

# POWERING A GREEN NOVA SCOTIA, TOGETHER

## INNOVATIVE ENERGY SOLUTIONS

We're committed to building a cleaner, greener future for Nova Scotia. This means doing our part to combat climate change, and transitioning to cleaner sources of energy. We're working to meet governments' environment goals, including phasing out coal-fired electricity and delivering 80 per cent renewable energy for customers by 2030.

We're laying the foundation to integrate innovative technologies onto the grid, which can help support our clean energy transition and provide more services and options for our customers. It means a new way of doing business, a new way of serving our customers, new ways of providing clean energy, and new ways of working with partners in and out of the province—to help build a green economy, while providing safe, reliable electricity for all Nova Scotians.

### THE FUTURE OF THE ENERGY GRID: 2030

Big changes are necessary to meet our clean energy commitments. We're transforming how we make, deliver and store electricity in less than 10 years to change an electrical system that took over 50 years to build. Through new technology and energy solutions, the grid of the future will provide enhanced reliability, accommodate more renewable energy, and offer customers more convenience and control.



### INNOVATIVE TECHNOLOGY

Innovative technology is the way to create a greener future for all Nova Scotians. Reliable electricity is essential for our customers to live, work and thrive. Modernizing the grid will help manage the increasing demand for electricity.

- MYENERGY INSIGHTS is now available to all customers across Nova Scotia. Through MyAccount, customers have access to MyEnergy Insights - a digital tool that shows customers how they use their daily energy use. With this new tool, customers have more control over their energy use and power bill.



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## INNOVATIVE ENERGY SOLUTIONS

### OUR INNOVATION INVESTMENT

#### 135 BATTERIES DEPLOYED

across Nova Scotia through our Smart Grid battery storage pilot program



Testing **RESIDENTIAL AND GRID-SCALE BATTERIES** through the Intelligent Feeder project in Elmsdale, NS

**500,000 HOMES AND BUSINESSES** upgraded to smart meters.

**NOVA SCOTIA'S FIRST COMMUNITY SOLAR GARDEN IN AMHERST** generating 2,700 MWh of electricity per year—enough to power about 240 homes.



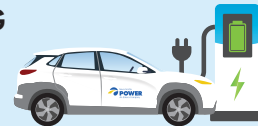
**\$100 MILLION** invested each year in improving reliability, including innovative technology—like intelligent devices to protect our system from faults, and monitoring technology to identify proactive device replacements.



#### PLUGGING INTO A GREENER GRID

Established a network of trusted contractors for electric home heating—a partnership focused on building a greener future for Nova Scotia through electric solutions.

**OVER 150 CHARGING STATIONS** across NS



Electric fleet conversion includes **13 EVs AND GROWING**

**OVER 5,000 CHARGING SESSIONS** via our EV smart charger pilot

**FIRST BIDIRECTIONAL CHARGING STATION** installed in Atlantic Canada as part of the SGNS pilot project

### SMART GRID NOVA SCOTIA PILOT PROJECT

The Smart Grid Nova Scotia Pilot Project enables us to test smart grid capability and learn how it can integrate more clean energy technologies into the electricity grid to benefit all customers. This is being tested through:

#### BATTERY STORAGE

Battery storage enables us to store power generated at nearby wind farms and then supply that electricity to the grid to match customer demand. Storage duration is limited by the customer load, but customers who are participating will be able to provide backup-up power to critical appliances and electronics during an outage for close to 20 hours during outages.

Battery storage will help in creating a more reliable, stable power grid—meeting the growing demand from customers and continuing to lead Canada in reducing carbon emissions.

#### ELECTRIC VEHICLES

Electric vehicles (EVs) help reduce greenhouse gas emissions. By switching to an EV, you're reducing your carbon footprint from driving by up to 70 per cent and contributing to decreasing Nova Scotia's transportation emissions. As we bring more clean energy to the grid, customers that choose to go electric will make a bigger environmental impact over time.

#### BIDIRECTIONAL CHARGING

Bidirectional charging allows electric vehicle drivers to not only charge their EV battery, but to also take the energy stored in their battery and push it back to a home, building or the power grid. It also enables smarter EV charging during off-peak hours, or when clean energy generation is high.

Vehicle batteries can be four to five times larger than current home batteries on the market. The bidirectional capability has the potential to support our plans for a greener and more efficient power grid.

#### COMMUNITY SOLAR

The first in Nova Scotia, our community solar garden in Amherst—in partnership with the town of Amherst and Natural Forces Solar—will produce 2,700 MWh of electricity per year—enough to power about 240 homes or 700 battery powered electric vehicles.

\*Results of the SGNS project will be available in 2023.

Find out more about Smart Grid Nova Scotia at: [nspower.ca/smartgridns](https://nspower.ca/smartgridns)