

NEEDS FOR AND ALTERNATIVES TO (NFAT)

Manitoba Hydro responses to CAC Exhibit 51

References: MH Exhibit #104-8

3. a) Please provide an electronic version of the revised quilt on page 3 that also includes the probabilities associated with each of the 27 scenarios.

Response:

The revised quilt on page 3 of MH Exhibit #104-8 is provided below with the probabilities associated with each of the 27 scenarios. The revised quilt is also provided in an Excel spreadsheet as attachment MIPUG-CAC 3a-attachment.xlsx.

Development Plan			1	2	4	8	6	12	5	14		
			All Gas	K22/Gas	K19/Gas24 /250MW	CCGT/C26	K19/Gas31 /750MW	K19/C31 /750MW	K19/Gas25 /750MW	K19/C25 /750MW		
			WPS Sale & no WPS Inv									
Energy Prices	Discount Rates	Capital Costs	Millions of 2014 NPV Dollars									Scenario Probabilities
Low (30%)	Low (15%)	High (20%)	-1062	-1401	-851	-1501	-1079	-2143	-758	-1825	0.90%	4.50%
		Ref (60%)	-68	16	646	106	392	-53	698	424	2.70%	
		Low (20%)	734	1205	1898	1449	1613	1750	1906	2359	0.90%	
	Ref (50%)	High (20%)	-463	-1751	-1512	-2398	-1793	-3717	-1546	-3969	3.00%	15.00%
		Ref (60%)	208	-677	-334	-1085	-614	-1977	-355	-2010	9.00%	
		Low (20%)	750	232	658	15	369	-476	637	-325	3.00%	
	High (35%)	High (20%)	-88	-1782	-1761	-2625	-2060	-4202	-1872	-4838	2.10%	10.50%
		Ref (60%)	416	-891	-748	-1480	-1033	-2668	-820	-3044	6.30%	
		Low (20%)	823	-133	110	-519	-172	-1345	61	-1500	2.10%	
Ref (55%)	Low (15%)	High (20%)	-2033	-120	543	325	298	1410	-7	1869	1.65%	8.25%
		Ref (60%)	-1039	1296	2040	1932	1770	3501	1449	4118	4.95%	
		Low (20%)	-237	2486	3292	3275	2991	5304	2658	6053	1.65%	
	Ref (50%)	High (20%)	-671	-585	-260	-910	-517	-1204	-707	-1345	5.50%	27.50%
		Ref (60%)	0	489	917	403	662	536	484	614	16.50%	
		Low (20%)	542	1397	1910	1503	1645	2037	1477	2300	5.50%	
	High (35%)	High (20%)	17	-716	-620	-1343	-880	-2214	-1034	-2759	3.85%	19.25%
		Ref (60%)	520	175	393	-198	148	-680	18	-966	11.55%	
		Low (20%)	927	933	1251	762	1008	643	899	578	3.85%	
High (15%)	Low (15%)	High (20%)	-3454	892	1647	2005	1333	4820	402	5388	0.45%	2.25%
		Ref (60%)	-2460	2309	3143	3612	2804	6911	1858	7638	1.35%	
		Low (20%)	-1658	3498	4396	4955	4025	8714	3066	9573	0.45%	
	Ref (50%)	High (20%)	-1158	402	797	469	526	1178	-103	1125	1.50%	7.50%
		Ref (60%)	-487	1476	1974	1782	1704	2918	1088	3084	4.50%	
		Low (20%)	55	2384	2967	2882	2687	4418	2081	4770	1.50%	
	High (35%)	High (20%)	-82	210	368	-156	115	-352	-384	-824	1.05%	5.25%
		Ref (60%)	422	1101	1381	989	1143	1182	669	969	3.15%	
		Low (20%)	828	1859	2239	1949	2003	2505	1549	2513	1.05%	