



February 25, 2025

Ms. Patricia Van Gerpen  
Executive Director  
South Dakota Public Utilities Commission  
500 East Capital Avenue  
Pierre, SD 57501

Re: 18 CFR 292.302 – Avoided Cost Compliance Filing

Dear Ms. Van Gerpen,

Please find enclosed NorthWestern Energy's compliance filing of our avoided costs pursuant to 18 CFR 292.302. These avoided costs are based on the costs and projections included in NorthWestern Energy's 2024 South Dakota Integrated Resource Plan.

Sincerely,

**Bleau LaFave**

*VP of Asset Management & Business Development*  
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**NorthWestern Energy  
 Informational Compliance Filing with the  
 South Dakota Public Utilities Commission  
 as required by 18 CFR 292.302**

**18 CFR 292.302(b)(1)** The estimated avoided cost on the electric utility's system, solely with respect to the energy component, for various levels of purchases from qualifying facilities. Such levels of purchases shall be stated in blocks of not more than 100 megawatts for systems with peak demand of 1000 megawatts or more, and in blocks equivalent to not more than 10 percent of the system peak demand for systems of less than 1000 megawatts. The avoided costs shall be stated on a cents per kilowatt-hour basis, during daily and seasonal peak and off-peak periods, by year, for the current calendar year and each of the next 5 years.

Avoided costs for purchases of different levels of energy from qualifying facilities were calculated by using NorthWestern's production cost modeling software PowerSimm to simulate weather, load, renewable generation and market prices at an hourly level. NWE's thermal resources are economically dispatched against the forecast SPP market price. The energy provided by the qualifying facility is valued based on either the market price or the variable cost of NWE's marginal resource, depending on whether NWE is buying or selling energy into the market. This method is the same as the modeling used in the 2024 South Dakota Integrated Resource Plan (SD IRP). Table 1 displays the projections of energy and peak demand loads on which the avoided cost calculations are based. The SPP board approved the seasonal PRMs in August 2024. The Summer PRM of 16% will be enforced beginning June 1, 2026, and the winter PRM of 36% will be enforced beginning December 1, 2026. These changes are reflected in the table below.

Table 1: Forecast Energy (MWh) and Peak (MW) Loads

	Annual Energy	Base Peak Forecast		Base + PRM	
		Winter	Summer	36%	16%
				Winter + PRM	Summer + PRM
2025	1,818,571	327	352	445	408
2026	1,835,252	330	355	449	412
2027	1,851,932	333	359	454	416
2028	1,868,613	337	362	458	420
2029	1,885,294	340	366	462	424
2030	1,901,974	343	369	467	428

Table 2 displays the avoided cost of energy values in 35 MW blocks of purchases (which corresponds to approximately 10 percent of NWE's peak summer load) for peak and off-peak periods for 2025 and the next 5 years.



Table 2: Avoided Energy Costs – cents per kWh, in 35 MW blocks

Avoided Energy Costs for Various Levels of Purchases (cents/KWh), in 35 MW blocks											
Marginal Avoided Cost of Energy for the last increment of each block											
		35	70	105	140	175	210	245	280	315	350
2025	5x16 Peak	2.95	2.54	2.12	1.69	1.26	0.80	0.38	0.12	0.02	0.35
	Off-Peak	1.74	1.49	1.22	0.92	0.61	0.31	0.10	0.02	(0.01)	0.17
	ATC	2.30	1.98	1.63	1.28	0.91	0.53	0.24	0.07	0.00	0.25
2026	5x16 Peak	3.05	2.62	2.17	1.73	1.28	0.81	0.40	0.13	0.01	0.36
	Off-Peak	1.80	1.53	1.26	0.97	0.66	0.34	0.11	0.02	(0.02)	0.18
	ATC	2.39	2.04	1.69	1.33	0.95	0.56	0.25	0.07	0.01	0.26
2027	5x16 Peak	3.00	2.62	2.21	1.78	1.35	0.89	0.45	0.16	0.03	0.37
	Off-Peak	1.90	1.59	1.29	0.99	0.66	0.33	0.10	(0.00)	(0.03)	0.17
	ATC	2.41	2.08	1.72	1.36	0.98	0.60	0.27	0.08	(0.01)	0.26
2028	5x16 Peak	2.97	2.63	2.24	1.84	1.44	1.02	0.56	0.21	0.04	0.38
	Off-Peak	1.89	1.64	1.35	1.06	0.75	0.41	0.15	0.01	(0.03)	0.18
	ATC	2.40	2.10	1.76	1.43	1.07	0.69	0.34	0.10	0.00	0.27
2029	5x16 Peak	2.84	2.55	2.20	1.83	1.45	1.03	0.58	0.25	0.05	0.37
	Off-Peak	1.86	1.62	1.36	1.08	0.78	0.45	0.18	0.03	(0.03)	0.17
	ATC	2.32	2.05	1.75	1.43	1.09	0.72	0.37	0.13	0.01	0.27
2030	5x16 Peak	2.75	2.55	2.31	2.00	1.61	1.16	0.70	0.31	0.08	0.41
	Off-Peak	1.82	1.66	1.44	1.17	0.85	0.51	0.22	0.06	(0.02)	0.20
	ATC	2.25	2.07	1.85	1.55	1.21	0.81	0.44	0.17	0.03	0.29

**18 CFR 292.302(b)(2)** The electric utility's plan for the addition of capacity by amount and type, for purchases of firm energy and capacity, and for capacity retirements for each year during the succeeding 10 years.

NWE's capacity positions for summer and winter are summarized in Table 3 and Table 4.



Table 3: NorthWestern's Current Summer Capacity Portfolio

Summer Accredited Capacity							
Year	Thermal/Gas	Coal	Wind	Contracts	Total	Peak+PRM	Surplus/(Deficit)
2024	120	210	25	55	410	408	2
2025	120	210	25		355	412	(57)
2026	120	210	25		355	416	(61)
2027	116	210	25		351	420	(69)
2028	116	210	25		351	424	(73)
2029	116	210	25		351	428	(77)
2030	116	210	23		349	433	(83)
2031	116	210	23		349	437	(88)
2032	116	210	23		349	441	(92)
2033	116	210	23		349	445	(96)
2034	116	210	23		349	449	(100)

Table 4: NorthWestern's Current Winter Capacity Portfolio

Winter Accredited Capacity							
Year	Thermal/Gas	Coal	Wind	Contracts	Total	Peak+PRM	Surplus/(Deficit)
2024	120	210	102	20	451	445	7
2025	120	210	102		431	449	(18)
2026	116	210	102		428	454	(26)
2027	116	210	102		428	458	(30)
2028	116	210	102		428	462	(35)
2029	116	210	94		420	467	(46)
2030	116	210	94		420	471	(51)
2031	116	210	94		420	475	(55)
2032	116	210	94		420	480	(59)
2033	116	210	94		420	484	(64)
2034	116	210	83		409	489	(80)

In the 2024 SD IRP, NWE identified the Yankton Generating Station, a 13.6 MW reciprocating internal combustion engine, as a candidate for retirement due to high repair costs. NWE intends to replace Yankton with new capacity using a competitive solicitation process. More information is provided in the 2024 SD IRP.



**18 CFR 292.302(b)(3) The estimated capacity costs at completion of the planned capacity additions and planned capacity firm purchases, on the basis of dollars per kilowatt, and the associated energy costs of each unit, expressed in cents per kilowatt hour. These costs shall be expressed in terms of individual generating units and of individual planned firm purchases.**

NorthWestern used a revenue requirement calculation based on the assumptions in the 2024 SD IRP. This assumes the avoided capacity resource is a new 55 MW simple cycle frame combustion turbine. For this resource in 2024, the capital cost is \$1,683 per kW, and the fixed O&M cost is \$19.81 per kW-year. The calculation uses a marginal cost of capital of 6.81%, inflation rates of 2.50% for 2025 and thereafter, and incorporates state and federal tax rates, a 15-year tax life, and 32-year book life. Table 5 displays the 20-year levelized avoided capacity costs by kilowatt-year for QF contracts signed in the 2025 and each of the next five years. The avoided capacity cost in 2025 is \$165.59 per kW-year and the 6-year average of levelized costs is \$165.45 per kW-year.

Table 5: Levelized Capacity Value for 20-yr Contract, by year QF Contract is Signed

Year Contract Begins	Avoided Cost of Capacity (20-yr levelized, \$/kW-yr)
2025	\$165.59
2026	\$166.26
2027	\$165.83
2028	\$165.40
2029	\$165.00
2030	\$164.62
6 Year Average	\$165.45