

# Neighbours

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Summer 2006

## PICKERING B REFURBISHMENT FOR CONTINUED OPERATION ENVIRONMENTAL ASSESSMENT



Ontario Power Generation Inc. (OPG) owns and operates the Pickering Nuclear generating stations located in the City of Pickering, just east of Toronto. Pickering Nuclear has two stations, Pickering A and Pickering B. Pickering A consists of two recently refurbished nuclear reactor units. Pickering B consists of four nuclear reactor units (Units 5 to 8) and has been producing electricity since 1983, which is distributed on the provincial grid. Pickering A and B are designed to operate 24 hours a day, 365 days a year.

OPG has begun to undertake studies and review the business case for refurbishing the Pickering B reactor units to extend their service lives. Refurbishment for life extension involves removing and replacing a number of major reactor components. While the station is expected to continue operating for at least another decade, it is prudent to start this process now as there would be much work to undertake. Refurbishment of Pickering B reactor units could extend their service lives to 2050 – 2060.

A federal Environmental Assessment (EA) has also been initiated. The EA on Pickering B refurbishment and continued operation will assist in the early identification of potentially significant environmental effects that may arise. It also ensures that all necessary mitigation measures are identified early in the planning process.

The EA also provides a formal mechanism for public consultation on the potential environmental effects of refurbishment. Consultation with the public and other stakeholders is an essential part of the EA process.

## What is Refurbishment

For EA purposes, refurbishment involves replacing major reactor components such as the steam generators, feeder pipes, calandria tubes and fuel channels. It also involves managing the radioactive waste from refurbishment activities and from continued operations of the station. For EA purposes, refurbishment of the first reactor unit is assumed to begin as early as 2012 and would take approximately two to three years. It will take approximately eight to ten years to refurbish all of the reactors. Following each refurbishment outage, the reactor unit would be refueled and returned to full power operation. Ongoing station operation after refurbishment would include routine scheduled maintenance activities and inspections.

The CNSC has determined that satisfactory completion of an EA is required prior to any decision authorizing the continued operation of a nuclear generating station after major refurbishment.





## Environmental Assessment Overview

The EA must be completed in accordance with the *Canadian Environmental Assessment Act*, and typically includes:

- Description of existing environmental conditions;

- Direct project environmental effects on;
  - Atmospheric environment
  - Surface water and aquatic environments
  - Terrestrial environment
  - Radiation and radioactivity
  - Geology, hydrogeology and seismicity
  - Land use and physical and cultural heritage resources
  - Socio-economic conditions
  - Aboriginal interests
- Effects of credible malfunctions and accidents;
- Effects of the environment on the project;
- Cumulative effects of other planned projects;
- Feasible mitigation and impact management measures to reduce or eliminate adverse effects;
- Significance of any residual effects;
- Comments received by the public;
- Any other requirements which may be specified in the EA Guidelines; and,
- Conclusion of the EA Study.

## EA Project Schedule

OPG's goal is to submit the final EA Study Report to the Canadian Nuclear Safety Commission (CNSC) in 2007. A preliminary schedule for the EA involves these major milestones:

<b>June 2006</b>	OPG Submits Letter of Intent and Project Description to CNSC
<b>Late Summer/ Early Fall 2006</b>	CNSC Issues Draft EA Guidelines for Public Review
<b>Fall 2006</b>	CNSC Commission Hearing on EA Guidelines
<b>Late 2006/Early '07</b>	CNSC Issues Final EA Guidelines
<b>Winter 2007</b>	OPG Submits Draft EA Study to CNSC
<b>Spring 2007</b>	OPG Submits Final EA Study Report to CNSC
<b>Summer 2007</b>	CNSC Issues Draft Screening Report for Public Review
<b>Fall 2007</b>	CNSC Commission Hearing on Screening Report
<b>Late 2007</b>	CNSC Commission Decision on EA

## Public Consultation

We invite you to learn more about the EA for refurbishment and continued operation of Pickering B. You can visit our Web site, call or write us.

**How To Reach Us:** Pickering B Refurbishment for Continued Operation EA  
889 Brock Road, 2nd Floor,  
Pickering, Ontario L1W 3J2  
Tel: 1-866-487-4600

**Web Site:** [www.opg.com/PickeringB](http://www.opg.com/PickeringB)

**Email:** [pickeringb@opg.com](mailto:pickeringb@opg.com)

## Upcoming Open Houses

We encourage you to attend one of our upcoming Open Houses where staff will be on hand to discuss the refurbishment and the EA process. We want to hear your views early in the planning process. The Open Houses will be held from 3:00 to 9:00 p.m., on the dates and locations listed below.

**September 18th - Pickering**  
Pickering Recreation Complex  
"O'Brien Rooms"  
1867 Valley Farm Road  
Pickering, ON L1V 3Y7

**September 19th - Ajax**  
Ajax Community Centre  
"HMS Room"  
75 Centennial Road  
Ajax, ON L1S 4S4

**September 20th - Scarborough**  
Royal Canadian Legion  
"Banquet Hall"  
45 Lawson Road  
Scarborough, ON M1C 2J1

**September 21st - Whitby**  
Iroquois Park Complex  
"Iroquois Room"  
(Sports Garden Cafe)  
500 Victoria St. W.  
Whitby, ON L1N 9G4

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