

Docket Number: EL23-030
Subject Matter: First Data Request
Request to: Montana-Dakota Utilities Co. (MDU or Company)
Request from: South Dakota Public Utilities Commission Staff
Date of Request: October 31, 2023
Responses Due: November 15, 2023

1-1. Provide a list of all inputs and assumptions used in the 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. Outline any new sources or major inputs that have been changed by MDU in the past year.

Response:

Customer load forecast:	2024-2043 MDU Load Forecast
Typical hourly load profile:	2011 MDU customer load profile
MDU Owned generating resources:	Actual information
Committed generating resources:	None
Power Purchase Agreements:	Minnkota Power Purchase Agreement (June 2021-May 2026)
Generating unit heat rates:	Generator performance data
Generating unit O&M costs:	MDU forecast
Generator outage schedules:	MDU outage forecast
Generator Additions:	Heskett 4*
Generator Retirements:	None*
Coal fuel pricing:	MDU Power Production forecast
Natural Gas fuel pricing:	MDU Gas Supply forecast – with 3% escalator
Fuel oil pricing:	Current pricing
Hourly wind production:	2017 data for each wind project
MISO Market Energy Purchases:	250 MW hourly Max indefinitely
MISO Energy Market price:	Wood McKenzie Power and Renewables Forecast

*Change from previous marginal cost study.