

June 14, 2019

Daniel P. Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, Minnesota 55101-2147

RE: **Response Comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) to Electric Utilities' Reply Comments**  
Docket Nos. E999/AA-17-492 and E999/AA-18-373

Dear Mr. Wolf:

Attached please find the Response Comments of the Minnesota Department of Commerce (Department) to the electric utilities' reply comments in the matter of the 2016-2017 (FYE17) and 2017-2018 (FYE18) Annual Automatic Adjustment Reports. The Department requests that the Minnesota Public Utilities Commission (Commission) receive these response comments, which are intended to help complete the record in this matter. Specifically, the Department responds to the reply comments of the following parties:

- Northern States Power Company, d/b/a Xcel Energy, reply comments filed on May 6 and 8, 2019;
- Otter Tail Power Company, reply comments filed on May 6 and 8, 2019; and
- Minnesota Power, reply comments filed on May 6 and 8, 2019.

Based on the review of each of the above-listed reply comments, the Department's attached response comments contain revised recommendations to the original recommendations included in the Department's *Review of the FYE18 Annual Automatic Adjustment Reports for Electric Utilities* filed on April 26, 2019.

The Department recommends that the Commission adopt the Department's revised recommendations, as discussed in greater detail herein and summarized at the end of this document. The Department is available to answer any questions that the Commission may have.

Sincerely,

/s/ MARK A. JOHNSON  
Public Utilities Analyst Coordinator

NANCY A. CAMPBELL  
Public Utilities Analyst Coordinator

MAJ/NAC/ja  
Attachment

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## **Before the Minnesota Public Utilities Commission**

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### **Response Comments of the Minnesota Department of Commerce Division of Energy Resources**

#### **Docket Nos. E999/AA-17-492 and E999/AA-18-373**

#### **I. BACKGROUND**

On April 26, 2019, the Minnesota Department of Commerce, Division of Energy Resources (the Department) filed its *Review of the 2017-2018 (FYE18) Annual Automatic Adjustment Reports* (FYE18 AAA Report) with the Minnesota Public Utilities Commission (Commission) in the present docket.

The following electric utilities filed reply comments:

- Minnesota Power (Minnesota Power or MP);
- Otter Tail Power Company (Otter Tail or OTP); and
- Northern States Power Company d/b/a Xcel Energy, Incorporated – Electric Utility (Xcel Electric).

Based on the review of each of the above-referenced reply comments, the Department's Response Comments contain revised recommendations to the original recommendations included in the Department's FYE18 AAA Report.

On May 8, 2019, Xcel Electric, OTP, and MP made compliance filings in Docket Nos. E999/AA-17-492 and E999/AA-18-373 in accordance with the Commission's February 7, 2019 Order in Docket No. E999/AA-17-492 and E999/AA-18-373. As a result, the Department's Response Comments in the instant proceeding also address these compliance filings.

The Department recommends that the Commission adopt the Department's revised recommendations, as discussed in greater detail herein and listed at the end of this document.

#### **II. DEPARTMENT ANALYSIS – AUDITOR'S REPORTS (MP)**

##### **A. BACKGROUND**

As discussed in our FYE18 AAA Report, all electric utilities submitted auditor's reports in compliance with Minnesota Rule 7825.2820. The Commission's July 21, 2017 Order in Docket No. E999/AA-15-611, regarding the review of the 2014-2015 Annual Automatic Adjustment (AAA) Reports for all Electric Utilities, required the following in Ordering Paragraph 7:

7. In future AAA filings, Xcel, Minnesota Power, and Otter Tail must include in their independent auditors' reports the following:
  - a. comparison of the documentation in support of payments and invoices received from energy suppliers;
  - b. comparison of the base costs of power approved by the Commission to the bases used by the utility;
  - c. recalculation of the billing adjustment charge (credit) per kWh charged to customers for purchased power for the entire applicable period by customer class;
  - d. comparison of the accounting records for the revenues billed to customers for energy delivered for the relevant period to the total sales of electric energy;
  - e. on a test basis, an examination of individual billings in each customer class by recalculating the automatic adjustment of charges and credits and tracing to individual customers' subsidiary records to ensure that the calculated credit or charge was correctly recorded;
  - f. an examination of any corrections to [Fuel Clause Adjustment] charges or other billing errors;
  - g. a reconciliation of total revenue and cost of power in the utility's general ledger; and
  - h. a recalculation of any true-up, and tracing of the related revenue and expense amounts to the utility's accounting records.

As explained in our FYE18 AAA Report, the Department concluded that Xcel and OTP provided the above information in their Auditor Reports; however, MP's Auditor Report did not address Ordering Paragraph 7. As a result, the Department recommended that MP address Ordering Paragraph 7 in their reply comments.

#### *B. DEPARTMENT ANALYSIS*

MP stated in reply comments that it reviewed Ordering Paragraph 7 with both its internal and independent auditors to ensure that the requirements were incorporated into the scope of work performed by its auditor. In addition, MP stated that while it did not specify in its filing that these new areas were included, the auditor's scope of work covered all relevant areas from Ordering Paragraph 7.

The Department appreciates MP's clarification that Ordering Paragraph 7 was addressed in its Auditor's Report for FYE18. As a result, the Department recommends that the Commission accept MP's Auditor's Report for FYE18. However, the Department recommends that the

auditor reports included in MP's future AAA filings clearly confirm that Ordering Paragraph 7 was incorporated into the auditor's scope of work.

### **III. DEPARTMENT ANALYSIS – FCA SETTLEMENT AGREEMENT AND XCEL'S COMPLIANCE FILING IN DOCKET NO. E002/GR-05-1428 (XCEL)**

#### *A. BACKGROUND*

As discussed on page 11 of the Department's FYE18 AAA Report, the Minnesota Chamber of Commerce and the Large Industrial Group entered into a Fuel Clause Adjustment (FCA) Settlement Agreement with Xcel Electric in its 2005 Rate Case (Docket No. E002/GR-05-1428). The Settlement Agreement included several commitments by Xcel Electric intended to provide customers with more information and analysis to enhance the ability of customers to plan for and manage volatility in fuel costs. Xcel Electric's FYE18 AAA filing included more discussion on Xcel Electric's plans for hedging fuel or energy purchases and more analysis of Xcel Electric's attempts to mitigate volatility, cover risks associated with planned outages and optimize hedging of congestion costs. The additional information also included a dollar-per-megawatt-hour (\$/MWh) price to show, on a quarterly basis, the rolling 12-month average cost based on expected market conditions.

Since the Department was not a party to the Settlement Agreement, we invited reply comments from those who were parties regarding whether they had any concerns that needed to be addressed.

#### *B. DEPARTMENT ANALYSIS*

The Department notes that no other parties submitted comments in response to our invitation. As a result, the Department recommends that the Commission accept Xcel Electric's FCA Settlement Agreement compliance filing for FYE18.

### **IV. DEPARTMENT ANALYSIS – MAINTENANCE EXPENSES OF GENERATION PLANTS (IN THE MATTER OF THE REVIEW OF THE 2005 ANNUAL AUTOMATIC ADJUSTMENT OF CHARGES FOR ALL ELECTRIC AND GAS UTILITIES, DOCKET NO. E999/AA-06-1208) (ALL UTILITIES)**

#### *A. BACKGROUND*

As explained on pages 13-14 of our FYE18 AAA Report, the Department requested that Xcel, OTP, and MP provide their actual versus budgeted data for generation maintenance expenses for 2018 in reply comments. This information is important due to the link between the level of maintenance expense and forced outages.

*B. DEPARTMENT ANALYSIS*

*1. Xcel*

On May 6, 2019, Xcel filed reply comments responding to the Department's various requests. On May 8, 2019 Xcel Electric submitted supplemental reply comments noting that the Company inadvertently omitted maintenance expense data requested by the Department from its compliance filing and providing it instead in that filing. The Department reviewed Xcel's May 8, 2019 Supplemental Reply Comments and notes that Xcel provided its 2018 actual and budgeted (2016 test year) generation maintenance expenses as requested. According to Xcel, its 2018 actual and budgeted generation maintenance expenses totaled \$173,416,699 and \$184,709,427, respectively.

The Department notes that, while Xcel increased its generation maintenance expense in 2018 compared to 2017, the 2018 generation maintenance expense is still below the 2016 test year amount and lower than its 2014 through 2016 expenses.

*2. OTP*

The Department reviewed OTP's May 6, 2019 Reply Comments and notes that OTP provided its 2018 actual and budgeted (2016 test year) generation maintenance expenses as requested. According to OTP, its 2018 actual and budgeted generation maintenance expenses totaled \$15,365,941 and \$15,099,063, respectively.

The Department notes that, unlike OTP's actual 2016 and 2017 generation maintenance expenses that were below the 2016 test year amount, OTP's actual 2018 generation maintenance expenses were higher than its 2016 test-year amount.

*3. MP*

MP stated in reply comments that it provided its initial 2018 actual generation maintenance expenses in its Response to Department Information Request No. 24, which included a footnote stating that the amount was based on preliminary numbers that were subject to review, adjustment, and audit. Thus, MP provided its 2018 actual generation maintenance expenses that were included in its 2018 FERC Form 1 in Attachment 1 of its reply comments. According to MP, its 2018 actual generation maintenance expenses totaled \$36,050,836, which is \$5,948,068 lower than its 2017 test year amount of \$41,998,904.

The Department appreciates the additional information provided by MP. The Department notes that MP's 2018 actual generation maintenance expenses of \$36,050,836 is even lower than its 2017 actual generation maintenance expenses of \$38,555,947.

#### *4. Summary of Generation Maintenance Expenses*

Based on the above, the Department concludes that Xcel, OTP, and MP provided the requested information regarding their 2018 actual and test-year generation maintenance expenses in reply comments. As a result, the Department concludes that the IOU's complied with the Commission's February 6, 2008 Order in Docket No. E999/AA-06-1208 and recommends that the Commission accept the IOU's compliance filings for FYE18.

As stated in our FYE18 AAA Report on page 13,

...due to the different ratemaking incentives that have existed for maintenance expenses versus replacement fuel costs (incentive to minimize operations and maintenance expense between rate cases with little to no incentive to minimize replacement power costs), the Department intends to continue to monitor the IOUs' actual expenses pertaining to maintenance of generation plants, with a comparison to the generation maintenance budget from the IOUs' recent rate cases in future AAA filings. The Commission's recent decision to amend the FCA mechanism is expected to more closely align utilities' incentives regarding operations and maintenance costs and fuel costs. However, the Department will also continue to monitor outage costs on a going-forward basis. (Footnote omitted)

### **V. DEPARTMENT ANALYSIS – TRANSFORMER REPORTING (XCEL ELECTRIC AND MP)**

#### *A. BACKGROUND*

As discussed in the Department's FYE18 AAA Report at 17-18, the Department noted that Xcel Electric and MP did not provide information regarding backup strategies for transformers or their policy for transformer maintenance in their FYE18 AAA filings. In addition, the Department noted that MP did not provide its policy for transformer maintenance in their FYE18 AAA filing. As a result, the Department asked Xcel Electric and MP to provide this information in reply comments.

#### *B. DEPARTMENT ANALYSIS*

##### *1. Xcel Electric*

Xcel Electric provided and discussed its transformer backup strategies on pages 6-7 of its Reply Comments. In addition, Xcel stated that it provided its maintenance for power transformers and load tap changes on the bulk electric system in Part K, Section 6, Schedule 3 of its Petition; however, Xcel provided another copy of it in Attachment B of its Reply Comments.

The Department appreciates the information provided by Xcel and, based on our review, concludes that Xcel provided the relevant information in accordance with the Commission's August 16, 2013 Order in Docket No. E999/AA-11-792. As a result, the Department recommends that the Commission accept Xcel Electric's transformer reporting for FYE18.

## *2. Minnesota Power*

MP stated the following on page 3 of its Reply Comments:

The Company apologizes for inadvertently excluding its transformer maintenance policy in previous filings. While the Company does not have a specific written Transformer Maintenance Policy, preventive maintenance is tracked in the Company's Maximo system. Oil samples are taken annually and electrical testing is performed every 5 years except on the HVDC transformers, which are tested every 3 years. These intervals follow the recommendations of the Company's insurance provider.

The Department appreciates the additional information provided by MP and recommends that the Commission accept MP's transformer reporting for FYE18.

## **VI. DEPARTMENT ANALYSIS – HIGH BRIDGE ADJUSTMENT (XCEL ELECTRIC)**

### *A. BACKGROUND*

In reviewing Xcel Gas' AAA filing in Docket No. G999/AA-18-374, the Department became aware of an issue involving the allocation of natural gas costs between Xcel Gas' retail customers and Xcel Electric's generation facilities. While this issue was discussed in more detail in the Department's April 25, 2019 comments in Docket No. G999/AA-18-374, the Department noted that this issue may result in an adjustment to Xcel Electric's FYE18 fuel costs. In Docket No. G999/AA-18-374, the Department asked Xcel Electric to submit information on the allocation issue in both the electric and natural gas AAA proceedings. The Department stated that it would review the supplemental information and provide supplemental comments should an adjustment to Xcel Electric's FYE18 fuel costs be warranted.

On May 6, 2019, Xcel filed identical reply comments addressing this issue in both the gas and electric AAA dockets for FYE18 (Docket Nos. G999/AA-18-374 and E999/AA-18-373). Similarly, the Department addresses its response to Xcel's reply comments in both dockets.

### *B. DEPARTMENT ANALYSIS*

Beginning on page 3 of its Reply Comments, Xcel Electric stated in part that:



When the Company discovered this misallocation of costs between gas and electric customers, we immediately took steps to correct it. We noted this in our 2018 Annual Automatic Adjustment of Charges Report – Gas, Docket No. G999/AA-18-374, and in the Fuel Clause Adjustment Report for October 2018, Docket No. E002/AA-18-622:

An issue was identified at the High Bridge plant whereby SCADA meter data was being provided to NNG as opposed to more accurate volumes from the MV90 meter. This resulted in a total credit to gas commodity expenses of \$6M over 5 AAA years (2013-2018). An entry for this amount was booked during month-end close. The \$6M will be recovered through the electric FCA over the next 12 months beginning in October.

The Company included a credit in the 2017-2018 Natural Gas True-up Report, and the corresponding true-up factors including the credit are effective on natural gas customer bills for the timeframe September 1, 2018, through August 31, 2019. A corresponding expense is being recovered from electric customers through the fuel clause for the timeframe October 1, 2018, through September 30, 2019.

The Department stated the following in our June 14, 2019 Response Comments in G999/AA-18-374:

The Department is troubled that Xcel Gas did not bring the High Bridge allocation issue to the Commission in a separate filing. The magnitude of this \$6 million error warrants more information and attention than a minimal “compliance” to Docket E,G999/AA-97-1212 in the back of Xcel Gas’s Annual Report and a brief mention in its October 2018 FCA. Xcel Gas thought \$4.8 million of manufactured clean-up costs were significant enough to bring forth a full deferred accounting request to the Commission, but somehow a \$6 million allocation error across operating utilities did not warrant its own filing.

Additionally, in its analysis regarding the applicability of the Billing Error Rules, Xcel Gas does not acknowledge the severity of its mistake. In arguing that the Billing Error Rules do not apply, Xcel Gas stated,

To be clear, neither the misallocation of costs nor its correction provides any benefit to the Company. We simply passed certain gas costs on to the wrong customer base, and we are now in the process of passing those costs back to the correct customers. We do not believe the misallocation is a billing error under either Minn. Rule 7820.3800 or 7820.4000. Subpart 1 of each of those rules defines the type of errors to which they apply: “When a customer has been overcharged or undercharged as a result of incorrect reading of the meter, incorrect application of rate schedule, incorrect connection of the meter, application of an incorrect multiplier or constant or other similar reasons[.]” In other words, the billing error rules apply only to issues with a particular customer or set of customers’ meters or bills themselves. [Footnote Omitted] This situation is neither. Instead, this issue relates to the underlying calculation of fuel charges due from all customers.

Additionally, application of the billing rules to this situation would limit our ability to correct the misallocation and ensure that both gas and electric customers pay for the actual costs of the gas used to serve them. ... We believe the Company’s actions better align with good policy, as they ensure that both gas and electric customers pay for the actual costs of the gas used to serve them.

Xcel Gas’s assessment of this situation as “We simply passed certain gas costs on to the wrong customer base” is, frankly, alarming. Utilities are expected to maintain their equipment, be able to issue an accurate bill, and correctly calculate the monthly automatic adjustments, since ratepayers have almost no control over billing accuracy. Xcel Gas failed to provide accurate information to NNG, and neither Xcel Gas nor Xcel Electric caught the error for several years. Mistakes are rarely intentional, and the Department works with all Minnesota regulated utilities to offer fair and reasonable resolutions for the Commission’s consideration. However, Xcel Gas and Xcel Electric’s actions have attempted to circumvent Commission authority to even consider, let alone make, a policy call in this scenario.

When something goes wrong, utilities are expected to be transparent; to name but a few examples, the Department and Commission Staff receive immediate notifications for large outages and weather events, the utilities have specific requirements in the Billing Error Rules to separately identify significant refunds and surcharges, and every single change to the utilities' tariffs requires Commission approval. The fact that the Commission has not contemplated or anticipated every scenario for which to have a Rule does not absolve a regulated utility of its responsibility for reasonably-accurate billing and transparency.

Xcel Gas included minimal information in its Gas Annual Report on a large refund that has a lower inherent risk to ratepayers, yet included no information in the Electric AAA regarding a surcharge to ratepayers. The correction emerged from Xcel Gas's error, and this lopsided information is not consistent with the up-front and transparent approach expected of a regulated utility when correcting a significant error impacting ratepayers.

Further, relative accuracy in billing of fuel costs is essential, since fuel costs are generally passed through directly to ratepayers. Utilities should be allowed to recover reasonable and prudent fuel costs from ratepayers, but it is not reasonable for a utility, in this instance Xcel Gas and Xcel Electric, to use the annual true-up filings to attempt to correct a significant error with almost no accountability for it. Such carelessness and lack of transparency in informing the Commission are unacceptable and point to the lack of direct incentive for the utilities to manage and monitor fuel costs, which is part of the reason why Minnesota regulated electric utilities now operate under Fuel Clause Adjustment (FCA) reform, where electric utilities are expected to have more accountability for FCA rates.

That said, the Department agrees with Xcel Gas that the Billing Error Rules 7825.3800 and 7825.4000 do not apply in this situation, and that this is indeed a policy call. But the principles behind the Billing Error Rules are informative on how to address this situation. The Rules purposefully favor ratepayers more than utilities by allowing refunds of corrected amounts for the previous three years, but only provide for surcharges for corrected amounts for one year. Likewise, the threshold for direct refunds begins at an average of \$1 per customer, but the threshold for direct surcharges begins at \$10 per customer.

Additionally, previous Billing Error Rule variance filings by Xcel Gas and Xcel Electric provide guidance:

- In Docket No. E,G002/M-16-347, two meters on a duplex were connected incorrectly and charged to the opposite unit for which usage applied. Xcel requested a variance to extend refunds to two customers beyond the three years provided for in the Rules, yet did not request an extension to surcharge the undercharged customer for more than a year.
- In Docket No. E002/M-15-881, four meters in a four-plex were incorrectly installed, leading to two customers being over-charged and two customers being under-charged. Xcel Electric requested a variance to extend refunds to the two over-charged customers, while only surcharging the under-charged customers by a year or less.
- Xcel Gas and Xcel Electric have not requested variances to surcharge customers beyond one year in any of the following Billing Error Rule filings where customer meters were switched with a neighboring premise, resulting in a customer being under-charged for their service:
  - Docket No. E,G002/M-14-74
  - Docket No. E002/M-13-438
  - Docket No. E002/M-12-861

Through these filings, Xcel Gas and Xcel Electric have demonstrated that they understand the importance of making customers whole, even if it means inequitable recovery for itself.

The Department concludes that Xcel's behavior in response to discovering the High Bridge allocation error is unacceptable. Rather than filing a separate petition, Xcel Gas and Xcel Electric slipped ratepayers' refunds and surcharges into the annual true-ups to be applied over the subsequent 12 months, further complicating the generational mismatch of fuel costs for both gas and electric ratepayers.

Minnesota Rule 7825.2920, Subp. 3. Commission Action provides legal support for the Commission to consider remedy. It states, in part,

Subp. 3. Commission action. The commission, on complaint or on its own motion, and after appropriate investigation, notice, and hearing, may issue an order to fix at current levels, discontinue, or

modify an automatic adjustment provision for an individual utility.

Based on Xcel Gas and Xcel Electric's inappropriate attempts not to disclose its material errors, and on the discussion above, the Department recommends that the Commission disallow Xcel Electric's surcharge and require Xcel Electric to refund the entire surcharge amount of \$5,181,931 to electric ratepayers. At a minimum, the Commission should disallow the prior period surcharges of \$3,669,040, to be consistent with previous Billing Error Rule variances.

Xcel Gas ratepayers subsidized Xcel Electric ratepayers since FYE14 due to Xcel Gas's error in providing metering data to NNG. Therefore, interest should be calculated and refunded on the \$3,669,040 that was held from Xcel Gas ratepayers for longer than a year. Minnesota Rule 7825.2920 states, in part,

Subp. 2. Errors. Errors made in adjustment must be refunded by check or credits to bills to the consumer in an amount not to exceed the amount of the error plus interest computed at the prime rate upon the order of the commission if (1) the order is served within 90 days after the receipt of the filing defined in part 1825.2900 or 7825.2910 or at the end of the next major rate proceeding, whichever is later, and (2) the amount of the error is greater than five percent of the corrected adjustment charge.

The Department recommends that Xcel Gas calculate interest at the Prime Rate on the prior period adjustment portion of the allocation error, or \$3,669,040, and include the calculated interest as a credit in its 2019 AAA True-Up due September 1, 2019.

Since the fuel cost portion of the refund to Xcel Gas customers is nearing relative completion through true-up rates that apply until August 31, 2019, the Department recommends that the Commission allow the Xcel Gas refund to continue as is, despite the customer generational issues.

Finally, Xcel filed this same information in its Reply Comments in the Electric AAA, as requested in this instant docket, on May 6, 2019. Resolution of Xcel Gas's High Bridge misallocation issue impacts both the Xcel Electric AAA and the Xcel Gas AAA.

Therefore, the Department recommends that this issue be resolved prior to, or concurrent with, final Commission action on the Electric AAA. [Footnotes Omitted]

The Department notes that its recommendations to deny Xcel Electric's surcharge will not impact FCA costs for FYE18 (July 1, 2017 to June 30, 2018) since the surcharge did not begin until September 2018. However, the Department's recommendations, if approved by the Commission, will impact Xcel Electric's FCA costs for the upcoming AAA period from July 2018 to December 2019. (This recommendation will not affect the FCA rates to be set during the FCA Reform, since those rates are not expected to be effective until January 2020.)

## **VII. DEPARTMENT ANALYSIS – SELF-COMMITMENT AND SELF-SCHEDULING (XCEL ELECTRIC, OTP, AND MP)**

### *A. BACKGROUND*

On February 7, 2019, the Commission issued its Order in the FYE17 AAA and FYE18 dockets (Docket Nos. E999/AA-17-492 and E999/AA-18-373). Among other things, the Commission's Order required utilities to make compliance filings addressing their self-commitment and self-scheduling of generation facilities in the MISO market. Specifically, Ordering Point No. 4 stated that:

Within 90 days, Minnesota Power, Otter Tail Power, and Xcel shall each make a compliance filing containing an initial analysis of the consequences of self-commitment and self-scheduling of their generators, including the annual difference between production costs and corresponding prevailing market prices for both FYE17 and FYE18.

On May 8, 2019, Xcel Electric, OTP, and MP made compliance filings in Docket Nos. E999/AA-17-492 and E999/AA-18-373 in accordance with the Commission's Order.

### *B. DEPARTMENT ANALYSIS*

The Department notes that the issues surrounding self-commitment and self-scheduling of generation facilities by Minnesota utilities in the MISO market are important and appreciates the Commission's interest in these issues. In fact, the Department recently participated in a presentation given by the Union of Concerned Scientists regarding these issues and their impacts on energy markets and ratepayers. A copy of the presentation is provided in Attachment 1 to these comments.

The Department reviewed the utilities' compliance filings regarding self-commitment and self-scheduling of their electric generation facilities and concludes that they complied with the Commission's May 8, 2019 Order in Docket No. E999/AA-17-492. Thus, the Department recommends that the Commission accept their compliance filings for FYE17 and FYE18.

The Department notes that the utilities' compliance filings generally show that the MISO revenues are greater than the marginal costs associated with running these facilities. The Department notes that this result is expected since the generating stacking or economic dispatch process in the MISO energy market was designed so that utilities would recover, at a minimum, their marginal costs associated with running these facilities. However, the Department also notes that this fact does not indicate whether or not these generation facilities are operating at a net profit once fixed operating and maintenance expenses and capacity costs are included; such an evaluation should normally be done in Integrated Resource Plans.

The Department intends to continue to follow these important issues and address them in future AAA proceedings.

## **VIII. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

The Department reproduces the Conclusions and Recommendations section from our FYE18 AAA Report below, revised to reflect our review of the utilities' reply comments. For ease of reference, the section numbers refer to the sections in the FYE18 AAA Report, rather than the sections in these response comments.

### *A. SECTION II, FILING REQUIREMENTS*

Based on our review, the Department concludes that Xcel, MP and OTP complied with the Commission's Ordering Paragraph 7 in Docket No. E999/AA-15-611 regarding Auditor's Reports. However, the Department recommends that the auditor's reports included in MP's future AAA filings clearly confirm that Ordering Paragraph 7 was incorporated into the auditor's scope of work.

### *B. SECTION III, COMPLIANCE DOCKETS*

The Department recommends that the Commission accept Xcel Electric's compliance filing, including the high-level cost allocation test between wholesale and retail customers for June, July, and August of 2018. The Department recommends that the Commission continue to require Xcel Electric to report this generation cost allocation data in future AAA filings under the current FCA process, as required by Docket No. E002/CI-00-415, Ordering Paragraph No. 2.

The Department concludes that Xcel Electric's Natural Gas Financial Instruments compliance filing complies with the Commission's Order in Docket No. E002/M-01-1953.

The Department recommends that the Commission accept Xcel Electric's Wind Curtailment compliance filing for FYE18.

The Department notes that Xcel Electric's FYE18 AAA filing included additional information and analysis to address the FCA Settlement Agreement approved by the Commission in Docket No. E002/GR-05-1428. Since the Department was not a party to the FCA Settlement Agreement, we invited reply comments from those who were parties regarding whether they had any concerns that needed to be addressed. Since no other parties submitted comments in response to our invitation, the Department recommends that the Commission accept Xcel Electric's FCA Settlement Agreement compliance filing for FYE18.

The Department will continue to monitor the treatment of offsetting revenues and compensation recovered by the utilities in future filings.

The Department concludes that Xcel, OTP, and MP provided the requested information regarding their 2018 actual and test-year generation maintenance expenses in reply comments. As a result, the Department concludes that the IOU's complied with the Commission's February 6, 2008 Order in Docket No. E999/AA-06-1208 and recommends that the Commission accept the IOU's compliance filings for FYE18. The Department will continue to monitor the IOU's generation maintenance expenses in future AAA filings.

The Department concludes that the IOU's complied with the reporting requirement of Order Point 22 of the April 6, 2012 Order in Docket No. E999/AA-10-884.

The Department concludes that Xcel Electric complied with the 2010 Order in Docket No. E002/M-10-161 regarding WM Renewable Energy.

The Department concludes that MP provided the required reporting information in compliance with the Commission's Order in Docket No. E015/M-10-961 regarding Manitoba Hydro PPA.

The Department concludes that the Community Solar Garden Program costs included in Xcel Electric's FYE18 FCA appear reasonable.

The Department recommends that the Commission accept OTP's, Xcel Electric's, and MP's transformer reporting for FYE18.

The Department concludes that Xcel Electric has correctly calculated the costs of the Renewable\*Connect Green Pricing programs that appear in the fuel clause adjustment.

The Department concludes that the total credit for the Flint Hills transaction complies with the Commission's Orders in Docket No. E002/PA-17-529.



The Department concludes that the total credit of \$1,275,903 for the options for the potential Sherco land sales complies with the Commission's February 6 Order in Docket No. E002/PA-17-528.

*C. SECTION IV, TOTAL FUEL COST REVIEW (HIGH BRIDGE ADJUSTMENT)*

The Department concludes that Xcel's behavior in response to discovering the High Bridge allocation error is unacceptable. Rather than filing a separate petition, Xcel Gas and Xcel Electric slipped ratepayers' refunds and surcharges into the annual true-ups to be applied over the subsequent 12 months, further complicating the generational mismatch of fuel costs for both gas and electric ratepayers.

Based on Xcel Gas and Xcel Electric's inappropriate attempts not to disclose its material errors, the Department recommends that the Commission disallow Xcel Electric's surcharge and require Xcel Electric to refund the entire surcharge amount of \$5,181,931 to electric ratepayers. At a minimum, the Commission should disallow the prior period surcharges of \$3,669,040, to be consistent with previous Billing Error Rule variances.

*D. RECOMMENDATIONS FOR MISO DAY 1*

Overall the Department concludes that the Companies' responses have complied generally with all of the AAA MISO Day 1 compliance reporting requirements. The Department expects utilities to continue to work hard to mitigate costs or the effects of changes by MISO or FERC that could negatively impact Minnesota retail customers. Utilities are required to continue to show benefits of MISO Day 1 in the context of their rate cases before receiving further cost recovery of Schedule 10 costs.

At the April 25, 2019 Agenda meeting for the FCA Reform process (Docket No. E999/CI-03-802), the Commission agreed with the Department, utilities, and consumer advocates conclusion that MISO Day 1 reporting was no longer necessary. As a result, the Department expects MISO Day 1 information to be excluded from future AAA filings.

*E. RECOMMENDATIONS FOR MISO DAY 2 REPORTING AND ALLOCATIONS*

- The Department recommends that the Commission accept Xcel Electric's MISO Day 2 reporting and allocations for FYE18.
- The Department recommends that the Commission accept MP's MISO Day 2 reporting and allocations for FYE18.
- The Department recommends that the Commission accept OTP's MISO Day 2 reporting and allocations for FYE18.

*F. RECOMMENDATIONS FOR ASSET BASED MARGINS*

- The Department concludes that Xcel Electric's asset-based margins for FYE18 appear reasonable. The Department will continue to monitor Xcel Electric's asset-based margins in future AAA filings.
- The Department concludes that MP's asset-based margins for FYE18 appear to be reasonable. The Department will continue to monitor MP's wholesale asset-based margins in future AAA filings.
- The Department concludes that OTP's asset-based margins for FYE18 appear to be reasonable. The Department will continue to monitor OTP's wholesale asset-based margins in future AAA filings.

*G. RECOMMENDATIONS FOR ANCILLARY SERVICES MARKET*

- The Department reviewed Xcel Electric's ASM charges and concludes that they are reasonable. As a result, the Department recommends that the Commission accept Xcel Electric's ASM reporting for FYE18.
- The Department reviewed MP's ASM charges and concludes that they are reasonable. As a result, the Department recommends that the Commission accept MP's ASM reporting for FYE18.
- The Department reviewed OTP's ASM charges and concludes that they are reasonable. As a result, the Department recommends that the Commission accept OTP's ASM reporting for FYE18.

*H. RECOMMENDATIONS FOR SELF-SCHEDULING AND SELF-COMMITMENT*

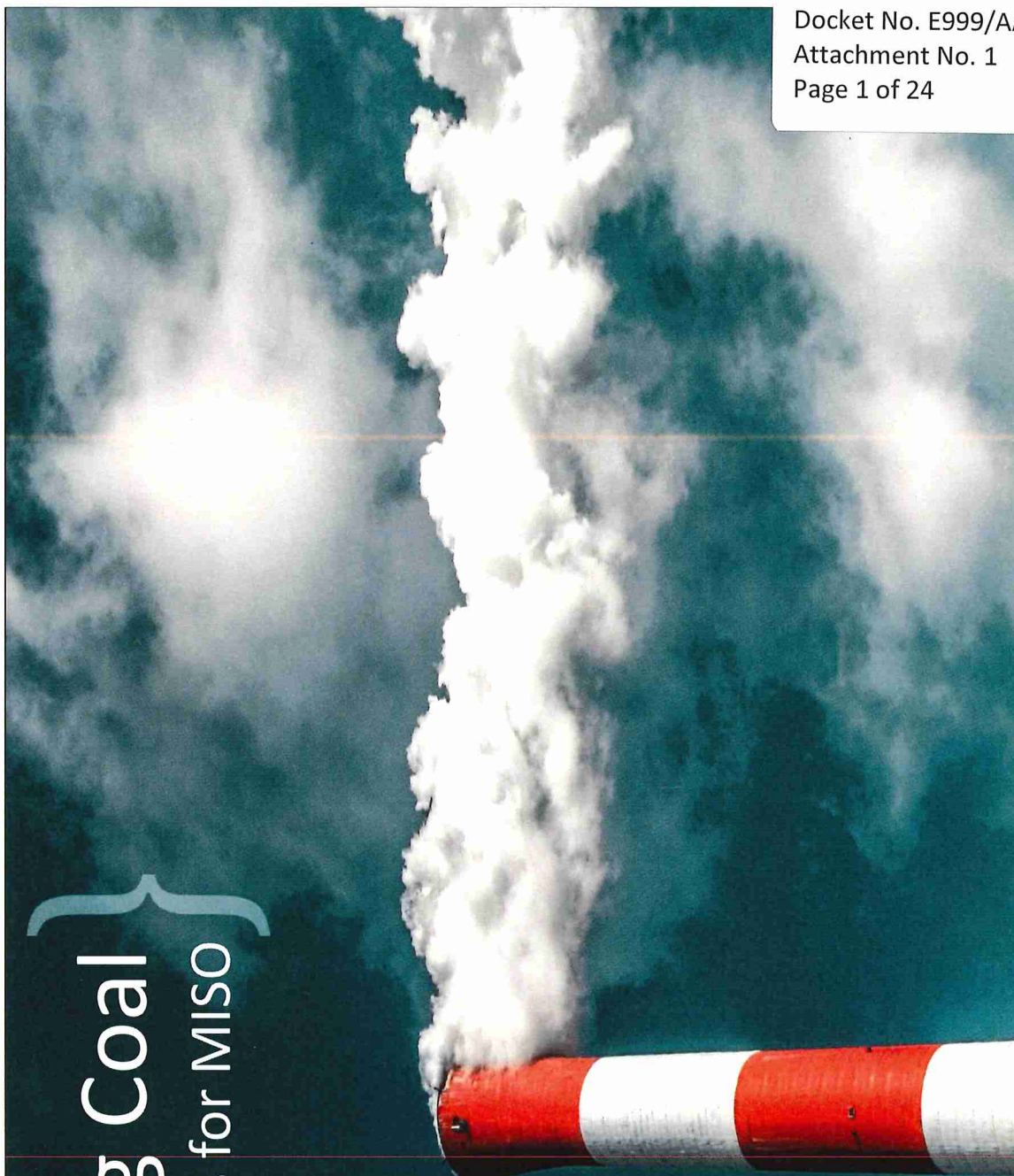
The Department reviewed the utilities compliance filings regarding self-commitment and self-scheduling of their electric generation facilities and concludes that they complied with the Commission's February 7, 2019 Order in Docket Nos. E999/AA-17-492 and E999/AA-18-373. Thus, the Department recommends that the Commission accept their compliance filings for FYE17 and FYE18. The Department intends to continue to follow these important issues and address them in future AAA proceedings.

/ja

# Self-Scheduling Coal } Impacts and Implications for MISO

Organization of MISO States  
Webinar  
May, 10<sup>th</sup>

Joseph Daniel  
Sr. Energy Analyst  
[Union of  
Concerned Scientists]





# QUICK ROAD MAP

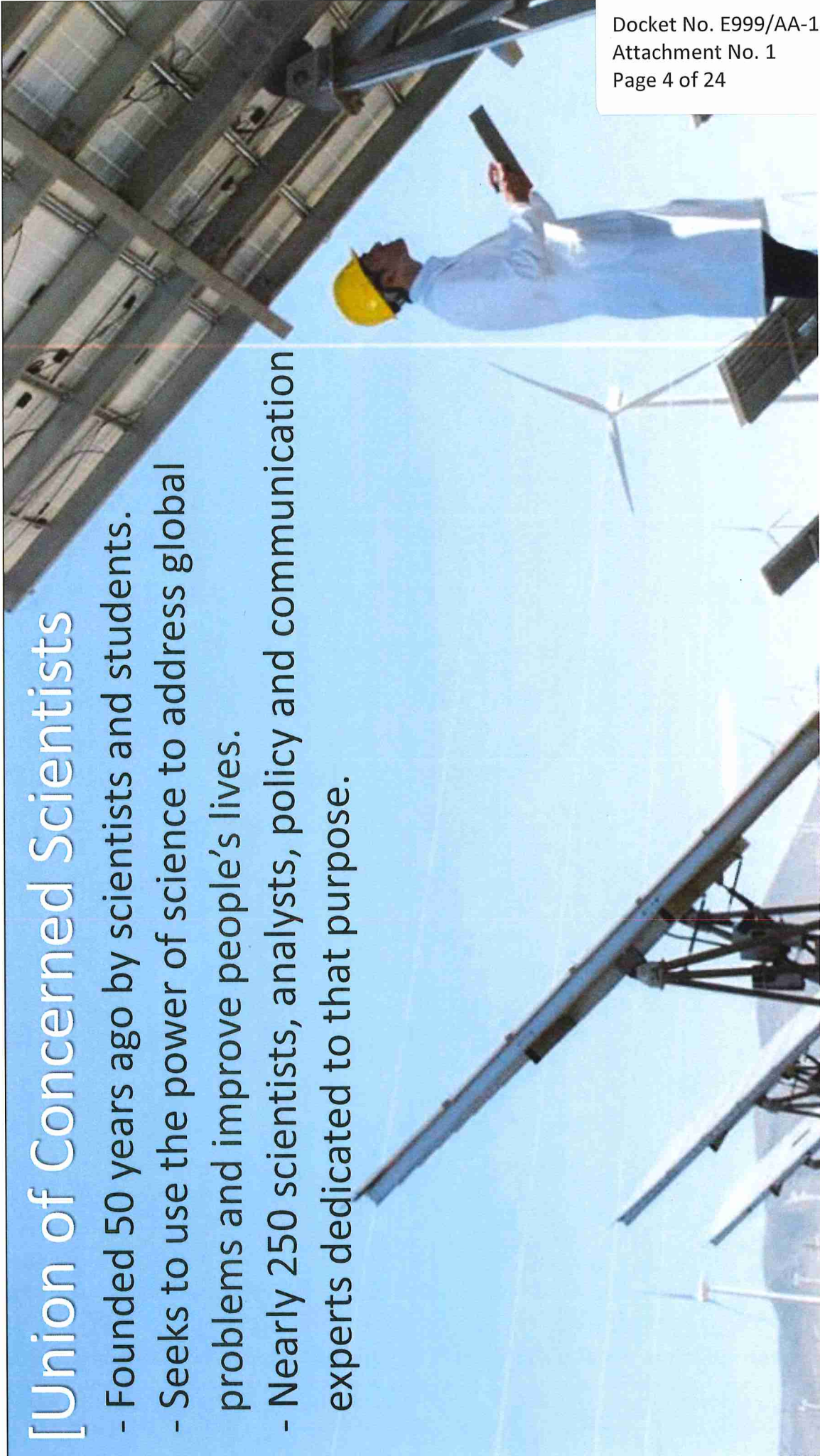
About UCS  
Analysis Results  
Impacts  
What's Next  
Questions

# About UCS

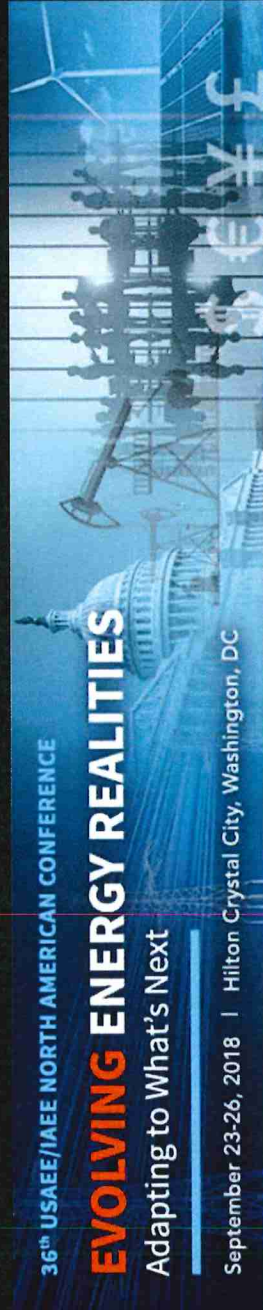


# [Union of Concerned Scientists

- Founded 50 years ago by scientists and students.
- Seeks to use the power of science to address global problems and improve people's lives.
- Nearly 250 scientists, analysts, policy and communication experts dedicated to that purpose.



# Analysis & Results



## OUT-OF-MERIT GENERATION OF REGULATED COAL PLANTS IN ORGANIZED ENERGY MARKETS

Joseph Daniel, Senior Energy Analyst – Union of Concerned Scientists  
September 24, 2018





# Module 1: Screening analysis, Methodology

Dark Spread = LMP – Production Costs (Fuel + VOM)  
[hourly nodal and unit level]

Expected CF = # hours with dark spread > 0 / 8,760

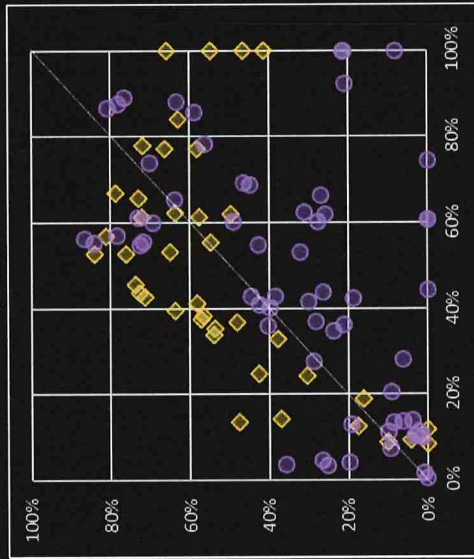
$$Actual\ CF = \frac{Annual\ Generation}{Capacity \times 8,760}$$

# Merchant vs. Rate Regulated

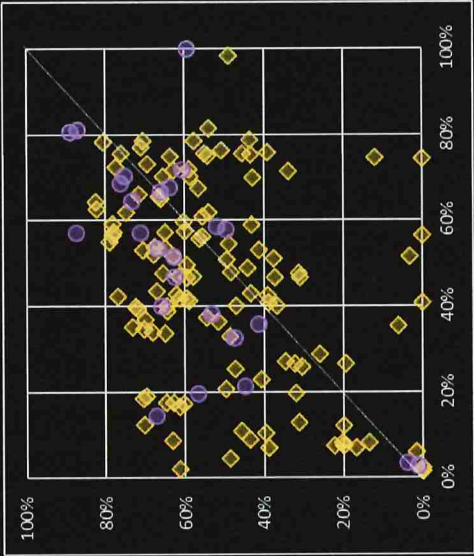


Originally presented in: United States Association For  
Energy Economists Annual Conference 2018

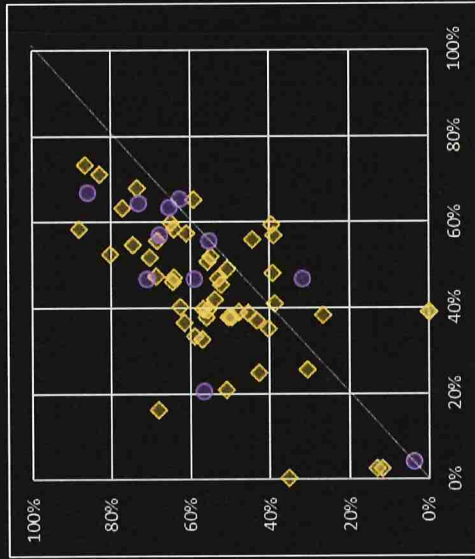
PJM



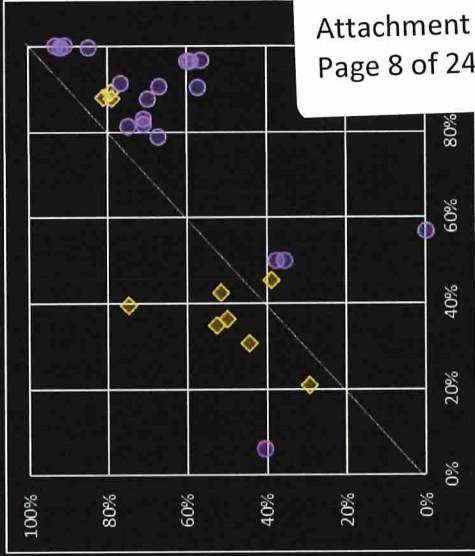
MISO



SPP



ERCOT



Horizontal axis is expected value

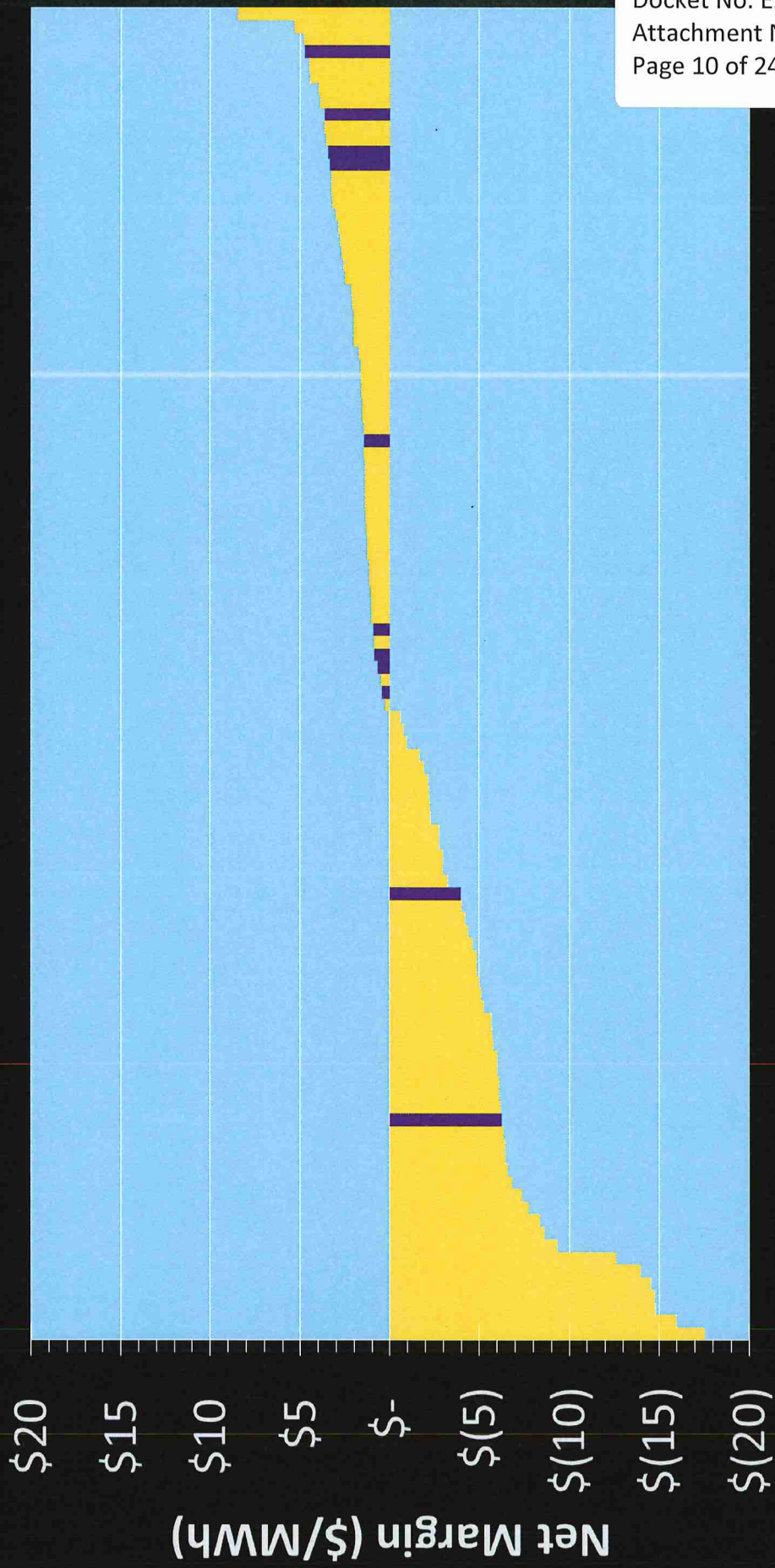
## Module 2: Cash Flow Analysis, Methodology

Dark Spread = LMP - Production Costs

Dark Spread  $\times$  Net Generation = Net Revenues (losses)

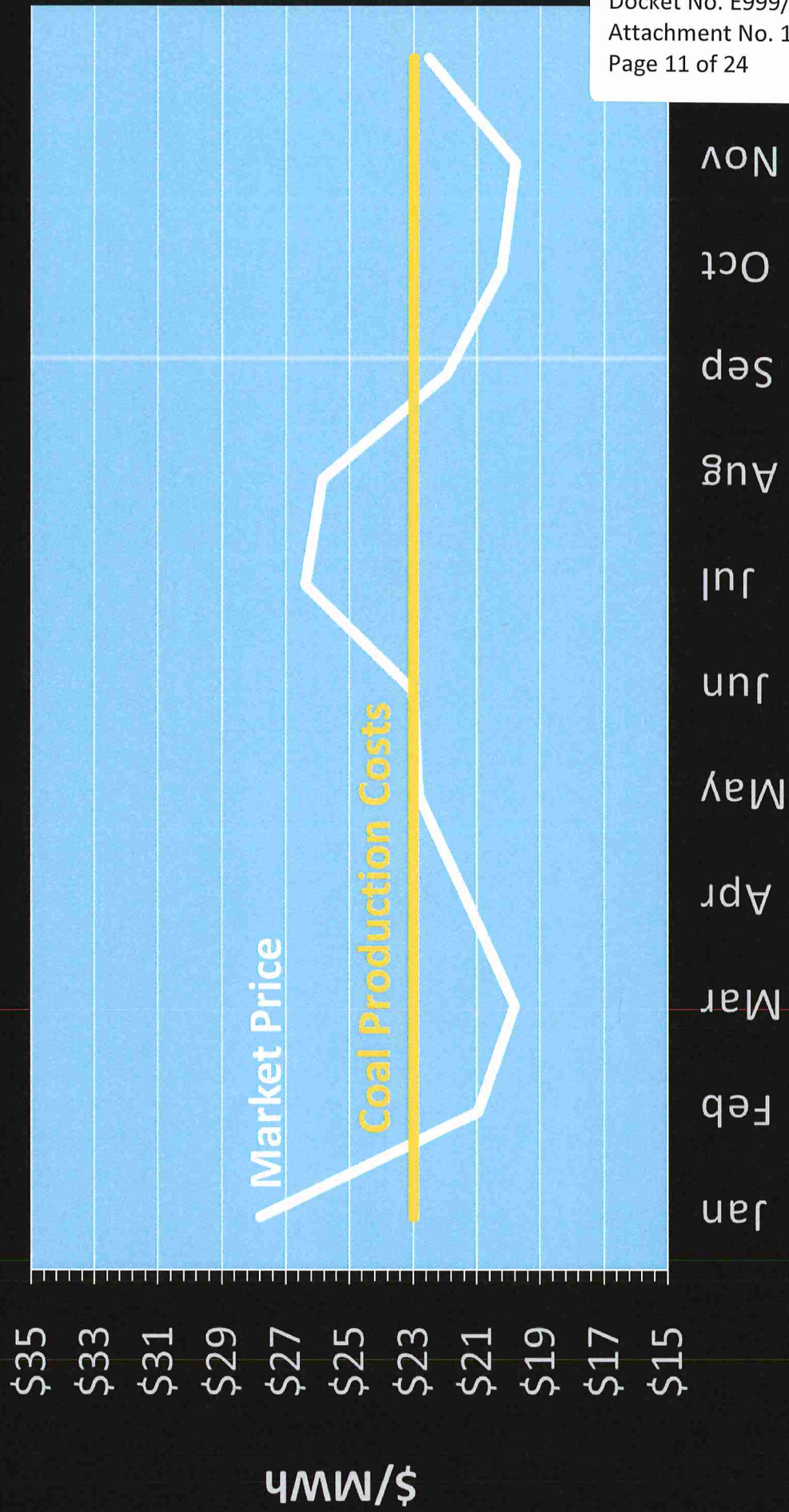
Sum Net Revenues (losses) over day, month, or year

## Results for MISO: Weighted Average Margins (3-years)

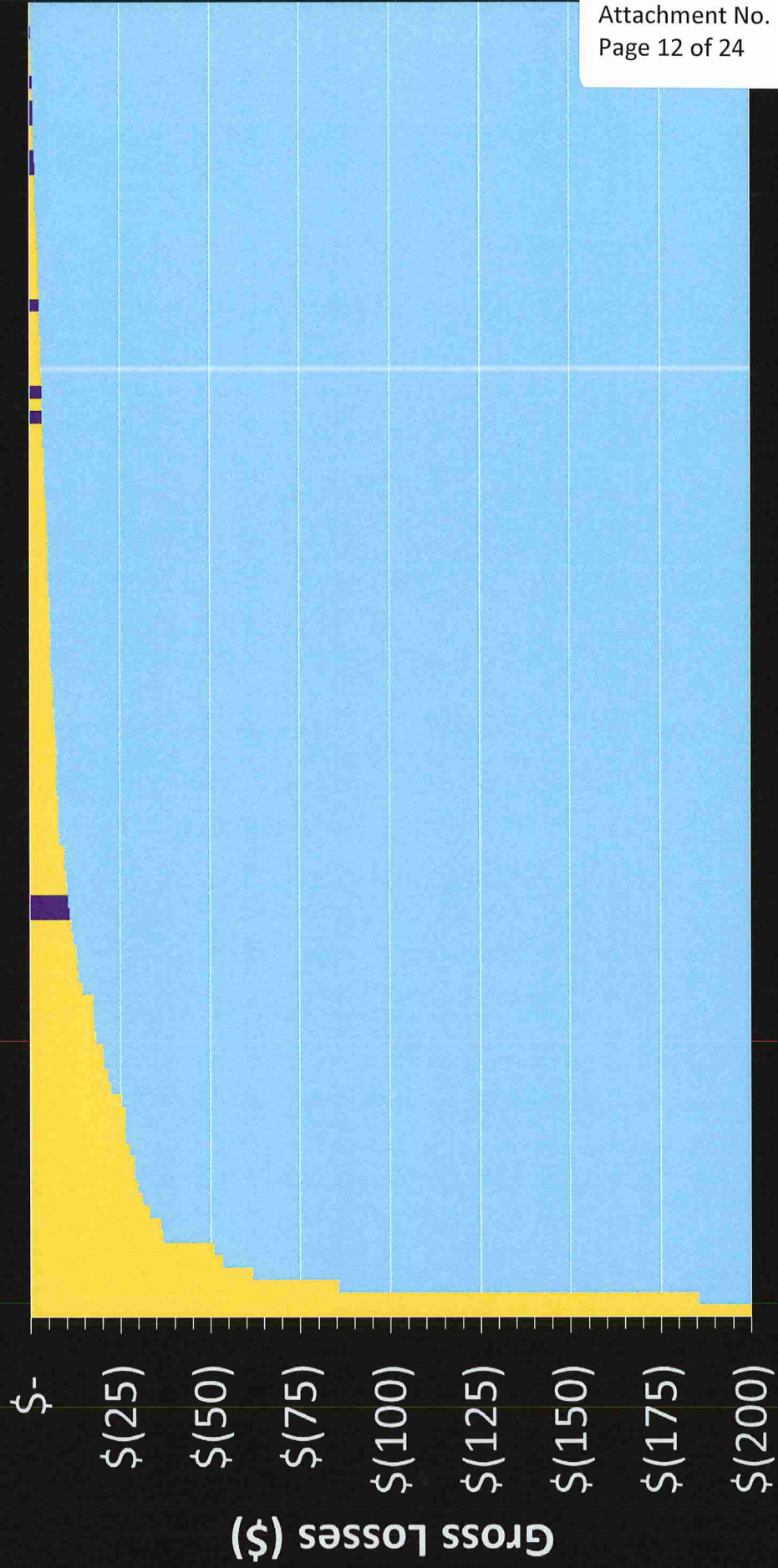




## MISO Market Prices



# MISO Results: Gross Monthly Losses (3-years)





## Impacts on Consumers PJM

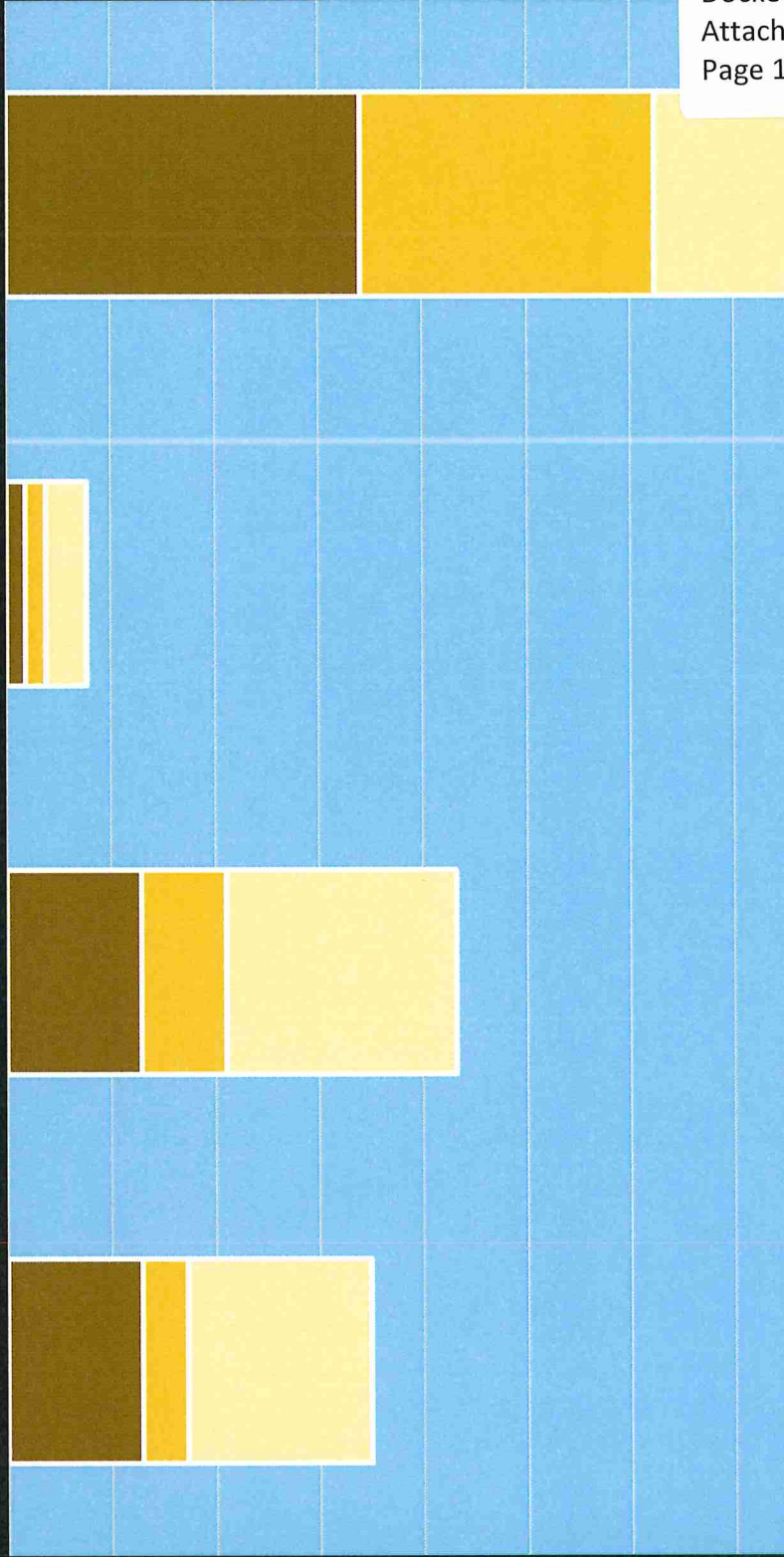
Gross Monthly Losses (\$ millions)

\$0  
-\$200  
-\$400  
-\$600  
-\$800  
-\$1,000  
-\$1,200  
-\$1,400  
-\$1,600

MISO

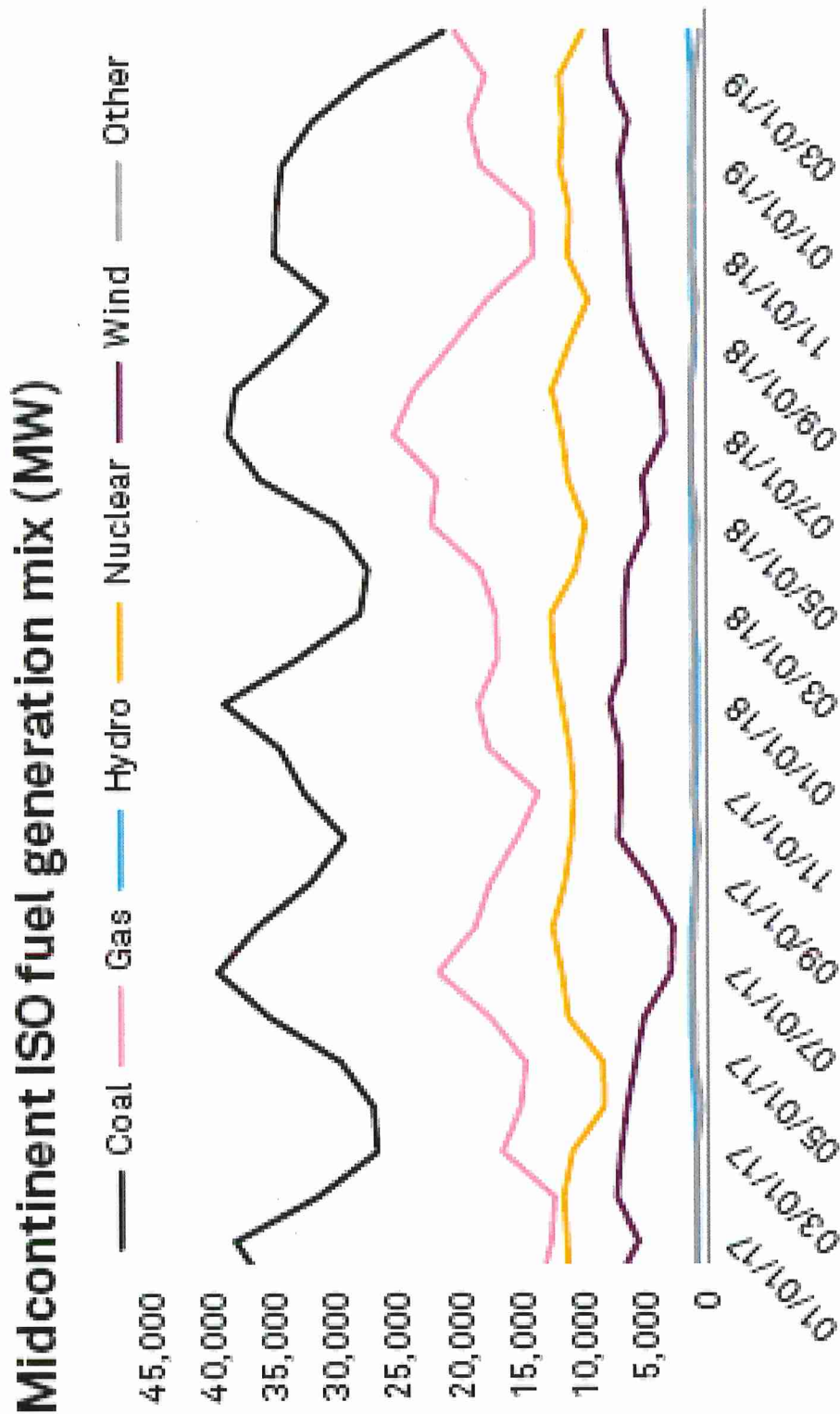
ERCOT

SPP



■ 2015 ■ 2016 ■ 2017

*Excludes Merchant/IPP Generators, doesn't not account for market price suppression effect of self-scheduling*



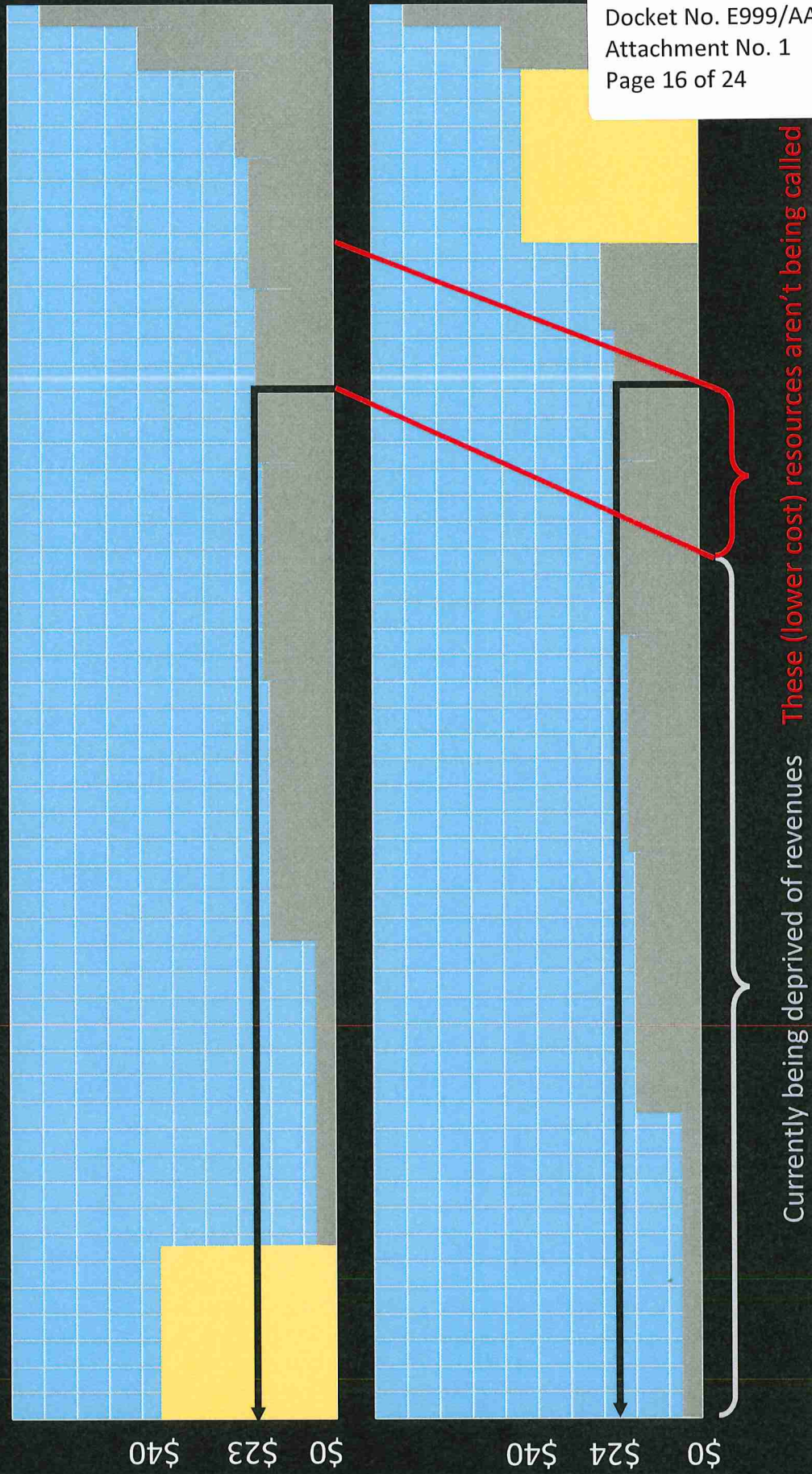
As of April 24, 2019.  
Sources: Midcontinent ISO; Morningstar Commodities Research



What are the  
*ripple effects?*

## Out-of-merit Generation - Visualized

Market Clearing Price    Market Clearing Price



Lowens LMP but Increase  
Production Costs



Avoided  
Costs



Transmission  
Planning



IPP  
Competition

How do we fix this?



# Regulatory Solutions

Agreement to Market-  
Commit Units

Fuel & Purchased Power  
Trackers with Cost Sharing

Disallowance

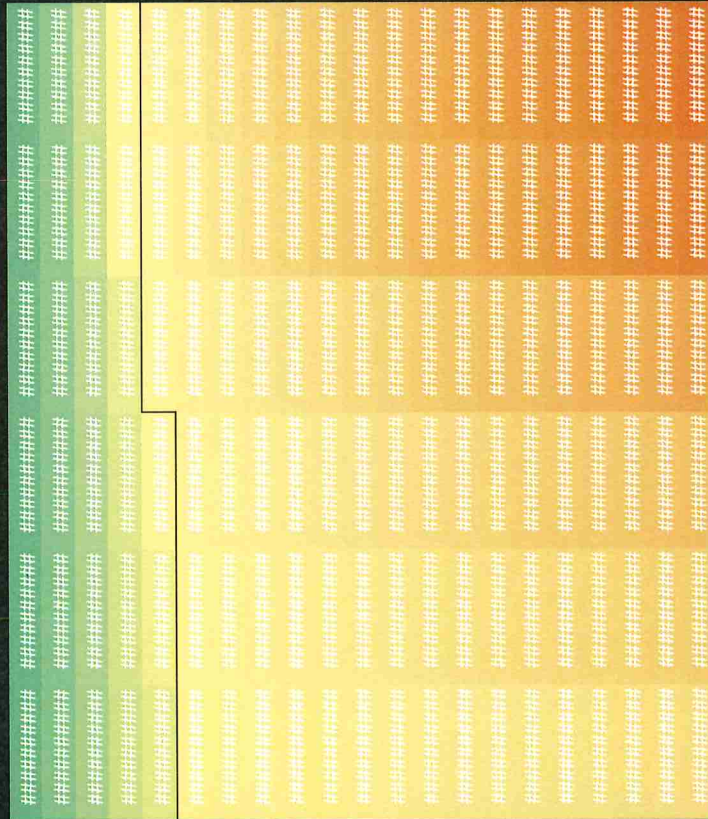
What about fuel  
contracts?



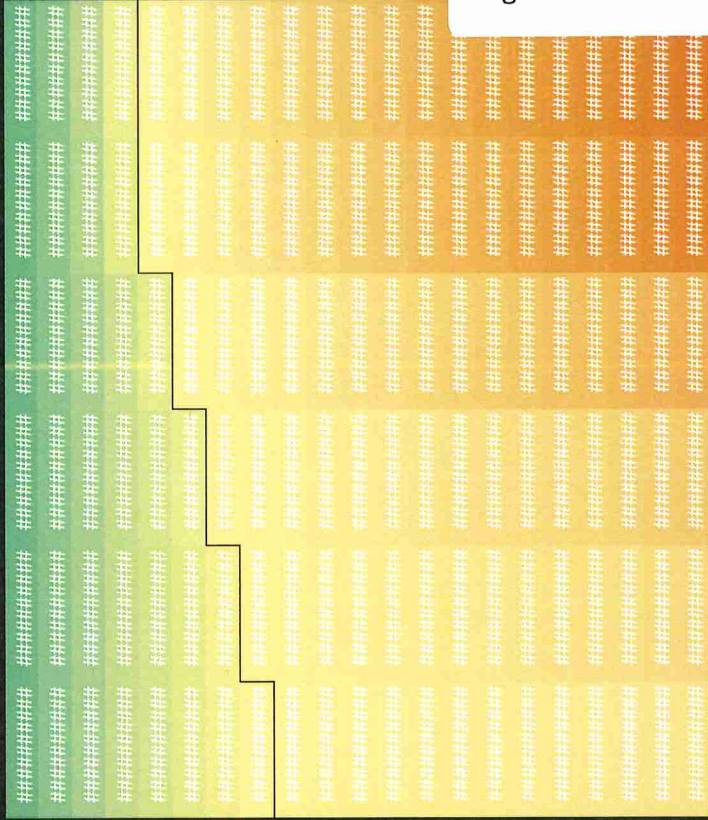
Profits (green) or losses (orange) are a function of:

- 1) Fuel price (vertical axis),
- 2) Liquidated damages (horizontal axis), and;
- 3) Dispatch paradigm (left vs. right)

Monthly Pro-Rated Dispatch



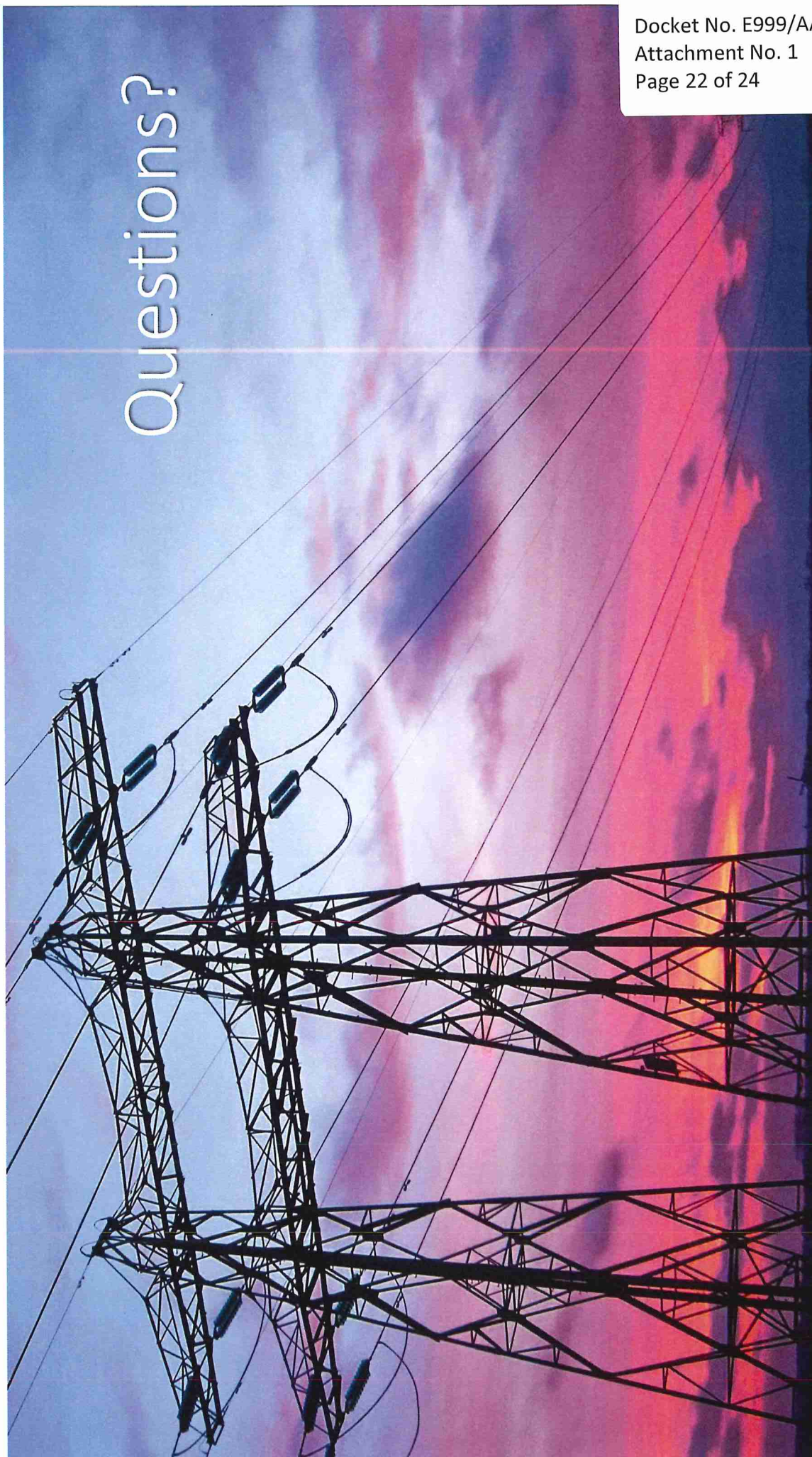
Predictive Seasonal Dispatch





# Questions?

Docket No. E999/AA-18-373  
Attachment No. 1  
Page 22 of 24





## Data Sources, and References

- Market Nodal Data and Mapping: S&P Global Market Intelligence via SPP, MISO, PJM, ERCOT.
- Productions Costs: Energy Information Agency Form 860 and Federal Energy Regulatory Commission Form 1
- Hourly Generation Data: Environmental Protection Agency Air Markets Program Database (AMPD) / Continuous Emissions Monitoring (CEMs)
- Daniel, J. 2018. Out of Merit Generation of Coal in Organized Energy Markets. USAEE. Washington, D.C.
- Daniel, J. 2017. Backdoor Subsidies for Coal in the Southwest Power Pool: Are Utilities in SPP Forcing Captive Customers to Subsidize Uneconomic Coal and Simultaneously Distorting the Market?, Sierra Club. Washington, D.C.
- Nelson, W., Liu, S. 2018 Half of U.S. Coal Fleet on Shaky Economic Footing: Coal Plant Operating Margins Nationwide Bloomberg New Energy Finance. New York, NY.

## Definitions, Caveats, Assumptions

- Units excluded:
  - Not all EGU's report hourly data, those units are omitted
    - Primarily impacts units less than 25MW
  - Only includes units are units whose primary fuel group is listed as coal
    - Includes waste coal, pet coke, lignite, bit., and sub bit.
    - Units that have converted to dual fuel, or co-fire biomass, or list coal as secondary or tertiary fuel are excluded
  - Units that retired prior to June 2018 were excluded
- Merchant owners don't report fuel cost data to EIA, S&P data used as back fill
- Units that joined RTO during study period only included costs and revenues after join date
- Units that dispatch into multiple RTOs were analyzed only in "primary" RTO

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce  
Response Comments**

**Docket No. E999/AA-17-492 and E999/AA-18-373**

**Dated this 14<sup>th</sup> day of June 2019**

**/s/Sharon Ferguson**

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Derek	Bertsch	derek.bertsch@mrenergy.com	Missouri River Energy Services	3724 West Avera Drive PO Box 88920 Sioux Falls, SD 57109-8920	Electronic Service	No	OFF_SL_17-492_AA-17-492
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_17-492_AA-17-492
Ian	Dobson	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_17-492_AA-17-492
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Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	200 First St SE  Cedar Rapids, IA 52401	Electronic Service	No	OFF_SL_17-492_AA-17-492
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_17-492_AA-17-492
Mary	Wolter	mary.wolter@wecenergygroup.com	Minnesota Energy Resources Corporation (HOLDING)	231 West Michigan St  Milwaukee, WI 53203	Electronic Service	No	OFF_SL_17-492_AA-17-492

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Derek	Bertsch	derek.bertsch@mrenergy.com	Missouri River Energy Services	3724 West Avera Drive PO Box 88920 Sioux Falls, SD 57109-8920	Electronic Service	No	OFF_SL_18-373_AA-18-373
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_18-373_AA-18-373
Ian	Dobson	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_18-373_AA-18-373
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Bruce	Gerhardson	bgerhardson@otpc.com	Otter Tail Power Company	PO Box 496 215 S Cascade St Fergus Falls, MN 565380496	Electronic Service	No	OFF_SL_18-373_AA-18-373
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