

Cariboo Regional District Board Council
via Council Agenda Package

October 7, 2019

Hello Cariboo Regional District Board Council,

I am the project manager for **Charge North** – the electric vehicle charging station network that is underway on behalf of six regional districts in central and northern BC, and their respective 43 municipalities, including yours!

With just over one year of work under our belt, there has been a lot of momentum including:

- Working with BC Hydro and the Ministry of Transportation and Infrastructure on their Level 3 station (30 – 40 minutes to charge a car) installation in Charge North communities
- Grant applications with CleanBC and Northern Development Initiatives Trust for Level 2 stations (4 – 6 hours to charge a car) in 28 Charge North communities
- Project Updates (Fall 2019 attached) and a Top EV Myths brochure (attached) available for local governments to display/distribute locally. Please contact me for a print ready file if interested.
- Quarterly Advisory Committee meetings with representatives from each of the six regional districts
- Ongoing outreach with communities, stakeholders and Charge North car dealers

I am happy to answer any questions or receive comments from Councillors, Directors or staff by email at jkeyes@communityenergy.bc.ca.

Sincerely,



Janice Keyes
Senior Manager, Community Energy Engagement, Community Energy Association
Consultant to Charge North Partners



EV Travel for Central and Northern BC

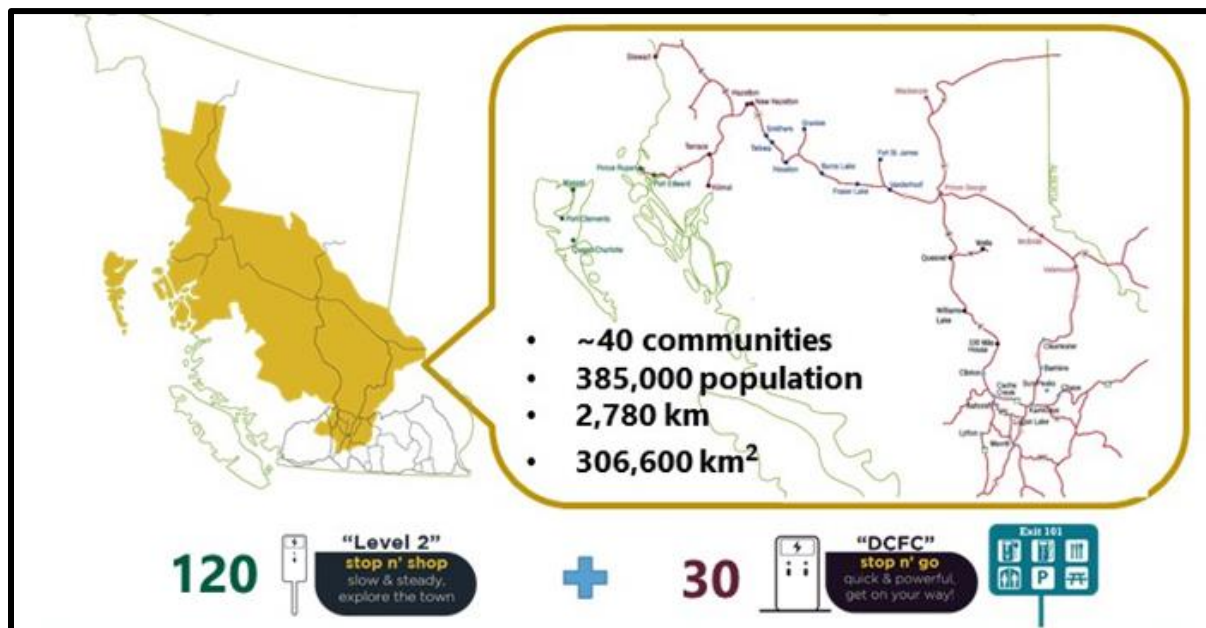
Charge North is a community-led initiative to develop an electric vehicle (EV) charging network to facilitate travel to and within central and northern BC. This collaborative project is directed by six regional governments and engages 43 local governments from south of Kamloops to Haida Gwaii, connecting over 2,780 kms of highway for rural EV travel. Charge North is facilitated by the Community Energy Association on behalf of an Advisory Committee made up of representatives from each regional district and the Northern BC Tourism Association.

The project builds upon lessons learned from both [Accelerate Kootenays](#) and [Peaks to Prairies](#) EV projects, both community-driven approaches to electrifying rural areas, but takes into account the unique context of central and northern BC to ensure maximum benefits for drivers, residents and communities.

Charge North also complements the Province of BC's CleanBC Plan, launched in December 2018, which will require 100% of vehicles sold in BC to be zero-emission by 2040.

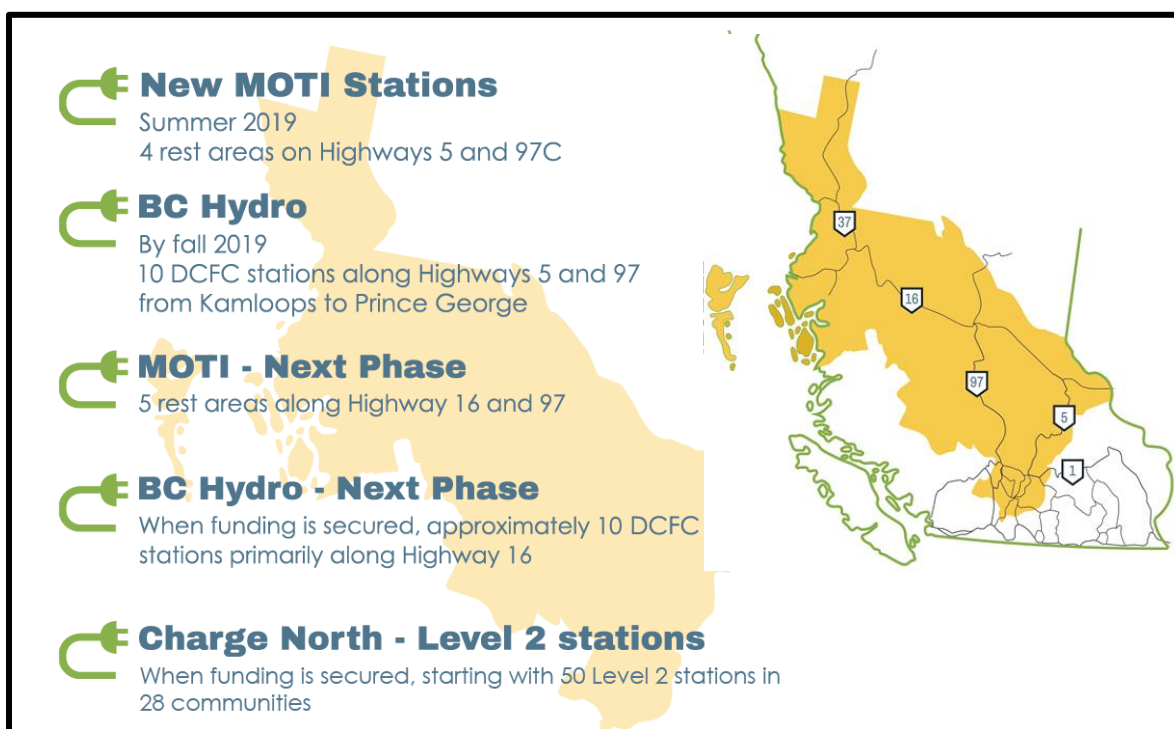
Building the Network

Charge North is working closely with BC Hydro and the Ministry of Transportation and Infrastructure to develop a charging network that supports safe and reliable EV travel with approximately 120 Level 2 stations and 30 Level 3 Direct Current Fast Charging (DCFC) stations. Both Level 2 and DCFC stations are necessary to create a robust rural EV network. DCFC stations are critical to facilitating corridor travel - EV travel to and within the region - while Level 2 stations can direct how and where visitors spend their time and money while in a community.



It is exciting to see three new Level 3 stations at 70 Mile House, Cache Creek and Clinton up and running as of July 2019, as part of BC Hydro's Phase 3 construction.

Project Timeline and Future Deployment



New (and more!) EVs coming soon to a highway near you

As of the first quarter of 2019, there were over 20,000 EVs in BC, representing almost 5% of all new car sales in BC. The Province of BC has created targets to further support accelerated EV adoption. December 2018 saw the release of the CleanBC Plan with its ultimate goal to accomplish 75% of the Province's 2030 GHG reduction goal, followed in May 2019 by the Zero-Emissions Vehicle Act (ZEVA). The ZEV Act sets a new zero-emission vehicle (ZEV) target for new light-duty passenger vehicle sales in B.C.

- 10 % will be zero-emission vehicles by 2025
- 30 % by 2030
- **100 % by 2040**



Project Partners

The following organizations proudly support Charge North: The Federation of Canadian Municipalities' Municipal Climate Innovation Program (MCIP) and six Regional Districts - North Coast, Kitimat-Stikine, Bulkley-Nechako, Fraser-Fort George, Cariboo, and Thompson-Nicola. For more information, please contact Janice Keyes with the Community Energy Association at jkeyes@communityenergy.bc.ca or 604-628-7076, ext. 705.



Electric Vehicle Travel from Trails to Trees to Seas.

As an EV owner, you can expect:

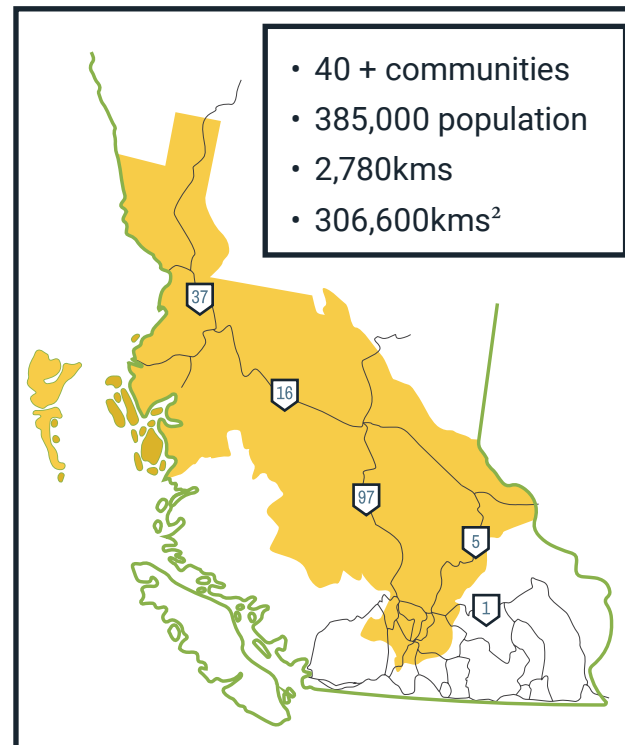
A fuller wallet: By filling up with electricity instead of gas, you could save \$1,200 a year - and that isn't even including maintenance savings!

Less maintenance: Since an EV has no engine, it has much fewer moving parts. This means comparatively little maintenance overall - no oil changes or maintenance costs for exhaust systems.

A better drive: No gas engine means no noise and no gears means instant acceleration - get ready to belt out some tunes and glide down some scenic highways.

Adventures! Whether you are in search of mountains, trails, or rivers, the BC charging station network will connect you to your favourite spots - north, east, south, west.

The Charge North project area:



For more information, please contact Janice Keyes
with Community Energy Association:
jkeyes@communityenergy.bc.ca / 604-628-7076 x705.





TOP EV MYTHS

Myth 1: There is nowhere to charge an EV.

A robust EV charging station network will soon connect south of Kamloops to Prince George and out to Haida Gwaii covering almost 2,800kms of highway. By fall 2019, there will be approximately 20 new DC Fast Charging stations installed by BC Hydro and the Ministry of Transportation and Infrastructure, and more in the planning stages for 2020. And with a growing Level 2 network throughout the region, you can soon travel with quick stops to top up, or longer stops to enjoy a town. Charging infrastructure is also growing rapidly across BC, in Alberta and throughout the USA.

Myth 2: Leaving an EV plugged in all night will be really expensive.

Charging an EV at home will cost you about \$2.40 per 100km. For many people, even in rural areas, a day's worth of driving is less than 100km, so an average charge overnight may be even less.

Myth 3: EVs don't work well on mountain highways.

On the contrary! If you've ever enjoyed the vistas along a mountain highway, imagine the experience when there is no engine or acceleration noise to interrupt! A couple other reasons your EV is meant for rural highways:

No gears = instant acceleration

Regenerative braking = less use of brakes during descents

Myth 4: EVs are luxury cars.

While that may have been true a couple years ago, the retail price of EVs are dropping rapidly, as are the variety of models available. With annual savings in fuel and maintenance, the overall cost of an EV is much lower.

Check out PlugInBC.ca to find the latest information on rebates and incentives for EVs in BC.

Myth 5: Electric vehicles don't work in cold weather.

EVs work fine in cold weather. It's true that because the drive battery is used to heat and cool the cabin, your EV's range will be reduced in very cold or very hot weather. However, there are several ways to mitigate the loss of driving range in extreme cold. For example, you can preheat your vehicle while it is plugged into the grid. You can also equip your EV with snow/stud tires just like your gas car. EV station locations in the Charge North network will be planned with local geography and climate in mind.

Myth 6: Charging with electricity is inconvenient.

Plug in at night, just like you do your cell phone, and you'll be charged and ready each morning. Most EV drivers say their electric car is significantly more convenient to use than their gas cars.