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April 22, 2021

Ms. Patricia Van Gerpen, Executive Director
South Dakota Public Utilities Commission
State Capitol Building
500 East Capitol Avenue
Pierre, SD 57501-5070

**RE: In the Matter of Staff's Request regarding the February 2021 Cold Weather Event and Its Impact on Utility Fuel Clause Adjustments and Purchased Gas Adjustments
Docket No. GE21-001
Initial Filing**

Dear Ms. Van Gerpen:

Otter Tail Power Company (Otter Tail or OTP) provides this letter filing summarizing Energy Adjustment Rider (EAR) impacts resulting from the cold weather event experienced in our region back in February 2021.

In general, Otter Tail's system held up extremely well during the event. Although costs were up in February, the impact was not severe enough to warrant any special adjustments to Otter Tail's monthly Energy Adjustment Rider (EAR) calculations and associated rates. While Otter Tail does not provide a specific impact analysis for the specific days of the cold weather event, the following provides further insight into Otter Tail's experience during that event.

OTP Baseload Units:

Big Stone Plant was on-line and available for full output throughout the entirety of the cold weather event. Except for one short derate for about 6 hours to deslag the boiler, Coyote Station was on-line and available for full output throughout the entirety of the cold weather event. Hoot Lake Plant had some ash loading derates from Friday, February 12 to Monday, February 15 but was available to run at full load for the remainder of the cold weather event.

OTP Gas Units:

Solway Station is a dual fuel natural gas/fuel oil unit. Intraday pricing for gas for February 13 spiked to over \$300 per MMBtu. Because of that price spike, the unit was switched over to fuel oil. However, an outage was required from February 13 through February 15 due to complications related to starting on fuel oil and a failed compressor discharge pressure (CDP) purge valve. The unit was returned to Service on February 16, utilizing more reasonably priced natural gas that was available at Solway via Emerson Hub and was operational for the balance of the event.

OTP Wind Farms:

OTP's four owned wind farms, Langdon, Ashtabula, Luverne and Merricourt were all substantially available during the event. While the Turbines have cold weather operating limits of -22F, at which point they will shut down to avoid potential structural damage, all units had a less than 10% reduction in availability during the event. Merricourt experienced a derate due to icing and a tie line out that had capability reduced to 134 MWs from 150 on February 12, but all units were re-energized by February 18. Despite high availability, low windspeeds resulted in below average generation during the event.

Oil Peaking Units:

The Jamestown 1, Jamestown 2, and Lake Preston peaking units were available and dispatched periodically throughout the cold weather event. Under normal market conditions, these units primarily serve as capacity resources. During times of extreme pricing, they serve as a backstop to high energy markets.

Astoria Station:

Astoria Station, OTP's new 245 MW natural gas fired simple cycle CT was conducting operational tests at the onset of the cold weather event. To avoid purchasing high priced natural gas during this time, OTP opted to suspend testing. While physical supplies would have always been available at the unit, the current price of natural gas during that time was too high to justify continuing testing.

Load Control:

OTP load control was available for the entirety of the cold weather event and performed as designed. Typical economic control events are less than 2 hours start to finish, but during February 12-19 we had 9 events that were over 4 hours long. More detail on load control is provided in the responses to specific questions in this information request.

Forward Energy Purchase and Wholesale Market Charges:

In February of 2020, OTP executed a forward energy purchase for January, February, and December of 2021 to mitigate potential price volatility during those months. During February of 2021, OTP had 75 MWs of energy under contract which for the month, yielded a benefit of approximately \$1.67 million (OTP Total) relative to market prices during the month. OTP also benefited from significantly higher revenue credits from SPP of approximately \$833k because of SPP's extreme prices and market conditions. These benefits helped offset higher energy market charges incurred in MISO during the event.

FTR Portfolio:

In order to offset congestion pricing differences between OTP generation and load, OTP maintains a financial transmission rights (FTR) portfolio. The FTRs refund congestion differences between generation and load. These FTRs offset over \$1.9 million (OTP Total) of congestion costs during the February 12-20 cold weather event.

Market Purchases and Asset Based Sales:

There were certain hours during the event where OTP was short of energy and procured that energy from the MISO market. There were also hours during the event where OTP was selling energy back into the market. Those asset-based sales and associated margins helped to offset increased market purchase costs incurred during the event.

Customer Outages:

One incident occurred regarding OTP load located in the Southwest Power Pool (SPP) that is pseudo-tied into the MISO market. During SPP's need to implement rolling blackouts, the Western Area Power Administration inadvertently opened certain breakers on its system which OTP is integrated with, which impacted some OTP customers that caused an outage for those customers. Those outages were restored reasonably quickly in less than an hour. Further follow-up discussions between OTP system operations personnel and WAPA have occurred to address ways to avoid a similar situation in the future.

Summary:

In general, OTP navigated the polar vortex event remarkably well with relatively minor customer impacts due in part to a healthy, generally available generation fleet, a favorable hedge through a forward purchase, and an FTR portfolio which offset high congestion costs between generation and load.

April EAR Rate:

On Thursday, March 25, 2021, OTP filed our normal monthly update to the Energy Adjustment Rider (EAR) with the rates to be implemented in April 2021. OTP's approved methodology for determining monthly EAR rates is based on average costs for a trailing three-month period. April 2021 is the first month that includes costs from February 2021 when the cold weather event occurred. Based on the calculations reflected in OTP's monthly filing, the system cost per kWh was \$.02751, which was up approximately half a cent from the March rate of \$.02275. The rate calc summary from our March 25, 2021 filing is included on the following page.

SOUTH DAKOTA
 OTTER TAIL POWER COMPANY
 ENERGY ADJUSTMENT RIDER
 FOR BILLING TO BE EFFECTIVE APRIL 2, 2021

EFFECTIVE 4/2/2021
 CYCLE 01

Line No.	(A) 2020	(B) 2021	(C) 2021	(D) Total	(E)	
No.	<u>December</u>	<u>January</u>	<u>February</u>	<u>This Period</u>		
<u>ENERGY COSTS</u>						
1	Purchased Power	\$ 2,264,340	\$ 1,447,852	\$ (1,103,893)	\$ 2,608,298	
2	Wind Curtailment	\$ (41,939)	\$ 3,207	\$ 5,615	\$ (33,117)	
3	Steam Plant Generation	\$ 4,630,380	\$ 4,806,011	\$ 5,461,247	\$ 14,897,638	
4	Other Plant Generation	\$ 78,030	\$ 84,113	\$ 809,579	\$ 971,722	
5	Hydro Plant Generation	\$ -	\$ -	\$ -	\$ -	
6	Steam Plant Reagents	\$ 114,762	\$ 134,599	\$ 205,688	\$ 455,049	
7	Coyote Lime	\$ 52,922	\$ 61,106	\$ 51,064	\$ 165,091	
8	Emission Allowance Purchase	\$ 31	\$ 32	\$ 28	\$ 92	
9	Net Retail MISO Day 2	\$ 3,571,126	\$ 3,109,367	\$ 10,167,908	\$ 16,848,400	
10	MISO ASM	\$ (49,616)	\$ (50,762)	\$ (89,820)	\$ (190,197)	
11	Less: Intersystem Sales	\$ (596,056)	\$ (330,531)	\$ (1,048,149)	\$ (1,974,736)	
12	Less: Emission Allowance Sales	\$ -	\$ -	\$ -	\$ -	
13	Less: Renewable Energy Credits	\$ -	\$ (22,538)	\$ -	\$ (22,538)	
14	NET ENERGY COSTS	\$ 10,023,978	\$ 9,242,456	\$ 14,459,268	\$ 33,725,702	\$ 11,241,901
<u>ASSET BASED MARGINS</u>						
15	Asset Based Margin (Docket EL10-011)	\$ (46,600)	\$ 6,404	\$ (1,895,977)	\$ (1,936,174)	\$ (645,391)
16	Prior (Over) Under Recovery (line 45)					\$ 1,584,539
17	Adjusted Net Energy Costs (lines 14 + 15 + 16)					\$ 12,181,048
<u>ASSOCIATED ENERGY -- kWh</u>						
18	Net Generation - Steam	202,339,130	233,056,737	254,374,631	689,770,498	
19	Other Plant IC Generation	3,005,604	2,391,955	7,608,194	13,005,753	
20	Hydro Plant Generation	1,919,291	2,248,645	2,045,467	6,213,403	
21	Wind Generation	78,728,236	73,240,247	62,282,379	214,250,862	
22	Solar Generation	2,729	2,454	5,342	10,525	
23	Purchased Power	52,069,125	40,924,454	40,170,183	133,163,762	
24	Wind Curtailment	(1,297,630)	100,830	175,640	(1,021,160)	
25	Total Energy	336,766,485	351,965,322	366,661,836	1,055,393,643	
26	Less Intersystem Sales	(30,467,741)	(16,759,341)	(31,596,643)	(78,823,725)	
27	Net Retail MISO Day 2	156,221,833	138,860,595	172,142,391	467,224,819	
28	Net Energy - kWhs	462,520,578	474,066,576	507,207,584	1,443,794,738	
29	Energy Adjusted to Retail Sales (Net Energy X (1.00 - .08))				1,328,291,159	442,763,720
30	System Delivered Cost per kWh					\$0.02751

May EAR Rate:

OTP's proposed average rate to be effective May 2021 will be \$0.02489 per kWh which is based on January – March 2021 costs. The rate calc summary for the May rate is included on the following page.

SOUTH DAKOTA
 OTTER TAIL POWER COMPANY
 ENERGY ADJUSTMENT RIDER
 FOR BILLING TO BE EFFECTIVE MAY 3, 2021

EFFECTIVE 5/3/2021
 CYCLE 01

Line No.	ENERGY COSTS	(A)	(B)	(C)	(D)	(E)
		2021	2021	2021	Total	
		January	February	March	This Period	
1	Purchased Power	\$ 1,447,852	\$ (1,103,893)	\$ 983,880	\$ 1,327,839	
2	Wind Curtailment	\$ 3,207	\$ 5,815	\$ (3,759)	\$ 5,064	
3	Steam Plant Generation	\$ 4,806,011	\$ 5,481,247	\$ 3,477,985	\$ 13,745,243	
4	Other Plant Generation	\$ 84,113	\$ 809,579	\$ 75,246	\$ 968,938	
5	Hydro Plant Generation	\$ -	\$ -	\$ -	\$ -	
6	Steam Plant Reagents	\$ 134,599	\$ 205,888	\$ 104,877	\$ 444,964	
7	Coyote Lime	\$ 61,106	\$ 51,064	\$ 39,240	\$ 151,410	
8	Emission Allowance Purchase	\$ 32	\$ 28	\$ 11	\$ 72	
9	Net Retail MISO Day 2	\$ 3,109,367	\$ 10,167,908	\$ 2,869,318	\$ 16,146,592	
10	MISO ASM	\$ (50,762)	\$ (89,820)	\$ (54,845)	\$ (195,427)	
11	Less: Intersystem Sales	\$ (330,531)	\$ (1,048,149)	\$ (619,142)	\$ (1,997,822)	
12	Less: Emission Allowance Sales	\$ -	\$ -	\$ -	\$ -	
13	Less: Renewable Energy Credits	\$ (22,538)	\$ -	\$ -	\$ (22,538)	
14	NET ENERGY COSTS	\$ 9,242,456	\$ 14,459,268	\$ 6,872,611	\$ 30,574,334	\$ 10,191,445
ASSET BASED MARGINS						
15	Asset Based Margin (Docket EL10-011)	\$ 6,404	\$ (1,895,977)	\$ 52,914	\$ (1,836,659)	\$ (612,220)
16	Prior (Over) Under Recovery (line 45)					\$ 837,132
17	Adjusted Net Energy Costs (lines 14 + 15 + 16)					\$ 10,416,357
ASSOCIATED ENERGY – kWh						
18	Net Generation - Steam	233,056,737	254,374,631	153,812,727	641,244,095	
19	Other Plant IC Generation	2,391,955	7,808,194	1,884,108	11,884,257	
20	Hydro Plant Generation	2,248,645	2,045,467	2,331,175	6,625,287	
21	Wind Generation	73,240,247	62,282,379	88,126,801	223,649,427	
22	Solar Generation	2,454	5,342	9,159	18,955	
23	Purchased Power	40,924,454	40,170,183	30,861,729	111,956,366	
24	Wind Curtailment	100,830	175,640	(118,100)	158,370	
25	Total Energy	351,965,322	366,661,836	276,907,599	995,534,757	
26	Less Intersystem Sales	(16,759,341)	(31,596,643)	(30,875,176)	(79,231,160)	
27	Net Retail MISO Day 2	138,860,595	172,142,391	137,469,434	448,472,420	
28	Net Energy - kWhs	474,066,576	507,207,584	383,501,857	1,364,776,017	
29	Energy Adjusted to Retail Sales (Net Energy X (1.00 - .08))				1,255,593,936	418,531,312
30	System Delivered Cost per kWh					\$0.02486

Pursuant to South Dakota Codified Laws Section 49-34A-10 and Administrative Rules of South Dakota (ARSD) Part 20:10:01:02:05, this filing has been electronically submitted to the Commission.

If you have any questions, please contact me at (218) 739-8279 or stommerdahl@otpc.com.

Sincerely,

/s/ *STUART TOMMERDAHL*
 Stuart Tommerdahl
 Manager, Regulatory Administration

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 Enclosures
 By electronic filing