

Supply and Demand Tables
DSM Analysis
Plan 2 – DSM Level 2

Date: April, 2014

System Firm Winter Peak Demand and Capacity Resources (MW) @ generation
NFAT 2013 Update
K31/Gas - Level 2 DSM

Fiscal Year	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Power Resources																		
New Power Resources																		
New Hydro																		
Conawapa																		
Keeyask																		
1	Total New Hydro																	
New Thermal																		
SCGT																		
CCGT																		
2	Total New Thermal																	
New Imports																		
Contracted																		
Proposed																		
3	Total New Imports																	
4	Total New Power Resources 1+2+3																	
Base Supply Power Resources																		
Existing Hydro																		
Existing Thermal																		
Brandon Coal - Unit 5																		
Selkirk Gas																		
Brandon Units 6-7 SCGT																		
Contracted Imports																		
Proposed Imports																		
Pointe du Bois Rebuild																		
Bipole III Reduced Losses																		
5	Total Base Supply Power Resources																	
6	Total Power Resources 4+5																	
Peak Demand																		
2013 Base Load Forecast																		
Less: Level 2 DSM																		
7	Manitoba Net Load																	
Contracted Exports																		
Proposed Exports																		
8	Total Exports																	
9	Total Peak Demand 7+8																	
10	Reserves																	
11	System Surplus 6-9-10																	
12	Less: Brandon Unit 5																	
Exportable Surplus 11+12																		

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System Firm Winter Peak Demand and Capacity Resources (MW) @ generation
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Fiscal Year	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49
Power Resources																		
New Power Resources																		
New Hydro																		
Conawapa																		
Keeyask																		
1	90	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
Total New Hydro																		
New Thermal																		
SCGT																		
CCGT																		
2									245	245	245	245	490	490	490	735	735	
Total New Thermal																		
New Imports																		
Contracted																		
Proposed																		
3																		
Total New Imports																		
4	90	630	630	630	630	630	630	630	630	875	875	875	875	1 120	1 120	1 120	1 365	1 365
Total New Power Resources 1+2+3																		
Base Supply Power Resources																		
Existing Hydro																		
Existing Thermal																		
Brandon Coal - Unit 5																		
Selkirk Gas																		
Brandon Units 6-7 SCGT																		
Contracted Imports																		
Proposed Imports																		
Pointe du Bois Rebuild																		
Bipole III Reduced Losses																		
5	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209	5 209
Total Base Supply Power Resources																		
6	5 842	6 371	6 371	6 371	6 371	6 371	6 371	6 371	6 371	6 616	6 616	6 616	6 616	6 861	6 861	6 861	7 106	7 106
Total Power Resources 4+5																		
Peak Demand																		
2013 Base Load Forecast																		
Less: Level 2 DSM																		
7	5 886	5 959	6 032	6 105	6 178	6 251	6 324	6 396	6 469	6 542	6 615	6 688	6 761	6 834	6 907	6 979	7 052	7 125
Manitoba Net Load																		
Contracted Exports																		
Proposed Exports																		
8																		
Total Exports																		
9	5 185	5 239	5 294	5 348	5 402	5 457	5 514	5 571	5 630	5 690	5 749	5 809	5 882	5 955	6 028	6 100	6 173	6 246
Total Peak Demand 7+8																		
10	622	629	635	642	648	655	662	669	676	683	690	697	706	715	723	732	741	750
System Surplus 6-9-10																		
12	35	503	442	381	321	259	195	131	65	243	177	110	28	191	110	29	192	110
Exportable Surplus 11+12																		

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System Firm Energy Demand and Dependable Resources (GWh) @ generation
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K31/Gas - Level 2 DSM

Fiscal Year	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	
Power Resources																			
New Power Resources																			
New Hydro																			
Conawapa																			
Keeyask																			
1 Total New Hydro																			
New Thermal																			
SCGT																			
CCGT																			
2 Total New Thermal																			
New Imports																			
Contracted																			
Proposed																			
3 Total New Imports																			
4 New Wind																			
5 Total New Power Resources 1+2+3+4																			
Base Supply Power Resources																			
Existing Hydro	21 914	21 912	21 911	21 899	21 888	21 880	21 862	21 854	21 846	21 838	21 838	21 828	21 818	21 818	21 808	21 798	21 798	21 788	
Existing Thermal																			
Brandon Coal - Unit 5	811	811	811	811	811	811	592												
Selkirk Gas	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	
Brandon Units 6-7 SCGT	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	
Contracted Imports	2 705	1 949	1 549	1 639	1 639	1 639	1 639	1 639	1 639	1 639	1 639	1 639	271						
Proposed Imports		781	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	155	
Hydro Adjustment	340	373	784	844	844	844	844	844	844	844	844	844	406	307	307	307	307	70	
Market Purchases	363	338	583	493	493	493	493	493	493	493	493	493	1 860	2 131	2 094	2 047	2 085	2 738	
Existing Wind	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	
Pointe du Bois Rebuild																		60	
Bipole III Reduced Losses					190	190	190	190	190	190	190	190	190	190	190	190	190	190	
6 Total Base Supply Power Resources	30 211	30 242	30 652	30 700	30 879	30 871	30 634	30 034	30 026	30 018	30 018	30 008	29 559	29 460	29 413	29 356	29 394	29 079	
7 Total Power Resources 5+6	30 211	30 242	30 652	30 700	30 879	30 871	30 634	30 034	30 026	30 018	30 018	30 008	29 559	29 460	29 413	29 356	29 394	29 079	
Manitoba Domestic Load																			
2013 Base Load Forecast	25 239	25 676	26 013	26 322	26 606	27 003	27 398	27 789	28 197	28 605	29 013	29 418	29 822	30 225	30 625	31 041	31 453	31 863	
Construction Power - Hydro														22	26	52	66	98	88
Less: Level 2 DSM	- 138	- 382	- 637	-1 196	-1 475	-1 840	-2 062	-2 217	-2 325	-2 459	-2 552	-2 653	-2 751	-2 858	-2 961	-3 032	-3 099	-3 166	
8 Manitoba Net Load	25 101	25 294	25 376	25 126	25 131	25 163	25 336	25 572	25 872	26 146	26 461	26 765	27 093	27 393	27 716	28 075	28 452	28 785	
Contracted Exports	3 156	3 156	2 115	2 012	2 012	2 012	2 012	2 012	2 947	3 070	3 070	3 070	787	643	228	145	145	145	
Proposed Exports			394	414	414	414	414	204	162	162	162	162	162	162	162	162	162		
Less: Adverse Water			- 309	- 370	- 370	- 370	- 370	- 370	- 370	- 489	- 513	- 513	- 513	- 85					
9 Total Net Exports	3 156	3 156	2 200	2 056	2 056	2 056	2 056	1 846	2 620	2 719	2 719	2 719	864	805	390	307	307	145	
10 Total Energy Demand 8+9	28 257	28 450	27 576	27 182	27 187	27 219	27 392	27 418	28 492	28 865	29 180	29 484	27 957	28 198	28 106	28 382	28 759	28 930	
11 System Surplus 7-10	1 954	1 792	3 076	3 518	3 692	3 652	3 242	2 616	1 534	1 153	838	524	1 602	1 262	1 307	974	635	149	
12 Less : Brandon Unit 5	- 811	- 811	- 811	- 811	- 811	- 811	- 592												
13 Adverse Water			- 309	- 370	- 370	- 370	- 370	- 370	- 489	- 513	- 513	- 513	- 85						
Exportable Surplus 11+12+13	1 143	981	1 956	2 337	2 511	2 471	2 280	2 246	1 045	640	325	11	1 517	1 262	1 307	974	635	149	

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Fiscal Year		2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49
Power Resources																			
New Power Resources																			
	New Hydro																		
	Conawapa																		
	Keeyask	493	2 974	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003
1	Total New Hydro	493	2 974	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003	3 003
	New Thermal																		
	SCGT										1 857	1 857	1 857	1 857	3 714	3 714	3 714	5 571	5 571
	CCGT																		
2	Total New Thermal										1 857	1 857	1 857	1 857	3 714	3 714	3 714	5 571	5 571
	New Imports																		
	Contracted																		
	Proposed																		
3	Total New Imports																		
4	New Wind																		
5	Total New Power Resources	493	2 974	3 003	3 003	3 003	3 003	3 003	3 003	3 003	4 860	4 860	4 860	4 860	6 717	6 717	6 717	8 574	8 574
Base Supply Power Resources																			
	Existing Hydro	21 788	21 778	21 768	21 768	21 758	21 748	21 748	21 738	21 738	21 728	21 718	21 718	21 708	21 698	21 698	21 688	21 678	21 678
	Existing Thermal																		
	Brandon Coal - Unit 5																		
	Selkirk Gas	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
	Brandon Units 6-7 SCGT	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354	2 354
	Contracted Imports																		
	Proposed Imports																		
	Hydro Adjustment																		
	Market Purchases	2 924	2 954	2 986	3 020	3 054	3 068	3 068	3 068	3 068	3 068	3 068	3 068	3 068	3 068	3 068	3 068	3 068	3 068
	Existing Wind	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771
	Pointe du Bois Rebuild	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
	Bipole III Reduced Losses	190	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202
6	Total Base Supply Power Resources	29 130	29 162	29 184	29 218	29 242	29 246	29 246	29 236	29 236	29 226	29 216	29 216	29 206	29 196	29 196	29 186	29 176	29 176
7	Total Power Resources	29 623	32 136	32 187	32 221	32 245	32 249	32 249	32 239	32 239	34 086	34 076	34 076	34 066	35 913	35 913	35 903	37 750	37 750
Manitoba Domestic Load																			
	2013 Base Load Forecast	32 265	32 667	33 069	33 471	33 873	34 274	34 676	35 078	35 480	35 882	36 283	36 685	37 087	37 489	37 890	38 292	38 694	39 096
	Construction Power - Hydro	68	29																
	Less: Level 2 DSM	-3 230	-3 292	-3 352	-3 412	-3 472	-3 534	-3 582	-3 631	-3 661	-3 691	-3 722	-3 752	-3 752	-3 752	-3 752	-3 752	-3 752	-3 752
8	Manitoba Net Load	29 103	29 404	29 717	30 059	30 401	30 740	31 094	31 447	31 819	32 191	32 561	32 933	33 335	33 737	34 138	34 540	34 942	35 344
	Contracted Exports	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
	Proposed Exports																		
	Less: Adverse Water																		
9	Total Net Exports	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
10	Total Energy Demand	29 248	29 549	29 862	30 204	30 546	30 885	31 239	31 592	31 964	32 336	32 706	33 078	33 480	33 882	34 283	34 685	35 087	35 489
11	System Surplus	375	2 587	2 325	2 017	1 699	1 364	1 010	647	275	1 750	1 370	998	586	2 031	1 630	1 218	2 663	2 261
12	Less : Brandon Unit 5																		
13	Adverse Water																		
	Exportable Surplus	375	2 587	2 325	2 017	1 699	1 364	1 010	647	275	1 750	1 370	998	586	2 031	1 630	1 218	2 663	2 261