

ENMAX Power concludes Alberta's first EV smart charging pilot

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Calgary, Alta.– ENMAX Power has concluded Alberta's first EV smart charging pilot which helps prepare for the growth of electric vehicles in the coming years.

With ENMAX Power forecasting the number of electric vehicles to grow from around 3,000 today to 200,000 by 2035, it launched a pilot to study charging behaviour and the overall effect EVs have on Calgary's power grid.

"Customers' electricity needs are changing, and ENMAX is investing in tools and technology that can enable new cost-effective power delivery solutions and maximize the use of the existing grid," said Jana Mosley, President, ENMAX Power. "These investments are part of our ongoing commitment to ensure our system is safe, reliable and positioned to meet future customer needs and requirements."

The *Charge Up* pilot involved over 160 EV owners in Calgary who were broken into three groups—a rewards group, which was financially incentivized to charge at off-peak times, an education group provided with material encouraging them to charge at off-peak times and a control group.

ENMAX Power partnered with researchers from the University of Calgary and the University of Alberta to analyze the data from the pilot. Preliminary results suggest that:

- Participants responded well to a 3.5 cent reward for every kilowatt-hour of charging between 10 p.m. and 6 a.m. with roughly 70 per cent of charging taking place overnight when grid demand is lowest.
- Participants who received educational information demonstrated similar charging habits to the control group with no measurable change in charging behaviour.
- Most EV users recorded daily, short top-up charges averaging 9.4 kWh and very few required a full charge.

ENMAX Power is now conducting a participant insights study to improve subsequent programs and pilots.

"This pilot gives us some options to optimize our grid assets while helping customers meet their sustainability goals in a cost-effective way," said Mosley.

About ENMAX Power's *Charge Up* pilot program

Electric Vehicle adoption is increasing. To prepare for this growth, ENMAX Power developed *Charge Up*, a suite of EV charging pilot projects.

The first pilot began in 2019 and involved collecting home charging information directly from chargers in customer homes. The pilot found:

- More than 80 per cent of participants plugged their EVs between 4 p.m. and 6 p.m. when they arrived home and unplugged between 6 a.m. and 8 a.m. the next day.
- Although vehicles were plugged in for nearly 13 hours on average, they only charged for the first two hours.
- Nearly 40 per cent of EVs required less than 30 minutes to charge every day.

About ENMAX Corporation

The ENMAX group of companies is a leading provider of electricity services, products and solutions. We are headquartered in Calgary, Alberta, with operations across Alberta and Maine. Through our subsidiaries, ENMAX Power Corporation and Versant Power, we own and operate transmission and distribution utilities that safely and reliably deliver electricity to customers in Calgary and northern and eastern Maine. Through ENMAX Energy Corporation, ENMAX owns and operates power generation facilities and offers a range of innovative electricity and natural gas products and services to residential, commercial and industrial customers across Alberta. ENMAX is a private corporation and The City of Calgary is its sole shareholder.

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