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Xcel Energy		Data Request No.	1-5
Docket No.:	EL20-026		
Response To:	South Dakota Public Utilities Commission		
Requestor:	Patrick Steffensen		
Date Received:	October 27, 2020		

Question:
Refer to Attachment 12B.

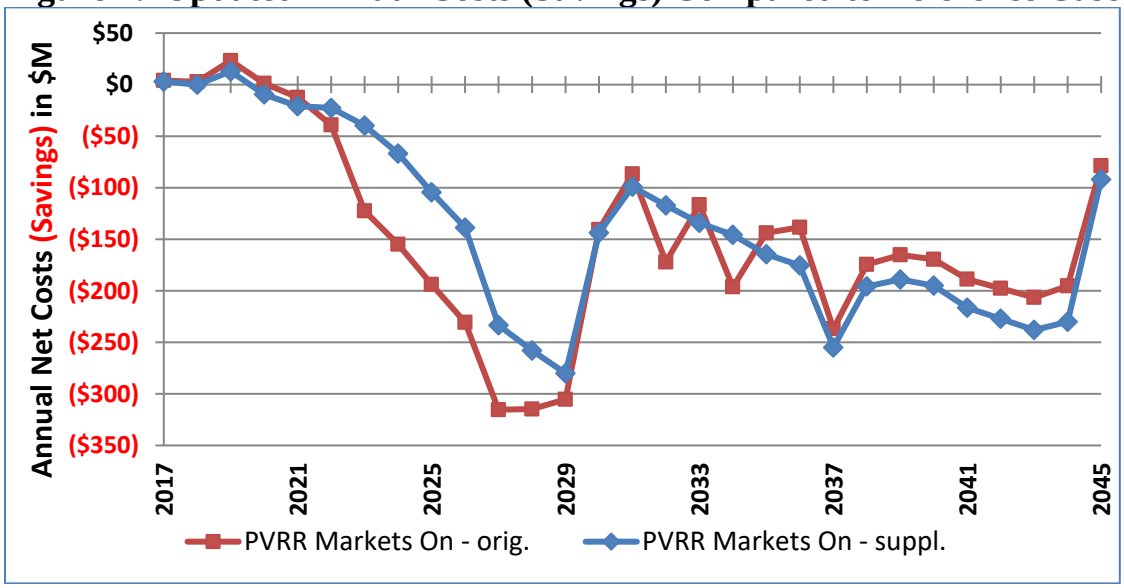
a. Confirm the analysis on Attachment 12B does not take into account any potential fuel clause savings.
b. Provide further analysis which supports Xcel's past assertions that each wind farm will show a net benefit once fuel costs are factored in.
c. Provide further analysis which proves that each wind farm will provide a net benefit to ratepayers once they are no longer earning PTCs.

Response:

a. The analysis provided in Attachment 12B uses actual wholesale revenues received due to the wind production to estimate the energy benefit of the wind additions. Net MISO purchases are recovered (or credited) through the FCA. MISO LMP pricing provides a proxy for the incremental energy or fuel benefit associated with the wind additions. As discussed in part b, compared to a system without the wind additions, the new wind resources displace fuel and MISO purchases and increase MISO sales. It is not possible to know precisely what LMPs would have been, and therefore how the system would have dispatched, without the wind additions. However, using actual MISO revenue provides an estimate of the energy or fuel benefits.

b. We conducted analysis that modeled the impact to our system using Strategist prior to acquiring the wind resources. Figure 1, below, shows the estimated annual impacts of the addition of our 1550 MW wind portfolio. As shown in Figure 1, based on our modeling, we expected a small benefit beginning in 2020 and increasing in subsequent years. The reduction in benefits in the 2030 timeframe is due to the expiration of the PTC.

Figure 1: Updated Annual Costs (Savings) Compared to Reference Case



The Table below provides a breakout of the expected costs and benefits of the 1550 MW wind portfolio on our system included in the Strategist modeling. As shown below, in the initial years we expect savings from the wind additions due to offset generation on our system (production cost savings), reduced MISO purchase, and increased MISO sales.

Table 2: Updated Incremental Revenue Requirement Impact of Portfolio, $M

	2017	2018	2019	2020	2021	2022
New Ownership Wind, 1150MW	3	(0)	20	65	87	92
New PPA Wind, 400MW	0	0	2	24	24	25
Capacity Cost Savings	0	0	0	0	0	0
Production Cost Savings	0	0	(6)	(43)	(58)	(65)
MISO Purchases	0	0	(1)	(25)	(26)	(22)
MISO Sales	0	0	(4)	(55)	(80)	(85)
Wind Congestion Costs*	0	0	1	15	20	20
Wind Integration Costs	0	0	0	2	3	3
Wind Coal Cycling Costs	0	0	0	7	10	10
Net Costs	**3**	**(0)**	**13**	**(9)**	**(21)**	**(23)**

* Congestion Costs reflected as cost adder to wind generation rather than lower generator LMP.

Actual savings will differ from the modeling due to a number of factors, including different commercial operation dates (CODs), variability in market pricing, and variability in load. We modeled the wind acquisition under numerous sensitivities and concluded the acquisition continued to be cost-effective under varying assumptions.

c. See response to part b.

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