

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	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	●	N	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 (\$/kW)											
	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 (\$/kW)											
	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.