



Photo courtesy of Ontario Power Generation

Darlington Unit 2 achieves major milestone with first criticality

After years of planning and execution on the Darlington Refurbishment project, OPG has achieved a historic milestone on Darlington Unit 2 with first criticality.

First criticality is the point at which a nuclear reactor maintains a sustained fission chain reaction, creating the heat needed to produce electricity. It's a crucial step on the path toward starting up a reactor and readying it for power generation.

"Achieving first criticality on the unit required an incredibly complex sequence of work that included ensuring that construction was complete, all documentation was in order, and multiple systems were returned to service," said Mehri Molanaie, Key Evolution Manager. "All this led to approval from the Canadian Nuclear Safety Commission to proceed. We can now move forward and complete the final steps of returning this unit to service."

Now that first criticality has been achieved, the team will carry out a series of heat up and low-pressure testing over the coming weeks before carefully bringing the reactor to gradually higher levels of power and then reconnecting the unit to Ontario's grid.

[Read the rest of the story on OPG's website here](#)

[Read more on Darlington Unit 2 construction completion here](#)