

**MONTANA-DAKOTA UTILITIES CO.  
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION  
DATA REQUEST  
DATED AUGUST 1, 2016  
DOCKET NO. EL16-026**

- 1-2. Provide a list of all major inputs and assumptions used in the PLEXOS model to determine the avoided energy costs. Also, provide the source/basis for each input/assumption and indicate any that are required by other jurisdictions.**

**Response:**

<u>Major Inputs</u>	<u>Source</u>
Customer load forecast	2016-2035 MDU Load Forecast
Typical hourly load profile	2011 MDU customer load profile
MDU Owned generating resources	Actual information
Committed generating resources	
Power Purchase Agreements	
Generating unit heat rates	Generator performance data
Generating unit O&M costs	MDU forecast
Generator outage schedules	MDU outage forecast
Coal fuel pricing	MDU Power Production Forecast
Natural Gas fuel pricing	MDU Gas Supply forecast
Fuel oil pricing	Current pricing
Hourly wind production	2009 Diamond Willow Output
MISO Market Energy Purchases	Hourly max of 200 MW in 2016 Increased 15 MW every 2 years
MISO Energy Market price	MDU forecast – 5 year avg with escalators