

Table 27 · Status of Canadian Nuclear Fleet - PLEX and Expected Closures

Reactor	Operator	Grid Connection	Refurbishment <sup>(a)</sup> (Provisional Jan. 2020)	Planned Closure <sup>(b)</sup>	Licensed to <sup>(c)</sup>
Bruce-1	Bruce Power	1977	Restarted in 2012	2064	2028
Bruce-2		1976	Restarted in 2012		
Bruce-3		1977	01/02/23 <sup>(d)</sup> –11/12/26 (01/01/23–30/06/26)		
Bruce-4		1978	01/01/25–31/12/27		
Bruce-5		1984	01/10/26–30/09/29 (01/07/26–30/06/29)		
Bruce-6		1984	17/01/20–04/11/23 (01/01/20–19/10/23)		
Bruce-7		1986	01/07/28–30/06/31		
Bruce-8		1987	01/10/30–30/09/33 (01/07/30–30/06/23)		
Darlington-1	OPG	1990	15/02/22–17/04/25 (15/10/21–15/12/24)	2055	2025
Darlington-2		1990	10/16–06/20 <sup>(e)</sup>		
Darlington-3		1992	30/07/20–04/09/23 <sup>(f)</sup> (15/02/20–15/06/23) <sup>(g)</sup>		
Darlington-4		1993	02/07/23 <sup>(h)</sup> –01/08/26 (01/05/23–31/05/26)		
Pickering-1	OPG	1971		End 2024 <sup>(i)</sup>	2028 <sup>(k)</sup>
Pickering-4		1973		End 2024 <sup>(i)</sup>	
Pickering-5		1982		30/09/2026 <sup>(l)</sup>	
Pickering-6		1983		30/09/2026 <sup>(l)</sup>	
Pickering-7		1984		30/09/2026 <sup>(l)</sup>	
Pickering-8		1986		30/09/2026 <sup>(l)</sup>	
Point Lepreau	NB Power	1982	03/2008–03/2012	2039–2040 <sup>(l)</sup>	2032 <sup>(m)</sup>

Sources: compiled by WNISR, with IESO, Operators and CNSC, 2023

Notes: OPG: Ontario Power Generation

a - IESO, “Annual Planning Outlook - Ontario’s electricity system needs: 2024-2043”, December 2022.

When different provisional dates from IESO, “Annual Planning Outlook - A view of Ontario’s electricity system needs”, January 2020, see <http://www.ieso.ca/-/media/Files/IESO/Document-Library/planning-forecasts/apo/Annual-Planning-Outlook-Jan2020.pdf?la=en>, accessed 1 August 2020.

b - As announced by operator.

c - As listed on Canadian Nuclear Safety Commission's (CNSC) website for each station, as of 31 August 2023.

Bruce: <https://www.cnsccsn.gc.ca/eng/reactors/power-plants/nuclear-facilities/bruce-nuclear-generating-station/index.cfm>;

Darlington: <https://www.cnsccsn.gc.ca/eng/reactors/power-plants/nuclear-facilities/darlington-nuclear-generating-station/index.cfm>;

Pickering: <https://www.cnsccsn.gc.ca/eng/reactors/power-plants/nuclear-facilities/pickering-nuclear-generating-station/index.cfm>;

Point Lepreau: <https://www.cnsccsn.gc.ca/eng/reactors/power-plants/nuclear-facilities/point-lepreau-nuclear-generating-station/index.cfm>.

d - Bruce-3 refurbishment started on 1 March 2023. Bruce Power, "Bruce Power begins Unit 3 Major Component Replacement outage", 2 March 2023.

e - Refurbishment of Darlington-2 was completed in June 2020, with the reactor being reconnected to the grid on 2 June 2020; see OPG, "Darlington Unit 2 powers on—Refurbishment now complete on first unit", 4 June 2020, see <https://www.opg.com/news/darlington-unit-2-powers-on/>, accessed 28 July 2020.

f - Refurbishment of Darlington-3 was completed in July 2023, with the reactor being reconnected to the grid on 17 July 2023.

OPG, "OPG celebrates the early completion of Darlington Unit 3", Ontario Power Generation, 18 July 2023, see [https://www.opg.com/media\\_releases/opg-celebrates-the-early-completion-of-darlington-unit-3/](https://www.opg.com/media_releases/opg-celebrates-the-early-completion-of-darlington-unit-3/), accessed 19 July 2023.

g - In the December 2020 issue of the IESO outlook the dates were changed to 30/07/2020–02/01/2024.

IESO, "Annual Planning Outlook - Ontario's electricity system needs: 2022-2040", Independent Electricity System Operator, December 2020, see <https://www.ieso.ca/-/media/Files/IESO/Document-Library/planning-forecasts/apo/Annual-Planning-Outlook-Dec2020.ashx>.

h - Darlington-4 was removed from service on 19 July 2023, see OPG, "Darlington Refurbishment is a made-in-Ontario success story", 9 August 2023, see <https://prdopgv2.wpengine.com/releases/darlington-refurbishment-is-a-made-in-ontario-success-story/>, accessed 31 August 2023.

Expected completion date is 4th Quarter of 2026, see OPG, "Darlington Refurbishment performance update - Q1 2023", OPG, 20 June 2023, see <https://www.opg.com/news/darlington-refurbishment-performance-update-q1-2023/>, accessed 16 July 2023.

i - OPG, "Pickering Nuclear Station", n.d., see <https://prdopgv2.wpengine.com/power-generation/our-power/nuclear/pickering-nuclear/>, accessed 31 August 2023.

j - OPG, "Pickering Nuclear Generating Station – Power Reactor Operating Licence Amendment Application", Letter to Canadian Nuclear Safety Commission, Ontario Power Generation, 16 June 2023, see <https://www.opg.com/documents/letter-to-cnsc-re-pickering-licence-amendment-application-pdf>, accessed 16 July 2023.

k - The current Pickering Power Plan license will expire in 2028, but does not allow operation beyond 2024. OPG's application requires a public hearing and authorization from the Commission; as of 1 September 2023, a date for this hearing had not yet been set.

See CNSC, "Pickering Nuclear Generating Station", Updated 27 June 2023, see <https://nuclearsafety.gc.ca/eng/reactors/power-plants/nuclear-facilities/pickering-nuclear-generating-station/index.cfm>, accessed 16 July 2023.

l - NB Power, "NB Power's 10-Year Plan - Fiscal Years 2021 to 2030", September 2019, see <https://www.nbpower.com/media/1489656/10-year-plan-2021-to-2030.pdf>, accessed 13 May 2020; and updated with NB Power, "Integrated Resource Plan", November 2020, see <https://www.nbpower.com/media/1490323/2020-irp-en-2020-11-17.pdf>, accessed July 2021.

m - CNSC, "CNSC renews the power reactor operating licence for the Point Lepreau Nuclear Generating Station for a 10-year period", Canadian Nuclear Safety Commission, Updated 22 June 2022, see <https://www.canada.ca/en/nuclear-safety-commission/news/2022/06/cnsc-renews-the-power-reactor-operating-licence-for-the-point-lepreau-nuclear-generating-station-for-a-10-year-period.html>, accessed 23 June 2022.