MINNESOTA
PUBLIC UTILITIES COMMISSION

Staff Briefing Papers

Meeting Date	August 20, 2020	Agenda Item 4**
Company	All Commission-Regulated Electric Utilities	
Docket No.	**E-999/AA-20-171**	
	In the Matter of the Review of the July 2018-December 2019 Annual Automatic Adjustment Reports	
Issues	1. Should the Commission accept the electric utilities' July 2018-December 2019 annual automatic adjustment reports?	
	2. Should the Commission deny recovery of 50 percent of Minnesota Power's forced outage of $7.727 million, for a resulting denial (refund) of $3.864 million in forced outage costs from the fuel clause?	

Staff	Jason Bonnett	jason.bonnett@state.mn.us	651-201-2235
	Jorge Alonso	jorge.alonso@state.mn.us	651-201-2258
	Sundra Bender	sundra.bender@state.mn.us	651-201-2247

✓ **Relevant Documents**	**Date**
Otter Tail Power – Initial Report (Non-Public)	February 28, 2020
Minnesota Power – Initial Report (Non-Public)	March 2, 2020
Xcel Energy – Initial Report (Non-Public)	March 2, 2020
Xcel Energy – Revised Part H and HERC PPA (Non-Public)	April 8, 2020
Minnesota Department of Commerce – Comments (Non-Public)	April 15, 2020
Otter Tail Power – Reply Comments	April 27, 2020
Minnesota Power – Reply Comments	April 30, 2020
Xcel Energy – Reply Comments	May 1, 2020
Minnesota Department of Commerce - Response Comments	May 29, 2020
Minnesota Power – Corrected Attachment 15	June 10, 2020
Minnesota Power – Additional Reply Comments	July 1, 2020
Minnesota Department of Commerce – Addl. Response Comments	July 24, 2020
Minnesota Power - Letter	July 31, 2020

Table of Contents

I. Statement of the Issues

Should the Commission accept the electric utilities' July 2018-December 2019 annual automatic adjustment reports?

Should the Commission deny recovery of 50 percent of Minnesota Power's forced outage of $7.727 million, for a resulting denial (refund) of $3.864 million in forced outage costs from the fuel clause?

II. Introduction

On December 12, 2018, the Minnesota Public Utilities Commission (Commission) issued its Order *Revising Implementation Date, Establishing Procedural Requirements, and Varying Rule* (December 2018 Order)[1] which authorized Northern States Power Company d/b/a Xcel Energy (Xcel Energy), Minnesota Power (MP), and Otter Tail Power (Otter Tail) to continue operating their existing fuel clause adjustment through December 31, 2019. The annual automatic adjustment (AAA) reports and compliance filings for the July 2018– December 2019 period were due on March 1, 2020.

On April 15, 2020, the Minnesota Department of Commerce, Division of Energy Resources (Department) submitted its Review for the July 1, 2018 - December 31, 2019 reporting period. By the time the Department submitted its response comments on May 29, 2020 and its supplemental response on July 24, 2020, all of the issues had been resolved except for the Department's recommendation that the Commission order MP to refund $3.864 million in forced outage costs, which is one-half of MP's $7.727 million in forced outage costs during this time period.

On April 30, June 10, July 1 and July 31, MP responded to the Department's requests for explanations and objected to the Department's recommendation.

MP's request for recovery of costs related to the force outages is the only disputed issues raised by parties in this docket.

III. Background

On December 19, 2017, the Commission issued its Order *Approving New Annual Fuel Clause Adjustment Requirements and Setting Filing Requirements* (December 2017 Order)[2] in which the Commission approved the proposal to change the FCA process to provide better protection for ratepayers against potentially unreasonable rates.

The Commission's December 2018 Order approved the following regarding the FCA compliance filings:

---

[1] *In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments*, Docket No. E-999/CI-03-802

[2] *Id*.

1. The implementation date for the new fuel clause adjustment process is January 1, 2020.

2. Beginning January 1, 2020, until the end of the pilot or as otherwise ordered, the FCA process shall follow the calendar year, and the annual fuel clause adjustment true-up compliance filings shall be filed by March 1 of the year following the relevant calendar year.

3. Xcel, Minnesota Power, and Otter Tail are permitted to continue operating the existing fuel clause adjustment through December 31, 2019. The compliance filing for the July 2018– December 2019 period will be due March 1, 2020.

4. The Commission varies Minn. R. 7825.2600, subp. 3, to accommodate the new fuel cost adjustment method and process. The utilities and other stakeholders shall work with the Department to identify any further required variances.

The utilities' Annual Automatic Adjustment (AAA) reports are prepared in accordance with the Commission's automatic adjustment of charges rules, i.e., Minnesota (Minn.) Rules (R.), parts 7825.2390 through 7825.2920. The AAA reports also contain compliance information required by Commission order in previous AAA dockets, and other Commission proceedings (e.g., the orders from the proceedings authorizing transfer of control of the utility transmission assets to the Midcontinent Independent System Operator (MISO),[3] and the orders authorizing the pass through of MISO ancillary service market (ASM) costs and revenue through the fuel clause adjustment mechanisms.)[4]

Annual Automatic Adjustment Reports

On or about March 1, 2020, MP, Otter Tail, and Xcel Energy submitted AAA reports covering the eighteen-month period from July 1, 2018 through December 31, 2019 in this docket.[5] Staff notes that Northwestern Wisconsin Electric Company[6] and Dakota Electric Association[7] are not part of the FCA reform process.

[3] Docket Nos. E-002/M-00-257, E-001/PA-01-1505, E-015/PA-01-539, and E-017/PA-01-1391.

[4] Docket No. E-001,015,002,017/M-08-528.

[5] Copies of the electric utilities' July 1, 2018-December 31, 2019 annual automatic adjustment reports are available through the "edockets" system at (https://www.edockets.state.mn.us/EFiling/search.jsp)

[6] On December 18, 2001, the Commission granted Northwestern Wisconsin Electric Company (NWEC) a variance from the annual reporting requirements in the automatic adjustment rules. This variance has no expiration date. (G,E-999/AA-00-1027).

[7] Dakota Electric Association was not part of the FCA reform process and filed its fiscal year 2018-2019 annual report pursuant to Minnesota Rules on September 1, 2019 (Docket No. E-999/AA-19-402).

IV. Department Review of July 1, 2018 – December 31, 2019 Annual Automatic Adjustment Reports for Electric Utilities

On April 15, 2020, the Department submitted its Review for the July 1, 2018 - December 31, 2019 reporting period of AAA Reports for Electric Utilities (Report). The *Report* covers all of the participating electric utilities' AAA reports, AAA-related compliance filings, and other reports requested by the Commission in various orders.

On pages 3-4 of the *Report*, the Department summarizes the electric utilities' fuel cost projection for the next five years on a $ per megawatt-hour (MWh) basis and as a year-to-year percentage change in cost. The electric utilities reported a wide range of fuel costs and annual percentage changes because each of the utilities' generation fleet, mix of purchase power agreements (PPAs), and other factors differ from utility-to-utility. (The utilities designated this information as non-public data.)

On pages 5-6 of the *Report*, the Department provided a comparison of actual 2019 annual energy costs on a $ per MWh basis to forecasted 2019 costs on a $ per MWh basis, as provided by the electric utilities in their FYE14, FYE15, FYE16, FYE17 and FYE18 AAA reports. The Department observed that the forecasts generally became closer to 2019 actual annual costs the closer to 2019 the forecasts were made.

The table below provides a summary for each utility of the total actual cost of fuel purchased during the year (including purchased power costs) to the fuel costs recovered through automatic adjustments.

Table 1: Summary of Automatic Fuel Adjustments – July 1, 2018 – December 31, 2019

Utility	Fuel Cost Recovered ($)	Fuel Cost ($)	Over-Recovery/(Under-Recovery) ($)	(%)
MP[8]	202,542,190	201,477,350	1,064,840	0.53
Otter Tail[9]	91,174,522	89,764,197	1,410,325	1.57
Xcel Energy[10]	1,199,790,561	1,171,610,793	28,179,768	2.41

Xcel Energy was granted a rule variance to charge Fuel Clause Adjustment (FCA) rates based on the forecast of fuel costs in the upcoming month, rather than the two-month average cost per kilowatt-hour (kWh) required by Minnesota Rules. Xcel Energy also adjusted its rates to refund or recover, i.e. true-up, previous over- and under-recoveries of its energy costs through a monthly (2-month lag) true-up. Otter Tail has a variance that authorize an annual true-up to refund or recover previous over- and under-recoveries of their energy costs.

One of the *Report*'s primary focuses is the Department's review of the pass-through and allocation of MISO costs and revenues in the utilities' fuel clause adjustment mechanisms.

[8] Department *Report* at Attachment B4, page 3 of 4.

[9] Otter Tail Power Company *Petition* Part E, Section 1-7 at 13.

[10] Xcel Energy *Petition* Part E, Section 5, Schedule 1.

Throughout its *Report*, the Department focused on each company's efforts to minimize energy and transmission costs for Minnesota retail customers.[11]

In Attachment B6 of the *Report*, the Department provided a comparison of each utility's average residential customer's monthly electric bill for the most recent calendar-year of 2019. As shown below in Table 2, Otter Tail had the highest average monthly residential bill of $101.05, followed by Minnesota Power at $87.98 and Xcel Energy at $87.21.

In addition, Table 2 shows the amounts in energy charges plus fuel clause adjustments that residential customers paid during calendar-year 2019. The ranking from highest to lowest average monthly amounts paid are: Xcel Energy with an average of 12.01¢/kWh, Minnesota Power with an average of 10.83¢/kWh, and Otter Tail with an average of 9.46¢/kWh. However, the Department noted that, because utilities recover different amounts of fixed costs in their respective energy charges, this comparison is not as useful as the average residential monthly bill comparison.

Table 2: Summary of Average Monthly Residential Bills – Calendar Year 2019

Utility	Avg. Residential Monthly Electric Bill ($)	Avg. Residential Energy Chg. + FCA (¢/kWh)	Avg. Residential Monthly kWh usage (kWh)
MP	87.98	10.83	716
Otter Tail	101.05	9.46	962
Xcel Energy	87.21	12.01	645

Another focus of the *Report* is whether the electric utilities, accurately adjusted their energy rates to reflect changes in fuel costs and revenues related to MISO Day 2 charges including asset-based management and Ancillary Services Market (ASM). The Department also focused on variance analysis and volatility, by comparing costs and revenues to historical information, and allocation of costs and revenues between retail and wholesale prices.

Throughout the *Report*, the Department's analysis was comprehensive and thorough. The Department's initial recommendations are at the end of its *Report*. In subsequent filings, the Department revised its recommendations.

[11] Please see pp. 23 - 25 of the Department's *Report* for discussion of the effects of the MISO Day 1 markets on Minnesota ratepayers.

In its *Report*, the Department recommended the following:

- Acceptance of Xcel Energy, Minnesota Power, and Otter Tail's Auditor Reports;
- Acceptance of Otter Tail's MISO Day 2 reporting and allocations for the reporting period;
- Acceptance of MP, Otter Tail, and Xcel Energy's ASM reporting;
- Acceptance of MP and Otter Tail's Asset-based margins;
- Acceptance of the compliance filings required by Commission Order, as discussed in Section III, items A through R, of the Report;

In addition, the Department raised the following topics as needing additional clarification and invited response in *Reply Comments*. Specifically, the Department requested:

- MP to provide data for generation maintenance expense for 2019;
- MP to provide its policy for transformer maintenance;
- Xcel Energy provide a discussion of its Renewable Connect pilot programs' impact on non-participants and the effectiveness of the neutrality charge to address any cost shift between participants and nonparticipants in compliance with the Commission's February 27 Order;
- Xcel Energy to explain the significant increase in October 2018 total net MISO Day 2 costs;
- MP explain the main drivers for MISO Day 2 charges for the reporting period compared to FYE18;
- MP to provide MISO bills that support the $13.6 million in MISO and ASM net charges for the month of February 2019;
- MP to support its $10.9 million allocation to retail customers "FPE Retail" for February 2019; and
- Xcel Energy to provide the asset-based margin calculation showing the February 2019 Minnesota Net Portion and identify the monthly FCA in which it was passed back to Minnesota ratepayers.

In *Reply Comments*, MP and Xcel Energy responded to the Department's requests for additional information.

In *Response Comments*, the Department reviewed and commented on the information provided by MP and Xcel Energy and recommended acceptance of the various AAA reports, with the exception of Minnesota Power's plant outage costs. The Department recommends the Commission order Minnesota Power to refund ratepayers $3.864 million in forced outage costs.

In *Additional Reply Comments*, MP responded to the Department's recommendation to refund $3.864 million in forced outage costs.

In *Additional Response Comments*, the Department continued to support its recommendation to refund a portion of the forced outage costs.

A. Renewable*Connect Program Impact

1. Background

On page 18 of the *Report*, the Department noted that Xcel Energy failed to address the Commission requirement for a separate section discussing the pilot programs' impact on non-participants and the effectiveness of the neutrality charge, to address any cost shift between participants and nonparticipants. The Department recommended that Xcel Electric provide the required discussion in reply comments.

2. Xcel Energy Reply Comments

Xcel Electric's reply comments provided the required information, describing the analysis and conclusions as follows:

> To understand the potential impact of the Renewable*Connect Program on nonparticipant energy cost, the Company performed an analysis that compared the marginal cost of energy: in this case, on- and off-peak LMP pricing, to the PPA cost of solar and wind resources allocated to Renewable*Connect consistent with the analysis the Company performed for the prior annual compliance filing. The results continue to directionally indicate that nonparticipants were not impacted on a cost of energy basis as the cost of the wind and solar energy exceeded the marginal energy cost estimate. Therefore, in 2019 no incremental costs were borne by nonparticipating customers.

3. Department Analysis

The Department reviewed Xcel Energy's reply comments and agrees with the conclusion that "The results continue to directionally indicate that non-participants were not impacted."

B. Transformer Reporting

1. Background

As discussed on page 17 of its *Report*, the Department noted that MP did not provide its policy for transformer maintenance in its AAA Report. As a result, the Department asked MP to provide this information in reply comments.

2. MP

On page 2 of its reply comments, MP noted that it does not have a specific written Transformer Maintenance Policy; instead, preventive maintenance is tracked in Minnesota Power's Maximo system. According to MP, oil samples are taken annually and electrical testing is performed every 5 years except on the HVDC transformers, which are tested every 3 years. MP also noted that these intervals follow the recommendation of the Company's insurance provider.

3. Department

The Department considers Minnesota Power's transformer maintenance procedures to be reasonable. As a result, the Department recommends that the Commission approve MP's transformer maintenance procedures.

C. Asset-Based Margins

1. Background

As explained on page 35 of the *Report,* the Department recommended that Xcel Energy provide its Minnesota net asset-based margins for the reporting period in reply comments.

The Department also recommended that Xcel Energy provide in reply comments the asset-based margin calculation showing the February 2019 Minnesota Net Portion and identify the monthly FCA in which these margins were passed back to Minnesota ratepayers.

2. Xcel Energy

In Reply Comments, Xcel Energy noted that the $15.293 million reported in its AAA filing represents a portion of the total asset based revenues. Xcel Energy explained that Cost of Goods Sold expenses are deducted from the total asset based revenue to calculate the total asset based margin. Xcel Energy noted that the Minnesota jurisdictional portion credited to Minnesota ratepayers in the April 2019 fuel clause adjustment was $2,664,801.[12]

3. Department

The Department noted it was unable to locate the Minnesota net asset-based margins for the reporting period in Xcel Energy's reply comments. As a result, the Department asked Xcel Energy to provide this information via email. In response, Xcel Energy noted via email that its FYE19 and FYE20 Minnesota net asset-based margins totaled ($24.5) million and ($8.6) million, respectively.

In addition, the Department traced the Minnesota Net Portion amount of $2,664,801 million to Xcel Energy's April 2019 Fuel Clause Adjustment Report filed on March 29, 2019 in Docket No. E-002/AA-19-253. As a result, the Department concludes that Xcel Energy properly refunded its January 2019 asset-based margins to Minnesota ratepayers.

Based on its review, the Department concludes that Xcel Energy's asset-based margins for the reporting period appear reasonable and recommends that the Commission accept Xcel Energy's asset-based margin reporting for the reporting period. The Department noted it will continue to monitor Xcel Energy's asset-based margins in future AAA filings.

[12] Docket No. E-002/AA-19-253.

D. Generation Maintenance Expense

1. Background

In its February 6, 2008 Order in Docket No. E-999/AA-06-1208 (06-1208 Order), the Commission required all electric utilities subject to AAA filing requirements, with the exception of Dakota Electric, to include in future AAA filings the actual expenses pertaining to maintenance of generation plants, with a comparison to the generation maintenance budget from the utility's most recent rate case.

This requirement stems from the drastic increase in IOUs' forced outage costs during FYE06 and FYE07. The Department noted that when a plant experiences a forced outage, the utility must replace the megawatt hours that plant would have produced if it had been operating, usually through wholesale market purchases. The cost of those purchases flows through the FCA directly to ratepayers. The high level of outage costs in FYE06 and FYE07 raised the issues of whether plants were being maintained appropriately to prevent forced outages, and whether IOUs were spending as much on plant maintenance as they were charging to their customers in base rates. The Commission agreed with the Department and the Large Power Interveners that "utilities have a duty to minimize unplanned facility outages through adequate maintenance and to minimize the costs of scheduled outages through careful planning, prudent timing, and efficient completion of scheduled work."[13]

As explained on page 13 of its *Report*, the Department requested that MP provide their actual versus budgeted data for generation maintenance expense for 2019 in reply comments. The Department requested this information due to the link between the level of maintenance expense and forced outages.

2. Minnesota Power

In response to the Department's request, MP provided its 2019 actual generation maintenance expenses that was included in its 2019 FERC Form 1 in Attachment A of its reply comments. According to MP, its 2019 actual generation maintenance expenses totaled $29,564,813 which is $12,434,091 lower than its 2017 test year amount of $41,998,904.

3. Department

The Department stated that Xcel Energy's maintenance spending declined approximately 7 percent from its 2018 levels, which was already below Xcel Energy's test year budgeted maintenance expense. The Department noted that Xcel Energy has only met or exceeded its budgeted maintenance expense during its 2016 test year and has since underspent substantially. Specifically, Xcel Energy underspent by an average of 9.4 percent in 2018 and

[13] *In the Matter of the Review of the 2006 Annual Automatic Adjustment of Charges for All Electric and Gas Utilities,* Docket No. E-999/AA-06-1208, ORDER ACTING ON ELECTRIC UTILITIES' ANNUAL REPORTS, REQUIRING FURTHER FILINGS, AND AMENDING ORDER OF DECEMBER 20,2006 ON PASSING MISO DAY 2 COSTS THROUGH FUEL CLAUSE at 5, (February 6, 2008).

2019; in other words, Xcel Energy charged its ratepayers much more in 2018 and 2019 for maintenance costs than the utility actually spent on such efforts.

OTP increased its maintenance expense and exceeded its test year budgeted maintenance expense for the second year in a row. OTP's 2019 maintenance expense was its highest since 2014.

MP did not provide the required information in its AAA filing so the Department requested that MP provide the information in its reply comments. In *Response Comments*, the Department noted that MP's actual maintenance expense has steadily fallen since at least 2014, down to a low in 2019 of $29,564,813. For 2019, MP underspent its maintenance expense by $12,434,091. The Department is concerned with MP's continued decrease in generation maintenance expense spending, particularly given the increased outage costs discussed in the MISO Day 2 section below, where the Department discusses MP's response to the Department's questions regarding MISO charges (see discussion in section V.C.2, below).

Table 3: Generation Maintenance Expenses

	Most-recent test-year	Most recent test-year ("budgeted") amount	Actual 2019	$ (Difference)	% (Difference)
MP	2017	$41,998,904	$29,564,813	$(12,434,091)	-29.6%
OTP	2016	$15,099,063	$15,589,236	$490,173	3.2%
Xcel	2018	$184,709,427	$161,116,736	$(23,592,691)	-12.8%

Based on the above, the Department concluded that MP, Otter Tail, and Xcel Energy provided the requested information regarding their 2019 actual and test-year generation maintenance expenses in reply comments. As a result, the Department concluded that the IOU's complied with the 06-1208 Order and recommended that the Commission accept the compliance filings for the reporting period.

V. MISO Day 2 Costs & MP Forced Outage Costs

A. Background

On page 30 of the *Report*, the Department noted that Xcel Energy's total net MISO Day 2 costs/(revenues) increased significantly from $6,584,399 in September 2018 to $10,058,540 in October 2018 and decreased to $6,555,026 in November 2018. As a result, the Department recommended that Xcel Energy explain the significant increase in October 2018 total net MISO Day 2 costs in reply comments.

Also, as a result of the significant increase in MISO Day 2 charges for the reporting period compared to FYE18, the Department requested that MP explain in reply comments the main drivers that caused these increases. Additionally, the Department requested that MP in its reply comments provide the MISO bills that support the $13.6 million in MISO Day 2 and Ancillary Service Market (ASM) net charges for the month February 2019. The Department also requested that MP in its reply comments support its cost allocation of $10.9 million to retail

customers "FPE Retail" for February 2019 (as shown on MP's Attachment 8, page 48) and provide any plant outages information for February 2019.

B. Xcel Energy

Xcel Energy explained its significant increase in MISO Day 2 charges for October 2018 were due to the inclusion of $2,831,004 in prior period adjustments related to a market-wide resettlement. Xcel Energy explained that the resettlement was based on revised meter data between January 26, 2018 and March 31, 2018 where a market participant had originally submitted inaccurate meter data to MISO. Xcel Energy stated that the resettlement of revised meter data started October 15, 2018 and ended on November 5, 2018. Xcel Energy noted that the entire impact was accrued for and recorded in the October 2018 reporting period and reported in the "Unusual Items Over $500,000 Report" provided as Attachment 6 of the December 2018 Fuel Clause Adjustment (FCA) Report dated November 30, 2018.

C. MP

1. Invoice Testing and Cost Allocation for MISO Day 2 and ASM net charges in February 2019

In *Reply Comments*, MP explained and provided in Attachment B a reconciliation of the February 2019 MISO invoices and the weekly invoices to support the $13.6 million in MISO Day 2 and ASM net charges, as requested by the Department. MP explained that the reconciliation involves adding together the MISO invoice information plus the current month accrual, then subtracting the prior month accrual and adding any miscellaneous adjustments. MP noted that the reconciliation difference is due to the accrual process. MP notes, there are always actual invoice costs plus MP estimates for each month (which are replaced with actual costs in the next month) that make-up the accrual difference.

MP also provided a bridging schedule that reconciles the cost allocation among different customer categories as shown on MP's Attachment C. MP's Attachment C provides support for the $10.9 million in MISO charges allocated to retail customers "FPE Retail" column for February 2019 on a per kWh basis.

2. Forced Outages of Generation Plants

MP explained that the main driver for the increase in MISO Day 2 charges for the reporting period are attributed to Minnesota Power having significant outages at the Boswell Generation Facility in 2019. Specifically, in February, March, June, and July 2019, MP had increased MISO charges and these months align with the outages. February had 26 days of outage, March had 29 days of outage, June had 22 days of outage, and July had 20 days of outage, all at the Boswell Generation Facility. Because of these outages, MISO charged higher costs due to MP having less company generation available to serve load.

According to MP, in February 2019 Boswell 4 had a major unplanned outage to repair a hot reheat line steam leak. MP included as Attachment D of its reply comments its Forced Outage report from Attachment 15 of its initial AAA filing. The unplanned outage information for February 2019 can be found on page 8.

D. Department

1. Xcel Energy

Based on the above and further review of Xcel's information, the Department concluded that Xcel Electric has reasonably explained its large increase in MISO Day 2 charges for October 2018. As a result, the Department recommends that the Commission accept Xcel Electric's MISO Day 2 reporting and allocations for the AAA reporting period.

2. MP

a. Invoice Testing and Cost Allocation for MISO Day 2 and ASM net charges in February 2019

The Department reviewed the MISO invoices, including the reconciliation to MISO Day 2 and ASM net charges included in the fuel clause for February 2019 of $13.6 million. The Department also reviewed the cost allocation information that supports the $10.9 million (of $13.6 million) allocated to retail customers in February 2019 on a per kWh basis.

Based on its review, the Department concluded that MP's MISO Day 2 and ASM reporting of net charges and cost allocations are reasonable, with the exception of the replacement power costs for forced generation outages, as discussed in the next section.

As a result, the Department recommended that the Commission approve MP's MISO Day 2 and ASM reporting of net charges and cost allocations as reasonable for the AAA reporting period, with the exception of replacement power costs for plant outages as discussed below.

b. Forced Outages of Generating Plants

In its *Response Comments*, the Department noted that the Commission in its February 6, 2009 Order in Docket No. E,G999/AA-06-1208 (06-1208 Order), *In the Matter of the Review of the 2006 Annual Automatic Adjustment of Charges for All Electric and Gas Utilities,* on page 5 stated the following regarding generation plant outages and the need for adequate maintenance of the plants between rate cases:

> The Commission concurs with the Large Power Intervenors and the Department that generation facility outage costs merit careful scrutiny, given their potentially substantial impact on ratepayers.
>
> These parties are correct that utilities have a duty to minimize unplanned facility outages through adequate maintenance, and to minimize the costs of scheduled outages through careful planning, prudent timing, and efficient completion of scheduled work. They recommended that the Commission require additional reporting on outage issues and consider developing benchmarks to quantify acceptable outage performance and create financial incentives to keep scheduled and unscheduled outages within specified parameters.

> The utilities did not object to providing more detailed data on outages in future reports, but they did oppose benchmarks. They contended that unscheduled outages were situation-specific and did not readily fall into a handful of pre-established categories. They also argued that there was no evidence that utilities were not managing outages, scheduled and unscheduled, competently and resourcefully.
>
> The Commission will require additional reporting, detailed in the ordering paragraphs, to ensure that regulators and the public have the data required to ensure that utilities are managing outages for the maximum protection of ratepayers. These issues can be examined further in future automatic adjustment dockets or in related cases, including the ongoing investigation into the continued appropriateness of automatic adjustments for electric utilities.
>
> [Footnotes omitted]

To analyze MP's costs of the high rate of unplanned or forced outages, the Department took the following steps. First, the Department reviewed the net cost of MP's unplanned or forced outages provided on pages 7 to 9 of MP's Attachment D (formerly Attachment 15). The Department notes that, for the July 1, 2018 to December 31, 2019 reporting period, MP incurred $7.727 million in net forced outage costs as a result of 876,092 lost MWhs.

Next, the Department compared the forced outage costs for the current AAA of $7.727 million (for 18 months) or $5.152 million (584,061 lost MWhs) on an annualized basis, to the $958,000 (270,365 lost MWhs) in FYE18 in Docket No. E-999/AA-18-373 and $769,000 (263,558 lost MWhs) in FYE17 in Docket No. E-999/AA-17-492.

The Department noted the following. First, MP's forced outage net costs are approximately 500 percent higher in the current AAA compared to the average of the past two AAA filing periods.[14] Second, when comparing annualized MWhs for the current AAA compared to most recent AAA periods for FYE18 and FYE17, the lost MWhs due to unplanned or forced outages increased by 116 to 122 percent.

The Department noted in its review of actual generation maintenance expense compared to the amounts charged to ratepayers that MP spent 21.9 percent less, on average, for 2018 and 2019 than what is currently charged in MP's rates for generation maintenance expense. The Department notes that for 2019 MP's actual generation maintenance expenses was $29.6 million, compared to the approximately $42.0 million provided in rates, resulting in MP underspending generation maintenance expense by $12.4 million in 2019.

The Department believes MP's significant underspending of generation maintenance expense puts ratepayers at risk of paying higher costs due to forced outages and in fact caused a significant increase in forced outage costs for this AAA reporting period.

[14] Calculated as follows: [[$5,152,000-(($958,000+$769,000)/2)]/(($958,000+$769,000)/2)]*100 = 497%.

The Department argued that given the high level of forced outage costs, MP's low level of expenditures on maintenance of generation plants, compared to the amounts charged to ratepayers in rates, and the fact that the Commission previously indicated the significance of maintaining generation facilities to keep outage costs reasonable; MP has not adequately demonstrated the reasonableness of under-spending on generation maintenance at the same time that ratepayers were charged $7.727 million in forced outage costs via the fuel clause.

The Department concluded that MP has not demonstrated that it is reasonable for MP and its shareholders to keep the $12.4 million in underspent generation maintenance expense (which is a base rate expense) at the same time that ratepayers have had to pay $7.727 million in forced outage costs via the fuel clause.

The Department recommended that the Commission deny recovery of 50% of MP's forced outage costs of $7.727 million, for a resulting denial of $3.864 million in forced outage costs from the fuel clause. Because MP has already charged these costs to ratepayers, the Commission should require the Company to refund $3.864 million to ratepayers.

E. MP Additional Reply Comments

1. Background

In its *Additional Reply Comments*, Minnesota Power argued that the Department's recommendation is not based on "any imprudence related to outage costs or direct causation, but rather on inaccurate extrapolations derived from comparing the level of generation operations and maintenance ("O&M") expense the Company incurred in 2019 to the amount approved in the Company's 2017 test year."[15]

Minnesota Power stated that it continues to invest in generation O&M consistent with the needs of its generation fleet, which vary over time. As such, it is not reasonable to reach conclusions regarding the prudence of the MP's maintenance program simply by comparing two different calendar years.

2. Timing of the Department's Comments

Minnesota Power noted that the Department first made its recommendation for refunding of $3.864 million in forced outage costs to MP's customers, in its Response Comments. Therefore, reply comments are necessary for Minnesota Power to refute the Department's recommendation.

3. Comparison of Actual Costs with Test Year Amounts

As noted above, Minnesota Power's position is that the Department's recommendation is not based on "any imprudence related to outage costs or direct causation, but rather on inaccurate extrapolations derived from comparing the level of generation operations and maintenance

[15] Minnesota Power's *Additional Reply Comments* at 1.

("O&M") expense the Company incurred in 2019 to the amount approved in the Company's 2017 test year."

Specifically, Minnesota Power argued:

> the Department erroneously uses a correlation between a lower 2019 O&M expense and an increased forced outage expense to recommend that the Commission require the Company to refund fifty percent of the forced outage costs of $7.727 million for this AAA reporting period. In making this recommendation, the Department goes so far as to assert, without evidence, that the lower cost must mean the Company chose to forego necessary maintenance so that "Minnesota Power and its shareholders [could] keep the $12.4 million in underspent generation maintenance expense." This conclusion is not only incorrect, as discussed above, but also premised only on assumptions, which is inconsistent with the level of evidence that would be needed to preclude the Company from recovering reasonable costs of unavoidable outages. It is also inconsistent with the fact that Minnesota Power's annual maintenance costs have also at times been higher than test year levels, underscoring that test year levels are intended to be representative of reasonable costs rather than of presumptively prudent levels of maintenance activity.[16]
>
> [Footnotes omitted]

4. Single-Issue Adjustment to Generation Maintenance Expense

Minnesota Power claimed that the Department's recommendation is "essentially a single-issue adjustment to the Company's 2019 generation O&M expense included in base rates."[17] In addition, MP argued that the Department's recommendation violates the principles of test-year rate making and MP should be allowed to "keep the difference between current actual generation maintenance expense and budgeted test-year expense from the 2016 rate case.[18]

5. MP claims an appropriate level of fleet maintenance in 2019, while also experiencing unavoidable forced outages

MP maintained that its spending for the reporting period was appropriate and that the forced outages were unforeseen and unavoidable. Specifically, MP stated:

> the Company's maintenance program has developed around a 10-year planning cycle at the Boswell Energy Center. During each 10-year cycle, there is at least one six- to seven-week outage planned at five-year intervals for each Boswell Unit, with three-week boiler outages scheduled halfway between the five-year intervals. Depending on how the overall schedules fall, there may be two six- to seven-week outages in that 10-year cycle. Minnesota Power has maintained these

[16] Minnesota Power *Additional Reply Comments* at 10.

[17] *Id*. at 2.

[18] Id. at 15.

maintenance intervals within its 10-year planning cycles at Boswell Energy Center for decades, and will continue to support the Boswell Units' ability to meet customer needs and serve the region.

For those resources within the Company's generation fleet that have been re-missioned from baseload service to intermittent capacity support, outage and maintenance cycles are also thoughtfully planned and budgeted with an eye toward the new ways in which the resource supports the overall system. Instead of being on predictive and preventative maintenance programs with the same frequency as the Company's baseload units, the intermittent fleet maintenance programs focus on those systems within the resources that are under the most strain under current operations. Predictive and preventative maintenance of these intermittent resources lies in other systems that require maintenance, either due to the more frequent ramp-up and ramp-down operations or certain periods of limited- or non-use. The Company's predictive and preventative maintenance programs for these intermittent resources also support identifying critical reliability work, to ensure these resources are ready when system conditions require their performance.

In re-missioning portions of its generation fleet, the Company also continues to ensure that employees within the generation work area maintain the appropriate continuing education to support these predictive and preventative maintenance programs. This can include focused education on areas like asset strategy development, or broader education on industry and specific generation resource standards and trends. The Company works with industry, vendor, and original equipment manufacturer ("OEM") recommendations and educational materials to incorporate best practices or inspection and maintenance activities into its predictive and preventative generation maintenance programs.

Across the renewable generation resources owned by the Company, Minnesota Power continues to work closely with the OEM on its recommendations for predictive and preventive maintenance. This is particularly important where these resources are still covered by OEM warranties and, as such, specific maintenance cycles and activities must be followed to ensure both the safe and efficient operations off these resources and to maximize any warranty or guaranteed replacement programs of these renewable resources.

In sum, Minnesota Power stated that, every year, MP continues to undertake proactive measures and follow best practices in the operations and maintenance of its generation fleet.[19]

6. Three significant forced outages in 2019 at the Boswell Plant – two at Boswell Unit 3 in June and July, 2018 and one at Boswell Unit 4 in February 2019

Minnesota Power noted that in 2019 there were three unanticipated outages at Boswell Energy Center that "contributed to the increased forced outage costs: two outages of Boswell Energy

[19] *Id*. at 4-5.

Center Unit 3 (June and July 2019) and one outage at Boswell Energy Center Unit 4 (February 2019). All three failures were due to extraordinary circumstances that were neither anticipated by industry expectations, nor of any imprudent action or inaction of the Company."[20]

Specifically, Minnesota Power stated:

> 1. The February 2019 unplanned outage at Boswell Energy Center Unit 4 was the result of a hot reheat steam line longitudinal seam weld failure. The Company has implemented a protocol related to these types of failures through its predictive and preventative maintenance program, including monitoring and inspection, coordination with consulting engineers to complete non-destructive testing, destructive testing, and weld analysis of high risk areas. However, even where such programs exist weld failures can occur. With respect to Unit 4, the particular failure was not in an area considered high risk through either industry or consultant experience. Additionally, as part of the 10-year inspection cycle, the full pipe examination was not to be completed until 2020. Therefore, under the Company's prudent and reasonable predictive and preventative maintenance program protocol, it would not have been identified prior to failure, and the outage was entirely unanticipated.
>
> 2. The Boswell Energy Center Unit 3 forced outage costs in June 2019 were borne out of a planned outage scheduled to commence on March 30, 2019 and conclude June 7, 2019 (the "April-May 2019 Outage"). Prior to the April-May 2019 Outage, the Company identified a hydrogen leak. Upon identification, the Company consulted with the OEM regarding the leak and recommended repairs were implemented, but proved to not be adequate to address the hydrogen leak prior to the scheduled end of the April-May 2019 Outage. Because of this, an unplanned and unanticipated extension of the outage was necessary to fully address the leak. Further analysis with the OEM determined the root cause was isolated to a float valve in the seal oil system. The OEM informed the Company that this was an extremely rare failure and, because of that, a replacement valve was not immediately available which required additional time to adapt an available valve to the necessary system application. The additional time necessary to complete the root cause analysis and valve modifications to address the hydrogen leak extended the outage to June 22, 2019. Given the rarity of this issue, under the Company's predictive and preventative maintenance program protocol, such an outage was entirely unanticipated and the Company worked as expeditiously as practicable to bring the unit back online.
>
> 3. During the planned Boswell Energy Center Unit 3 April-May 2019 Outage, the Company's OEM performed testing on the phase bushings in accordance with Minnesota Power's predictive and preventative maintenance program. At that time, all three phases of the bushings passed testing at varying levels within acceptable limits. In July 2019, one of the six phase bushings unexpectedly failed. At the time of the failure, the OEM was unable to determine the root cause of the

[20] Id. at 7.

> failure and, because of this, all six phase bushings were replaced to avoid another unexpected failure and unplanned outage. The phase bushings were readily available at the time and, because the technical expertise was already on-site for the single phase bushing replacement, the incremental time to replace the remaining five phase bushings was minor and a prudent maintenance activity implemented by the Company. The Company had undertaken prudent and reasonable measures mere months before the phase bushing failure to avoid an unplanned outage of this type. Despite these efforts, the outage was not avoidable.

Minnesota Power maintained that its generation expense for the reporting period was appropriate and that the Department has not provided the information necessary for the Commission to find MP's level of generation expense imprudent.

F. Department Additional Response Comments

1. Background

The Department continued its recommendation to disallow 50 percent of the higher forced outage costs of $7.727 million, resulting in a denial or refund of $3.864 million in force outage costs for ratepayers.

2. Timing of the Department's Comments

In response to Minnesota Power's statement that the Department first raised its recommendation in its May 29th response comments, the Department noted that MP did not submit in its initial filing the required generation expenditure information pursuant to the 06-1208 Order. Subsequently, the Department asked Minnesota Power to provide 2019 actual information in MP's April 30 reply comments.

As a result, the Department could not comment on the significant underspending of the 2019 actual generation maintenance expense and significantly higher outage costs until the its May 29th response comments.

3. Comparison of Actual Costs with Test Year Amounts

The Department disagreed with Minnesota Power's claim that comparing 2019 actual generation maintenance expense to the amount of generation maintenance expense built into the 2017 rate case test year is inaccurate or in any way inappropriate. The Department argued there is a clear connection between the extent to which the utility appropriately maintains its facilities (planned outages) and the amount of forced (unplanned) outages at the facilities. The Department noted that charging ratepayers for generation maintenance costs but failing to invest those resources into generation facilities and then requiring ratepayers to pay for replacement power costs due to that failure to maintain the facilities is clearly unfair. Thus, the Department concluded that it is reasonable to compare the $42.0 million built into Minnesota Power's rates and paid by ratepayers based on the MP's 2017 rate case test year amount, to the $29.6 million in actual expenditures by Minnesota Power for 2019, and resulting in a $12.4 million in underspent generation maintenance expense.

Additionally, the Department noted that the Commission, in its Order in Docket No. E-999/AA-06-1208 (the 06-1208 Order), required all electric utilities subject to automatic adjustment filing requirements, with the exception of Dakota Electric, to include in future annual automatic adjustment filings the actual expenses pertaining to maintenance of generation plants, with a comparison to the generation maintenance budget from the utility's most recent rate case.

The Department noted that, when a plant experiences a forced outage, the utility must replace the megawatt hours, usually through wholesale market purchases, that plant would have produced if it had been operating. Those purchase costs flow through the fuel clause adjustment directly to ratepayers. The high level of outage costs in FYE06 and FYE07 raised the issues of whether plants were being maintained appropriately to prevent forced outages, and whether IOUs were spending as much on plant maintenance as they were charging to their customers in base rates. The Commission agreed with the Department and the Large Power Interveners that "utilities have a duty to minimize unplanned facility outages through adequate maintenance and to minimize the costs of scheduled outages through careful planning, prudent timing, and efficient completion of scheduled work." 06-1208 Order at 5.

As a result, the Department concluded that it is reasonable to compare Minnesota Power's 2017-test year amount to MP's 2019 actuals for generation maintenance expense, and consider the impact of generation maintenance underspending on plant outage cost levels. In this case, the Department believed that the $12.4 million or 29.5 percent underspending of generation maintenance expense in 2019 contributed to Minnesota Power's forced outage net costs being $7.727 million (for 18 months) or $5.152 million (annualized basis). The Department noted that the net annualized outage costs of $5.152 million for the current AAA is approximately 500 percent higher compared to the average of the past two AAA filing periods ($958,000 in FYE18 and $769,000 in FYE17).

4. Single-Issue Adjustment to Generation Maintenance Expense

The Department disagreed with Minnesota Power's statement that the Department's recommendation is essentially an adjustment to MP's generation maintenance expenses. The Department noted that, in its May 29, 2020 Response Comments, its recommended adjustment is 50 percent of net unplanned or forced outage costs that are fuel related costs included in the fuel clause adjustment. This recommended adjustment was made as part of the Department's review of the AAA, where it reviewed Minnesota Power's net fuel costs. The Department claimed that MP was trying to confuse this issue by inaccurately claiming that the Department is adjusting generation maintenance expense. In fact, the Department recommended an adjustment to the amount of replacement power costs charged to MP's ratepayers through the fuel clause adjustment.

The Department noted that the two cases Minnesota Power cited relating to adjustments to rate case revenues and expenses outside of a rate case, which were considered single-issue ratemaking do not apply because the adjustment recommended by the Department in this proceeding is for replacement power costs due to forced outages, which is a fuel related cost subject to review and true up through the fuel clause adjustment and AAA (not a cost included

in base rates via a rate case). As a result, those two cases are not applicable to the adjustment recommended by the Department.

5. MP claims an appropriate level of fleet maintenance in 2019, while also experiencing unavoidable forced outages

The Department stated that it is aware that Minnesota Power's maintenance program for its generators varies from year-to-year and is done using a planning cycle basis. However, while the Department expects to see 5 to 10 percent variances in generation maintenance expense when comparing test year amounts to actual expense. It is unusual to see 21.9 percent ($9.2 million) reduction in 2018 and a 29.5 percent reduction ($12.4 less that recovered in rates) in 2019. The Department does not believe that it is a coincidence that MP's forced outage costs were at a record high (approximately 500 percent higher than the FYE17 &FYE18 AAA periods) after two years of significantly lower spending of generation maintenance expense (approximately $21.6 million for 2018 and 2019) compared to what was charged to ratepayers in Minnesota Power's rates.

The Department noted that between rate cases Minnesota Power is allowed under the ratemaking process to keep these lower spending amounts for generation maintenance in 2018 and 2019, compared to what is charged in rates. However, MP's underspending of generation maintenance expense for 2018 and 2019 of approximately $21.6 million put ratepayers at risk for higher forced outage costs in 2019. The Department considers it inequitable for Minnesota Power to keep the lower spending levels of $21.6 million for generation maintenance expenses in 2018 and 2019, and at the same time charge ratepayers significantly more for replacement power costs due to higher forced outage costs. As a result, MP should share in the risk it created and pay for 50 percent of the higher forced outage costs of $7.727 million, resulting in a denial or refund of $3.864 million in force outage costs for ratepayers.

Finally, the Department argued that Minnesota Power's assertion that the Department must demonstrate imprudence contradicts Minn. Stat. § 216B.16, subd. 4, which states that the burden of proof to demonstrate that rates are reasonable is on the utility. MP has failed to demonstrate why it is reasonable for the Company to 1) underspend on generation maintenance expense for 2018 and 2019 thereby putting ratepayers at higher risks of forced outages (which occurred) and 2) charge its ratepayers for all of the costs of replacement power due to higher forced outages.

6. Three significant forced outages in 2019 at the Boswell Plant – two at Boswell Unit 3 in June and July, 2018 and one at Boswell Unit 4 in February 2019

Minnesota Power stated that its forced outage at Boswell 4 was due to a "hot reheat steam line longitudinal seam weld failure". MP stated that this failure was not in an area of high risk and therefore was part of a 10-year inspection cycle, which was not scheduled until 2020. As a result, Minnesota Power concluded that the outage was entirely unanticipated.

In response, the Department stated that it considers 10 years to be a long time for a weld not to be inspected, especially for an older Boswell coal-powered plant that is running most of the time. The Department questioned whether inspection of welds should be limited only to "areas

of high risk" if the inspection cycle is the extensive period of 10 years, particularly for an older power plant. In any case, it is clear that MP significantly underspent its generation maintenance expense in both 2018 and 2019 and experienced higher costs of replacement power due to forced outages. The Department concluded that MP has not demonstrated why ratepayers should shoulder the entire burden of the high replacement power costs in light of that underspending.

MP next discussed its forced outage in June 2019 at Boswell 3, due to a hydrogen leak. MP stated that prior to a planned April-May 2019 Outage, it identified a hydrogen leak. MP made repairs for hydrogen leak during the April-May 2019 Outage, yet this effort did not fully address the problem. As a result, MP extended its outage for June 1 to 22, 2019 to address the hydrogen leak. MP noted its determination that the root cause was a float valve in the seal oil system, which they stated was an extremely rare failure.

The Department noted that, despite MP identifying the hydrogen leak prior to the April-May 2019 Outage, MP was unable to resolve the issue in the two-month outage. The assertion that a two-month period was not sufficient time to resolve this problem seems difficult to believe and thus the Department concluded that the MP has not justified recovery of all of the resulting higher outage costs of replacement power due to the extensive forced outage extending into the summer peaking months (June 1 to 22).

Finally, MP discussed its forced outage in July 2019 at Boswell 3, due to a failure of a phase bushing. MP indicated that they tested the phase bushings during the April and May 2019 Outage. MP noted that all three phases of the bushings passed testing at various levels within acceptable limits. Yet, in July 2019, one of the six phase bushings failed. MP stated it was unable to determine the root cause of the failure and therefore, replaced all six phase bushings to avoid another failure and unplanned outage.

The Department noted, despite doing maintenance and testing on the phase bushings in April and May 2019, MP still experienced a phase bushing failure in July 2019. The Department questioned whether replacement of the phase bushings in April and May 2019 might have been more appropriate since its sounds like the cost was not significant.

Overall, based on its review, the Department noted that there appeared to be opportunities for improvements in MP's maintenance process and planned outages to avoid three significant outages during peak periods when energy prices are higher. Additionally, the Department concluded that MP's underspending on maintenance expense in 2018 and 2019 likely contributed to the higher level of net outage costs in 2019.

G. Minnesota Power – Letter

Minnesota Power filed a letter responding to the Department's *Additional Response Comments*, in the letter Minnesota Power reiterated its objection to the Department's position that its generation maintenance spending for 2019 was imprudent. Specifically, MP stated:

> A finding of prudence should not be based solely on a level of spending, the mere fact of forced outages, and speculation about inspection cycles. The evaluation of

> past levels of O&M spend is meant to be a point of data only, as prudence evaluations based solely or primarily on this comparison lack examination of causation and the specific needs of Minnesota Power's generation units. It might be different if there was evidence of actual imprudence, but there is no basis for such claims here. As such, the evaluation of the appropriateness of the Company's overall maintenance and inspection programs and cycles, as necessary to determine whether its overall generation O&M spend level is prudent, has not occurred here and in fact is more appropriate for a rate case where the Department and other stakeholders can review, critique, and provide views on opportunities for improvement.[21]

H. Staff Discussion

The issue before the Commission is whether Minnesota Power should be allowed to charge an additional $7.727 million in unforced outage costs to its ratepayers through the FCA due to generation outages during the reporting period. The Department argued in its *Response Comments* that MP's significant underspending in generation maintenance expense caused "a significant increase in forced outage costs for the AAA reporting period."[22]

Minnesota Power argued that the Department failed to show any imprudence in MP's generation maintenance program spending.[23] Minnesota Power provided information on its generation maintenance program along with discussing the causes of each of the three outages reported during the reporting period.[24] The Department responded that pursuant to Minn. Stat. § 216B, subd. 4, the burden of proof to demonstrate that rates are reasonable is on the utility. The Department concluded that Minnesota Power failed to demonstrate why it is reasonable for the Company to: 1) underspend on generation maintenance expense for 2018 and 2019 thereby putting ratepayers at higher risks of forced outages (which occurred) and 2) charge its ratepayers for all of the costs of replacement power due to higher forced outages.

If the Commission adopts the Department's recommendation then, within 30 days of issuing the Order in this proceeding, it may want to order MP to file a refund plan for the $3.864 million.

Staff notes the Department has been concerned for several years that, because the utilities can automatically recover the cost of replacement power through automatic fuel clause adjustments, utilities may not be adequately spending money budgeted for operation and maintenance of their generating plants and therefore not optimizing the plants' availability. In fact, the issue of forced outage recovery was a significant driver behind the FCA reform process.

In an Order dated June 2, 2016, in the FCA Reform docket, the issue was explained as follows:

---

[21] Minnesota Power *Letter* at 2.

[22] Department *Response Comments* at 7.

[23] Minnesota Power *Additional Reply Comments* at 1, 9-10.

[24] Id at 3-9.

> The Chamber, the Department, the MLIG, and OAG argue that the FCA has outgrown its usefulness. They argue that the share of a utility's costs recovered through this mechanism has grown beyond the FCA's original purposes. And they argue that the FCA, by permitting a utility to automatically recover certain costs though rates, subject only to after-the-fact review, distorts a utility's incentives to manage costs efficiently. For example, a utility that sought to save money by reducing maintenance would be able to retain any sums not expended (at least, until its next rate case). And if a plant were to malfunction for lack of maintenance, the utility could recover the cost of the replacement power automatically from ratepayers through the FCA. These dynamics create a perverse incentive for utilities.[25]

Historically, the Commission has not required utilities to refund forced outage costs to ratepayers because it was often difficult to show imprudent behavior. As Minnesota Power pointed out in its *Additional Response Comments* even when there is where there has been evidence of actual mistakes leading to outages the Commission has not required refunds of forced outage costs.[26]

One option not discussed by either party is the referral of the forced outage issue to the Minnesota Office of Administrative Hearings for a contested case proceeding. This would allow the gathering of additional facts should the Commission feel that additional information is required to make its decision.

The Commission last dealt with the issue of forced outage recovery during its review of 2014-2015 AAA report.

> In 2014 and 2015, several forced outages occurred at the Prairie Island nuclear power plant that required Xcel, the owner-operator of Minnesota's two nuclear power plants including Prairie Island, to obtain replacement power, the costs of which the Company charged to ratepayers. Three of the outages occurred at Prairie Island Unit 1 on the following dates: from December 10 to December 27, 2014; from January 26 to February 12, 2015; and from April 7 to May 9, 2015. One outage occurred at Prairie Island Unit 2 from March 5 to March 25, 2015.
>
> The Department recommended that the Commission disallow recovery of the replacement power costs resulting from forced outages that were caused by Xcel's failure to comply with the United States Nuclear Regulatory Commission's Code of Federal Regulations (NRC Code), as described by the Nuclear Regulatory Commission (NRC) in its report on the Company's forced outages. The Department explained that the NRC completed an Integrated Inspection Report on Prairie Island Units 1 and 2 in May 2015.

[25] In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments, Docket No. E-999/CI-03-802, ORDER ACTING ON ELECTRIC UTILITIES' ANNUAL REPORTS AND REQUIRING ADDITIONAL FILINGS at 9. (June 2, 2016)

[26] Minnesota Power *Additional Reply Comments* at 11.

> That report stated that Xcel failed to follow NRC procedures governing the process for replacing a reactor coolant pump seal in a manner to exclude foreign material that degrades the seal and causes leakage. Because the procedures for installation of the new seal were not followed, including supervision of contractors who installed the seal, foreign material entered the seal, damaging it and jeopardizing plant safety. The Department cited the NRC's report to show that Xcel is responsible for seal leakage that led to the forced shutdowns of Unit 1. Additionally, the Department cited the NRC's report that describes Xcel's failure to timely replace or requalify a solenoid valve at Unit 2 as a violation of NRC regulations that led to the forced shutdown at Unit 2.
>
> Xcel initially claimed that the Company acted prudently and that all costs associated with the outages are reasonable and recoverable. At the Commission meeting, the Company accepted responsibility for two of the four outages at issue, the December 2014 outage at Unit 1 and the March 2015 outage at Unit 2.[27]

As noted on page 1 of these briefing papers, the FCA reform process was implemented on January 1, 2020 thus, going forward, the utilities will not be able to charge forced outage costs to its ratepayers without requesting, and ultimately receiving, Commission approval through an annual true-up filing.

[27] *In the Matter of the Review of the 2014-2015 Annual Automatic Adjustment Reports for all Electric Utilities*, Docket No. E-999/AA-15-611, ORDER ACCEPTING REPORTS, REQUIRING REFUND, AND SETTING ADDITIONAL REQUIREMENTS at 4-5 (July 21, 2017).

VI. Decision Alternatives

1. Accept the Companies' July 1, 2018 – December 31, 2019 AAA reports as filed, and subsequently amended, as being substantially complete under Minn. R. 7825.2390 through 7825.2920. [Department]

2. Accept the compliance filings required by Commission Order, as discussed in Section III, items A through R of the Report. [Department]

3. Accept the utilities' MISO Day 2, asset-based margin, and ancillary services market (ASM) reporting. [Department]

4. Accept the utilities' auditor reports. [Department]

Forced Outages of Generation Plants

5. Deny recovery of 50 percent of MP's forced outage costs of $7.727 million, for the current AAA reporting period, for a resulting denial (refund) of $3.864 million in forced outage costs from the fuel clause. [Department],

and

6. Require MP to file within 30 days of the Commission's Order in this proceeding, a refund plan for the $3.864 million. [Staff]

or

7. Refer the issue to the Minnesota Office of Administrative Hearings for a contested case proceeding. (Staff)

or

8. Allow MP to recover forced outage costs for the current AAA reporting period. [MP]