

GETTING THE FACTS ON Climate Change Effects

FOR MORE INFORMATION ON OUR LICENCE RENEWAL, PLEASE VISIT www.brucepower.com/licencerenewal2018
OR www.brucepower.com/factsheets. FOR QUESTIONS info@brucepower.com.

Working towards Canada's action plan on climate change.

Bruce Power continues to play a role contributing to Canada's action plan on climate change.



Carbon Pricing



Clean Electricity



Transportation



Buildings



Innovation

To put our role into perspective — without Bruce Power, the province would need to replace 6,400 megawatts of clean, reliable and flexible baseload supply, which could only be done by reintroducing coal or enhancing the use of natural gas. Both options would result in a sharp increase in greenhouse gas (GHG) emissions.

Looking ahead, Bruce Power continues to work on reducing our carbon footprint and a sustainability vision to be carbon neutral by 2020.

The field of study on climate change is still relatively new. Bruce Power continues to be engaged in understanding the impacts from climate change predictions and considering how they may affect future operations. Bruce Power will continue to keep abreast of the science and application of knowledge to understand climate change.

Here are some of the steps Bruce Power is taking to combat climate change:

1 - Improving the air we breathe.

Coal no more — Bruce Power played a major role in shutting down Ontario's coal plants by returning four carbon-free units to service in 2003.

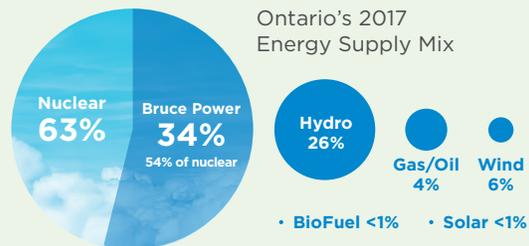


smog day since 2014



2017 smog days

Annually Bruce Power avoids 31 million tonnes of carbon dioxide (CO₂), which is equivalent to taking about six million cars off the road each year and almost equivalent to the air pollution released by coal plants in 2001.



Nuclear power plays a critical role in meeting the energy and air quality needs of the province every day.

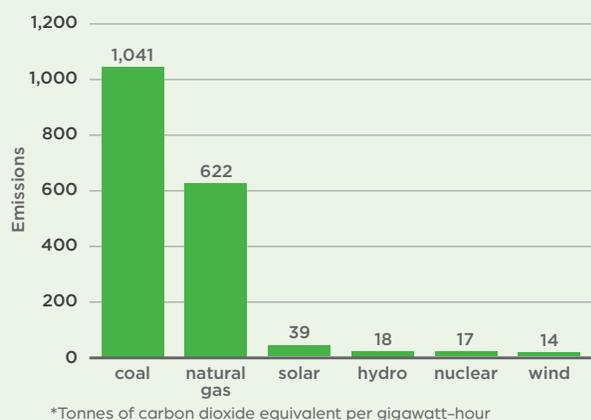
Ontario continues to be a leader in reducing electricity sector air emissions and improving air quality. It's imperative we do our part to meet the growing global demand for electricity in a way that improves human life and protects the environment.

2 - Promoting clean transportation through clean energy.

While a clean electricity supply mix in itself is an important element to reduce greenhouse gas (GHG) emissions, it's also a critical component for promoting the adoption of clean transportation.

Simply put, if a supply mix is comprised of a large volume of high-emitting sources of electricity generation, it reduces the emissions benefits of electric vehicles.

Comparison of Life-Cycle Emissions



Bruce Power continues to invest in electric vehicle charging stations throughout Ontario through our partnership with Plug'n Drive.



6 electric vehicle stations have been installed across Bruce and Huron counties.

An estimated 37% of Canada's national GHG emissions come from industry and there is a lot we can do to reduce these emissions.

Between 2017 and 2064 Bruce Power units will avoid between \$12 billion and \$63 billion in carbon costs, when compared to alternatives that ratepayers would have to fund if this output was replaced by fossil fuels. (source: Asthma Society Canada)

3 - Ongoing climate change monitoring.

Recently, Bruce Power completed a supplemental evaluation on climate change as part of the licence application that provides a quantitative assessment of the current climate analysis and future climate projections until the year 2100.

The study helps build understanding of how the climate has been changing and may change in the future for our region and analyzed the following:

- **Describing current climate using available long-term (30 year) data.**
- **Documenting climate change over the past 30 years in the region.**

- **Discussing future climate projections expected post-operationally (2041 through 2070 and 2071 through 2100).**

The results indicate that future climate at the Bruce site is projected to be warmer and slightly wetter, consistent with the observed current climate trends (1981 through 2010) at the Wiarton A climate station.

As a result, Bruce Power continues to review ongoing and future operations, to ensure that adaptive mitigation to changes in climate will be incorporated into the site operations.