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June 1, 2021

Mr. Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
350 Metro Square Building  
121 7th Place East  
St. Paul, MN 55101-2147

**RE: In the Matter of an Investigation into Self-Commitment and Self-Scheduling of Large  
Baseload Generation Facilities  
Docket No. E999/CI-19-704  
Reply Comments**

Dear Mr. Seuffert:

Otter Tail Power Company (Otter Tail) hereby submits its Reply Comments to the Minnesota Public Utilities Commission (Commission) in the above referenced matter.

Otter Tail has electronically filed this document with the Minnesota Public Utilities Commission and is serving a copy on all persons on the Official Service List for this docket. A Certificate of Service is also enclosed.

Should you have any questions regarding this filing, please contact me at 218-739-8279 or [stommerdahl@otpc.com](mailto:stommerdahl@otpc.com).

Sincerely,

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

cjh  
Enclosures  
By electronic filing  
c: Service List

**STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

**In the Matter of an Investigation into  
Self-Commitment and Self-Scheduling  
of Large Baseload Generation Facilities**

**Docket No. E999/CI-19-704**

**OTTER TAIL POWER  
COMPANY REPLY COMMENTS**

**I. INTRODUCTION & BACKGROUND**

On March 1, 2021, Otter Tail Power Company (Otter Tail) submitted its annual compliance filing (2021 Compliance Filing) for calendar year 2020 in the above referenced docket in response to the Minnesota Public Utilities Commission's (Commission) November 13, 2019 Order in Docket No. E-999/AA-18-373 (AAA Order), which was revised and summarized in Attachment A of the January 11, 2021 Order in Docket No. E-999/CI-19-704.

Otter Tail's 2021 Compliance Filing provided an economic analysis of the two largest baseload generating plants in which it has an ownership interest, Big Stone Plant (Big Stone) in South Dakota and Coyote Station (Coyote) in North Dakota.

By way of background, Otter Tail owns 53.9 percent of Big Stone, which is fueled by Powder River Basin coal railed-in from Wyoming, and 35 percent of Coyote, which is a mine mouth generating plant fueled by North Dakota lignite coal mined at the plant site. The energy associated with Otter Tail's share of these plants is offered into the Midcontinent Independent System Operator (MISO) market, as is the energy associated with the other co-owners save for Northwestern Energy, which is a member of the Southwest Power Pool (SPP) and offers the energy associated with its ownership share of Big Stone and Coyote into the SPP market.

The development of these plants in the late 1970s and early 1980s afforded Otter Tail and its customers an opportunity to realize economies of scale and lower energy costs by partnering with neighboring utilities to own portions of two different plants. This arrangement also provides generation resource flexibility and fuel source diversity. Big

Stone is able to source coal from the various coal mines in Wyoming's Powder River Basin, while Coyote avoids fuel delivery disruption and freight cost escalation risks being a mine-mouth plant. Otter Tail has undertaken similar risk mitigation measures with its natural gas-fired and wind generation plants, by constructing natural gas-fired generation at different geographical sites reliant on different pipelines, and by constructing wind generation at geographically diverse sites in wind-rich areas. Geographically dispersed generation sources also mitigate risk associated with natural disasters.

Otter Tail and its co-owners have always operated these plants with the benefit of each co-owner's customers in mind. Otter Tail and its co-owners have recognized the changing marketplace for energy in recent years and have worked hard to adapt the operations of these plants accordingly.

#### **Economic Dispatch Status – Big Stone Plant**

In April of 2020, Otter Tail and its co-owners finalized a plan that allows Big Stone Plant to be offered into both the MISO and SPP markets on an economic basis when feasible for all owners of the plant.

#### **Economic Dispatch Status Update – Coyote Station**

Otter Tail's 2021 Compliance Filing noted that the co-owners of Coyote Station were considering implementation of economic offer capability at Coyote Station. In response to Information Request MN-FE-005, Otter Tail indicated that the co-owners of Coyote Station had agreed on implementation of economic offer capability in March of 2021, but that implementation wasn't anticipated until the second quarter of 2022 due to other co-owner dispatch requests, unless changes in conditions cause the co-owners to implement earlier.

In mid-April 2021 Coyote co-owners determined that conditions warranted earlier implementation of economic offer capability, and as a result, Coyote Station is now being offered into the MISO and SPP markets on an economic dispatch basis when feasible for all owners of the plant. On Saturday May 1, 2021, for the first time, Coyote Station was economically decommitted.

## **Department of Commerce, Fresh Energy and Sierra Club Initial Comments April 30, 2021**

On April 30, 2021, the Minnesota Department of Commerce's Division of Energy Resources (Department), Sierra Club, and Fresh Energy (collectively, the Parties) filed Initial Comments in response to Otter Tail's 2021 Compliance Filing.

### **Department Comments**

In its Comments, the Department recommended that Otter Tail respond to following issues in Reply Comments:

1. The Department recommends the companies explain in their reply comments how to determine variable fuel costs vs fixed fuel costs (what costs they would incur on fuel if they produced 0 MWh) based on the data reported.
2. Otter Tail's Big Stone and Coyote plants have very different ways of splitting their fuel costs between fixed and variable components. The Department recommends that Otter Tail explain any financial benefits to splitting the fuel cost with a much higher fixed component at Coyote for the ratepayers and the company.
3. The Department recommends Otter Tail explain in reply comments why it pays a higher price for its coal per MWh of generation at Coyote compared to Big Stone. The Department recommends Otter Tail outline in reply comments strategies it can use to mitigate ratepayer impacts if the fixed costs continue to generate overall net losses for the unit.
4. The Department recommends Otter Tail provide simulations for Coyote and report net benefit/(cost) calculations for economic dispatch scenarios for the Coyote Plant.
5. The Department recommends Otter Tail explain in reply comments why Coyote was not committed because of SPP market conditions during 2020 even though this was the biggest reason for must run commitment at Big Stone.
6. Otter Tail discussed customer savings it was able to generate by committing Big Stone to economic commitment for 22% of the time during 2020. Table 4 shows the cost per MWh was significantly higher at Coyote compared to Big Stone. In light of this, the Department recommends Otter Tail explain the company's best estimate of customer savings that can be generated from economic commitment of the company's Coyote unit.

7. The Department recommends Xcel and Otter Tail to explain in reply comments reasons behind the large increase in wind curtailment compared to 2019 and the contribution of must run power plants for the same.

The Department also offered additional recommendations for the 2021 Compliance Filing, which Otter Tail addresses later in these Reply Comments.

### **Fresh Energy Comments**

In its Comments, Fresh Energy commented on Otter Tail's initial filing regarding Ordering points 4 and 6 which Otter Tail will respond to later in these Reply Comments.

### **Sierra Club Comments**

In its Comments, the Sierra Club made several recommendations with regard to further actions the Commission should consider in Otter Tail's upcoming 2021 Integrated Resource Plan (IRP) or fuel clause related dockets.

### **Commission Notice of Extension and Expansion of Reply and Response Comments**

On March 16, 2021, the Commission issued a notice to extend the Reply and Response Comment periods to April 30, 2021 for Initial Comments, June 1, 2021 for Reply Comments, and June 15, 2021 for Response Comments. The Notice listed the following topics open for comment:

- Are the March 1, 2021 filings by the utilities adequate and in compliance with the January 11, 2021 and November 13, 2019 orders by the Commission?
- Is the February 1, 2021 filing by Minnesota Power, covering July 1, 2018 to December 31, 2019, in compliance with Commission orders?
- What conclusions can be drawn from the data filed by the utilities in conjunction with what has been learned earlier in this investigation?
- How should the Commission use the information provided by the utilities in this docket going forward?
- Should the Commission order any further analysis for future reports, or any additional reports by the utilities?
- Should the Commission establish enforcement procedures for this issue?

In these Reply Comments, Otter Tail responds to these topics and the other Parties' April 30, 2021 Initial Comments.

## **II. OTTER TAIL RESPONSES TO TOPICS OPEN FOR COMMENT**

Otter Tail provides the following responses to the topics open for comment:

- A. Are the March 1, 2021 filings by the utilities adequate and in compliance with the January 11, 2021 and November 13, 2019 orders by the Commission?**

Otter Tail believes that its 2021 Compliance Filing complies with the Commission's January 11, 2021 and November 13, 2019 orders.

- B. Is the February 1, 2021 filing by Minnesota Power, covering July 1, 2018 to December 31, 2019, in compliance with Commission orders?**

N/A

- C. What conclusions can be drawn from the data filed by the utilities in conjunction with what has been learned earlier in this investigation?**

In Otter Tail's case, Otter Tail has worked proactively with the co-owners of Coyote and Big Stone to design and implement capability for economic dispatch of these plants, doing so within the context of a multi-owner, multi-market structure. Implementation occurred in April 2020 at Big Stone Plant and in April 2021 at Coyote Plant. Actual economic dispatch status occurs when appropriate for all co-owners.

- D. How should the Commission use the information provided by the utilities in this docket going forward?**

The Commission should find that the information provided by Otter Tail complies with the Commission's January 11, 2021 and November 13, 2019 Orders in Docket No. E-999/AA-18-373 (AAA Order) and Docket No. E-999/CI-19-704. The Commission

should also find that Otter Tail has proactively advanced utilizing economic dispatch at its jointly owned plants for the benefit of its ratepayers. Going forward, the Commission should use the information to inform its participation in the Organization of MISO States, thereby contributing to an even more efficient MISO market that may, in time, facilitate multi-day commitments.

**E. Should the Commission order any further analysis for future reports, or any additional reports by the utilities?**

Otter Tail believes the information the Commission currently requires is reasonable for the purpose of this docket. Otter Tail and its plant co-owners continually evaluate the most efficient and best use of their plants and make business decisions based on the best information available. As noted earlier, Otter Tail and its Big Stone co-owners transitioned to unit economic commitment in April 2020 and the Coyote co-owners did the same in April 2021.

**F. Should the Commission establish enforcement procedures for this issue?**

No. Otter Tail believes this docket should remain informational.

**III. OTTER TAIL RESPONSES TO ITEMS RAISED BY OTHER PARTIES**

**A. Otter Tail provides the following responses to items raised by the Department in Initial Comments filed on April 30, 2021:**

- i. The Department recommends the companies explain in their reply comments how to determine variable fuel costs vs fixed fuel costs (what costs they would incur on fuel if they produced 0 MWh) based on the data reported.*

**Otter Tail Response:**

Otter Tail interprets this question to focus on fuel, and not total variable costs such as reagents, and miscellaneous variable maintenance costs.

With regard to Big Stone, 100 percent of the coal and freight costs are variable fuel costs. If zero MWH were produced, generally there would be zero fuel cost in the context of this discussion. This discussion does not include impacts such as the need to keep the building warm during the winter months.

With regard to Coyote Station, just prior to the new mine being put in service, the co-owners of Coyote Station asked the mine operator to estimate the monthly invoicing into a fixed and variable basis. The request at the time was to consider costs if the plant was or was not operating, and how the monthly costs might be categorized into fixed and variable portions. Since the mine began delivery of fuel, Otter Tail has used this estimated breakdown of fixed and variable costs to develop its MISO pricing offers. If Coyote Station were to produce zero MWH over the course of a year, and knew so in advance, it is likely that the costs of the mine would reflect the fixed cost levels as estimated. Like Big Stone, this would not include costs associated with the need to keep the building warm during the winter months.

- ii. *Otter Tail's Big Stone and Coyote plants have very different ways of splitting their fuel costs between fixed and variable components. The Department recommends that Otter Tail explain any financial benefits to splitting the fuel cost with a much higher fixed component at Coyote for the ratepayers and the company.*

**Otter Tail Response:**

Having a diversified generation fleet, with both mine-mouth and rail-delivered coal generation has the benefit of balancing and diversifying risk associated with fuel supply. The way of splitting fuel costs is not a strategic choice, but rather a reasonable effort to assess the true fixed and variable costs of delivered fuel to each plant. The sources of fuel are fundamentally different. Coyote was designed and constructed as a mine-mouth plant, with a coal supply adjacent to the plant site.<sup>1</sup> At Coyote, the mine

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<sup>1</sup> Mine mouth facilities are found in western states with coal supplies. There are six mine mouth plants in North Dakota, including Coyote Station.



exists to mine and haul coal to the Coyote Station, therefore all the infrastructure in place, the labor to mine, and the on-going costs of fuel and operation must be recovered through Coyote Station. This is typical for mine-mouth plants. Mine-mouth plants have the advantage of less fuel supply risk and the risk of varying market conditions for coal. Big Stone was designed and constructed as a delivered fuel plant. When demand for coal at Big Stone declines, the coal is not ordered and therefore is not reflected in the cost. Delivered fuel plants like Big Stone have the advantage of being able to competitively bid coal from various suppliers, but these plants carry the cost risks associated with being a captive rail customer. Overall delivered fuel plants carry more risk than mine-mouth plants on fuel delivery and availability. The splitting of costs between fixed and variable components are fundamentally reflected in the different fuel contracts at mine-mouth and delivered fuel plants.

- iii. *The Department recommends Otter Tail explain in reply comments why it pays a higher price for its coal per MWh of generation at Coyote compared to Big Stone. The Department recommends Otter Tail outline in reply comments strategies it can use to mitigate ratepayer impacts if the fixed costs continue to generate overall net losses for the unit.*

**Otter Tail Response:**

Otter Tail interprets this question to mean the “all-in” costs of fuel on a per MWh basis.

On a delivered per ton basis, the cost of coal at Big Stone and Coyote are actually very close. However, if fewer tons of coal are burned at Coyote Station, the cost on a per tons basis will increase due to the fixed component inherent in a mine mouth contract. Additionally, although currently the price per ton of coal delivered to each plant is very comparable, the heating value for lignite coal is lower, which raises the cost on a delivered million BTU basis. Because of the lower quality fuel, the efficiency of the plant is lower.

- iv. *The Department recommends Otter Tail provide simulations for Coyote and report net benefit/(cost) calculations for economic dispatch scenarios for the Coyote Plant.*

**Otter Tail Response:**

At the end of April 2020, economic offer capability was implemented for all co-owner shares of Big Stone Plant. As described previously, the Big Stone Plant (and Coyote Station) co-owner operating agreement requires all co-owners to commit their share of the plant, to at least minimum output, if any other co-owner calls for commitment. In May 2020, Otter Tail began maintaining records of co-owner offer requests. From May through the balance of the year, there were considerable periods of time where Otter Tail, based on MISO market expectations, would have elected to offer the unit on an economic basis, but was instead forced to maintain self-commitment for reasons outside of Otter Tail's control. With these records, Otter Tail was able to perform analysis comparing actual Big Stone Plant operations against hours Otter Tail would have endorsed self-commitment (page 12 of Otter Tail's filing). This analysis is noted and discussed in the Department's reply comments.

For context, the above Department recommendation is requesting a similar analysis for Coyote Station (page 35 of Department's reply comments). Providing a similar analysis for Coyote Station is not possible for the 2020 reporting period. During the 2020 timeframe, Coyote Station remained self-committed 100 percent of the hours it was available for operation. The plant did not maintain economic offer capability. Coyote co-owners were not conducting regular offer strategy meetings detailing offer preferences. As such, it is not possible for Otter Tail to look back and determine what offer status the Company would have endorsed compared to the other co-owners. Beginning March 8, 2021, Coyote Station co-owners agreed to allow for implementation of strategic applications of economic offers. Since that time, Otter Tail has been maintaining records of co-owner offer requests. As a result, moving forward from March 8, 2021, Otter Tail will be able to complete a similar analysis comparing actual Coyote Station operations against hours Otter Tail would have endorsed self-commitment.

- v. *The Department recommends Otter Tail explain in reply comments why Coyote was not committed because of SPP market conditions during 2020 despite the fact that this was the biggest reason for must run commitment at Big Stone.*

**Otter Tail Response:**

As noted previously, during the 2020 timeframe, Coyote Station remained self-committed 100 percent of the hours it was available for operation. The plant did not maintain economic offer capability. As 100 percent self-commitment was the unit's operating practice in 2020, fluctuations in the MISO and SPP markets would not have changed the unit's commitment patterns. Similarly, Big Stone Plant operating practices called for 100 percent self-commitment January 2020 through April 2020. Fluctuations in the MISO and SPP markets would not have changed Big Stone's commitment patterns until implementation of economic offer capability was completed. Once economic offer capability was implemented, Otter Tail began recording the factors that required self-commitment of Otter Tail's share of Big Stone Plant, such as SPP market conditions. Beginning March 8, 2021, Coyote Station co-owners voted to allow for implementation of strategic applications of economic offers. Since then, and in alignment with the Big Stone self-commitment recording practices, Otter Tail has recorded the various reasons requiring self-commitment at Coyote Station.

Otter Tail would like to note that during the 2020 reporting period, Coyote LMP pricing in SPP was higher than Coyote LMP pricing in MISO. If economic offer capability would have been implemented for Coyote Station in 2020, it is very likely the two largest reasons for self-commitment of the Otter Tail share of the plant would have been SPP market pricing and non-Otter Tail co-owner calls for commitment.

- vi. *Otter Tail discussed customer savings it was able to generate by committing Big Stone to economic commitment for 22% of the time during 2020. Table 4 shows the cost per MWh was significantly higher at Coyote compared to Big Stone. In light of this, The Department recommends Otter Tail explain the*

*company's best estimate of customer savings that can be generated from economic commitment of the company's Coyote unit.*

**Otter Tail Response:**

The utilities utilized two different types of fuel reporting categories: Unit Fuel Costs and Remaining Unit Fuel Costs. Unit Fuel Costs represent variable fuel costs while Remaining Unit Fuel Costs represent fixed fuel costs. While the sum of the of the variable and fixed fuel components is higher at Coyote Station than Big Stone Plant, the Coyote Station fixed fuel costs will remain whether or not the unit is operated. Again, the fixed costs, or Remaining Unit Fuel Costs, would not change with the implementation of an economic offer at Coyote Station. Furthermore, Otter Tail's share of Coyote Station (149.9 MWs) is 106.1 MWs lower than Otter Tail's share of Big Stone Plant (256.0 MWs). Given Coyote Station's reduced capacity and fixed fuel costs, it is probable that economic offer savings associated at Coyote Station would be less than the economic offer savings at Big Stone Plant.

The savings analysis highlighted by the Department's comments at Big Stone are the result of a historical review of plant operations and co-owner offer requests. Such an analysis is relatively straightforward as Otter Tail was able to incorporate known co-owner offer requests, historical MISO market pricing, and projected unit costs. With the implementation of economic offer capability beginning in March for Coyote Station, and the recording of co-owner offer requests, it will be possible to evaluate Otter Tail's calls for Coyote Station self-commitment, similar to the look back analysis done at Big Stone Plant.

Estimating savings from implementation of an economic offer at Coyote Station for the 2020 reporting year would be very difficult. The complexities of co-ownership, dual markets, and lack of recorded co-owner offer preferences would make such an analysis highly speculative. For the same reasons, any forward-looking economic analysis would also be highly speculative. In order to develop such an analysis, Otter Tail would utilize the EnCompass software. The EnCompass software is the same

software that is utilized in the Otter Tail IRP process. It would be possible for Otter Tail to model our shares of Big Stone Plant and Coyote Station as standalone units within the MISO market. However, such modeling would not be able to account for commitments from the SPP market or requests from other co-owners for self-commitment. As such, it is unlikely the standalone modeling of the Otter Tail shares of Big Stone Plant and Coyote Station would be accurate representations of future operating realities.

- vii. *The Department recommends Xcel and Otter Tail to explain in reply comments reasons behind the large increase in wind curtailment compared to 2019 and the contribution of must run power plants for the same.*

**Otter Tail Response:**

To clarify, the wind curtailment costs the Department is referring to relates to provisions in wind purchase power agreements to which Otter Tail is a party. The primary driver for increased wind curtailment between 2019 and 2020 was reduced real time market pricing. The 2020 calendar year maintained historically low LMP pricing throughout the MISO footprint. The three-year history of average, annual, real time, LMP pricing at the Otter Tail load zone, acting as a proxy for Otter Tail wind farms, is reflected in Table 1 below.

**Table 1**  
Real Time Average Annual Price History (\$/MWh)

Year	OTP.OTP Real Time LMP
2018	\$26.90
2019	\$22.34
2020	\$16.72

The 2020 annual average LMP is 62.2% of 2018 pricing and 74.8% of 2019 pricing. In addition to self-committed generation, these very low 2020 LMP pricing levels were driven by several other factors, including, but not limited to, low natural gas markets, continued renewable resource penetration, and impacts to load driven by the

COVID-19 pandemic. MISO incorporates all of these factors, and many more, including third party generation, transmission outages, virtual trading, etc., in determining market pricing for specific generation facilities. Many of these factors are unknown to Otter Tail. As a result, beyond acknowledging that self-commitment acts to drive market pricing down, it is not possible for Otter Tail to comment on the specific impact of Big Stone Plant and Coyote Station self-commitment as it relates to Otter Tail's purchased power agreement wind generation curtailment.

**B. Otter Tail provides the following responses to items raised by the Department regarding next year's filing.**

- i. Ensuring coal plants are dispatched according to economic commitment has multiple benefits. The Department recommends each utility include in their filing carbon dioxide emission reduction that arise at the site as they move to greater economic commitment.*

**Otter Tail Response:**

Otter Tail supports the recommendation to supply information regarding annual carbon dioxide emissions in next year's filing.

- ii. The Department recommends that the companies provide a complete list of reasons for unavoidable self-commitment of each of their plants. The current filings contain a significant number of must run hours with no explanation for unavoidable commitment status.*

**Otter Tail Response:**

The following list describes the reasons for unavoidable self-commitment at Coyote and Big Stone.

- Co-owner request
- SPP market conditions
- Testing
- Maintenance and operational logistics
- Safety
- Emission requirements
- Third party obligation (i.e., steam contracts)

Implementation of economic offer capability is a relatively new process for both Big Stone Plant and Coyote Station. As the plants gain additional operating experience under the new offer capability, it is possible additional reasons for unavoidable self-commitment may be discovered.

Furthermore, it is possible that multiple unavoidable self-commit reasons may be present at any given time. For example, non-Otter Tail co-owners may request continued self-commitment due to expected SPP market conditions.

Otter Tail would again note that the “significant number of must run hours with no explanation” are largely driven by the fact that Big Stone did not have economic offer capability until the end of April 2020 and Coyote only recently implemented economic offer capability in March of 2021.

- iii. *The Department recommends the utilities include the starting conditions for each plant (Cold, Warm and Hot) whenever a plant starts operating. This will help parties understand the operational dynamics better for each plant.*

**Otter Tail Response:**

Otter Tail supports the recommendation to provide plant startup conditions (cold, warm or hot) in future filings. Otter Tail suggests incorporating the startup data within the existing reporting template in coordination with the other utilities and stakeholders.

- iv. *The Department recommends the utilities include the equivalent forced outage rate (EFOR) for each plant and track this over time. This will help us track increased wear and tear of the plants as they move towards greater economic dispatch.*

**Otter Tail Response:**

Otter Tail supports the recommendation to supply EFOR information in next year’s filing.

- v. *The Department recommends Otter Tail discuss their ability to renegotiate their fuel contract for the Coyote plant and move the plant to economic self-commitment in next year's filing.*

**Otter Tail Response:**

As discussed earlier, Coyote has moved the plant to economic dispatch in 2021. The potential for renegotiation of the Coyote lignite supply agreement (LSA) is very complex and very limited. Renegotiation of the LSA would first require consensus among the co-owners on costs and benefits of such action. Otter Tail cannot impose such action on its co-owners, and the co-owners do not have the unilateral ability to make material changes to LSA, meaning the co-owners must first agree to what "is on table" in any renegotiation -- assuming for sake of analysis that the coal supplier would consider renegotiation. Beyond that initial issue, the Coyote LSA is fundamentally different than delivered fuel supply agreements or other short term supply agreements that are more amendable to restructuring. Developing and operating a mine to support a mine-mouth plant like the Coyote Creek mine is capital intensive. It requires long-term investments in infrastructure and the structure of the LSA ties directly to the financing agreements supporting those long term investments. That the mine has only one customer must also be accounted for in the LSA's risk allocation and fuel pricing. These factors leave little leeway to materially change the cost of fuel. As Otter Tail has noted in prior filings Coyote co-owners have worked closely with the coal supplier to improve operational efficiencies which have help control costs.

- vi. *The Department recommends the utilities describe the changes to their operating procedures and physical modifications to their units to ensure these plants are becoming more flexible to meet the upcoming challenges.*

**Otter Tail Response:**

Otter Tail supports supplying this information in next year's filing as applicable.



**C. Otter Tail provides the following responses to items raised by the Department with regard to this docket's compliance filing.**

- vii. *Department recommends the companies decide on a methodology to split fuel costs in a way that such that one part depends on the MWh produced (variable costs) and the other part is independent of the MWh generated (fixed costs).*

**Otter Tail Response:**

The utilities attempted to capture the Department's above request utilizing two different types of fuel reporting categories: Unit Fuel Costs and Remaining Unit Fuel Costs. Unit Fuel Costs represent variable fuel costs while Remaining Unit Fuel Costs represent fixed fuel costs. As the reporting spreadsheet is represented on an hourly basis, Otter Tail reported its fixed fuel costs by dividing total fixed fuel costs for the month by the number of MWhs generated in that month. This allowed the Company to input a per MWh value into the spreadsheet for fixed fuel costs. Otter Tail, with consensus of all other stakeholders, would be open to updating how these costs are represented and reported.

- viii. *Department recommends the creation of two benchmark scenarios based on the data utilities submit as part of this docket.*
- 1. A worst case scenario of no economic dispatch: In this scenario, the plants operate with must run designation all the time with at least the minimum capacity for all 8,760 hours.*
  - 2. A best case scenario where commitment status ensures maximum net benefits for the plant after satisfying transmission and reliability constraints.*

**Otter Tail Response:**

The Department is recommending the creation of two benchmark scenarios based on the data utilities submit as part of this docket.

The worst-case scenario of no economic dispatch would be a relatively straight forward analysis. This would be true even considering Otter Tail's complicating dynamics of co-ownership and dual markets.

The best-case scenario where "commitment status ensures maximum net benefits" would be a highly complex analysis even without considering Otter Tail's complicating dynamics of co-ownership and dual markets. To ensure "maximum net benefits" complicated optimization techniques would be required, incorporating numerous iterations of varying commitment periods, startup costs, minimum run times, and unit cool down times (to name but a few factors). In Otter Tail's case, this would not even account for co-ownership or dual markets. Even if it were possible to determine the scenario where "commitment status ensures maximum net benefits", from a practical standpoint, such commitment decisions would be impossible to achieve in actual real time operations.

Otter Tail appreciates the intent of the Department's request and would be agreeable to the Department's recommendation that, "the utilities meet to determine a consistent methodology to calculate the best-case scenario," where, "the methodology would use the data utilities are already filing as part of this docket." Otter Tail would strongly suggest a simplified best-case benchmark calculation process that would be representative of highly efficient commitment processes as opposed to one which "ensures maximum net benefits." Again, in Otter Tail's case, such a calculation method would either have to incorporate or ignore the complicating dynamics of co-ownership and dual markets. It would also be possible to utilize the EnCompass software, used in Otter Tail's IRP process, to determine such a benchmark. However, utilization of the EnCompass tool would not necessarily incorporate all of the same data submitted as part of this docket, nor would it be able to incorporate co-ownership and dual market considerations.

**D. Otter Tail provides the following responses to items raised by Fresh Energy in Initial Comments filed on April 30, 2021:**

*i. Order Point 4*

*Otter Tail Power did not complete production cost modeling for this compliance filing. We understand that OTP has been leading the work with plant co-owners at Big Stone and Coyote to put agreements and processes in place that enable plant economic commitment. However, we do not yet have robust forward-looking analysis of the potential impacts on the fuel charge or OTP emissions that could be expected if the plant were to operate economically year-round. Fresh Energy appreciates that this analysis may be complex to model due to the plants' dispatch into both SPP and MISO, and the uncertainty of other owners' commitment choices. We recommend that Otter Tail engage with stakeholders in this docket to discuss modeling methodologies that could be used to approximate the impact of economic operations at both units from 2022-2025.*

**Otter Tail Response:**

Otter Tail did not interpret Order Point 4 as requesting forward looking, future year, analysis of costs and benefits associated with economic dispatch. Instead, Otter Tail interpreted Order Point 4 as the analysis provided in Otter Tail's filing describing economic and self-commitment dispatch associated with the 2020 reporting year.

However, if the Commission requires Otter Tail to provide forward looking analysis for future years, as suggested by Fresh Energy, Otter Tail would echo Fresh Energy's observation regarding the complexity of developing such analysis under co-ownership and dual markets.

In order to develop the requested analysis, Otter Tail would utilize the EnCompass software. The EnCompass software is the same software that is utilized in the Otter Tail IRP process. It would be possible for Otter Tail to model our shares of Big Stone Plant and Coyote Station as standalone units within the MISO market. However, such modeling would not be able to account for commitments from the SPP market or

requests from other co-owners for self-commitment. As such, it is unlikely the standalone modeling of the Otter Tail shares of Big Stone Plant and Coyote Station would be accurate representations of future operating realities.

ii. *Order Point 6*

*This Order Point asked Otter Tail to provide a discussion of the options and costs of changing its current coal contract at Coyote Station and an evaluation of how potential costs of changing the contract compare to Coyote Station's past and forecast operating losses in Docket No. E-999/CI-19-704. Otter Tail provided additional detail on the processes that would be required for modifying the existing Lignite Sales Agreement (LSA) and recent work to identify cost savings at the Coyote Creek mine. Fresh Energy believes it would be reasonable and in the interest of OTP's Minnesota customers to also evaluate if early termination would be prudent. An evaluation of the early termination fee compared to what OTP's Minnesota customers would pay for electricity production without the unit could quantify the value of remaining in the contract or identify a point at which early termination may be beneficial. We encourage OTP to engage with stakeholders in this docket to discuss how to complete such an analysis.*

**Otter Tail Response:**

As noted previously, Otter Tail lacks the ability to unilaterally terminate or restructure the Coyote LSA. Any effort to alter the LSA is bound up in the Coyote Station Ownership Agreement. In Otter Tail's view any discussion of the pros and cons of OTP divesting from Coyote or otherwise taking steps that could lead to Coyote's early retirement (and the cost to rate payers associated with such action) should be addressed in Otter Tail's Integrated Resource Plan (IRP) docket. Otter Tail's initial IRP filing is due September 1, 2021.

**E. Otter Tail provides the following responses to the Sierra Club's Comments filed on April 30, 2021:**

- i. *The Commission should find that the record shows that the Big Stone and Coyote units' co-ownership and operation in both the MISO and SPP markets has resulted in losses to customers, and require, as part of its 2021 IRP, that OTP evaluate whether it is in the best interest of customers for the Company to continue its ownership interest in the units.*

**Otter Tail Response:**

Otter Tail disagrees with the overall premise of this comment. The Sierra Club's position appears to base on a truncated view of plant production costs vs. recent SPP and MISO spot markets when describing "production losses." A full review of the record would demonstrate that Otter Tail's ownership interest in Coyote and Big Stone have benefited customers. This review would take a much more comprehensive view than that suggested by the comment, including consideration of Coyote and Big Stone's capacity value, plant performance over a longer time frame, hedge value, reliability value, and the cost of replacement generation, among other factors. Otter Tail acknowledges that SPP and MISO markets have changed in recent years. That change, however, must be viewed in the broader context. That context is best evaluated in Otter Tail's soon to be filed IRP.

- ii. *With respect to the Coyote fuel supply contract, the Commission should:*
  - *Require Otter Tail to evaluate in its upcoming IRP whether continued participation in that contract is in its customers' interest, or whether customers would instead be better served by early termination of the contract.*
  - *Identify a docket (whether 19-704, the 2021 IRP, or a fuel clause adjustment docket) in which it will evaluate the reasonableness and prudence of the contract and determine what portion of any early termination costs should be borne by customers versus ratepayers.*
  - *Indicate that it will disallow from inclusion in fuel costs all forward-going expenditures on new assets or mine expansion activities at Coyote mine pending demonstration by the Company in the IRP that continued ownership of its share of the Coyote plant is*

*in its customers' interests. This is important to prevent additional costs from accumulating that could increase exit costs associated with the contract.*

**Otter Tail Response:**

That recent MISO and SPP markets have changed does support an evaluation of Coyote's 2012 LSA on a prudency basis. Coyote entered into commercial operation in 1981. Since that time, OTP has filed numerous rate cases, depreciation filings and IRPs. In none of these proceedings did the Commission deem OTP's investments in Coyote to be improper, nor conclude that the facility was detrimental to customers, nor shorten its operating life. The current LSA addresses the scope of mine operations. In recommending disallowance of certain costs for mine activities the Sierra Club fails consider the joint ownership of Coyote Station and fails to consider the contractual obligations of Otter Tail and the other co-owners, and the risk and costs of failing to satisfy those obligations to Otter Tail and its customers. As noted previously OTP intends to address Coyote Station in a comprehensive manner in its soon to be filed IRP. Therefore, OTP recommends that the Commission reject the foregoing recommendations from the Sierra Club.

- iii. *In the absence of a multi-day commitment market at MISO, the Commission should require OTP to maintain, as part of the record in fuel clause adjustment proceedings, standardized records sufficient to demonstrate that it has used forward-looking analyses to inform commitment decisions at the Big Stone and Coyote units.*
- *OTP should be required to utilize LMP forecasts, unit operational costs, and unit start-up and shut-down costs to determine daily whether to self-commit a unit or to take it offline during periods of low market prices. OTP should be required to retain this analysis to allow the Commission to evaluate in fuel clause adjustment true-up proceedings whether a unit's commitment decision maximized its economic value to OTP's customers.*
  - *In addition, OTP should be required to produce data that allows the Commission to verify that the co-owners of Big*

*Stone and Coyote are also using forward looking analyses to inform commitment decisions into the SPP market.*

**Otter Tail Response:**

Otter Tail maintains standing, twice a week, co-owner offer strategy meetings. These meetings can, and have, occurred more frequently on an as needed basis. During these meetings, market conditions are discussed for both the SPP and MISO markets. Co-owners discuss LMP pricing, load conditions, temperature forecasts, plant operational status, wind forecasts, and future expectations. These discussions include aspects of both qualitative and quantitative analysis. Detailed meeting notes are kept highlighting future conditions and co-owner offer preferences. These records are sufficient to demonstrate that Otter Tail has used prudent forward-looking analyses to inform commitment decisions at both the Big Stone and Coyote units. Through the information request process, Otter Tail provided the Sierra Club all such Big Stone meeting notes for the 2020 reporting period. With the implementation of economic offer capability at Coyote Station, starting in March 2021, similar meeting notes are now being drafted and retained for this unit. These notes are available for Commission review as requested.

Otter Tail would further note that not even MISO provides a multi-day commitment, or even a multi-day, nodal forecast past the daily 24-hour commitment period. Development of an accurate quantitative LMP forecast, which would require data inputs that Otter Tail does not have access to, for both the SPP and MISO markets, which would then be used to evaluate prudence in a fuel clause adjustment true-up, is not reasonable. As stated previously, Otter Tail and the other co-owners are continually monitoring, reacting, and adjusting to past, present, and expected market conditions.

The Sierra Club also recommends that “OTP should be required to produce data that allows the Commission to verify that the co-owners of Big Stone and Coyote are also using forward looking analyses to inform commitment decisions into the SPP market.” As noted above, meeting notes are retained from each co-owner offer meeting

and would be made available for the Commission to review upon request. However, Otter Tail does not maintain knowledge of co-owner economic decision drivers, nor does Otter Tail retain the right to require co-owners to provide such data to either Otter Tail or the Commission. Otter Tail would suggest the Sierra Club pursue this information directly from the other co-owners.

- iv. *The Commission should signal that it may, in the next fuel cost true-up proceeding, disallow recovery of fuel costs for times when the unit was operated uneconomically in a manner that is not justified by such forward-looking analyses (or for which no analysis or documentation was produced to demonstrate that the co-owners were committing economically into the SPP market). The reasonableness of unit dispatch practices should be evaluated based on analysis that incorporates predictive maintenance costs—and any other excluded costs that scale with and are impacted by plant operations—as well as all fuel costs, into the variable costs that OTP uses to make its unit commitment and dispatch decisions.*

**Otter Tail Response:**

As discussed earlier, OTP cannot unilaterally dictate or control the overall operation of its plants due to their joint ownership and multi-market operation. As mentioned earlier, co-owners collaboratively discuss and document plant commitment status on a regular basis (at least twice weekly) given current market conditions and owner needs. However, OTP does not retain the right to co-owners' specific decision analysis with regard to a plant's commitment into SPP.

- v. *The Commission should require OTP to evaluate alternative ways of meeting its resource adequacy requirements in its 2021 IRP.*

**Otter Tail Response:**

Otter Tail's IRP, to be filed on September 1, 2021, will include an analysis of how to meet resource adequacy requirements.



- vi. *The Commission should require utilities to identify any proposed new coal contracts in Fuel Clause Adjustment proceedings, and to submit them for prudence review those proceedings, before signing any such contracts.*

**Otter Tail Response:**

Otter Tail does not support this recommendation. First, if adopted this recommendation would likely raise the cost of delivered fuel and create significant logistical problems in maintaining adequate fuel supply at Big Stone. Delivered fuel arrangements are typically short-term agreements. Big Stone's current agreement is for 2021 & 2022. These arrangements are secured through a competitive bidding process. That process, and the certainty that comes with it, would be jeopardized if these arrangements had to be made contingent on Commission approval, which could take up six months or more to secure. The cost of that contingency would need to be structured into the arrangements, significantly increasing the cost of fuel. As applied to Coyote the recommendation is moot. Coyote is a mine-mouth facility. Coyote's first lignite supply agreement commenced in 1981 when the plant first came on-line and ended in 2016. The current lignite supply agreement was signed in 2012, with operations commencing in 2016. The term of the current LSA runs through 2040.

**IV. CONCLUSION**

Otter Tail appreciates the opportunity to provide these Reply Comments. Otter Tail respectfully requests approval of its annual filing and supports the Department's recommendations regarding items for consideration in next year's compliance filing which include:

- providing information on annual carbon dioxide emissions.
- providing applicable reasons for unavoidable self-commit status.
- providing plant startup conditions (cold, warm or hot) in future filings. Otter Tail suggests incorporating the startup data within the existing reporting template in coordination with the other utilities and stakeholders.
- providing EFOR information.

- providing descriptions of changes to operating procedures and physical modifications to their units to ensure plants are becoming more flexible to meet upcoming challenges as applicable.

Otter Tail is open to working with other stakeholders to provide worst- and best-case scenario analysis as recommended by the Department but notes there are limitations regarding Otter Tail's ability to model its joint ownership, dual market considerations.

Dated: June 1, 2021

Respectfully submitted,

OTTER TAIL POWER COMPANY

By /s/ STUART TOMMERDAHL  
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## **CERTIFICATE OF SERVICE**

**RE: In the Matter of an Investigation into Self-Commitment and Self-Scheduling of  
Large Baseload Generation Facilities  
Docket No. E999/CI-19-704**

I, Carly Haiby, hereby certify that I have this day served a copy of the following, or a summary thereof, on Will Seuffert and Sharon Ferguson by e-filing, and to all other persons on the attached service list by electronic service or by First Class Mail.

**Otter Tail Power Company  
Reply Comments**

Dated this **1st** day of **June, 2021**.

*/s/ CARLY HAIBY* \_\_\_\_\_

Carly Haiby, Regulatory Filing Coordinator  
Otter Tail Power Company  
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Fergus Falls MN 56537  
(218) 739-8472

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Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd  Eagan, MN 55121	Electronic Service	No	OFF_SL_19-704_Official
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-704_Official
Brooke	Cooper	bcooper@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022191	Electronic Service	No	OFF_SL_19-704_Official
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Kim	Havey	kim.havey@minneapolismn.gov	City of Minneapolis	350 South 5th Street, Suite 315M Minneapolis, MN 55415	Electronic Service	No	OFF_SL_19-704_Official
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W  Farmington, MN 55024	Electronic Service	No	OFF_SL_19-704_Official
Holly	Lahd	holly.lahd@target.com	Target Corporation	33 South 6th St CC-28662 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-704_Official
Leann	Oehlerking Boes	lboes@mnpower.com	Minnesota Power	30 W Superior St  Duluth, MN 55802	Electronic Service	No	OFF_SL_19-704_Official

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Randy	Olson	rolson@dakotaelectric.com	Dakota Electric Association	4300 220th Street W.  Farmington, MN 55024-9583	Electronic Service	No	OFF_SL_19-704_Official
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_19-704_Official
Isabel	Ricker	ricker@fresh-energy.org	Fresh Energy	408 Saint Peter Street Suite 220 Saint Paul, MN 55102	Electronic Service	Yes	OFF_SL_19-704_Official
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350  Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-704_Official
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