

2022 Nuclear Performance Scorecard

Performance Outcomes	Measures (single-year unless otherwise noted)		2018	2019	2020	2021	2022	Historical Trend	2023	
			Actual	Actual	Actual	Actual	Actual			Target
Safety	Total Recordable Injury Frequency (#/200k hours worked)									
		Pickering	0.16	0.11	0.19	0.10	0.27	0.20	● -	0.20
		Darlington	0.32	0.00	0.25	0.07	0.09	0.20	● +	0.20
	Industrial Safety Accident Rate (#/200k hours)									
		Pickering	0.04	0.00	0.00	0.03	0.00	0.10	● +	0.00
		Darlington	0.08	0.00	0.00	0.00	0.00	0.10	● +	0.00
	Collective Radiation Exposure (person rem/unit)									
		Pickering	88.94	51.70	107.41	67.74	69.99	101.00	● +	103.50
		Darlington	71.13	83.14	29.97	110.47	29.90	27.74	● +	19.81
	Airborne Tritium Emissions (curies/unit)									
		Pickering	2,772	2,517	2,918	2,331	2,229	2,250	● +	2,170
		Darlington	982	1,213	879	905	1,163	900	● -	1,115
	Fuel Reliability Index (microcuries /gram)									
		Pickering	0.000834	0.000186	0.0001	0.0008	0.0002	0.0005	● N	0.0005
		Darlington	0.000139	0.000216	0.0035	0.0002	0.0001	0.0005	● N	0.0005
Reactor Trip Rate (#/7000 hours)										
	Pickering	0.60	0.00	0.00	0.00	0.14	0.50	● +	0.5000	
	Darlington	0.00	0.00	0.00	0.00	0.00	0.50	● N	0.0000	
Auxiliary Feedwater System Unavailability (#)										
	Pickering	0.0140	0.0002	0.0118	0.0085	0.0010	0.0200	● +	0.02	
	Darlington	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	● N	0.00	
Emergency AC Power Unavailability (#)										
	Pickering	0.0000	0.0008	0.000	0.0000	0.0000	0.0250	● +	0.0004	
	Darlington	0.0078	0.0000	0.000	0.0000	0.0000	0.0250	● +	0.0000	
High Pressure Safety Injection Unavailability (#)										
	Pickering	0.00000	0.00022	0.0000	0.0000	0.0000	0.0200	● N	0.00	
	Darlington	0.00000	0.00000	0.0000	0.0000	0.0000	0.0200	● N	0.00	
Reliability	WANO Nuclear Performance Index Rolling Average (%) ⁽¹⁾									
		Pickering	74.9	82.5	82.50	73.8	80.9	76.70	● +	81.00
		Darlington	90.7	88.9	93.60	85.8	91.4	95.1	● -	91.80
		OPGN	80.1	84.6	85.3	76.8	82.4	79.30	● -	82.50
	Forced Loss Rate (%)									
		Pickering	5.31	1.60	2.65	6.22	1.81	3.50	● +	3.50
		Darlington	1.13	4.80	1.54	3.52	7.51	2.12	● -	3.24
	Unit Capability Factor (%)									
		Pickering	79.09	87.55	76.25	78.92	80.01	74.08	● -	77.81
		Darlington	88.57	87.44	93.05	82.66	86.99	85.79	● -	96.78
		OPGN	83.48	87.50	84.45	80.70	82.66	78.52	● -	84.34
	Chemistry Performance Indicator (Index)									
		Pickering	1.01	1.03	1.06	1.06	1.03	1.02	● -	1.01
		Darlington	1.06	1.00	1.01	1.01	1.00	1.01	● +	1.00
	On-line Deficient Non-Critical Backlog (work orders / unit)									
	Pickering	279	114	88	68	40	47	● +	35	
	Darlington	124	110	96	70	61	75	● +	45	
On-line Deficient Critical Backlog (work orders /unit)										
	Pickering	9	5	1	1	1	0	● +	0	
	Darlington	9	3	1	0	0	0	● +	0	
On-line Corrective Non-Critical Backlog (work orders /unit)										
	Pickering	17	9	3	6	4	2	● +	2	
	Darlington	6	4	2	2	1	1	● +	0	
On-line Corrective Critical Backlog (work orders /unit)										
	Pickering	0	1	0	0	0	0	● N	0	
	Darlington	0	0	0	0	0	0	● N	0	
Cost Effectiveness	Total Generating Cost per Net MWh (\$/MWh)									
		Pickering	65.44	56.17	67.87	64.75	60.05	66.45	● +	63.26
		Darlington	67.00	66.12	54.30	79.27	101.52	109.33	● -	120.83
		OPGN	66.21	60.72	60.66	71.53	76.38	83.79	● -	85.43
	Normalized Total Generating Cost per Net MWh (\$/MWh)									
		Pickering	46.83	39.78	47.94	44.76	39.66	44.98	● +	41.08
		Darlington	39.60	37.90	32.23	45.59	33.84	45.83	● +	41.03
		OPGN	43.31	38.93	39.71	45.15	37.37	44.38	● +	41.06
	Total Generating Cost per Unit (\$/unit)									
		Pickering	227.29	220.97	232.32	227.59	214.11	218.98	● +	219.15
		Darlington	451.16	437.74	389.17	489.03	663.52	690.87	● -	857.89
		OPGN	301.91	293.22	287.43	314.74	331.65	342.4	● -	368.64
	Normalized Total Generating Cost per Unit (\$/unit)									
		Pickering	175.42	167.34	177.15	169.54	152.21	160.46	● +	153.50
		Darlington	281.10	264.72	241.83	297.90	238.59	297.29	● +	315.81
	OPGN	210.65	199.8	184.49	212.33	174.81	196.25	● +	191.49	
Non-Fuel Operating Cost per Net MWh (\$/MWh)										
	Pickering	56.96	48.70	59.97	57.24	54.40	60.45	● -	57.17	
	Darlington	46.56	45.19	36.91	57.64	57.64	69.30	● -	71.60	
Normalized Non-Fuel Operating Cost per Net MWh (\$/MWh)										
	Pickering	--	--	--	--	--	--	-	--	
	Darlington	37.18	36.48	31.33	47.29	41.51	42.12	● -	41.33	
Fuel Cost per Net MWh (\$/MWh)										
	Pickering	4.33	4.00	3.89	3.72	3.75	3.76	● N	3.91	
	Darlington	4.43	4.20	4.22	4.00	3.82	4.05	● N	4.78	
Capital Cost per MW Design Electrical Rating (\$/MW)										
	Pickering	27.88	26.46	26.59	25.79	13.12	14.29	● +	14.62	
	Darlington	122.76	126.22	107.55	123.88	243.57	258.94	● -	359.41	
Normalized Capital Cost per MW Design Electrical Rating (\$/MW)										
	Pickering	--	--	--	--	--	--	-	--	
	Darlington	100.00	97.42	82.96	90.52	104.28	153.16	● -	194.34	
Human Resources	18-month Human Performance Error Rate (#/200k ISAR and contractor hours)									
		Pickering	0.14310	0.02000	0.02000	0.02000	0.06000	0.02100	● +	0.0000
	Darlington	0.05100	0.03600	0.02000	0.01800	0.00000	0.01900	● +	0.0000	

5-year Trend
+ Favourable
- Unfavourable
N Neutral
Current Year
● Target met ● Target not met

Note 1: The Nuclear Performance Index (NPI) is a composite index of ten WANO indicators related to safety and production performance. NPI is calculated using a 2-year rolling average for PN and a 3-year rolling average for DN.