

Docket Number: EL24-033
Subject Matter: Staff's Data Request 1
Request to: Montana Dakota Utilities Co. (MDU)
Request from: South Dakota Public Utilities Commission Staff
Date of Request: 11/13/24
Responses Due: 11/27/24

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/updated by MDU in the past year.

Response:

Customer load forecast:	2025-2044 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:	None*
Generator retirement dates:	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 study.

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1.2. Provide any forecasts used in the model inputs which are materially different than last year's forecasts.

Response:

See the gas supply forecast used in the model for 2024 and 2025 below and the MISO Energy Price Forecast included as Response No. 1-2 Attachment A. Montana-Dakota's natural gas generation facilities were developed for capacity resource requirements and produce very little energy in the marginal cost study models so changes in natural gas prices do not have a material effect on the Company's avoided energy rates.

	5 year cost projection	
	2024 Plan	2025 Plan
Lewis & Clark		
2024	\$4.76	
2025	\$4.81	\$6.53
2026	\$4.72	\$6.97
2027	\$4.70	\$7.19
2028	\$4.71	\$7.48
2029		\$7.67
Heskett III & IV		
2024	\$3.30	
2025	\$3.57	\$3.17
2026	\$3.24	\$3.61
2027	\$3.54	\$3.83
2028	\$3.31	\$4.12
2029		\$4.31
Glendive & Miles City CTs		
2024	\$4.76	
2025	\$4.81	\$4.65
2026	\$4.72	\$5.09
2027	\$4.70	\$5.31
2028	\$4.71	\$5.60
2029		\$5.79

MDU Area MISO Energy Price Forecast - Wood Mackenzie

2023 Forecast			2024 Forecast		
Year	Month	Value	Year	Month	Value
2023	1	29.19			
2023	2	26.57			
2023	3	25.74			
2023	4	24.64			
2023	5	25.21			
2023	6	26.60			
2023	7	32.96			
2023	8	31.81			
2023	9	26.33			
2023	10	26.73			
2023	11	28.21			
2023	12	28.10			
2024	1	36.37	2024	1	33.43
2024	2	32.52	2024	2	29.92
2024	3	26.95	2024	3	25.21
2024	4	23.57	2024	4	23.89
2024	5	25.46	2024	5	24.73
2024	6	26.54	2024	6	25.70
2024	7	30.62	2024	7	29.30
2024	8	30.04	2024	8	28.60
2024	9	24.86	2024	9	25.13
2024	10	25.12	2024	10	25.03
2024	11	28.06	2024	11	27.18
2024	12	27.16	2024	12	27.18
2025	1	27.28	2025	1	31.88
2025	2	27.78	2025	2	29.44
2025	3	25.56	2025	3	26.35
2025	4	23.11	2025	4	24.00
2025	5	24.05	2025	5	24.70
2025	6	25.36	2025	6	26.01
2025	7	30.21	2025	7	30.13
2025	8	29.77	2025	8	29.41
2025	9	25.31	2025	9	25.11
2025	10	23.60	2025	10	23.68
2025	11	25.93	2025	11	28.86
2025	12	25.30	2025	12	30.51
2026	1	26.56	2026	1	27.85
2026	2	26.94	2026	2	28.00
2026	3	24.35	2026	3	25.26
2026	4	20.77	2026	4	22.11
2026	5	23.40	2026	5	24.26

MDU Area MISO Energy Price Forecast - Wood Mackenzie

2023 Forecast			2024 Forecast		
Year	Month	Value	Year	Month	Value
2026	6	25.86	2026	6	26.72
2026	7	31.14	2026	7	31.31
2026	8	30.44	2026	8	30.96
2026	9	25.11	2026	9	25.80
2026	10	23.88	2026	10	24.69
2026	11	26.60	2026	11	27.40
2026	12	26.03	2026	12	26.80
2027	1	27.55	2027	1	29.03
2027	2	26.97	2027	2	28.97
2027	3	23.47	2027	3	24.96
2027	4	22.24	2027	4	23.55
2027	5	23.06	2027	5	23.92
2027	6	25.15	2027	6	26.28
2027	7	30.77	2027	7	32.04
2027	8	30.18	2027	8	31.36
2027	9	24.19	2027	9	25.98
2027	10	23.67	2027	10	24.87
2027	11	25.62	2027	11	27.15
2027	12	24.48	2027	12	26.65
			2028	1	29.01
			2028	2	28.96
			2028	3	24.95
			2028	4	23.54
			2028	5	23.91
			2028	6	26.26
			2028	7	32.03
			2028	8	31.35
			2028	9	25.96
			2028	10	24.86
			2028	11	27.13
			2028	12	26.64

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1.3. Provide the amount of generation per month for the last year provided by the customer currently on Rate 95.

Response:

See the table below for the amount of excess generation purchased by the Company for the period October 2023 through September 2024:

	Kwh <u>Purchased</u>
October 2023	1,006
November	891
December	845
January 2024	622
February	438
March	667
April	942
May	1,203
June	1,372
July	1,222
August	1,050
September	<u>797</u>
	11,055