

# Collaborative eMobility Network Design to support enhanced and integrated connectivity

## What is the issue?

With continued adoption of electric vehicles (EVs), electrification of Alberta's energy and transportation system is seen as inevitable. Although there are pockets of work underway to establish an e-mobility network in Alberta, they are happening in an ad-hoc and uncoordinated way. This may lead to missed opportunities for grid management, and additional costs as energy players react to fix systems rather than proactively address them in a coordinated way.

## What is the initiative?

In the near term, this initiative seeks to explore the potential to set up a **regional EV charging network in subregions of Alberta** to better understand the opportunities and challenges to rural communities, and to engage partners. **Northwest Alberta has been identified as a potential region for this collaborative initiative.** This will be the focus of a session at the EFL Accelerator: Community Resilience in Drayton Valley in March 2020.

In the longer term, this initiative seeks to pursue the following outcomes:

1. Create awareness with major municipal, industry, government and regulatory energy players of the need for a vision-led, integrated and coordinated approach for Alberta's e-mobility network.
2. Co-create an early iteration of a long-term (e.g. 2040) vision for an integrated e-mobility network that:
  - a. enables participation of rural and urban communities.
  - b. maximizes opportunities to use EVs for improving grid management.
3. Identify important policy innovations and collaborative actions to realize this vision.

## Why is it important for Alberta's energy future?

Right now Alberta's e-mobility infrastructure is developing in an ad-hoc way with minimal coordination or collaboration, and is not guided by a common vision. Proceeding in this way **misses the opportunity to use EVs to maximize grid stability and improve load management.** For example, a robust and coordinated strategy for wide use of smart home charging can defer investments in transmission and infrastructure. The current phase of this

initiative aims to strengthen and accelerate the conversation around e-mobility connectivity across the Province, without which the conversations around broader grid optimization would not progress.

As such, it is critical to support an integrated e-mobility strategy, with early focus on maximizing opportunities to **better connect and develop rural areas**, and support these communities with associated economic development benefits.

## What is the challenge you are facing that the EFL can help address?

As a collaborative innovation platform, the EFL and its community can:

- Shine a light on the issue to heighten awareness about the opportunities and risks of inaction through its events, communication channels and networks. In particular, to the government and regulators.
- Provide research, convening and facilitation support for major players to explore what a vision-led, integrated and coordinated approach could look like, and how it can spark policy innovation and collaborative action.

## Who is critical to engage in addressing this challenge?

- Energy companies and utilities, specifically retailers
- Municipalities
- Charging infrastructure providers
- Regulators
- Provincial government
- Constructors and builders

## What has been tried in the past? Has it worked?

It is important that this initiative does not operate in isolation of other related initiatives that are happening, including, but not limited to:

- Enmax's [Charge It Initiative](#)
- ATCO's Home of the Future Initiative
- [Peaks to Prairies](#) Charging Station Network
- [Grid Modernization Workshop for Utilities](#)

Community Energy Association (Fellow: Megan Lohmann) has recently held a smaller scale version of a collaborative workshop in British Columbia's East Kootenay region with utilities, municipalities, transportation providers, school districts, private industry, economic development associations, academia, housing developers and community members resulting in a number of new collaborations and pilot projects.