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Xcel Energy

Docket No.: EL17-032

Response To: South Dakota Public
Utilities Commission

Data Request No. 1-2

Requestor: Lorena Reichert

Date Received: October 17, 2017

Question:

Refer to 18 CFR 292.304(e). Explain and/or demonstrate how Xcel Energy's determination of the avoided costs take into consideration factors (1), (2), (3), and (4).

Response:

The Company calculates the energy and capacity payments for purchases from qualifying facilities based on its most recent integrated Resource Plan, annual marginal cost update, and annual updates to inputs such as sales forecast, production budget and inflation. The method used to calculate avoided capacity costs reflect the widely industry adopted methodology developed by a consulting firm (NERA Economic Consulting) and generally known as the NERA method.¹ This method has been used in QF tariff rates updates for South Dakota, North Dakota and Minnesota for over 30 years. The Company believes this method, and the modifications identified below, meet the Commission's January 3, 1985 and December 14, 1982 Orders in Docket No. F-3365 (*In the Matter of the Investigation of the Implementation of Certain Requirements of Title II of the Public Utilities Regulatory Policies Act of 1978 Regarding Cogeneration and Small Power Production*) and the above referenced federal regulation.

The CFR 292.304(e) provides four factors affecting rates for purchase. The first factor regards the availability of electric utility system data and costs. Through the Upper Midwest Resource Plan (IRP) and the South Dakota Biennial Report (SDB), the Company provides detail regarding the system resources, including retirements, approved additions, and proposed resources, including generic modeled resources. The IRP filing also includes a Loads and Resources profile of forward looking capacity positions, and the SDB filing identifies costs of planned resources. Avoided costs methodologies for determining energy and capacity values are provided as

¹ The NERA method was adopted by the State of Minnesota as its avoided costs determination method under its Cogeneration and Small Power Production Rules (Chapter 7835).

public information. The related data regarding input assumptions can be found in Appendix J of the Company's 2016-2030 Upper Midwest Resource Plan.

The second factor regards the availability of capacity and energy during the system daily and season peak periods. The Company's Occasional Delivery Energy Service (E50) and Time of Delivery Energy Service (E52) rate design reflected the availability factors.

The third factor regards relationship of the QF's energy and capacity as a means to defer a capacity addition. PLEXOS, an integrated energy model/simulation software, is used to provide the five-year system incremental/avoided energy costs based on modeled energy requirements, plant availability, economic dispatch and MISO market purchases. The Company's use of the NERA method provides for the calculation of the present value revenue requirement of the next CT, allowing the QF's capacity to be valued the same as the next resource addition. In addition, a 15 percent reserve margin and operations and maintenance costs are added to this value to reflect CT operations.

The fourth factor regards costs or savings in lines losses be applied to the calculation. The Orders in the referenced Docket No. F-3365 did not prescribe a requirement on line losses. However, the Company provides for the energy and capacity values to be increased by one-half of the estimated system line losses.

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