and partnerships in the near-term, but there are indications of a shift with Suncor and Canadian Tire being two businesses in Canada that have started to integrate electric vehicle charging into their gas bars. Full-scale implementation, or in this case, replication of the Accelerate model, will be determined by the regional government or collaboration to access funding or establish partnerships with public and private entities. It is necessary that small-medium sized communities in rural regions of Canada collaborate to maximize funding and project impact. There is efficiency in collaborating regionally, and eliminating the need to replicate a process multiple times across many small communities. Not only do these communities often lack capacity to manage infrastructure projects beyond their core assets, it is more cost effective to manage procurement and implementation collaboratively.

The original scope of the project expanded from a minimum of 10 DC Fast Charging stations proposed to 13 fast charging stations. This required that additional funding be secured partway through the project. Additional funding from Teck and the B.C. Ministry of Transportation and Infrastructure was allocated to the completion of the fast charging network. Installation costs were higher than originally anticipated. The projected cost for the installations was approximately \$75,000 per site. The average installation of the fast charging stations was over \$100,000. The requirement of high-voltage power, the iterations of design and engagement with the site hosts and the civil work were higher than anticipated, and resulted in higher than expected costs for each site. Future projects should consider a budget of at least \$100,000 per fast charging station. Level 2 stations were slightly higher than anticipated, with an average installation cost of \$7,000 per site. Again, the civil costs and extension of electricity to the preferred location increased the cost per site.



## Environmental Benefits

The following tables summarize the actual results of the pilot (Table 1) and the long-range forecast (Table 2). The environmental benefits of the pilot, as summarized below, meet and exceed expectations. Despite the full network not being in place until early 2019, the demand for electric vehicles outpaced supply, and the actual number of electric vehicles in the Kootenays exceeded the projected 17, and is estimated to be over 30. In conversations with drivers, these vehicles replaced an internal combustion engine, as opposed to added an additional vehicle to the household. In one case, the vehicle replaced a heavy-duty diesel truck for reasons of carbon reduction. In another case, an electric vehicle was seen as a cost reduction measure for a local lawyer that travels weekly to small communities.

**Table 1: Anticipated Environmental Benefits of Pilot**

Project parameter	Units	Business as usual scenario	Pilot project scenario	Cumulative impact of pilot (2016-2018)
GHG's	Tonnes/year	783,919	783,898	-21
Gasoline	Liters/year	352,193,131	352,183,881	-9,250
Electric Vehicles Purchased	Vehicle (net)	21	51	+30

**Table 2: Anticipated long-range forecast 2016-2030**

Project parameter	Units	Business as usual scenario	With pilot project	Net impact of pilot
GHG's	Tonnes/year	6,003,930	5,978,716	-25,214
Gasoline	Liters/year	2,687,501,393	2,676,311,693	-11,189,700
Electric vehicles purchased	Vehicle (total)	196	1611	1415

### Summary of environmental results

The full network of charging stations was completed in January 2019, with the final two stations in Glacier National Park and Yoho National Park. Full connectivity of the network, combined with continued effort around communications and outreach is expected to result in accelerated EV adoption and as a result, less gasoline being used to travel within the region.

A factor impacting EV purchase in the Kootenays that was not anticipated was lack vehicle supply for purchase. In conversation with dealers in different communities in the Kootenays (those representing manufacturers who had EV models for sale in other parts of Canada), demand significantly outweighed supply. In one case, the waiting list for a Chevrolet Bolt exceeded 25 people. Many of the EVs that were sold by local Kootenay dealers were special ordered, but dealers simply could not get stock from manufactures to sell on the lot. It is believed that if supply was able to meet demand, the numbers in Table 1 would for EVs purchased would have been surpassed.

Consumption data has been compiled for the DC Fast Charging Stations up to the end of December 2018 – this is prior to the completion of the final stations in Glacier and Yoho National Parks. The station data usage indicate that 17,338.26 kWh of energy was used to the end of 2018. The usage data exceeded expectations, considering that the network was just completed in January 2019. Though some of the

charging events may have been by tourists (therefore not reducing direct community GHGs, as they are not captured in GHG inventories for the Kootenays), over the course of the project, 86,891 km<sup>1</sup> were supported by Accelerate Kootenays stations, all those kilometers powered by hydroelectricity as opposed to gasoline. This equates to approximately 9,249.96 litres<sup>2</sup> of gasoline and 21 tonnes CO<sub>2</sub>e<sup>3</sup>. These results are considered “direct” emission reductions – and represent only a segment of the total emission reductions that will have been realized by all the kilometers traveled by electric vehicles purchased during the timeframe of the project. As a result, the impact of the pilot project summarized in Table 1 are lower than projected, but represent only those emissions directly captured through station data. It is estimated that as a result of consumers switching to electric over the course of the pilot project, the actual emission reductions (or induced reductions) would be much greater, though not measurable in a quantifiable way without mileage data for each of the vehicles.

The interest and engagement around electric vehicle exceeded expectations. The project team did not anticipate the extent of supply constraints early in the project, and feel that had this barrier not existed, more electric vehicles would be been purchased to replace internal combustion vehicles in the Kootenays. One observation on the perception of electric vehicles continues to be the concern of cold-weather operation. As a result, there was interest in plug-in hybrid electric vehicles as a transition. Over 2018, one local Mitsubishi dealership sold 15 plug-in hybrid Outlanders, which accommodate both Level 2 and DC Fast Charging options. Improved charging access across the Trans-Canada Highway at Rogers Pass in Glacier National Park added a level of winter and cold weather reliability for electric vehicle drivers.

*Social and economic outcomes*

**Figure 1 - Economic benefits**

A	B	C
<b>Economic benefit</b>	<b>As described in your GMF application.</b>	<b>Anticipated economic benefits of the pilot project at full scale based on pilot experience.</b>
Stimulus for local economy (use of local business, capacity for local business development)	With strategic siting of EV charging stations, local businesses will benefit from the increased visitation from EV drivers. For station installation, we intend to train local electricians to build capacity and secure jobs for future EV station installations. Local dealerships are also likely to experience an increase in business as EV adoption rates begin to increase. Accelerate Kootenays has the support of the New Cars Dealers Association and already one local dealer, both of whom are prepared to support	Businesses have noted new customers and positive impacts as a result of strategic siting of the EV charging stations in the communities. For small communities, increased visitation to coffee shops and local retailers does make an impact. EV drivers are also seeking out accommodations that will allow for overnight charging.  Local electricians across the Kootenays have now been familiarized and mentored on EV infrastructure installation. This capacity did not previously exist, and provides more opportunities for electricians to respond

<sup>1</sup> Using NRCan EnergGuide assumption of 21.1 kWh/100 km

<sup>2</sup> Assumption of a medium sized car with consumption of average 9 L/100km

<sup>3</sup> BC Climate Toolkit Best Practices Methodology for Quantifying Greenhouse Gas Emissions indicates: 2.32 kgCO<sub>2</sub>e/L gasoline for light duty vehicles.

	community engagement around electric vehicle adoption.	to home installation needs, commercial installations or more fast-charging infrastructure in the future.
Increased employment options or job retention	It is the intent of Accelerate Kootenays to provide training opportunities for local electricians, and to help stimulate further economic activity through strategic placement of EV stations. A competitive Request for Quotes process will be undertaken in order to identify the supplier for charging station units. Through that process, local capacity building and job creation will be a criteria considered in selection the provider for infrastructure and installation support.	The procurement process did require that local electricians be engaged and trained. Though additional fulltime employment was not a direct outcome, the expansion of services and expertise has certainly resulted from the Accelerate Kootenays project.

**Figure 2 - Social benefits**

A	B	C
<b>Social benefits</b>	<b>As described in your GMF application.</b>	<b>Anticipated social benefits of the pilot project at full scale implementation based on pilot experience</b>
Improvements to public health		The potential for improvements in air quality and reduced exposure to vehicle exhaust is a potential benefit that will be realized with increase adoption of electric vehicles.
Increased opportunities for community engagement	As outlined in our marketing and outreach methodology, Accelerate Kootenays intends to provide community engagement opportunities across the Kootenays, and in partnership with a variety of stakeholders, including municipalities, Chambers of Commerce, Regional Districts, car dealerships, and with Provincial programs such as Clean Energy Vehicles and Emotive.	There were a number of community engagement opportunities that resulted from the project – in both passive and active ways. A strong partnership was developed with the Province of BC’s public engagement campaign, Emotive – and collateral was designed to reflect local Kootenay driver experience. A very well received winter driving video was produced, and the Accelerate Kootenays team attended a number of presentations and conferences locally. Wherever possible, information booths were set up, and Accelerate Kootenay EV Ambassadors were invited to attend and engage the community. Some of the key events where significant community engagement occurred included the Ktunaxa Nation solar and level 2 opening ceremony, the

		<p>Columbia Basin Trust bi-annual conference, ribbon cuttings and markets.</p> <p>In addition to these activities, the project leveraged partner funding to expand marketing and outreach activities, resulting in a year-long project called the Mobile Rural EV Discovery Unit. A battery electric car was taken to events throughout the region to disseminate EV information and offer test drives.</p>
Increased public education or awareness	<p>All of the community engagement opportunities will have elements of public education and awareness around transportation in the Kootenays. There will be information developed to help citizens understand our baseline impact from a GHG emissions perspective, the opportunity of electric vehicle adoption, and the co-benefits that can be realized through a strategic and comprehensive approach to EV station deployment.</p>	<p>Electric vehicle information was provided in a hands-on way through our engagement activities. In addition to these, there were a couple of opportunities to engage more deeply with local elementary schools.</p> <p>The elementary schools in Sparwood and Jaffray requested opportunity for their students to learn about electric vehicles and charging infrastructure. In both cases, children had the opportunity to look at a Chevrolet Bolt, and to practice plugging it in.</p> <p>Further, the Accelerate Kootenays initiative attended the region-wide science fair hosted by College of the Rockies, where again, a broader range of students were introduced to the Accelerate Kootenay network and charging technology.</p>
Community revitalization	<p>Communities that have expressed interest in hosting an electric vehicle charging station have identified the opportunity as one to improve the image and cultural branding of the community. With the broad co-benefits of tourism, economic benefits, etc., hosting a charging station will have positive impacts beyond the reduction of GHG emissions.</p>	<p>Working with the host communities was critical to ensuring locations were selected that would benefit the community through tourism, access to retail and restaurants and exposure to unique local attractions. Feedback from the communities has been positive, and in several cases, host communities have taken the opportunity to further enhance the area around the charging station. In Sparwood, for example, the District opted to install a demonstration solar array at the District office across the road from the charging station. This creates a unique visual and storytelling opportunity in that community – where mining is the dominant industry. In Kimberley, the City took the Level 2 infrastructure provided through Accelerate Kootenays and leveraged the regions first</p>

		solar covered parking stall, located in the downtown core of the community. This is part of a revitalization of the parking area, and strengthens the sustainability brand of the community.
Increased civic pride, ownership and participation	There is a great deal of enthusiasm demonstrated from communities within the Kootenays and other rural communities interested in the outcomes. Generally, communities are seeing the opportunity to be involved in a collaborative initiative as an opportunity to showcase unique local amenities and businesses.	Locally elected officials attended each fast charger launch, lauding the opportunities its presence created for residents. In creating interpretive signage for each site, community contacts were eager to identify key community assets on the map for exposure to visitors. The region has been recognized for its leadership, and was awarded an award for sustainability through the Union of BC Municipalities.

### Next Steps

There are a number of opportunities to continue to partners with utilities on the expansion of fast charging infrastructure across the Kootenays. Over the summer of 2019, FortisBC will be installing additional fast charging stations on secondary highways throughout their electrical service area in the Kootenays, with funding from NRCan. The intent of the Accelerate Kootenays network was to develop a base for future expansion and to demonstrate the need and applicability of charging infrastructure in the Kootenays. Community Energy Association, in partnership with the three Regional District partners will continue to identify opportunities to expand on the network, and support significant expansion of electric vehicles in the region. Level 2 stations associated with commercial buildings is certainly a necessary next step. Access to charging at hotels and other overnight accommodations will become an amenity in demand in the very near future. **Public access to Level 2 infrastructure** at malls, public space and workplaces is critical to accommodate adoption of electric vehicle, particularly where drivers may not have access to charging at home (whether in multi-unit residential, rental properties, etc.).

Community Energy Association, through their role as Community Energy Manager with the Regional District of East Kootenay, is developing guidance around **electric vehicle charging requirements for new construction**. This is considered an essential policy moving forward. For every new home constructed, a dedicated 240V service should be integrated into the garage or exterior of the home to accommodate the future need for electric vehicle charging. Retrofits of existing homes are more challenging due to cost and sometimes limited electrical capacity, however there could be a role for local governments to establish policy or incentives structures to ensure at-home charging is an option.

For many community members, understanding the technology and becoming familiar with electric mobility continues to be a critical piece in electric vehicle adoption. Community Energy Association will be continuing to work with the Province, through the Emotive program, to determine ways to engage with the public in meaningful ways. An important take-away from the Accelerate Kootenays experience is the importance of hands-on learning – getting people into the driver’s seat, and teaching them about how to charge, how to plan a trip and the types of vehicles available on the market. **More public engagement and technology familiarization opportunities** are key to driving EV adoption both in the general public realm, but also at the fleet level. Targeting outreach to small businesses, local governments and schools presents a high-impact opportunity.

## Lessons Learned

### *Replicating the approach – key lessons learned and approaches for future initiatives*

The Accelerate Kootenays network has been referred to as a model for other similar jurisdictions across Canada – and the communities and project managers have been pleased to share the approach and lessons learned.

Some of the key lessons learned, with respect to the successful implementation of a community-led, collaborative approach to regional network development include:

- a) Follow the lead of local communities and elected officials in terms of the key rationale and desired benefits of the project, and adapt the project to the context and priorities of the region/municipality.
- b) Engage with local provincial, regional and local governments to garner the support for the project early on – over the course of the Accelerate Kootenays project, the region has had two very active and engagement Members of Legislative Assembly, which helped in elevating the recognition of the initiative at the provincial level, but also as influential supporters locally.
- c) Rely on the expertise and leadership of a local champion(s) - in particular early adopter electric vehicle drivers. Facilitate opportunities as often as possible for drivers to engage with the public.
- d) Because electric mobility is relatively new in rural regions, emphasize marketing and outreach to the local residents, and build this into your plans from the outset. A strong online and in-person presence will rally support and increase the visibility of positive interactions.
- e) Do not give up on the focus of the regional network as the most effective way to achieve reliable connectivity – coordinating across a large geographical region with numerous communities and regional governments/organizations is challenging, but is necessary to achieve the co-benefits that are important to the communities, including the ability for visitors to travel to and within the region and alleviating small communities from the liability of owning DC Fast Charging stations.

### *Barriers/Challenges*

One of the early challenges that the project team faced was re-defining the role of communities, local government and utilities in the planning, deployment and ownership/operation of fast charging stations. The model that Accelerate Kootenay designed, one that was led by the community with respect to both network design and procurement, was unique in British Columbia and new for utilities. The project partners worked hard, alongside the utilities, to establish agreements and licences of occupation that would reflect important priorities and criteria (such as operations and maintenance routines, reporting protocol for station use, etc.). The result is a network that local communities take pride in being a part of, while the station Owner/Operators - the utilities - have the expertise and capacity to manage the equipment.

Coordination of the large number of sites of level 2 stations, managing weather and seasonal climatic fluctuations with installations, and ensuring the budget would be sufficient for the aggressive scope of the project were challenges that were managed through close coordination between the project manager, utilities and subcontractors. These are typical challenges of any construction project, though the fact that communities were bought-in as core supporters of the project did make these challenges easier to overcome.

## Knowledge Sharing

### *Accessing more information*

Key information is available at [www.acceleratekootenays.ca](http://www.acceleratekootenays.ca), and Instagram and Facebook is maintained for Accelerate Kootenays for the time being (@accelerateKoots and @AccelerateKootenays, respectively).

For more information about the project, or for other communities seeking to replicate elements of the approach, please contact Community Energy Association – [info@communityenergy.bc.ca](mailto:info@communityenergy.bc.ca). CEA is passionate about helping regional governments achieve meaningful emission reductions, and often it is these larger collaborative projects that will have the greatest impact. Accelerate Kootenays offers a model for approaching regional coordination of EV charging infrastructure, though ensuring the rationale and local approach reflects the regional context is critical.

The Regional Districts of East Kootenay, Central Kootenay and Kootenay Boundary can be contacted (see contact information in Section 1) for information about their role and experience in Accelerate Kootenays.

### *Activities leveraged from Accelerate Kootenays*

The approach piloted by Accelerate Kootenays has subsequently been adopted by three other jurisdictions: north/central B.C., Vancouver Island, and southern Alberta.

Shortly after Accelerate Kootenays was announced, a representative from Alberta Southwest Regional Alliance contacted the lead applicant of this project to discuss replicating the project in southern Alberta. Taking the approach and lessons learned directly from Accelerate Kootenays, six regional partners collaborated to create ‘Peaks to Prairies’ – a regional electric vehicle charging network that is now in implementation stage with 20 DCFC/ Level 2 combined stations to be installed by December 2019. Because of the different utility landscape in Alberta compared to British Columbia, Peaks to Prairies adapted the ownership model to fit their context. The regional organizations involved recognized the opportunity to leverage the network of charging stations along Highway 3, and extend that into Alberta, to support enhanced cross-provincial travel. The Accelerate Kootenays model, adapted in the Peaks to Prairies context, has effectively established the governance framework for Alberta, facilitating a competitive RFP with regionally appropriate specifications, requirements for long-term operations and maintenance, service levels and owner/operator in-kind contributions.

In north and central British Columbia, six regional governments representing 36 municipalities are now in the first year of collaborating to create an EV Charging Corridor from Haida Gwaii to Valemount and down to Kamloops, called Charge North. This project also adopted the community-lead approach of Accelerate Kootenays to garner support from regional governments.

On Vancouver Island, a collaboration of municipalities and regional governments are looking to replicate the collaborative approach with a focus on public level 2 infrastructure, recognizing that a comprehensive regional plan and joint procurement of the infrastructure will be more efficient and ultimately more effective in maximizing the benefits to the region.

Accelerate Kootenays has also received the following recognition:

1. Union of BC Municipalities (UBCM) 2018 Community Excellence Award
2. Invited to speak at the 2017 and 2018 Electric Mobility Canada Conference (EMC)

3. Invited to speak at the 2017 Forth Conference in Portland, OR
4. Invited to deliver Electric Vehicle workshop at the 2017 and 2018 UBCM Conferences

It is hoped that organizations, communities and utilities in the Kootenays will continue the momentum that has been built through Accelerate Kootenays to dramatically increase the uptake of electric vehicles, and to make access to public charging even easier. The regional governments have demonstrated tremendous leadership through this project, the impact of which will grow for years to come.