

GOREWAY POWER STATION BACKGROUND

FACILITY DETAILS

Name: Goreway Power Station

Location: Brampton, Ontario, Canada

Year commissioned: 2009

Owned Capacity: 875 MW

% Owned/Operated: 100/100

Goreway Power Station

- Located in Brampton, Ontario, the Goreway Power Station is an 875 MW natural gas fueled, combined cycle facility.
- The facility can provide electricity into Ontario's power grid 24 hours per day, 7 days per week, but primarily operates during intermediate and peak demand periods.
- Capital Power acquired Goreway Power Station in June 2019 from Goreway Power Station Holdings Inc., which is jointly owned by JERA Co. Inc., and Toyota Tsusho Corporation.

State-of-the-art emission controls

- By combining the best qualities of clean-burning natural gas with state-of-the-art emission controls, such as Selective Catalytic Reduction (SCR) to reduce smog-forming NO_x emissions, the facility's stack emissions are well below regulatory requirements and only a small fraction of the emission rates of existing coal-fired power plants.
 - NO_x emissions are considerably less than 8.5% of the allowable limit
 - CO emissions are considerably less than one third of the allowable limit
 - SO₂ emissions are less than 1% of the allowable limit

Noise control

- Goreway Power Station has invested more than \$10 million in noise abatement equipment and building layout design to reduce or eliminate typical noise associated with electricity generation.



- The facility's noise emissions were extensively modeled and validated to confirm compliance with the Ontario Ministry of Environment and Climate Change (MOECC) Environmental Compliance Approval (ECA).

Water use

- The steam exhausted from the facility's steam turbine is directed to a dry air-cooled condenser (ACC), where it is condensed and recycled back to the heat recovery boilers as feedwater and therefore using less than 5% make-up.

Biodiversity and habitat stewardship

- The facility's design and site layout were developed with careful attention to ensure existing natural habitats are preserved.
- Only 21% of the 20 hectare site has been developed.
- The buildings and support facilities were situated to avoid impacts to Mimico Creek and its floodplain area that crosses the westerly section of the property.
- The facility's setback from Goreway Drive preserves the existing natural area along the easterly portion of the site.
- Additional features have been introduced across the site including a storm water management pond, berms, a variety of plants, shrubs and tree plantings.