

# mitigate

We will reduce carbon emissions from our operations, and help the markets where we operate do the same.

## By 2025



Through the Ivy Charging Network, install over 100 on-the-go fast-charger sites for electric vehicles (EVs) throughout Ontario to help enable the mass adoption of EVs, with 70+ sites scheduled for completion by the end of 2021.



Add 10 new MW of clean hydro capacity at Ranney Falls and new internal sluice capacity to respond to water management issues.



Complete the Sir Adam Beck G1 & G2 conversion, adding an additional 125 MW of clean hydropower.



Complete the refurbishment of Darlington's Unit 3 (2024), Unit 1 (2025) and Unit 4 (2026), to solidify Ontario's low-cost, carbon-free, baseload power generation for 30+ years.



Reduce our environmental footprint and support green warehousing by consolidating warehouses and using industrial vending machines. Look to use vertical/horizontal carousels, and implement electrification of material handling equipment.



Complete the Calabogie GS redevelopment, adding ~11 MW of clean hydropower.



Complete the Coniston GS redevelopment, adding 4 MW of incremental capacity of hydropower.



Deploy a systematic approach for extending the life of existing hydroelectric assets and redevelop at least 2 additional hydroelectric generating stations (2025).



Reclaim portions of Nanticoke & Thunder Bay GS industrial sites with naturalized green space.



Work with 3rd Party Logistics (3PL) providers on delivery route optimization, consolidation of orders, bulk purchasing, etc. Also implement widespread use of reusable/recyclable packaging.



Build a state of the art Corporate Headquarters Campus that is designed, built and operated with low carbon and sustainable principles (2025).



Continue to invest in nature based solutions to mitigate the impact of a changing climate by planting 10 million trees (including those planted since 2000), and creating/restoring 500 acres of grasslands (including projects completed since 2014). Also aim to create/restore 250 acres of wetlands.



Carbon pricing assumptions will be built into established business processes from the beginning to enhance project decision-making.



Safely optimize the life of Pickering Nuclear GS to sequentially bring units 1 and 4 down in 2024, and pending regulatory approval by the Canadian Nuclear Safety Commission, bring units 5-8 down in 2025. Pickering optimization would avoid approximately 17 million tonnes of carbon emissions.



Continued support of Ontario's forestry & biomass sectors through the efficient operation of the Atikokan Generating Station on renewable biomass.

## By 2040

OPG is net-zero carbon



As part of the EV100 initiative, convert our fleet of corporate vehicles, where technically feasible, to electric (approximately 400 vehicles) by 2030, and install over 40 level 2 EV charging units across our offices and sites for staff and fleet vehicles.



Continue to advance and promote the adoption of EVs through investments in charging infrastructure, helping bring one million EVs to Ontario's roads.



Pair energy storage with hydroelectric facilities to allow water to be used more efficiently and enhance the ability to provide grid services.



Deploy Ontario's first on-grid Small Modular Reactor at the Darlington site, pending regulatory approvals and licensing.



Apply OPG's SMR technology to build and deploy in other Canadian jurisdictions reliant on coal and fossil-fuel power to reduce national carbon emissions.



Test clean hydrogen, renewable natural gas or carbon capture/utilization and storage at one gas-fired asset in Ontario, to evaluate emission reduction options.



Complete hydro turbine generator overhauls across the fleet to maintain reliability of these renewable assets.



Implement online flow and enhanced performance testing and monitoring to improve the efficiency of hydro power plants.



Increase energy market flexibility by enhancing pump storage capability in Ontario.



Redevelop additional 3-8 hydroelectric generating stations to continue to provide clean, renewable power.



Create, leverage and deploy innovative new technologies and processes to help sustainably manage the decommissioning of the Pickering Nuclear station, responsibly reducing the environmental footprint of the project (from carbon emissions to byproduct volume and waste).



Continue investing in nature-based mitigation efforts by planting 17.5 million trees by 2040 (including those planted since 2000), while also striving to create/restore 1,250 acres of grasslands (including projects completed since 2014), and 1,000 acres of wetlands.

## By 2050

The economy is net-zero carbon



Continue to advance and promote the adoption of EVs through investments in charging infrastructure, helping bring two million EVs to Ontario's roads.



Continue investing in nature-based mitigation efforts by planting 35 million trees by 2050, while also creating 3,000 acres of wetlands and 3,000 acres of grasslands.



Continued operation of Darlington Nuclear to 2055 will take the equivalent of two million cars off Ontario's roads per year, while helping to support the continued electrification of the economy with clean, carbon-free power.



Implement clean hydrogen, renewable natural gas or carbon capture/utilization and storage at gas-fired assets in Ontario to reduce emissions.