

OTTER TAIL POWER COMPANY  
Docket No: EL21-017

Response to: SD Public Utilities Commission  
Analyst: Joseph Rezac  
Date Received: September 21, 2021  
Date Due: September 21, 2021  
Date of Response: September 21, 2021  
Responding Witness: Lynn A. Wolters, Rates Analyst, 218-739-8577

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Data Request:

1. What impact does the closure of Hoot Lake Plant and reliance on Merricourt with Astoria have on our fuel clause in South Dakota.
2. Provide an explanation of how Otter Tail is addressing the sound issue at the Astoria Plant.

Attachments: 0

Response:

This response includes information Otter Tail deems to be Confidential Information under ARSD 20:10:01:39 and is provided on the condition that it is not filed or otherwise publicly disclosed pending a determination under ARSD 20:10:01:41 and 20:10:01:42, or an agreement by the parties to this proceeding regarding its disclosure. Such Confidential Information is marked “CONFIDENTIAL” and noted where applicable as [PROTECTED DATA BEGINS...  
...PROTECTED DATA ENDS].

1. Otter Tail provides the table below with actual cost of fuel and generation for 2020, the last full year of operation for Hoot Lake Plant, and forecasted cost of fuel and generation for 2022, the first full year both Astoria and Merricourt are in-service. As shown in Table 1 below, the cost per MWh for Hoot Lake Plant in 2020 was [PROTECTED DATA BEGINS...  
...PROTECTED DATA ENDS] for the approximately 200,000 MWh it produced. In comparison, for 2022 Astoria Station is expected to produce about 160,000 MWh at an estimated cost of [PROTECTED DATA BEGINS...  
...PROTECTED DATA ENDS] and Merricourt is expected to produce about 650,000 MWh with zero costs going into the fuel clause.

Taking advantage of market opportunity is an important tool that has allowed Otter Tail to keep rates low. The distinction between market exposure and market opportunity is an important point that must be understood. *Market exposure* can be thought of as the times when total load exceeds total resilient generation potential. *Market opportunity* is the times when market energy prices are lower than the variable energy costs of our dispatchable resources. In times of market opportunity most of our dispatchable resources can be ramped down or completely curtailed, which reduces customer cost. The important factor to remember is that just because the dispatchable units are ramped down to minimums or offline completely does not mean they are unavailable to cover Otter Tail's load, should market conditions change.

There are many variables in play for the ultimate impacts to the FCA beyond the specific changes at Hoot Lake Plant, Merricourt Wind and Astoria Plant. The following table provides how each component (Hoot Lake, Merricourt, Astoria) is forecast to change along with the overall net changes to the FCA.

Table 1

Actual and Forecasted Cost of Fuel and Generation		
Cost of Fuel	2022F	2020
<b>Plant Generation</b>	[PROTECTED DATA BEGINS...]	
Coal Big Stone Plant		
Coal Coyote Plant		
Coal Hoot Lake Plant		
Wind Langdon Wind		
Wind Ashtabula Wind		
Wind Luverne Wind		
Wind Merricourt Wind		
Oil Jamestown (#1 and #2)		
Oil Lake Preston		
Natural Gas Solway		
Natural Gas Astoria		
Solar Blue Jay		
Solar Blue Heron		
<b>Purchased Power</b>		
Edgeley PPA		
Langdon PPA		
Ashtabula III PPA		
Shared Loads		
Small Co-gen		
Bilateral purchases		
Market Purchases		
	...PROTECTED DATA ENDS]	
<b>Total MWh</b>	2022F	2020
<b>Plant Generation</b>	[PROTECTED DATA BEGINS...]	
Coal Big Stone Plant		
Coal Coyote Plant		
Coal Hoot Lake Plant		
Wind Langdon Wind		
Wind Ashtabula Wind		
Wind Luverne Wind		
Wind Merricourt Wind		
Oil Jamestown (#1 and #2)		
Oil Lake Preston		
Natural Gas Solway		
Natural Gas Astoria		
Solar Blue Jay		
Solar Blue Heron		
Hydro Total Hydro		
<b>Purchased Power</b>		
Edgeley PPA		
Langdon PPA		
Ashtabula III PPA		
Shared Loads		
Small Co-gen		
Bilateral purchases		
Market Purchases		
	...PROTECTED DATA ENDS]	
<b>Cost per MWh</b>	2022F	2020
<b>Plant Generation</b>	[PROTECTED DATA BEGINS...]	
Coal Big Stone Plant		
Coal Coyote Plant		
Coal Hoot Lake Plant		
Wind Langdon Wind		
Wind Ashtabula Wind		
Wind Luverne Wind		
Wind Merricourt Wind		
Oil Jamestown (#1 and #2)		
Oil Lake Preston		
Natural Gas Solway		
Natural Gas Astoria		
Solar Blue Jay		
Solar Blue Heron		
Hydro Total Hydro		
Blended Merricourt and Astoria		
Total OTP Owned		
<b>Purchased Power</b>		
Edgeley PPA		
Langdon PPA		
Ashtabula III PPA		
Shared Loads		
Small Co-gen		
Bilateral purchases		
Market Purchases		
	...PROTECTED DATA ENDS]	

2. Otter Tail will be filing additional sound reports in its 17-042 docket regarding the sound issue at the Astoria Plant. Initial testing was completed on July 8 & 9, 2021 with additional testing completed throughout the summer of 2021. The purpose of this testing was to collect data to aid in the development of a resolution, once a resolution is determined, Otter Tail will file an update with the SD PUC which is anticipated before the end of 2021. Since a final resolution is not yet known, it is difficult to estimate a firm timeline but once the resolution is installed, Otter Tail will be filing final test results in Docket 17-042.

Otter Tail continues to limit the output of Astoria Station below maximum output to ensure that the noise requirements are being met except for very limited testing. Generally speaking, the limit is fairly small, as the summer output of the unit may only be about 243-245 MW without limitations. Further discussions will occur with the combustion turbine supplier after the September 2, 2021, testing has been analyzed.

It is unlikely this issue will be resolved quickly. Without knowing the final solution, we are currently estimating resolution 8-12 months from the date of our May 27, 2021 Letter in Docket 17-042. However, due to the uncertainty of the solution, the timeline is not known at this time.

In the meantime, as was indicated in the May 27, 2021 Letter in Docket 17-042, Otter Tail has agreed to limit output below the vibration/noise level (235 MW) except for limited daytime testing. Since being offered regularly into the MISO market on June 1, 2021, the unit has started 61 times, and the monthly capacity factor has ranged between 18.5 - 29.8 percent.