

Appendix A. Capital and Operating Cost Assumptions and Nameplate Capacity Results

<b>Construction Costs (nominal CAD/kW)</b>					
	Solar	Onshore Wind	Storage (4 hr)	Storage (2 hr)	Combustion Turbine
2021	-	-	-	-	-
2022	-	-	-	-	-
2023	-	-	\$1,537	\$921	-
2024	\$1,558	\$1,631	\$1,454	\$874	\$1,800
2025	\$1,505	\$1,603	\$1,366	\$824	\$1,839
2026	\$1,450	\$1,574	\$1,343	\$816	\$1,880
2027	\$1,391	\$1,542	\$1,319	\$806	\$1,921
2028	\$1,330	\$1,509	\$1,293	\$796	\$1,963
2029	\$1,266	\$1,474	\$1,266	\$786	\$2,007
2030	\$1,198	\$1,436	\$1,237	\$774	\$2,051
2031	\$1,211	\$1,450	\$1,246	\$781	\$2,096
2032	\$1,225	\$1,464	\$1,255	\$788	\$2,142
2033	\$1,238	\$1,479	\$1,264	\$795	\$2,189
2034	\$1,251	\$1,493	\$1,272	\$802	\$2,237
2035	\$1,264	\$1,507	\$1,281	\$809	\$2,286
2036	\$1,277	\$1,520	\$1,289	\$815	\$2,337
2037	\$1,291	\$1,534	\$1,297	\$822	\$2,388
2038	\$1,304	\$1,548	\$1,305	\$829	\$2,441
2039	\$1,317	\$1,562	\$1,312	\$835	\$2,494
2040	\$1,331	\$1,576	\$1,320	\$842	\$2,549
2041	\$1,344	\$1,589	\$1,327	\$848	\$2,605
2042	\$1,357	\$1,603	\$1,334	\$855	\$2,663
2043	\$1,371	\$1,617	\$1,340	\$861	\$2,721
2044	\$1,384	\$1,630	\$1,347	\$867	\$2,781
2045	\$1,397	\$1,643	\$1,353	\$873	\$2,842

<b>Fixed O&amp;M Costs (nominal CAD/kW)</b>					
	Solar	Onshore Wind	Storage (4 hr)	Storage (2 hr)	Combustion Turbine
2021	\$30	\$56	\$43	\$25	\$28
2022	\$30	\$56	\$40	\$24	\$28
2023	\$29	\$57	\$38	\$23	\$29
2024	\$29	\$58	\$36	\$22	\$29
2025	\$29	\$58	\$34	\$21	\$30
2026	\$28	\$59	\$34	\$20	\$30
2027	\$28	\$60	\$33	\$20	\$31
2028	\$27	\$60	\$32	\$20	\$32
2029	\$27	\$61	\$32	\$20	\$32
2030	\$26	\$61	\$31	\$19	\$33
2031	\$27	\$62	\$31	\$20	\$34
2032	\$27	\$63	\$31	\$20	\$34
2033	\$27	\$64	\$32	\$20	\$35
2034	\$28	\$65	\$32	\$20	\$36
2035	\$28	\$65	\$32	\$20	\$36
2036	\$29	\$66	\$32	\$20	\$37
2037	\$29	\$67	\$32	\$21	\$38
2038	\$30	\$68	\$33	\$21	\$39
2039	\$30	\$68	\$33	\$21	\$39
2040	\$30	\$69	\$33	\$21	\$40
2041	\$31	\$70	\$33	\$21	\$41
2042	\$31	\$71	\$33	\$21	\$42
2043	\$32	\$72	\$34	\$22	\$43
2044	\$32	\$73	\$34	\$22	\$44
2045	\$33	\$73	\$34	\$22	\$44

Appendix A. Capital and Operating Cost Assumptions and Nameplate Capacity Results

Base Case

Nameplate Capacity (MW)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Nuclear	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Gas/Oil	104	104	104	104	104	104	104	104	104	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
Utility Solar	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Onshore Wind	204	234	234	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
Demand Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Battery Storage	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Capacity Purchases	170	180	190	195	200	210	220	230	235	225	235	240	250	260	270	280	290	300	310	310	310	310	310	310
Total	549	589	599	644	649	659	669	679	684	684	694	699	709	719	729	739	749	759	769	769	769	769	769	769

DSM Load Impacts

Nameplate Capacity (MW)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Nuclear	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Gas/Oil	104	104	104	104	104	104	104	104	104	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
Utility Solar	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Onshore Wind	204	234	234	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
Demand Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Battery Storage	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Capacity Purchases	170	180	190	195	200	210	220	230	235	225	235	240	250	260	270	280	290	300	310	310	310	310	310	310
Total	549	589	599	644	649	659	669	679	684	684	694	699	709	719	729	739	749	759	769	769	769	769	769	769

Appendix A. Capital and Operating Cost Assumptions and Nameplate Capacity Results

Optimized Base Case

Nameplate Capacity (MW)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Nuclear	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Gas/Oil	104	104	104	104	104	104	104	104	104	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Utility Solar	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Onshore Wind	204	234	234	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
Demand Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Battery Storage	11	31	51	71	91	111	131	151	171	191	201	221	241	261	281	281	271	271	251	231	211	191	171	151
Capacity Purchases	180	180	180	180	180	180	180	180	180	200	200	200	200	200	200	210	230	240	240	240	250	260	270	280
Total	559	609	629	689	709	729	749	769	789	789	799	819	839	859	879	889	899	909	889	869	859	849	839	829

Optimized with DSM Load Impact

Nameplate Capacity (MW)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Nuclear	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Gas/Oil	104	104	104	104	104	104	104	104	104	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Utility Solar	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Onshore Wind	204	234	234	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
Demand Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Battery Storage	11	31	51	71	91	111	131	151	151	171	191	201	211	211	231	251	251	251	231	211	191	171	151	151
Capacity Purchases	150	150	150	150	150	150	150	150	150	160	160	160	160	160	160	160	160	160	170	180	190	210	220	240
Total	529	579	599	659	679	699	719	739	739	729	749	759	769	769	789	809	809	809	799	789	779	779	769	789

Appendix A. Capital and Operating Cost Assumptions and Nameplate Capacity Results

Optimized with DSM Load Impact and DR

Nameplate Capacity (MW)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Nuclear	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Gas/Oil	104	104	104	104	104	104	104	104	104	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Utility Solar	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Onshore Wind	204	234	234	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	294
Demand Response	0	0	14	27	28	29	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Battery Storage	11	31	31	51	71	91	111	131	151	171	181	201	211	211	231	241	231	251	231	211	191	171	151	131
Capacity Purchases	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	160	160	180	190	200
Total	529	579	593	666	687	707	728	749	770	750	760	780	790	790	810	820	810	830	810	800	780	780	770	780

High New Brunswick Energy Price

Nameplate Capacity (MW)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Nuclear	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Gas/Oil	104	104	104	104	104	104	104	104	104	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Utility Solar	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Onshore Wind	204	234	234	274	274	274	274	274	294	294	294	294	294	294	314	334	354	374	394	394	394	394	394	394
Demand Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Battery Storage	11	31	51	71	91	111	131	151	171	191	211	231	251	271	291	311	311	311	311	311	291	271	251	231
Capacity Purchases	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	180	200	200	200	200	200	210	220	220
Total	549	599	619	679	699	719	739	759	799	779	799	819	839	859	899	949	989	1009	1029	1029	1009	999	989	969