

**Load and Resource Assessment for NSPI**  
**(All values in MW except as noted)**

**2010**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2219	2163	2060	1818	1668	1611	1582	1584	1553	1672	1854	2130
B Interruptible Demand	360	360	360	360	360	360	360	360	360	360	360	360
C Firm Peak (A - B)	1858	1803	1700	1457	1308	1251	1221	1223	1192	1311	1494	1769
D Firm DSM	19	18	17	18	16	14	14	13	14	15	17	19
E Firm Peak Less DSM (C - D)	1839	1784	1682	1440	1291	1237	1207	1210	1178	1296	1477	1750
F Required Reserve (E * 20%)	368	357	336	288	258	247	241	242	236	259	295	350
G Required Capacity (E + F)	2207	2141	2019	1728	1550	1484	1449	1452	1414	1556	1772	2101
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	0	0	0	0	0	0	0	0	0	0	49	49
J Hydro	0	0	0	0	0	0	0	0	0	0	0	0
K Firm Contracted Wind *	24	24	24	24	24	24	24	24	24	24	24	24
L Firm RES (2013) *	0	0	0	0	0	0	0	0	0	0	0	0
M Firm Wind (beyond RES) *	0	0	0	0	0	0	0	0	0	0	0	0
N Less Derations	0	0	12	164	217	232	232	232	217	166	14	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2345	2345	2333	2181	2128	2113	2113	2113	2128	2179	2380	2394
+ Surplus / - Deficit (O - G) *	138	204	314	453	578	629	664	661	714	623	608	293
Reserve Margin % (O -E)/ E *	28%	31%	39%	51%	65%	71%	75%	75%	81%	68%	61%	37%

Notes:

- 1) Load and DSM Forecasts as per 2009 IRP Update assumptions.
- 2) Resource additions as outlined in the 2009 10 Year System Outlook \*\*:
  - Thermal and Hydro Capacity additions as per 2007 IRP Reference Plan, with the exception of the Lingan Upgrades which will be re-evaluated in the 2009 IRP Update.
  - Contracted Wind includes projects contracted to be in-service by 2011.
  - RES 2013 assumed to be met by wind (100MW at 32% capacity factor) as per 2007 IRP. (The amount of wind versus other renewable resources will be re-evaluated in the 2009 IRP Update).
- 3) Wind beyond the RES as per the 2007 IRP Reference Plan.
- 4) Derations include seasonal variability in wind capacity and thermal unit reductions due to ambient temperature and maintenance.
- 5) NSPI planning criteria requires a reserve margin equal to 20% of its firm system load.
  - \*Reflects an assumed firm capacity value of intermittent wind generation of 32 percent for long-term planning purposes (generator capacity multiplied by an annual capacity factor of 32 percent). For short-term assessments (e.g. 18-month Load and Capacity Assessment) the assumed on peak capacity factor may be less.

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**(All values in MW except as noted)**

**2011**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,230	2,175	2,071	1,828	1,677	1,620	1,590	1,592	1,561	1,681	1,864	2,141
B Interruptible Demand	363	363	363	363	363	363	363	363	363	363	363	363
C Firm Peak (A - B)	1867	1812	1708	1465	1314	1257	1228	1230	1198	1318	1501	1779
D Firm DSM	43	41	40	40	37	32	33	31	32	35	38	43
E Firm Peak Less DSM (C - D)	1824	1771	1669	1425	1277	1225	1195	1199	1166	1283	1463	1736
F Required Reserve (E * 20%)	365	354	334	285	255	245	239	240	233	257	293	347
G Required Capacity (E + F)	2189	2125	2003	1710	1533	1470	1434	1438	1399	1540	1756	2083
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	0	0	0	0	0	0	0	0	0	0	0	0
M Firm Wind (beyond RES) *	0	0	0	0	0	0	0	0	0	0	0	0
N Less Derations	0	0	37	189	242	257	257	257	242	191	39	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2448	2448	2411	2259	2206	2191	2191	2191	2206	2257	2409	2448
+ Surplus / - Deficit (O - G) *	259	324	409	549	673	721	757	753	807	717	654	365
Reserve Margin % (O -E)/ E *	34%	38%	44%	59%	73%	79%	83%	83%	89%	76%	65%	41%

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**2012**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,249	2,194	2,089	1,844	1,692	1,634	1,604	1,606	1,575	1,696	1,880	2,160
B Interruptible Demand	366	366	366	366	366	366	366	366	366	366	366	366
C Firm Peak (A - B)	1883	1828	1723	1478	1326	1268	1239	1240	1209	1330	1514	1794
D Firm DSM	77	75	71	72	67	58	59	56	58	63	69	77
E Firm Peak Less DSM (C - D)	1806	1754	1652	1406	1259	1210	1180	1184	1151	1267	1446	1717
F Required Reserve (E * 20%)	361	351	330	281	252	242	236	237	230	253	289	343
G Required Capacity (E + F)	2167	2104	1983	1687	1511	1452	1415	1421	1381	1520	1735	2061
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	0	0	0	0	0	0	0	0	0	0	0	0
M Firm Wind (beyond RES) *	0	0	0	0	0	0	0	0	0	0	0	0
N Less Derations	0	0	37	189	242	257	257	257	242	191	39	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2448	2448	2411	2259	2206	2191	2191	2191	2206	2257	2409	2448
+ Surplus / - Deficit (O - G) *	281	344	429	572	695	739	776	770	825	737	674	388
Reserve Margin % (O -E)/ E *	36%	40%	46%	61%	75%	81%	86%	85%	92%	78%	67%	43%

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**2013**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,266	2,210	2,105	1,857	1,704	1,646	1,616	1,618	1,586	1,708	1,894	2,176
B Interruptible Demand	368	368	368	368	368	368	368	368	368	368	368	368
C Firm Peak (A - B)	1898	1842	1737	1489	1336	1278	1248	1250	1218	1340	1526	1808
D Firm DSM	124	119	115	116	108	96	97	93	96	103	111	123
E Firm Peak Less DSM (C - D)	1774	1723	1622	1374	1228	1182	1151	1157	1122	1237	1415	1685
F Required Reserve (E * 20%)	355	345	324	275	246	236	230	231	224	247	283	337
G Required Capacity (E + F)	2129	2067	1946	1648	1474	1419	1381	1388	1347	1484	1698	2022
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	16	16	16	16	16	16	16	16	16	32
M Firm Wind (beyond RES) *	0	0	0	0	0	0	0	0	0	0	0	0
N Less Derations	0	0	37	189	242	257	257	257	242	191	39	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2480	2480	2427	2275	2222	2207	2207	2207	2222	2273	2425	2480
+ Surplus / - Deficit (O - G) *	351	413	481	627	749	789	826	819	876	789	727	458
Reserve Margin % (O -E)/ E *	40%	44%	50%	66%	81%	87%	92%	91%	98%	84%	71%	47%

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**2014**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,284	2,227	2,121	1,872	1,717	1,659	1,629	1,631	1,599	1,721	1,909	2,193
B Interruptible Demand	371	371	371	371	371	371	371	371	371	371	371	371
C Firm Peak (A - B)	1913	1856	1750	1501	1347	1288	1258	1260	1228	1351	1538	1822
D Firm DSM	165	160	154	155	146	130	132	127	131	140	149	164
E Firm Peak Less DSM (C - D)	1748	1696	1596	1346	1201	1158	1126	1133	1097	1211	1389	1658
F Required Reserve (E * 20%)	350	339	319	269	240	232	225	227	219	242	278	332
G Required Capacity (E + F)	2097	2036	1915	1615	1441	1390	1351	1360	1317	1453	1667	1989
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	32	32	32	32	32	32	32	32	32	32
M Firm Wind (beyond RES) *	16	16	16	16	16	16	16	16	16	16	16	16
N Less Derations	0	0	61	213	266	281	281	281	266	215	63	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2496	2496	2435	2283	2230	2215	2215	2215	2230	2281	2433	2496
+ Surplus / - Deficit (O - G) *	398	461	520	668	789	826	864	856	913	828	767	507
Reserve Margin % (O -E)/ E *	43%	47%	53%	70%	86%	91%	97%	96%	103%	88%	75%	51%

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**2015**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,300	2,242	2,135	1,884	1,729	1,670	1,640	1,642	1,610	1,733	1,922	2,208
B Interruptible Demand	373	373	373	373	373	373	373	373	373	373	373	373
C Firm Peak (A - B)	1927	1870	1763	1512	1356	1297	1267	1269	1237	1360	1549	1835
D Firm DSM	207	201	193	195	183	164	166	160	165	176	188	206
E Firm Peak Less DSM (C - D)	1720	1669	1569	1317	1173	1133	1100	1109	1072	1184	1361	1629
F Required Reserve (E * 20%)	344	334	314	263	235	227	220	222	214	237	272	326
G Required Capacity (E + F)	2064	2003	1883	1580	1408	1359	1320	1330	1286	1421	1634	1955
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	32	32	32	32	32	32	32	32	32	32
M Firm Wind (beyond RES) *	32	32	32	32	32	32	32	32	32	32	32	32
N Less Derations	0	0	69	221	274	289	289	289	274	223	71	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2512	2512	2443	2291	2238	2223	2223	2223	2238	2289	2441	2512
+ Surplus / - Deficit (O - G) *	448	510	560	711	831	864	903	893	952	868	808	557
Reserve Margin % (O -E)/ E *	46%	51%	56%	74%	91%	96%	102%	101%	109%	93%	79%	54%

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**2016**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,313	2,255	2,148	1,895	1,739	1,680	1,649	1,651	1,619	1,743	1,933	2,221
B Interruptible Demand	375	375	375	375	375	375	375	375	375	375	375	375
C Firm Peak (A - B)	1938	1880	1772	1520	1364	1304	1274	1276	1244	1368	1558	1845
D Firm DSM	249	241	233	234	221	199	201	194	199	212	226	247
E Firm Peak Less DSM (C - D)	1689	1639	1540	1286	1143	1106	1073	1082	1044	1156	1332	1598
F Required Reserve (E * 20%)	338	328	308	257	229	221	215	216	209	231	266	320
G Required Capacity (E + F)	2027	1967	1848	1543	1372	1327	1287	1298	1253	1387	1598	1917
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	32	32	32	32	32	32	32	32	32	32
M Firm Wind (beyond RES) *	32	32	32	32	32	32	32	32	32	32	32	32
N Less Derations	0	0	69	221	274	289	289	289	274	223	71	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2512	2512	2443	2291	2238	2223	2223	2223	2238	2289	2441	2512
+ Surplus / - Deficit (O - G) *	485	546	596	749	867	896	936	925	985	902	843	595
Reserve Margin % (O -E)/ E *	49%	53%	59%	78%	96%	101%	107%	105%	114%	98%	83%	57%

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**2017**

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A Total System Peak	2,327	2,268	2,160	1,906	1,749	1,689	1,659	1,661	1,628	1,753	1,944	2,233
B Interruptible Demand	377	377	377	377	377	377	377	377	377	377	377	377
C Firm Peak (A - B)	1949	1891	1783	1529	1372	1312	1281	1283	1251	1376	1567	1856
D Firm DSM	290	281	271	273	257	232	235	227	233	247	263	288
E Firm Peak Less DSM (C - D)	1660	1610	1511	1256	1114	1080	1046	1057	1018	1128	1303	1568
F Required Reserve (E * 20%)	332	322	302	251	223	216	209	211	204	226	261	314
G Required Capacity (E + F)	1992	1932	1814	1507	1337	1296	1256	1268	1222	1354	1564	1881
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	32	32	32	32	32	32	32	32	32	32
M Firm Wind (beyond RES) *	48	48	48	48	48	48	48	48	48	48	48	48
N Less Derations	0	0	77	229	282	297	297	297	282	231	79	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2528	2528	2451	2299	2246	2231	2231	2231	2246	2297	2449	2528
+ Surplus / - Deficit (O - G) *	536	596	638	792	909	935	976	963	1025	943	886	647
Reserve Margin % (O -E)/ E *	52%	57%	62%	83%	102%	107%	113%	111%	121%	104%	88%	61%

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  - Thermal and Hydro Capacity additions as per 2007 IRP Reference Plan, with the exception of the Lingan Upates which will be re-evaluated in the 2009 IRP Update.
  - Contracted Wind includes projects contracted to be in-service by 2011.
  - RES 2013 assumed to be met by wind (100MW at 32% capacity factor) as per 2007 IRP. (The amount of wind versus other renewable resources will be re-evaluated in the 2009 IRP Update).
- 3) Wind beyond the RES as per the 2007 IRP Reference Plan.
- 4) Derations include seasonal variability in wind capacity and thermal unit reductions due to ambient temperature and maintenance.
- 5) NSPI planning criteria requires a reserve margin equal to 20% of its firm system load.
  - \*Reflects an assumed firm capacity value of intermittent wind generation of 32 percent for long-term planning purposes (generator capacity multiplied by an annual capacity factor of 32 percent). For short-term assessments (e.g. 18-month Load and Capacity Assessment) the assumed on peak capacity factor may be less.

\*\*OASIS site: <http://oasis.nspower.ca/en/home/oasis/forecastsandassessments.aspx>

**Load and Resource Assessment for NSPI**  
**(All values in MW except as noted)**

**2018**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,343	2,283	2,174	1,918	1,760	1,700	1,669	1,671	1,639	1,764	1,956	2,248
B Interruptible Demand	379	379	379	379	379	379	379	379	379	379	379	379
C Firm Peak (A - B)	1963	1903	1794	1539	1381	1321	1290	1292	1259	1385	1577	1868
D Firm DSM	330	320	309	311	293	265	268	259	265	282	300	328
E Firm Peak Less DSM (C - D)	1634	1583	1486	1228	1087	1056	1022	1033	994	1103	1277	1540
F Required Reserve (E * 20%)	327	317	297	246	217	211	204	207	199	221	255	308
G Required Capacity (E + F)	1960	1900	1783	1474	1305	1267	1226	1240	1192	1323	1532	1848
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	32	32	32	32	32	32	32	32	32	32
M Firm Wind (beyond RES) *	48	48	48	48	48	48	48	48	48	48	48	48
N Less Derations	0	0	77	229	282	297	297	297	282	231	79	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2528	2528	2451	2299	2246	2231	2231	2231	2246	2297	2449	2528
+ Surplus / - Deficit (O - G) *	568	628	669	826	941	964	1005	991	1054	974	917	680
Reserve Margin % (O -E)/ E *	55%	60%	65%	87%	107%	111%	118%	116%	126%	108%	92%	64%

Notes:

- 1) Load and DSM Forecasts as per 2009 IRP Update assumptions.
- 2) Resource additions as outlined in the 2009 10 Year System Outlook \*\*:
  - Thermal and Hydro Capacity additions as per 2007 IRP Reference Plan, with the exception of the Lingan Upgrades which will be re-evaluated in the 2009 IRP Update.
  - Contracted Wind includes projects contracted to be in-service by 2011.
  - RES 2013 assumed to be met by wind (100MW at 32% capacity factor) as per 2007 IRP. (The amount of wind versus other renewable resources will be re-evaluated in the 2009 IRP Update).
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**Load and Resource Assessment for NSPI**  
**(All values in MW except as noted)**

**2019**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A Total System Peak	2,359	2,297	2,188	1,931	1,772	1,711	1,680	1,682	1,649	1,776	1,969	2,262
B Interruptible Demand	382	382	382	382	382	382	382	382	382	382	382	382
C Firm Peak (A - B)	1977	1916	1806	1549	1390	1330	1298	1300	1267	1394	1587	1880
D Firm DSM	369	358	346	348	329	297	300	290	297	316	336	367
E Firm Peak Less DSM (C - D)	1608	1558	1460	1201	1061	1033	998	1011	970	1078	1251	1513
F Required Reserve (E * 20%)	322	312	292	240	212	207	200	202	194	216	250	303
G Required Capacity (E + F)	1930	1869	1752	1441	1274	1240	1198	1213	1164	1294	1502	1816
H Existing Resources	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321	2321
Total Cumulative Additions:												
I Thermal	49	49	49	49	49	49	49	49	49	49	49	49
J Hydro	4	4	4	4	4	4	4	4	4	4	4	4
K Firm Contracted Wind *	74	74	74	74	74	74	74	74	74	74	74	74
L Firm RES (2013) *	32	32	32	32	32	32	32	32	32	32	32	32
M Firm Wind (beyond RES) *	64	64	64	64	64	64	64	64	64	64	64	64
N Less Derations	0	0	85	237	290	305	305	305	290	239	87	0
Total Firm Supply Resources												
O (H + I + J + K + L + M - N)	2544	2544	2459	2307	2254	2239	2239	2239	2254	2305	2457	2544
+ Surplus / - Deficit (O - G) *	614	675	707	866	981	1000	1041	1026	1090	1012	956	728
Reserve Margin % (O -E)/ E *	58%	63%	68%	92%	112%	117%	124%	122%	132%	114%	96%	68%

Notes:

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