



June 30, 2023

Mr. Will Rosquist
Administrator, Regulatory Division
Montana Public Service Commission
1701 Prospect Avenue
PO Box 202601
Helena, MT 59620-2601

RE: Docket No. 2023._____
NorthWestern Energy's 2023 Avoided Cost Information Compliance Filing
Pursuant to 18 C.F.R. §292.302 and ARM 38.5.1905

Dear Mr. Rosquist:

NorthWestern Energy ("NorthWestern") submits avoided cost information in compliance with the requirements of 18 C.F.R. § 292.302 and ARM 38.5.1908. In addition to this transmittal letter, this filing includes an Avoided Cost Fact Sheet. This information includes the avoided costs during daily and seasonal peak and off-peak periods for energy in blocks of 100 MW to meet the energy purchase levels based on NorthWestern's peak load forecast of 1,252 MW for calendar year 2023 according to NorthWestern's 2023 load and peak demand forecast; for five years following this filing year; and for capacity retirements and capacity additions for this year and the succeeding 10 years.

The base portfolio used for this filing is updated from the online resources and existing capacity contracts in NorthWestern's 2023 Integrated Resource Plan ("IRP") to include the following Qualifying Facilities ("QFs") that have not reached commercial operation or renewed an existing QF contract:

Colstrip Energy Limited Partnership
Trident Solar and Storage
Caithness Beaver Creek Wind I, II, III, and IV
ConEd Teton County Wind
ConEd Pondera County Wind
ConEd Wheatland County Wind
Jawbone Wind

Broadview I Solar and Storage
Meadowlark Solar and Storage and
Clenera Upland Dillon Argenta Solar.

Based on NorthWestern's standard modeling practice, this portfolio maintains current QF contract expirations, as discussed below, and does not assume any replacements.

The base portfolio models applicable contract expirations and resource retirements during this 10-year period as contemplated by 18 C.F.R. §292.302. Those capacity retirements expected in the next 10 years are summarized in the table below.

Facility	MW
Judith Gap Energy LLC	135.0
Yellowstone Energy Limited Partnership (BGI 52MW)	52.0
Turnbull Hydro LLC	13.0
Fairfield Wind LLC (Greenbacker)	10.0
State of MT DNRC (Broadwater Dam)	10.0
Cycle Horseshoe Bend Wind LLC	9.0
Tiber Montana LLC	7.5
Wisconsin Creek LTD LC	0.6
Ross Creek Hydro LC	0.5
Pony Hydro LLC	0.4
Allen R. Carter (Pine Creek)	0.3
Hydrodynamics Inc (Strawberry Creek)	0.2
Total	238.4

This filing complies with 18 C.F.R. §292.302 and ARM 38.5.1908. It provides appropriate avoided cost rates in blocks based on the information that was available to NorthWestern at the time of modeling.

In addition to the base portfolio, five blocks of power, at 100-MW increments, are added in separate studies where avoided cost of energy rates are computed on a daily and seasonal basis. The daily rates are an average of the year's heavy load or light load monthly values modeled using the base portfolio with these incremental energy purchases. The Seasonal Peak and Seasonal Off-peak rates represent the around the clock ("ATC") average of the five seasonal peak months or the ATC average of the

seven remaining off-peak months, respectively. See the attached Avoided Cost Narrative Summary for additional information.

1. NorthWestern's next avoided cost informational filing will occur by July 1, 2024 in accordance with federal regulations 18 CFR § 292.302 and ARM 38.5.1908.

ARM 38.5.1908(2)(b) requires NorthWestern to file its latest IRP with this filing. Given the size of that filing and the fact that it is publicly available, NorthWestern directs the Commission to the filing made in Docket No. 2022.11.102 for a copy of its 2023 IRP.

This filing will also be provided to the Montana Consumer Counsel.

NorthWestern's employee responsible for answering questions concerning this request or for inquiries to the appropriate members of the Utility Staff is:

Ms. Glenda Gibson
Regulatory Affairs Department
NorthWestern Energy
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Butte, MT 59701
(406) 497-2609
glenda.gibson@northwestern.com

NorthWestern's attorney in this matter is:

Ms. Sarah Norcott
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Along with Glenda Gibson and Sarah Norcott, please add Tracy Killoy to the official service list in this docket to receive copies of all documents. NorthWestern also requests that all electronic correspondence related to this filing be sent to tracy.killoy@northwestern.com.

If there are any questions, I can be reached at (406) 497-2609.

Sincerely,

Glenda J. Gibson

Glenda Gibson
Manager, Regulatory Compliance

Enclosures

CC: Montana Consumer Counsel

Avoided Cost Fact Sheet

2023 Avoided Cost Data

NorthWestern's 2023 peak electric supply load forecast is 1,252 MW. 18 C.F.R. §292.302(b) (1) and ARM 38.5.1908 require NorthWestern to submit its avoided cost data in blocks of not more than 100 MW. NorthWestern used the current portfolio resources from its 2023 Integrated Resource Plan ("2023 IRP") submitted under Docket No. 2022.11.102 with updates to reflect recent resource additions and exclusions known at the time of modeling for this filing. The modeling was performed using the forward curves from the 2023 IRP. The calculation was done at an hourly level to determine the marginal cost of energy to serve load.

Avoided cost of energy rates were calculated from the modeling results to fulfill the 18 C.F.R. §292.302(b)(1) and ARM 38.5.1908 requirement. The current portfolio was used with a 100-MW block of incremental power added for each of the five blocks for which energy rates are computed. The daily rates are an average of the year's heavy load or light load monthly values modeled using the base portfolio with these incremental energy purchases. The Seasonal Peak and Seasonal Off-peak rates represent the around the clock ("ATC") average of the five seasonal peak months or the ATC average of the seven remaining off-peak months, respectively.

The Base Portfolio includes the addition of capacity resources in 2024, 2026, 2029, and 2032. In order to establish the timing of adding these resources, NorthWestern directed its modeling consultant Ascend Analytics, which performed the modeling for the 2023 IRP using its proprietary model, PowerSimmTM, to model the optimal in-service years for these resource additions to meet the lowest-cost risk adjusted criterion.

2023 Capacity Cost Data

Retirements of Capacity

NorthWestern's 2023 IRP Base Portfolio filed in Docket No. 2022.11.102 models capacity retirements for Qualifying Facilities as required by 18 C.F.R. §292.302.

Additions and Calculation of Capacity Costs

The capacity costs for this filing are based on the 2023 IRP costs for the avoidable capacity resource, an 50-MW Aeroderivative Combustion Turbine. In the 2023 IRP, NorthWestern described the commitment, status, and timeline for joining the Western Power Pool – Western Resource Adequacy Program (“WRAP”). Under current WRAP guidelines, resources in NorthWestern's portfolio were assigned initial estimates of accredited capacity within the WRAP footprint based on historical data. These values will change through time as more historical data becomes available and/or as guidelines change. NorthWestern assigns value for the cost of capacity based on the amount (kW) of WRAP accredited capacity instead of nameplate (nominal) values.

The following table reflects the avoided energy rates for 2023 and for each of the five years thereafter as required by the regulations:

Energy

Avoided Cost Blocks of 100 MW 2023			2024			2025			2026			2027			2028				
Block 1	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	
Daily ¢/kWh	¢4.12	¢1.34		¢2.92	¢1.24		¢2.10	¢1.01		¢0.84	¢0.44		¢0.90	¢0.48		¢0.87	¢0.47		¢1.06
Seasonal Peak ¢/kWh			¢4.47			¢3.15			¢2.54			¢0.99			¢1.10				¢1.06
Seasonal Off-Peak ¢/kWh			¢1.78			¢1.49			¢0.96			¢0.43			¢0.45				¢0.43

2023			2024			2025			2026			2027			2028				
Block 2	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	
Daily ¢/kWh	¢1.89	¢0.60		¢1.89	¢0.60		¢1.29	¢0.46		¢0.50	¢0.16		¢0.55	¢0.18		¢0.50	¢0.16		¢0.63
Seasonal Peak ¢/kWh			¢2.70			¢2.03			¢1.59			¢0.59			¢0.67				¢0.63
Seasonal Off-Peak ¢/kWh			¢0.92			¢0.82			¢0.45			¢0.18			¢0.19				¢0.17

2023			2024			2025			2026			2027			2028				
Block 3	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	
Daily ¢/kWh	¢1.29	¢0.22		¢1.10	¢0.21		¢0.70	¢0.14		¢0.26	¢-0.01		¢0.29	¢0.00		¢0.26	¢-0.01		¢0.32
Seasonal Peak ¢/kWh			¢1.41			¢1.18			¢0.88			¢0.31			¢0.35				¢0.32
Seasonal Off-Peak ¢/kWh			¢0.40			¢0.37			¢0.15			¢0.02			¢0.03				¢0.01

2023			2024			2025			2026			2027			2028				
Block 4	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	
Daily ¢/kWh	¢0.58	¢0.04		¢0.54	¢0.02		¢0.32	¢-0.01		¢0.10	¢-0.09		¢0.11	¢-0.07		¢0.09	¢-0.08		¢0.13
Seasonal Peak ¢/kWh			¢0.65			¢0.59			¢0.42			¢0.13			¢0.15				¢0.13
Seasonal Off-Peak ¢/kWh			¢0.13			¢0.11			¢0.00			¢-0.06			¢-0.05				¢-0.07

2023			2024			2025			2026			2027			2028				
Block 5	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	HL	LL	ATC	
Daily ¢/kWh	¢0.22	¢-0.02		¢0.21	¢-0.05		¢0.11	¢-0.06		¢0.01	¢-0.11		¢0.02	¢-0.09		¢0.00	¢-0.11		¢0.02
Seasonal Peak ¢/kWh			¢0.26			¢0.25			¢0.17			¢0.03			¢0.04				¢0.02
Seasonal Off-Peak ¢/kWh			¢0.01			¢-0.01			¢-0.06			¢-0.09			¢-0.08				¢-0.10

HL = Heavy Load Hours, LL = Light Load Hours, ATC = Around The Clock

The table below provides the avoided capacity cost rates for 2023 through 2033.

Nominal Capacity Retirements/Additions and Costs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capacity Retirements/Contract Expirations (MW) *	0	18	9	135	0	52	0	0	0	13	10
Capacity Additions (MW) **	0	170	0	222	0	0	50	0	0	150	0
Capacity \$/kW/yr (for WRAP accredited capacity)	\$215	\$220	\$225	\$231	\$236	\$242	\$247	\$253	\$259	\$265	\$271

* Nominal Capacity of Wind, Hydro, and Thermal resources

** 2023 MT IRP - Base Portfolio Capacity Additions - nominal capacity of RICE, Coal, Aero CT, PHES resources

VERIFICATION

This Avoided Cost Fact Sheet is true and accurate to the best of my knowledge, information, and belief.

/s/ Michael Babineaux
Michael Babineaux

CERTIFICATE OF SERVICE

I hereby certify that NorthWestern Energy's 2023 Avoided Cost Information Compliance Filing Pursuant to 18 C.F.R. §292.302 and ARM 38.5.1905 has been e-filed with the Montana Public Service Commission ("Commission") and emailed to the email list below.

Date: June 30, 2023

/s/ Tracy Lowney Killoy
Tracy Lowney Killoy
Administrative Assistant

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