

- Non Public Document – Contains Confidential Data
- Public Document – Confidential Data Excised
- Public Document

Xcel Energy

Docket No.: EL17-019

Response To: South Dakota Public
Utilities Commission

Data Request No. 1-12

Requestor: Darren Kearney

Date Received: September 29, 2017

Question:

Please provide the avoided energy, avoided generation, and avoided transmission and distribution cost schedules used in the 2016 and 2018 benefit/ cost models.

Response:

Please see the tables below for the avoided energy, avoided generation, and avoided transmission and distribution cost schedules.

Table 1: 2016 Benefit/ Cost Model Details

2013-2016 MN/ SD Avoided Cost Streams - Nominal Dollars

Year	Capacity Cost (\$/ kW-Year)	T&D Cost (\$/ kW-Year)	Marginal Energy System Load Weighted Average (\$/ kWh)
Source	2013 based off escalated CT Cost Modeling in 2011 IRP update - Includes capital (\$70.16) and O&M (\$2.70), adjusted for reserve margin (12%) and then a fixed gas charge (\$5.44) added	2013 value carried over from previous triennial that was consistent with CO and NM that loosely ties back to a 2004 Nexant study - 2010 value of 31.17 escalated 3 years at prior escalation of 1.92%	Based off current assumptions from Resource Planning - Feb 2012
2013	\$87.04	\$33.00	\$0.03038
2014	\$89.09	\$33.78	\$0.03311
2015	\$91.20	\$34.58	\$0.03825
2016	\$93.35	\$35.39	\$0.04218
2017	\$95.55	\$36.23	\$0.04582
2018	\$97.81	\$37.08	\$0.04532
2019	\$100.12	\$37.96	\$0.04793
2020	\$102.48	\$38.85	\$0.04991
2021	\$104.90	\$39.77	\$0.05322
2022	\$107.37	\$40.71	\$0.05586
2023	\$109.91	\$41.67	\$0.05792
2024	\$112.50	\$42.65	\$0.05890
2025	\$115.15	\$43.66	\$0.06152

Year	Capacity Cost (\$/ kW-Year)	T&D Cost (\$/ kW-Year)	Marginal Energy System Load Weighted Average (\$/ kWh)
2026	\$117.87	\$44.69	\$0.06356
2027	\$120.65	\$45.74	\$0.06521
2028	\$123.50	\$46.82	\$0.06659
2029	\$126.42	\$47.93	\$0.06757
2030	\$129.40	\$49.06	\$0.06897
2031	\$132.45	\$50.22	\$0.07049
2032	\$135.58	\$51.40	\$0.07200
2033	\$138.78	\$52.62	\$0.07388
2034	\$142.05	\$53.86	\$0.07528

Table 2: 2018 Benefit/ Cost Model Details

2017-2019 MN/ SD Avoided Cost Streams - Nominal Dollars

Year	Capacity Cost (\$/ kW-Year)	T&D Cost (\$/ kW-Year)	Marginal Energy System Load Weighted Average (\$/ kWh)
Source	CT Cost Modeling in 2015 IRP update - Includes capital (\$56.29) and O&M (\$2.75), adjusted for reserve margin (1.75%) and then a fixed gas charge (\$0.00) added	2013 value carried over from previous triennial that was consistent with CO and NM that loosely ties back to a 2004 Nexant study - 2010 value of 31.17 escalated 3 years at prior escalation of 1.92%	Based off current assumptions from Resource Planning - Sept 2015
2017	\$60.07	\$36.23	\$0.02618
2018	\$61.41	\$37.08	\$0.02594
2019	\$62.79	\$37.96	\$0.02803
2020	\$64.19	\$38.85	\$0.03198
2021	\$65.63	\$39.77	\$0.03377
2022	\$67.09	\$40.71	\$0.03508
2023	\$68.60	\$41.67	\$0.03662
2024	\$70.13	\$42.65	\$0.04040
2025	\$71.70	\$43.66	\$0.04217
2026	\$73.30	\$44.69	\$0.04426
2027	\$74.94	\$45.74	\$0.04645
2028	\$76.62	\$46.82	\$0.04830
2029	\$78.33	\$47.93	\$0.04989
2030	\$80.09	\$49.06	\$0.05054
2031	\$81.88	\$50.22	\$0.05029
2032	\$83.71	\$51.40	\$0.05194
2033	\$85.58	\$52.62	\$0.05458
2034	\$87.50	\$53.86	\$0.05347
2035	\$89.46	\$55.13	\$0.05376
2036	\$91.46	\$56.43	\$0.05823
2037	\$93.50	\$57.76	\$0.05895
2038	\$95.59	\$59.12	\$0.05831

Preparer: Howard Hoffman
Title: Technical Consultant
Department: DSM Regulatory
Telephone: 612-330-5940
Date: October 13, 2017