

NON-CONFIDENTIAL

Request IR-1:

For the years 2024, 2030 and 2035, please share the total installed generation capacity, and hourly supply-mix, on the: i) winter peak day, and the day prior and following; and on the ii) day of the highest renewable curtailment, and the day prior and following. Please include hourly imports and exports, renewable curtailment, and net-load reductions from demand-side measures.

Response IR-1:

The Evergreen IRP Model did not model exports. For the net load reductions from demand-side measures, please refer to the 2023 Load Forecast Report for the DSM values on an annual basis. Due to the cyber incident continuing to affect portions of NS Power's IT system, it is not possible to provide all of the requested hourly data at this time. Our IT team is working diligently with cyber security experts to bring the affected portions of our IT system back online. However, please see Attachment 1 for the requested data for 2024 (for the peak hour) and the requested data for 2030 and 2035 pulled from the NS-NB Reliability Intertie model.

<u>Generation Resource</u>	<u>MW</u>
Thermal	1392
CT's	226
Hydro	168
Wind	33
Tidal	0
Biomass	56
Maritime Link	150
Maritime Link Imports	7
Other Imports	51
Battery	0
System Peak (MW) and Time (HE) February 21 @ 9AM	

2030 Peak Load Generation

Peak Load Hour
2030-01-08 18:00

2030	Installed Capacity (MW)															
	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
	0	462	600	150	231	374	9	75	2069	102	153	459	0	170		4855

Generation (GWh) Jan 7, 2030 - Jan 9, 2030																
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
2030-01-07 1:00	0	128	0	0	0	69	0	69	1097	0	0	0	0	0	500	1862
2030-01-07 2:00	0	264	0	0	0	106	2	75	800	0	0	0	0	0	575	1822
2030-01-07 3:00	0	462	0	0	0	74	4	75	626	0	0	0	0	0	575	1817
2030-01-07 4:00	0	414	0	0	0	69	5	71	705	0	0	0	0	0	575	1839
2030-01-07 5:00	0	462	0	30	0	91	4	75	554	0	0	0	0	0	575	1790
2030-01-07 6:00	0	462	0	108	0	199	2	75	200	0	0	0	0	82	575	1703
2030-01-07 7:00	0	462	0	119	0	106	0	75	447	0	0	0	0	7	575	1791
2030-01-07 8:00	0	462	50	120	0	192	2	75	527	0	113	0	0	4	400	1945
2030-01-07 9:00	0	462	300	120	0	278	3	75	320	0	193	0	0	10	325	2086
2030-01-07 10:00	0	462	250	108	0	196	3	75	384	31	121	0	0	0	400	2031
2030-01-07 11:00	0	462	200	108	0	305	3	75	370	17	125	0	0	8	400	2073
2030-01-07 12:00	0	462	150	108	0	185	1	75	376	19	125	0	0	0	450	1951
2030-01-07 13:00	0	462	200	120	0	199	0	75	294	4	193	0	0	15	375	1937
2030-01-07 14:00	0	462	150	108	0	199	1	75	352	4	193	0	0	8	375	1926
2030-01-07 15:00	0	462	200	120	0	229	4	75	325	5	113	0	0	0	450	1983
2030-01-07 16:00	0	462	500	117	0	209	5	75	199	1	193	0	0	0	375	2136
2030-01-07 17:00	0	462	600	111	0	274	4	75	131	0	125	30	0	127	450	2389
2030-01-07 18:00	0	462	600	128	0	313	2	75	92	0	193	122	0	160	325	2473
2030-01-07 19:00	0	462	500	108	0	307	0	75	176	0	175	122	0	146	350	2421
2030-01-07 20:00	0	462	600	108	0	200	0	75	253	0	118	122	0	46	400	2384
2030-01-07 21:00	0	462	250	108	0	307	1	75	486	0	193	122	0	6	325	2336
2030-01-07 22:00	0	462	0	110	0	106	3	75	823	0	125	122	0	0	450	2277
2030-01-07 23:00	0	462	0	108	0	69	3	75	826	0	150	117	0	0	350	2160
2030-01-08	0	214	0	52	0	67	3	43	1310	0	0	55	0	0	325	2069
2030-01-08 1:00	0	207	0	52	0	69	2	52	1408	0	0	55	0	0	275	2119
2030-01-08 2:00	0	207	0	52	0	69	1	43	1324	0	0	55	0	0	325	2076
2030-01-08 3:00	0	212	0	52	0	91	1	57	1070	0	0	55	0	0	475	2013
2030-01-08 4:00	0	206	0	52	0	69	3	52	1185	0	0	55	0	0	450	2072
2030-01-08 5:00	0	270	0	52	0	74	6	52	1107	0	0	55	0	0	475	2091
2030-01-08 6:00	0	394	0	92	0	106	6	69	685	0	0	55	0	0	575	1981
2030-01-08 7:00	0	462	0	108	0	151	3	75	446	0	0	119	0	135	575	2073
2030-01-08 8:00	0	462	0	108	0	299	0	75	530	0	125	119	0	20	400	2138

Curtailed Renewables (MW)
6
0
32
4
16
13
0
100
40
194
81
95
13
13
169
3
113
5
29
194
11
68
43
9
23
7
33
23
55
6
61
88

Generation (GWh) Jan 7, 2030 - Jan 9, 2030																	Curtailed Renewables (MW)
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total	
2030-01-08 9:00	0	462	200	108	0	289	2	75	440	4	193	122	0	0	325	2220	29
2030-01-08 10:00	0	462	350	108	0	298	3	75	306	59	125	122	0	0	400	2308	89
2030-01-08 11:00	0	462	550	108	0	192	3	75	282	27	125	0	0	89	400	2313	88
2030-01-08 12:00	0	462	533	108	0	232	3	75	285	46	125	0	0	0	450	2319	190
2030-01-08 13:00	0	369	0	108	0	354	1	75	465	40	125	0	0	44	450	2031	68
2030-01-08 14:00	0	369	50	108	0	222	1	75	580	54	175	0	0	0	400	2034	44
2030-01-08 15:00	0	369	0	135	0	142	1	75	723	67	193	0	0	0	375	2080	0
2030-01-08 16:00	0	369	50	120	0	354	3	75	642	24	193	0	0	0	375	2204	0
2030-01-08 17:00	0	369	100	108	0	246	6	75	814	0	193	0	0	160	375	2446	108
2030-01-08 18:00	0	369	0	114	0	354	6	75	1086	0	193	0	0	37	325	2560	0
2030-01-08 19:00	0	369	100	108	0	347	3	75	1008	0	193	0	0	0	325	2528	7
2030-01-08 20:00	0	369	150	108	0	330	1	75	803	0	125	0	0	139	400	2500	92
2030-01-08 21:00	0	369	50	125	0	142	0	75	1197	0	125	0	0	0	400	2483	68
2030-01-08 22:00	0	274	0	85	0	142	1	69	1560	0	127	0	0	0	150	2408	72
2030-01-08 23:00	0	229	0	52	0	142	3	52	1654	0	113	0	0	0	0	2244	103
2030-01-09	0	147	0	52	0	103	3	37	1685	0	0	0	0	0	0	2027	9
2030-01-09 1:00	0	186	0	0	0	73	0	0	1476	0	0	0	0	0	100	1835	327
2030-01-09 2:00	0	212	0	0	0	73	0	0	1425	0	0	0	0	0	100	1809	372
2030-01-09 3:00	0	184	0	0	0	73	0	0	1158	0	0	0	0	140	100	1655	615
2030-01-09 4:00	0	212	0	0	0	73	2	0	1368	0	0	0	0	20	100	1774	397
2030-01-09 5:00	0	184	0	0	0	74	6	0	1409	0	0	0	0	20	100	1793	374
2030-01-09 6:00	0	196	0	0	0	81	0	0	1508	0	0	0	0	0	100	1884	283
2030-01-09 7:00	0	184	0	0	0	67	3	0	1475	0	0	0	0	140	100	1969	309
2030-01-09 8:00	0	212	0	0	0	71	2	0	1571	0	113	0	0	145	0	2114	205
2030-01-09 9:00	0	212	0	0	0	79	0	0	1558	2	113	0	0	140	0	2104	223
2030-01-09 10:00	0	212	0	0	0	79	2	0	1631	0	193	0	0	0	0	2117	7
2030-01-09 11:00	0	184	0	0	0	81	0	0	1597	1	113	0	0	17	0	1993	217
2030-01-09 12:00	0	184	0	0	0	75	3	0	1301	2	113	0	0	140	0	1817	490
2030-01-09 13:00	0	212	0	0	0	80	0	0	1459	33	113	0	0	17	0	1914	249
2030-01-09 14:00	0	212	0	0	0	81	3	0	1421	44	113	0	0	0	0	1873	243
2030-01-09 15:00	0	184	0	0	0	67	1	0	1408	43	113	0	0	17	0	1833	215
2030-01-09 16:00	0	223	0	0	0	79	1	0	1393	22	113	0	0	0	0	1831	87
2030-01-09 17:00	0	291	0	0	0	87	3	0	1148	0	193	0	0	60	100	1881	7
2030-01-09 18:00	0	291	200	0	0	87	8	0	1152	0	193	0	0	136	50	2117	7
2030-01-09 19:00	0	291	0	0	0	87	8	0	1278	0	193	0	0	128	50	2034	7
2030-01-09 20:00	0	291	0	0	0	87	3	0	1358	0	193	0	0	25	50	2007	7
2030-01-09 21:00	0	291	150	0	0	87	1	0	980	0	193	0	0	142	50	1894	7
2030-01-09 22:00	0	291	400	0	0	87	0	0	810	0	193	0	0	20	100	1901	7
2030-01-09 23:00	0	291	200	0	0	87	1	0	660	0	193	0	0	123	100	1655	7
2030-01-10	0	291	288	0	0	87	3	10	715	0	0	0	0	111	100	1606	7

2030 Curtailment Peak Load Generation

Curtailment Peak Day	
2030-07-05	

2030	Installed Capacity (MW)															
	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
	0	462	600	150	231	374	9	75	2069	102	153	459	0	170		4855

Generation (GWh) July 4, 2030 - July 6, 2030																
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
2030-07-04 1:00	0	189	50	0	0	88	0	34	0	262	0	0	0	0	625	1247
2030-07-04 2:00	0	189	0	0	0	43	1	43	0	279	0	0	0	0	625	1179
2030-07-04 3:00	0	189	0	0	0	101	2	43	0	228	0	0	0	0	625	1187
2030-07-04 4:00	0	189	0	0	0	43	3	43	0	219	0	0	0	0	625	1121
2030-07-04 5:00	0	189	0	0	0	43	3	43	0	173	0	0	0	0	625	1075
2030-07-04 6:00	0	189	0	0	0	140	2	24	10	54	13	0	0	0	625	1057
2030-07-04 7:00	0	189	0	0	0	95	1	33	71	29	50	0	0	0	625	1093
2030-07-04 8:00	0	189	0	0	0	142	0	43	110	19	79	187	0	0	425	1192
2030-07-04 9:00	0	189	0	0	0	133	2	43	155	23	97	113	0	0	500	1254
2030-07-04 10:00	0	189	0	0	0	106	4	43	130	39	100	125	0	0	500	1236
2030-07-04 11:00	0	189	0	0	0	255	4	43	0	41	99	175	0	0	450	1255
2030-07-04 12:00	0	189	0	0	0	166	4	43	109	47	96	175	0	0	450	1278
2030-07-04 13:00	0	189	0	0	0	50	1	43	0	90	97	175	0	0	450	1094
2030-07-04 14:00	0	189	0	0	0	50	0	50	159	155	96	193	0	0	425	1317
2030-07-04 15:00	0	189	0	0	0	42	2	0	0	262	100	193	0	0	425	1211
2030-07-04 16:00	0	189	0	0	0	42	2	0	10	335	97	175	0	0	450	1299
2030-07-04 17:00	0	189	0	0	0	42	3	0	97	400	87	150	0	0	425	1392
2030-07-04 18:00	0	189	0	0	0	42	2	0	10	654	52	193	0	0	275	1416
2030-07-04 19:00	0	185	0	0	0	42	2	0	0	729	29	113	0	0	425	1524
2030-07-04 20:00	0	189	0	0	0	42	0	0	21	504	5	113	0	0	500	1373
2030-07-04 21:00	0	189	0	0	0	42	2	0	49	499	0	125	0	0	450	1355
2030-07-04 22:00	0	189	0	0	0	42	3	0	130	675	0	130	0	0	150	1318
2030-07-04 23:00	0	154	0	0	0	12	4	0	0	1004	0	113	0	0	0	1286
2030-07-05	0	162	0	0	0	2	4	0	0	1038	0	0	0	0	0	1205
2030-07-05 1:00	0	280	0	30	0	0	0	33	0	777	0	0	0	0	150	1270
2030-07-05 2:00	0	280	0	108	0	0	0	33	0	641	0	0	0	0	150	1211
2030-07-05 3:00	0	280	0	108	0	0	0	33	0	610	0	0	0	0	150	1181
2030-07-05 4:00	0	280	0	108	0	0	0	10	150	326	0	0	0	0	150	1023
2030-07-05 5:00	0	280	0	108	0	0	0	33	10	552	0	0	0	0	150	1133
2030-07-05 6:00	0	280	0	108	0	0	0	10	20	604	0	0	0	0	150	1172
2030-07-05 7:00	0	280	0	108	0	0	0	43	150	379	4	0	0	0	150	1114
2030-07-05 8:00	0	280	0	108	0	0	0	10	20	669	0	113	0	0	150	1349

Curtailed Renewables (MW)
75
13
62
14
14
22
95
133
216
124
32
121
35
7
7
25
50
7
87
87
75
70
142
405
807
995
1063
1326
1102
1008
1213
1203

Generation (GWh) July 4, 2030 - July 6, 2030																	Curtailed Renewables (MW)
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total	
2030-07-05 9:00	0	280	0	108	0	0	0	33	20	719	38	113	0	0	0	1311	1072
2030-07-05 10:00	0	280	0	108	0	0	0	10	150	427	0	193	0	0	0	1168	1310
2030-07-05 11:00	0	280	0	108	0	0	0	10	20	707	0	113	0	0	150	1387	1268
2030-07-05 12:00	0	280	0	112	0	0	0	33	150	321	0	113	0	0	75	1084	1539
2030-07-05 13:00	0	280	0	108	0	0	0	10	150	255	0	144	0	0	150	1097	1686
2030-07-05 14:00	0	280	0	108	0	0	0	33	0	551	33	113	0	0	150	1268	1277
2030-07-05 15:00	0	280	0	108	0	0	0	33	20	512	0	193	0	0	150	1296	1199
2030-07-05 16:00	0	280	0	108	0	0	1	10	150	370	45	113	0	0	150	1227	856
2030-07-05 17:00	0	280	0	108	0	0	2	33	20	800	15	193	0	0	0	1451	281
2030-07-05 18:00	0	280	0	108	0	0	2	25	150	564	30	193	0	0	0	1351	380
2030-07-05 19:00	0	280	0	108	0	0	2	33	117	476	19	113	0	0	150	1298	782
2030-07-05 20:00	0	280	0	108	0	0	0	0	20	686	3	193	0	0	150	1439	537
2030-07-05 21:00	0	280	450	108	0	9	0	0	150	151	0	162	0	0	0	1309	1247
2030-07-05 22:00	0	280	0	108	0	0	0	0	20	660	0	193	0	0	150	1411	423
2030-07-05 23:00	0	280	0	108	0	0	2	0	150	512	0	193	0	0	0	1245	275
2030-07-06	0	280	0	108	0	0	3	0	157	450	0	0	0	0	150	1147	552
2030-07-06 1:00	0	47	0	0	0	2	3	0	0	1165	0	0	0	0	0	1216	240
2030-07-06 2:00	0	54	0	0	0	3	0	0	0	1116	0	0	0	0	0	1173	467
2030-07-06 3:00	0	45	0	0	0	6	0	0	20	1058	0	0	0	0	0	1129	509
2030-07-06 4:00	0	45	0	0	0	1	1	0	80	857	0	0	0	0	0	983	446
2030-07-06 5:00	0	45	0	0	0	1	2	0	93	837	0	0	0	0	0	978	248
2030-07-06 6:00	0	45	0	0	0	2	2	0	150	766	10	0	0	0	0	975	452
2030-07-06 7:00	0	47	0	0	0	1	3	0	0	1063	27	0	0	0	0	1141	194
2030-07-06 8:00	0	0	0	0	0	0	2	0	20	1009	52	113	0	0	0	1196	190
2030-07-06 9:00	0	0	0	0	0	5	1	0	20	1053	89	113	0	0	0	1280	198
2030-07-06 10:00	0	0	0	0	0	0	0	0	150	861	93	113	0	0	0	1217	488
2030-07-06 11:00	0	0	0	0	0	5	2	0	20	1120	62	113	0	0	0	1321	191
2030-07-06 12:00	0	0	0	0	0	5	3	0	150	866	97	113	0	0	0	1233	386
2030-07-06 13:00	0	0	0	0	0	0	3	0	0	861	94	113	0	0	0	1071	109
2030-07-06 14:00	0	0	0	0	0	6	3	0	0	785	101	149	0	0	0	1044	51
2030-07-06 15:00	0	0	0	0	0	5	2	0	0	651	102	193	0	0	0	952	7
2030-07-06 16:00	0	45	0	0	0	6	0	0	0	505	97	187	0	0	150	990	13
2030-07-06 17:00	0	45	0	0	0	6	1	0	143	373	63	193	0	0	275	1098	7
2030-07-06 18:00	0	45	291	0	0	6	3	3	164	180	48	193	0	0	250	1182	4
2030-07-06 19:00	0	45	186	0	0	6	3	0	162	297	19	193	0	0	275	1186	7
2030-07-06 20:00	0	45	98	0	0	6	3	0	155	395	1	193	0	0	275	1171	7
2030-07-06 21:00	0	45	0	0	0	6	2	0	2	731	0	193	0	0	175	1153	7
2030-07-06 22:00	0	0	0	0	0	6	0	0	0	1087	0	117	0	0	0	1210	83
2030-07-06 23:00	0	0	0	0	0	6	2	0	17	995	0	159	0	0	0	1178	41
2030-07-07	0	0	20	0	0	5	0	0	131	846	0	0	0	0	0	1001	320

2035 Peak Load Generation

Peak Load Hour
2035-01-09 18:00

2035	Installed Capacity (MW)															
	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
	0	462	750	150	231	374	9	75	2619	142	153	459	0	360		5785

Generation (GWh) Jan 8, 2035 - Jan 10, 2035																	Curtailed Renewables (MW)
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total	
2035-01-08 1:00	0	128	0	0	0	69	3	32	1445	0	0	0	0	0	475	2151	0.0
2035-01-08 2:00	0	144	0	0	0	102	3	65	1025	0	0	0	0	0	575	1913	4.9
2035-01-08 3:00	0	144	100	0	0	102	3	75	737	0	0	0	0	0	575	1736	4.2
2035-01-08 4:00	0	144	0	0	0	156	1	75	885	0	0	0	0	0	575	1836	56.3
2035-01-08 5:00	0	143	250	0	0	69	0	63	660	0	0	0	0	0	575	1761	0.0
2035-01-08 6:00	0	144	700	0	0	80	0	56	218	0	0	0	0	0	575	1774	26.1
2035-01-08 7:00	0	144	550	0	0	106	2	71	573	0	0	0	0	0	575	2021	0.0
2035-01-08 8:00	0	144	550	0	0	318	4	75	705	0	192	0	0	0	50	2039	0.9
2035-01-08 9:00	0	144	750	0	0	294	5	75	421	4	175	0	0	0	300	2168	42.8
2035-01-08 10:00	0	144	650	0	0	100	4	75	527	1	183	0	0	0	325	2009	17.4
2035-01-08 11:00	0	144	750	0	0	106	1	75	506	4	173	0	0	0	325	2083	20.1
2035-01-08 12:00	0	144	500	0	0	115	0	75	482	10	137	0	0	0	425	1887	56.1
2035-01-08 13:00	0	144	600	0	0	142	1	65	365	3	122	0	0	0	425	1867	70.7
2035-01-08 14:00	0	144	500	0	0	135	3	75	465	2	113	0	0	0	450	1888	86.7
2035-01-08 15:00	0	174	700	0	0	321	3	75	426	2	188	0	0	0	100	1988	38.2
2035-01-08 16:00	0	204	750	30	0	339	3	75	242	1	122	30	0	0	450	2246	86.0
2035-01-08 17:00	0	291	750	120	0	354	2	75	141	0	175	141	0	195	400	2643	18.0
2035-01-08 18:00	0	291	750	120	0	354	0	75	97	0	125	141	0	325	400	2678	68.0
2035-01-08 19:00	0	291	750	120	0	354	2	75	180	0	175	141	0	130	350	2568	18.0
2035-01-08 20:00	0	291	750	120	0	354	4	75	275	0	125	132	0	0	400	2526	68.0
2035-01-08 21:00	0	291	500	108	0	354	5	75	558	0	125	64	0	0	400	2481	68.0
2035-01-08 22:00	0	286	50	108	0	248	4	75	1044	0	125	61	0	0	450	2451	68.0
2035-01-08 23:00	0	283	50	108	0	142	2	75	1044	0	193	61	0	0	350	2307	0.0
2035-01-09	0	170	0	52	0	103	0	32	1688	0	0	55	0	0	100	2199	2.0
2035-01-09 1:00	0	181	0	52	0	94	1	32	1825	0	0	55	0	0	100	2339	0.0
2035-01-09 2:00	0	188	0	52	0	94	2	32	1767	0	0	55	0	0	100	2289	0.0
2035-01-09 3:00	0	215	0	90	0	94	3	32	1413	0	0	61	0	0	100	2007	0.0
2035-01-09 4:00	0	185	0	52	0	94	3	32	1592	0	0	55	0	0	100	2112	0.0
2035-01-09 5:00	0	188	0	52	0	94	2	32	1501	0	0	55	0	0	100	2023	0.0
2035-01-09 6:00	0	241	0	93	0	117	0	75	917	0	0	61	0	0	575	2079	3.8
2035-01-09 7:00	0	291	300	108	0	177	0	75	565	0	0	99	0	0	575	2190	71.2

Generation (GWh) Jan 8, 2035 - Jan 10, 2035																	Curtailed Renewables (MW)
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total	
2035-01-09 8:00	0	291	250	108	0	232	2	75	716	0	157	114	0	0	325	2269	158.5
2035-01-09 9:00	0	291	300	108	0	324	4	75	588	0	193	122	0	0	325	2331	30.1
2035-01-09 10:00	0	144	750	108	0	329	5	75	416	0	193	0	0	100	325	2445	25.4
2035-01-09 11:00	0	144	750	113	0	341	4	75	370	1	193	0	0	264	200	2455	13.0
2035-01-09 12:00	0	144	750	108	0	341	2	75	345	6	193	0	0	175	375	2513	13.0
2035-01-09 13:00	0	144	300	108	0	197	0	75	610	13	175	0	0	0	350	1971	69.6
2035-01-09 14:00	0	144	250	108	0	201	2	75	694	11	175	0	0	0	350	2009	65.1
2035-01-09 15:00	0	144	250	108	0	313	3	75	940	17	167	0	0	0	100	2116	67.0
2035-01-09 16:00	0	144	750	0	0	341	3	75	809	1	113	0	0	28	100	2363	93.0
2035-01-09 17:00	0	144	650	0	0	233	3	75	1053	0	113	0	0	0	450	2720	201.2
2035-01-09 18:00	0	144	350	0	0	310	2	75	1376	0	113	0	0	0	400	2770	123.9
2035-01-09 19:00	0	144	550	0	0	218	0	75	1221	0	150	0	0	0	325	2684	72.7
2035-01-09 20:00	0	144	650	0	0	351	2	75	902	0	125	0	0	0	400	2649	70.9
2035-01-09 21:00	0	144	550	0	0	211	4	75	1486	0	113	0	0	0	50	2632	117.3
2035-01-09 22:00	0	144	0	0	0	133	5	75	1981	0	163	0	0	0	100	2600	39.7
2035-01-09 23:00	0	0	0	0	0	94	4	73	2105	0	113	0	0	0	0	2388	81.7
2035-01-10	0	0	20	0	0	84	0	0	2029	0	0	0	0	0	0	2132	141.0
2035-01-10 1:00	0	0	20	0	0	40	0	0	2034	0	0	0	0	0	0	2095	272.6
2035-01-10 2:00	0	0	20	0	0	45	0	0	2003	0	0	0	0	0	0	2067	296.0
2035-01-10 3:00	0	0	20	0	0	42	0	0	1491	0	0	0	0	250	0	1803	788.8
2035-01-10 4:00	0	0	20	0	0	42	3	0	1798	0	0	0	0	100	0	1963	453.5
2035-01-10 5:00	0	54	0	0	0	36	3	0	1787	0	0	0	0	100	0	1980	482.6
2035-01-10 6:00	0	42	0	0	0	36	2	0	1551	0	0	0	0	260	0	1892	711.9
2035-01-10 7:00	0	42	0	0	0	38	1	0	2084	0	0	0	0	100	0	2265	190.9
2035-01-10 8:00	0	56	0	0	0	40	0	0	1851	0	113	0	0	260	0	2321	377.0
2035-01-10 9:00	0	56	0	0	0	37	0	0	1770	4	163	0	0	260	0	2291	450.7
2035-01-10 10:00	0	56	0	0	0	37	4	0	1909	79	113	0	0	100	0	2298	255.2
2035-01-10 11:00	0	0	0	0	0	50	4	0	2009	96	113	0	0	0	0	2273	297.9
2035-01-10 12:00	0	0	0	0	0	42	0	0	1543	62	113	0	0	260	0	2020	749.7
2035-01-10 13:00	0	0	0	0	0	58	0	0	1844	49	113	0	0	100	0	2165	335.3
2035-01-10 14:00	0	0	0	0	0	42	0	0	1966	71	113	0	0	0	0	2191	158.9
2035-01-10 15:00	0	0	0	0	0	53	1	0	1922	101	113	0	0	0	0	2189	120.8
2035-01-10 16:00	0	0	0	0	0	57	2	0	1786	52	143	0	0	0	0	2039	57.2
2035-01-10 17:00	0	124	0	0	0	81	2	10	1414	0	193	0	0	165	100	2089	12.5
2035-01-10 18:00	0	131	50	0	0	70	2	43	1445	0	193	0	0	290	50	2275	23.3
2035-01-10 19:00	0	144	0	0	0	87	2	43	1642	0	193	0	0	100	50	2260	6.8
2035-01-10 20:00	0	141	0	0	0	87	0	10	1788	0	193	0	0	71	50	2340	6.8
2035-01-10 21:00	0	141	0	0	0	73	2	43	1341	0	193	0	0	250	50	2092	20.7
2035-01-10 22:00	0	141	0	0	0	87	3	23	1134	0	193	0	0	254	100	1933	6.8
2035-01-10 23:00	0	144	0	0	0	87	4	46	918	0	193	0	0	260	100	1752	3.4
2035-01-11	0	141	50	0	0	87	4	43	936	0	0	0	0	332	100	1693	6.8

2035 Curtailment Peak Generation

Curtailment Peak Day
2035-05-05

2035	Installed Capacity (MW)															
	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
	0	462	750	150	231	374	9	75	2619	142	153	459	0	360		5785

Generation (GWh) May 4, 2035 - May 6, 2035																
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
2035-05-04 1:00	0	0	0	0	0	137	3	43	802	0	0	0	0	0	550	1535
2035-05-04 2:00	0	0	0	0	0	78	0	43	1214	0	0	0	0	0	250	1585
2035-05-04 3:00	0	0	0	0	0	134	2	43	937	0	0	0	0	0	450	1567
2035-05-04 4:00	0	0	0	0	0	132	1	43	506	0	0	0	0	80	625	1388
2035-05-04 5:00	0	0	0	0	0	114	0	43	825	0	0	0	0	0	575	1557
2035-05-04 6:00	0	0	0	0	0	135	2	43	354	0	0	0	0	327	375	1236
2035-05-04 7:00	0	0	0	0	0	345	3	43	379	3	0	0	0	90	625	1488
2035-05-04 8:00	0	0	0	0	0	105	3	43	513	22	161	0	0	182	450	1480
2035-05-04 9:00	0	0	0	0	0	131	3	43	235	32	175	0	0	182	450	1251
2035-05-04 10:00	0	0	0	0	0	114	2	43	38	33	193	0	0	241	425	1089
2035-05-04 11:00	0	0	0	0	0	129	2	43	40	32	175	0	0	101	450	970
2035-05-04 12:00	0	0	0	0	0	207	1	43	45	43	175	0	0	60	450	1023
2035-05-04 13:00	0	0	0	0	0	183	2	43	26	23	175	0	0	90	450	992
2035-05-04 14:00	0	0	0	0	0	350	2	43	27	18	125	0	0	0	500	1065
2035-05-04 15:00	0	0	0	0	0	131	2	43	28	17	125	0	0	78	500	925
2035-05-04 16:00	0	0	0	0	0	350	2	43	38	8	125	0	0	90	500	1156
2035-05-04 17:00	0	143	250	0	0	350	1	43	37	2	125	0	0	0	500	1451
2035-05-04 18:00	0	144	0	0	0	350	1	43	41	2	125	0	0	327	500	1533
2035-05-04 19:00	0	144	0	0	0	350	2	43	41	0	150	0	0	331	475	1536
2035-05-04 20:00	0	144	0	0	0	335	3	43	53	0	175	0	0	308	450	1511
2035-05-04 21:00	0	144	0	0	0	350	3	43	112	0	175	0	0	260	450	1537
2035-05-04 22:00	0	144	0	0	0	349	2	43	272	0	150	0	0	90	475	1525
2035-05-04 23:00	0	62	0	0	0	94	0	43	783	0	119	0	0	0	325	1426
2035-05-05	0	58	0	0	0	92	0	43	968	0	0	0	0	0	150	1311
2035-05-05 1:00	0	132	200	0	0	61	3	43	1001	0	0	0	0	0	150	1590
2035-05-05 2:00	0	144	0	0	0	75	2	43	1117	0	0	0	0	0	150	1532
2035-05-05 3:00	0	141	750	0	0	61	0	43	348	0	0	0	0	0	150	1493
2035-05-05 4:00	0	144	0	0	0	89	1	43	1050	0	0	0	0	0	150	1477
2035-05-05 5:00	0	144	0	0	0	108	0	43	322	0	0	0	0	350	150	1117
2035-05-05 6:00	0	124	0	0	0	158	0	43	306	9	0	0	0	350	150	1139
2035-05-05 7:00	0	144	0	0	0	164	2	43	961	55	0	0	0	0	150	1519
2035-05-05 8:00	0	141	0	0	0	44	2	43	927	22	193	0	0	0	150	1522
2035-05-05 9:00	0	144	500	0	0	61	0	43	134	31	113	0	0	260	150	1436
2035-05-05 10:00	0	141	0	0	0	177	0	43	1032	0	193	0	0	0	150	1736

Curtailed Renewables (MW)
8
139
10
13
31
10
12
45
25
31
34
62
86
75
75
75
75
50
40
25
51
81
80
783
1060
1924
1073
1480
1905
1422
1464
2210
1348

Generation (GWh) May 4, 2035 - May 6, 2035																
Date/Time	Coal	Gas - Existing	Gas - New CTs & Recips	Gas - Conversion	Diesel CTs	Domestic Hydro	Tidal	Biomass	Wind	Solar	Maritime Link Blocks	HFO - Conversion	Hydrogen	Battery	Market Imports	Total
2035-05-05 11:00	0	144	0	0	0	106	0	43	390	0	193	0	0	350	150	1376
2035-05-05 12:00	0	141	0	0	0	71	0	43	381	123	113	0	0	322	150	1343
2035-05-05 13:00	0	141	0	0	0	78	0	43	919	121	193	0	0	0	150	1644
2035-05-05 14:00	0	141	0	0	0	69	0	43	946	122	113	0	0	0	150	1583
2035-05-05 15:00	0	144	0	0	0	120	0	43	137	126	176	0	0	348	150	1244
2035-05-05 16:00	0	144	0	0	0	72	0	43	923	1	193	0	0	0	150	1526
2035-05-05 17:00	0	141	0	0	0	106	0	43	165	72	177	0	0	350	150	1202
2035-05-05 18:00	0	141	0	0	0	134	0	43	217	14	113	0	0	350	150	1161
2035-05-05 19:00	0	144	0	0	0	56	2	43	975	25	127	0	0	0	150	1521
2035-05-05 20:00	0	144	0	0	0	100	0	43	202	0	193	0	0	350	150	1181
2035-05-05 21:00	0	141	0	0	0	161	2	43	737	0	132	0	0	90	150	1456
2035-05-05 22:00	0	124	400	0	0	56	0	43	13	0	113	0	0	319	150	1216
2035-05-05 23:00	0	144	0	0	0	91	2	43	1012	0	113	0	0	0	150	1555
2035-05-06	0	144	0	0	0	113	0	43	348	0	0	0	0	350	150	1147
2035-05-06 1:00	0	42	0	0	0	52	4	0	1347	0	0	0	0	0	0	1444
2035-05-06 2:00	0	42	0	0	0	61	4	0	1306	0	0	0	0	0	0	1413
2035-05-06 3:00	0	56	0	0	0	51	0	0	1112	0	0	0	0	90	0	1309
2035-05-06 4:00	0	56	0	0	0	60	0	0	756	0	0	0	0	255	0	1127
2035-05-06 5:00	0	50	0	0	0	61	0	0	850	0	0	0	0	180	0	1141
2035-05-06 6:00	0	42	0	0	0	76	2	0	1089	0	0	0	0	90	0	1299
2035-05-06 7:00	0	0	0	0	0	68	2	0	1006	1	0	0	0	90	100	1268
2035-05-06 8:00	0	0	0	0	0	94	3	0	891	28	193	0	0	0	0	1209
2035-05-06 9:00	0	0	0	0	0	67	2	0	209	3	148	0	0	335	0	765
2035-05-06 10:00	0	0	0	0	0	65	0	0	257	15	136	0	0	260	0	732
2035-05-06 11:00	0	0	0	0	0	61	0	0	454	23	193	0	0	90	0	821
2035-05-06 12:00	0	0	0	0	0	58	0	0	134	27	113	0	0	260	0	592
2035-05-06 13:00	0	0	0	0	0	52	0	0	675	18	135	0	0	0	0	879
2035-05-06 14:00	0	0	0	0	0	66	0	0	56	18	113	0	0	335	0	587
2035-05-06 15:00	0	0	0	0	0	61	0	0	328	25	113	0	0	260	0	787
2035-05-06 16:00	0	0	0	0	0	61	0	0	790	13	113	0	0	100	0	1077
2035-05-06 17:00	0	0	0	0	0	55	0	0	1166	20	193	0	0	0	0	1434
2035-05-06 18:00	0	0	0	0	0	63	0	0	1166	20	193	0	0	100	0	1543
2035-05-06 19:00	0	0	0	0	0	60	2	0	929	3	193	0	0	260	0	1447
2035-05-06 20:00	0	0	0	0	0	61	0	0	1013	0	113	0	0	260	0	1447
2035-05-06 21:00	0	0	0	0	0	65	3	0	1280	0	193	0	0	92	0	1632
2035-05-06 22:00	0	0	0	0	0	61	0	0	1016	0	113	0	0	260	0	1450
2035-05-06 23:00	0	0	0	0	0	161	1	0	973	0	193	0	0	100	0	1428
2035-05-07	0	0	0	0	0	46	0	0	680	0	0	0	0	345	100	1171

Curtailed Renewables (MW)
1973
1995
1397
1521
2212
1179
1634
1571
463
1017
603
1879
1043
1961
752
918
451
534
232
124
245
7
397
305
996
2406
1263
1884
1697
1114
396
479
85
432
96
347
80
341

NON-CONFIDENTIAL

Request IR-2:

Please describe the current IRP results for installed wind power generation capacity in 2030 and 2035. How do the scenarios relate to the province's Clean Power Plan? What is the current shortfall between operating and contracted wind power projects, and the amount of operating capacity expected in 2030 and 2035? What amount of wind power generation facility retirements are expected from today to 2030 and 2035?

Response IR-2:

The Evergreen IRP Action Plan called for 1,000 MW of incremental wind by 2030.¹ By 2035, the 2023 Evergreen IRP identified a range of additional onshore wind capacity (500 MW - 900 MW) depending on the IRP scenario.

The Clean Power Plan is in alignment with the outcomes of the Evergreen IRP (1,000 MW of additional wind resources required by 2030).

The anticipated wind capacity of the Rate Base Procurement program is 306 MW. In June 2025, two wind farms with a combined total capacity of 262 MW signed Power Purchase Agreements under the Green Choice Program. In addition, Port Hawkesbury Paper Wind, the Renewable to Retail program, and Minas Highlands Wind will add 168 MW, 90 MW and 13 MW, respectively. All wind projects referenced total 839 MW.

The 2023 Evergreen IRP did not assume wind facility retirements; rather, it assumed that existing facilities were renewed using the same installed capacity and annual generation assumptions.

¹ Updated IRP Action Plan and Roadmap, pg. 15, [Nova Scotia Power Evergreen IRP](#)

NON-CONFIDENTIAL

Request IR-3:

Please describe the current IRP results for installed energy storage capacity (e.g., Battery Energy Storage Systems (BESS), Pumped Storage Hydro (PSH), and Long Duration Energy Storage (LDES) (MW and MWh) in 2030 and 2035. How do the scenarios relate to the province's Clean Power Plan? What is the current shortfall between operating and contracted energy storage projects, and the amount of operating capacity expected in 2030 and 2035? Have sensitivity analyses related to PSH and LDES been undertaken to assess their viability under certain circumstances? If yes, please describe.

Response IR-3:

The Evergreen IRP results for the energy storage capacity are identified in the 2023 Evergreen IRP Updated Action Plan and Roadmap.¹ The 4-hour BESS results indicated at least 100 MW of storage by 2030 and up to 200 MW by 2035. For all scenarios and sensitivities, long-duration storage was offered but not selected in the optimized resource plans. The Clean Power Plan identifies a range of 300 – 400 MW of 4-hour BESS, of which the 150 MW of NS Power BESS will contribute to, leaving a current difference of 150 – 200 MW.

¹ [Nova Scotia Power Evergreen IRP](#)

NON-CONFIDENTIAL

Request IR-4:

Please share the assumptions used for: cost (capital, operating, life-span etc.); technical requirements (ancillary services, inertia support, etc.), and operational parameters (factors affecting charging and discharging, etc.), used in the IRP analysis for Battery Energy Storage Systems (BESS), Pumped Storage Hydro (PSH), and Long Duration Energy Storage (LDES). Have these assumptions changed in recent years? If yes, please describe.

Response IR-4:

Assumptions used to model BESS and PSH/LDES in the 2023 Evergreen IRP modeling are documented in the [“2022 Evergreen IRP Updated Assumptions – January 2023 Update”](#) document on the NS Power IRP website.¹ As part of the recent NS-NB Reliability Intertie filing, the cost assumptions for BESS were updated to reflect the increases in costs since the Evergreen IRP.²

¹ [IRP Evergreen - Updated Assumptions](#)

² NS-NB Reliability Intertie Project Application (M12217), April 10, 2025.

NON-CONFIDENTIAL

Request IR-5:

What factors, related to the technical capabilities of an energy resource, affect its selection by the model? For example, does a resource's ramp-rate, or capability to provide inertia support affect its dispatch order? If yes, please describe.

Response IR-5:

The capacity expansion plan and production cost optimization are multivariable optimizations and many factors, besides just technical factors, contribute to the selection of a resource in the model. Whether a resource is considered renewable, the capital cost of the resource, the price of fuel (if applicable), and the cost of emissions (if applicable), all play significant roles in a resource's selection by the model.

The technical capabilities considered by the model when selecting an energy resource can vary by resource type but generally include:

- Maximum ramp rate
- Minimum up time
- Minimum down time
- Maximum number of starts/cycles per year, month, or day
- Minimum output level
- Maximum output level
- Minimum charge level (for battery energy storage systems)
- Storage capacity (for energy storage systems)
- Inertia
- Heat rate
- Emission output rate
- Effective Load Carrying Capability

NON-CONFIDENTIAL

1 A resource's ramp rate or inertia contribution can contribute to the model's decision to dispatch
2 one resource over another. The model must have sufficient capability to ramp up or down
3 generation to match the variability in load. In addition, the dispatch selection will ensure that the
4 total inertia contributions from online resources meet the minimum system level inertia
5 requirement defined in the model.

NON-CONFIDENTIAL

Request IR-6:

Please describe how the province's needs for load variation, frequency regulation, and other ancillary services (including black-start) are expected to change from today to 2030 and 2035? To the extent possible, please provide a qualitative and quantitative response.

Response IR-6:

Any changes in load profile will be managed based on the forecast conditions and dispatch of the generation resources, Battery Energy Storage Systems (BESS), and Demand Response available to meet the demand. If there is high load variability for a particular hour, it would be managed with responses from BESS, wind (curtail or ramp from curtailed), fast-acting generation, and other synchronous machines online.

Today, frequency regulation is provided by online synchronous hydro and thermal generators and the Maritime Link. In the future, frequency regulation on a low-wind day is expected to be similar to today, with the addition of frequency response support from the BESS. On a high wind day, newer wind turbines, BESS, Maritime Link and any online synchronous machines will support frequency to the same standard as today.

Today, multiple black start paths are available, including two NS Power synchronous machine black start paths, and a restart from New Brunswick via the tie-line(s). Black start paths in the future will be very robust, with the addition of the planned fast-acting generation, and an optional path from Newfoundland via the Maritime Link.

For reactive power management, in the future, the existing static VAR compensator and static reactive capacitor banks will be augmented by additional switched capacitor banks in some remote areas as load grows. Additionally, the new wind facilities and BESS are inverter based and provide reactive power support at their point of interconnection to ensure they stay online and ride through grid disturbances.

NON-CONFIDENTIAL

Request IR-7:

Does the IRP model consider the operation of Synchronous Condensers? If yes, please describe their operational profile.

Response IR-7:

Yes, the 2023 Evergreen IRP modeling considered the need for synchronous condensers. The assumptions associated with synchronous condensers can be found in the [“2022 Evergreen IRP Updated Assumptions – January 2023 Update”](#)¹ document on the NS Power IRP website. NS Power’s current assumption for long term resource planning models is that synchronous condensers associated with IBR generators operate at all times in order to ensure local grid stability.

¹ Pg. 50, [IRP Evergreen - Updated Assumptions](#)