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Xcel Energy

Case No.: PU-15-96

Response To: ND Public Service Data Request No. 2-1
 Advocacy Staff

Requestor: Richard A. Polich

Date Received: July 31, 2015

Question:

On page 2, line 20 of Mr. Haeger’s testimony, he refers to a fall 2011 forecast as being the basis of identifying the capacity need to be filled with the Mankato project. On page 5, lines 5- 8, Mr. Haeger’s testimony refers to spring 2012, fall 2012, spring 2013, fall 2014 and 2015 Resource Plan forecasts. Please provide for each of these forecasts the data provided in Table 1 on page 6 of Paul B. Johnson’s testimony for each year through 2030. Please provide this data in an Excel spreadsheet.

Response:

Table 1 requires a Loads and Resources (L&Rs) analysis, which we do not do for every load forecast. The Company typically publishes a spring load forecast, with a fall update.

Attachment A to this response provides the L&Rs for the following forecasts:

Forecast Vintage	Docket	Initial Filing
Spring 2010	2011-2025 Resource Plan (August 2010)	August 2010
Fall 2011	2011-2025 Resource Plan Update	December 2011
Fall 2012	Capacity Acquisition Certification of Need (CAP CON)	December 2012
Spring 2013	CAP CON Testimony	September 2013
Fall 2014	CAP CON Compliance Filing	September 2014
Fall 2014 (w/ solar update)	2016-2030 Resource Plan	March 2015

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 Proposed hearing Exhibit 3 – NSP Response to Data
 Request 2-1



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Peak	9,761	9,873	9,985	10,082	10,180	10,263	10,353	10,415	10,477	10,538	10,593	10,653	10,685	10,738	10,785	10,835	10,886
Coincident Peak	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Reserve Margin	10,932	11,058	11,183	11,292	11,401	11,494	11,595	11,665	11,734	11,802	11,865	11,909	11,967	12,026	12,080	12,135	12,192
Obligation	2,676	2,676	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423	2,423
Coal	1,742	1,742	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812
Nuclear	3,660	3,660	4,050	4,245	4,441	4,441	4,636	4,636	4,838	4,838	4,838	4,838	4,838	4,838	4,838	4,838	4,838
Gas	1,495	1,351	1,351	1,323	1,248	1,237	1,231	1,356	1,346	1,309	1,220	368	353	309	249	234	226
Wind, Hydro, Bio	1,058	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067
Solar	10,631	10,495	10,703	10,869	10,990	10,979	11,168	11,293	11,485	11,448	11,969	11,547	11,841	11,900	11,953	12,009	12,066
Load Management	-301	-562	-481	-423	-411	-515	-427	-373	-249	-355	104	-362	-126	-126	-126	-126	-126
Resources	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Long (Short)	9,305	9,402	9,495	9,581	9,672	9,760	9,839	9,918	9,981	10,031	10,069	10,094	10,117	10,152	10,185	10,218	10,259
Peak	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%
Coincident Peak	9,658	9,759	9,855	9,944	10,039	10,130	10,212	10,294	10,360	10,411	10,451	10,476	10,500	10,536	10,571	10,605	10,648
Reserve Margin	2,752	2,752	2,495	2,495	2,495	2,495	2,495	2,495	2,495	2,495	2,466	2,466	2,466	2,466	2,466	2,466	2,466
Obligation	1,657	1,712	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767	1,767
Coal	3,778	3,778	3,778	3,778	3,959	4,155	4,350	4,225	4,225	4,421	4,616	5,321	5,456	5,553	5,569	5,654	5,704
Nuclear	1,522	1,356	1,357	1,356	1,284	1,257	1,266	1,390	1,382	1,364	1,305	439	434	400	405	362	361
Gas	1,223	1,236	1,244	1,249	1,244	1,240	1,236	1,231	1,227	1,222	1,218	1,213	1,209	1,205	1,201	1,196	1,193
Wind, Hydro, Bio	10,933	10,834	10,642	10,645	10,750	10,913	11,113	11,109	11,096	11,269	11,371	11,206	11,332	11,371	11,409	11,445	11,491
Solar	1,275	1,075	787	701	711	784	902	815	756	857	921	730	832	834	837	840	843
Load Management	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Long (Short)	9,328	9,428	9,524	9,613	9,708	9,799	9,881	9,963	10,029	10,082	10,123	10,151	10,082	10,123	10,151	10,151	10,151
Peak	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%	3.79%
Coincident Peak	9,682	9,785	9,885	9,977	10,076	10,170	10,255	10,341	10,409	10,464	10,507	10,536	10,464	10,507	10,536	10,536	10,536
Reserve Margin	2,663	2,423	2,331	2,331	2,331	2,331	2,331	2,331	2,331	2,331	2,320	2,320	2,331	2,320	2,320	2,320	2,320
Obligation	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Coal	3,476	3,476	3,533	3,437	3,424	3,424	3,424	3,310	3,310	3,310	3,310	3,015	3,310	3,310	3,015	3,015	3,015
Nuclear	1,452	1,288	1,289	1,287	1,238	1,212	1,213	1,323	1,313	1,270	1,219	372	1,270	1,219	372	372	372
Gas	1,134	1,145	1,153	1,157	1,153	1,149	1,145	1,141	1,137	1,133	1,128	1,124	1,133	1,128	1,124	1,124	1,124
Wind, Hydro, Bio	10,315	9,942	9,916	9,822	9,756	9,726	9,723	9,715	9,701	9,654	9,587	8,441	9,654	9,587	8,441	8,441	8,441
Solar	633	157	31	-155	-320	-444	-532	-626	-708	-810	-920	-2,095	-810	-920	-2,095	-2,095	-2,095
Load Management																	
Resources																	

Docket: 2011-2025 Upper Midwest Resource
Filing Date: August 2010
Load Forecast: Spring 2010

Docket: 2011-2025 Resource Plan Update
Filing Date: December 2011
Load Forecast: Fall 2011

Docket: Resource Plan Supplemental
Testimony: Establish Size, Type, Timing in CAP
CON Proceeding
Filing Date: December 2012
Load Forecast: Fall 2012

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Peak	9,261	9,334	9,411	9,500	9,590	9,676	9,770	9,859	9,950	10,029	10,100	10,151	10,208	10,266	10,326	10,380	10,449
Coincident Peak	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%	3,79%
Reserve Margin	9,612	9,687	9,767	9,860	9,953	10,042	10,140	10,233	10,327	10,409	10,483	10,536	10,595	10,655	10,717	10,773	10,845
Obligation	2,586	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,553	2,553	2,553	2,553	2,553	2,553	2,553
Coal	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623	1,623
Nuclear	3,460	3,460	3,427	3,416	3,416	3,416	3,416	3,302	3,302	3,302	3,302	2,992	2,992	2,992	2,194	2,194	2,033
Gas	1,385	1,241	1,238	1,189	1,189	1,189	1,189	1,388	1,388	1,388	1,366	546	548	529	547	502	515
Wind, Hydro, Bio	13	23	35	49	66	83	103	103	103	103	103	103	103	103	103	103	103
Solar	1,033	1,042	1,051	1,063	1,074	1,085	1,096	1,106	1,116	1,120	1,116	1,111	1,106	1,102	1,098	1,094	1,090
Load Management	10,099	9,757	9,835	9,768	9,735	9,735	9,766	9,884	9,901	9,895	9,863	8,728	8,725	8,138	7,918	7,869	7,717
Resources	487	69	68	-93	-218	-307	-374	-349	-426	-515	-620	-1,808	-1,870	-2,517	-2,800	-2,905	-3,128
Long (Short)																	

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Peak	8,851	9,301	9,409	9,478	9,552	9,608	9,639	9,669	9,726	9,720	9,712	9,694	9,697	9,705	9,786	9,774	9,817
Coincident Peak	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Reserve Margin	7.4%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%
Obligation	9,031	9,463	9,573	9,643	9,718	9,776	9,807	9,838	9,896	9,890	9,882	9,863	9,867	9,874	9,956	9,945	9,989
Coal	2,709	2,492	2,391	2,414	2,414	2,414	2,414	2,414	2,414	2,414	2,414	2,395	2,395	2,395	2,395	2,395	2,395
Nuclear	1,619	1,645	1,648	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643
Gas	3,388	3,362	3,431	3,457	3,457	3,446	3,446	3,446	3,446	3,446	3,446	2,824	2,298	2,047	1,812	1,812	1,812
Wind, Hydro, Bio	1,378	1,256	1,325	1,326	1,303	1,277	1,202	1,433	1,425	1,385	1,317	471	463	421	331	314	312
Solar	8	15	24	109	115	121	127	129	128	127	127	126	125	125	124	123	122
Load Management	994	999	1,009	1,021	1,033	1,044	1,056	1,067	1,078	1,090	1,101	1,103	1,098	1,094	1,089	1,085	1,080
Resources	10,096	9,769	9,827	9,970	9,965	9,945	9,888	10,132	10,135	10,105	9,719	8,562	8,023	7,724	7,394	7,372	7,364
Long (Short)	1,066	306	254	327	246	169	81	294	239	215	-163	-1,301	-1,844	-2,151	-2,562	-2,573	-2,625

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Peak	9,442	9,525	9,597	9,649	9,674	9,694	9,754	9,748	9,766	9,798	9,868	9,962	10,136	10,151	10,251
Coincident Peak	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Reserve Margin	8,970	9,048	9,117	9,167	9,190	9,209	9,266	9,261	9,278	9,308	9,375	9,464	9,629	9,644	9,739
Obligation	9,607	9,691	9,764	9,818	9,843	9,863	9,924	9,919	9,937	9,969	10,041	10,136	10,313	10,328	10,430
Coal	2,372	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395	2,395
Nuclear	1,648	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643	1,643
Natural Gas	3,451	3,476	3,476	3,465	3,465	3,465	3,465	3,465	3,137	2,824	2,298	2,047	1,812	1,812	
Biomass/RDF/Hydro/Wind	1,341	1,339	1,316	1,279	1,205	1,437	1,430	1,383	1,310	461	451	407	318	300	299
Solar	25	131	137	143	149	156	165	175	187	202	221	242	269	301	339
Load Management	1,009	1,021	1,033	1,044	1,056	1,067	1,078	1,090	1,101	1,103	1,098	1,094	1,089	1,085	1,080
Existing Resources	9,846	10,004	9,999	9,970	9,970	10,164	10,176	10,130	9,772	8,628	8,106	7,827	7,526	7,536	7,509
Current Position Long(Short)	239	313	235	152	71	301	252	232	-165	-1,341	-1,935	-2,308	-2,787	-2,793	-2,861

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Black Dog 6	0	0	0	208	208	208	208	208	208	208	208	208	208	208	208
Calpine MFC2	0	0	0	278	278	278	278	278	278	278	278	278	278	278	278
Geronimo/Aurora	0	0	70	69	69	69	68	68	68	67	67	67	66	66	66
Community Solar Gardens	20	36	53	72	94	103	103	102	102	102	101	101	100	99	98
Additional Resources	20	36	123	627	649	658	657	656	656	654	654	653	652	651	650
Forecasted Position	259	349	358	779	720	958	909	888	491	-686	-1,281	-1,656	-2,135	-2,142	-2,212

Docket: CAP CON Docket Testimony
 Filing Date: September 2013
 Load Forecast: Spring 2013

Docket: CAP CON Docket Compliance Filing
 Filing Date: September 2014
 Load Forecast: Fall 2014

Docket: 2016-2030 Upper Midwest Resource Plan
 Filing Date: March 2015
 Load Forecast: Fall 2014 - update for solar