

STATE OF MICHIGAN
MICHIGAN OFFICE OF ADMINISTRATIVE HEARINGS AND RULES
FOR THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of)	
Consumers Energy Company for)	
reconciliation of its power supply cost)	Case No. U-20068
recovery plan (Case No. U-18142) for)	
<u>the 12-months ended December 31, 2017.</u>)	

NOTICE OF PROPOSAL FOR DECISION

The attached Proposal for Decision is being issued and served on all parties of record in the above matter on August 12, 2019.

Exceptions, if any, must be filed with the Michigan Public Service Commission, 7109 West Saginaw, Lansing, Michigan 48917, and served on all other parties of record on or before August 29, 2019, or within such further period as may be authorized for filing exceptions. If exceptions are filed, replies thereto may be filed on or before September 13, 2019.

At the expiration of the period for filing exceptions, an Order of the Commission will be issued in conformity with the attached Proposal for Decision and will become effective unless exceptions are filed seasonably or unless the Proposal for Decision is reviewed by action of the Commission. To be seasonably filed, exceptions must reach the Commission on or before the date they are due.

MICHIGAN OFFICE OF ADMINISTRATIVE
HEARINGS AND RULES

For the Michigan Public Service Commission

Sharon L.
Feldman

Digitally signed by: Sharon L.
Feldman

DN: CN = Sharon L. Feldman email
= feldmans@michigan.gov C = US
O = MOAHR OU = MOAHR - PSC
Date: 2019.08.12 09:09:11 -04'00'

August 12, 2019
Lansing, Michigan

Sharon L. Feldman
Administrative Law Judge

STATE OF MICHIGAN
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<u>the 12-months ended December 31, 2017.</u>)	

PROPOSAL FOR DECISION

I.

PROCEDURAL HISTORY

On March 30, 2018, Consumers Energy Company (Consumers Energy) filed its Power Supply Cost Recovery (PSCR) reconciliation under MCL 460.6j for the calendar year 2017. In its filing, the company calculated total power supply costs of \$1.9 billion, and an overrecovery of approximately \$14.82 million, not including interest. The company's filing included prefiled testimony and exhibits from the following witnesses: Joshua W. Hahn, Teresa E. Hatcher, David B. Kehoe, Stephen J. Nadeau, Hannah L. Patton, Jenny L. Rickard, Angela K. Rissman, Raymond T. Scaife, Michael B. Shi, and Keith G. Troyer.

At the June 14, 2018 prehearing conference, intervention was granted to Attorney General Bill Schuette (now Attorney General Dana Nessel), the Association of Businesses Advocating Tariff Equity (ABATE), the Residential Customer Group (RCG),

and the following parties collectively referred to as the Biomass Merchant Plants (BMPs): Cadillac Renewable Energy, LLC, Genesee Power Station Limited Partnership, Grayling Generating Station Limited Partnership, Hillman Power Company, LLC, TES Filer City Station Limited Partnership, Viking Energy of Lincoln, Inc., and Viking Energy of McBain, Inc. At the prehearing conference, a consensus schedule was also established.

Consistent with this schedule, on August 30, 2018, the BMPs filed the testimony and exhibits of the following witnesses: Matthew C. Paradise, Larry Heibel, Kenneth A. DesJardins, Michael D. Bean, Doug A. Audette, Robert Joe Tondou, Neil R. Taratuta, and Thomas V. Vine. The testimony of BMP witness Donald Adams was filed on September 4, 2018.¹ Also, on November 16, 2018, the BMPs filed revised testimony and exhibits of several of its witnesses.

Following an adjustment to the schedule by agreement of the parties, on December 14, 2018, Staff filed the testimony and exhibit of Gretchen W. Wagner, and the Attorney General filed the direct testimony and exhibits of Sebastian Coppola. On January 18, 2019, Consumers Energy filed the rebuttal testimony and exhibit of Mr. Kehoe. At the evidentiary hearing held on February 21, 2019, Mr. Kehoe appeared and was and was cross-examined on their testimony, while the testimony of the remaining 20 witnesses was bound into the record by agreement of the parties, without the need for them to appear.

On March 4, 2019, Consumers Energy filed a Motion To Require Substantiation Regarding Representation, Substitution of Counsel, or Revocation of Intervention,

¹ This testimony was accompanied by a cover letter indicating it had inadvertently been omitted from the August 30, 2018 filing.

directed at counsel for the RCG. On March 18, 2019, the RCG filed a response to the motion, and on April 10, 2019, filed a supplemental response. On May 10, 2019, Consumers Energy withdrew its motion, citing an April 25, 2019 ruling in Case No. U-20322 issued by ALJ Jonathan F. Thoits that addressed a similar motion.

Consumers Energy, Staff, the BMPs, the Attorney General, and the RCG filed briefs on March 22, 2019 and Consumers Energy, the Attorney General, and the RCG filed reply briefs on April 22, 2009. On July 10, 2019, the parties filed a stipulation to reopen the record to correct an error in Exhibits BMP-1, BMP-2, and BMP-9. As provided in the stipulation, the parties agree that revised versions of these exhibits, marked as Exhibits BMP-24, BMP-25, and BMP-26, be substituted for the erroneous exhibits. By ruling dated July 11, 2019, the ALJ reopened the record and admitted additional exhibits BMP-24, BMP-25, and BMP-26, indicating that Exhibits BMP-1, BMP-2, and BMP-3 would remain in the record for illustrative purposes only. The evidentiary record is contained in 374 transcript pages and 55 exhibits.

II.

OVERVIEW OF THE RECORD AND POSITIONS OF THE PARTIES

This section reviews the testimony presented by the parties and identifies the issues for resolution based on the parties' briefs. The arguments of the parties and related portions of the record are discussed in more detail in the discussion sections that follow.

A. Consumers Energy

Consumers Energy presented the testimony of 10 witnesses in total, with only one of these witnesses presenting rebuttal testimony.

Hannah L. Patton is a Senior Accounting Analyst II in the Electric Revenue and Fuel Reconciliation Section of Consumers Energy's General Accounting Department.² In her testimony, she presented the methodology and calculations used to derive the company's 2017 overrecovery of \$26,585,283, or \$31,698,345 including interest. She testified that the company used the same methodology approved in previous cases.³ She presented the overrecovery calculations showing monthly revenues and costs in Exhibit A-11, and the interest calculation in Exhibit A-12.

Joshua W. Hahn is a Senior Engineer in the Electric Sourcing and Resource Planning Section of Consumers Energy's Electric Supply Department.⁴ Mr. Hahn presented direct testimony in support of the company's calculation of net purchased, interchange, and renewable power supply costs as shown in Exhibit A-1. He testified that the total energy required to service PSCR customers in 2017 was 1.99% below the forecast levels, and he compared the sources used to provide energy with the plan forecasts. He explained that coal, gas, and oil-fired generation and Ludington plant generation were generally below projected levels, with peaker plant generation higher than planned due to increased utilization of the Zeeland plant during the shoulder months, and with purchases from the Midcontinent Independent System Operator (MISO) market above forecast levels. He testified that the decreased generation and

² Ms. Patton's educational background includes a bachelor's degree in economics and management; she has worked for Consumers Energy since 2012. Her testimony is transcribed at 2 Tr 279-287.

³ See 2 Tr 283.

⁴ Mr. Hahn's educational background includes a bachelor's degree in mechanical engineering, and he began working for Consumers Energy in 2010. Mr. Hahn's testimony is transcribed at 2 Tr 259-264.

increased reliance on MISO market purchases increased the interchange delivered power expense, but that interchange delivered power revenue was above forecast levels notwithstanding the reduced generation. Mr. Hahn also described transmission expense below forecast levels.⁵

Keith G. Troyer is a Senior Engineer in the Renewable Energy Section of the Energy Supply Operations Department at Consumers Energy.⁶ He testified to the reasonableness and prudence of the company's power purchases, including power purchased under long-term agreements with cogenerators, small power producers and independent power producers, renewable energy purchased for the company's renewable resource program (RRP) suppliers or pursuant to Act 295, power purchased from counterparties not long-term suppliers, and purchases from the MISO market. Mr. Troyer also identified revenues received from the sale of energy to the MISO market, and MISO transmission costs as a component of purchased and interchange power supply costs,⁷ as well as short-term capacity purchases made to meet Consumers Energy's reserve margin requirements.⁸ Addressing Zonal Resource Credit (ZRC) purchases included in the category of short-term capacity purchases, Mr. Troyer testified that for 2017, Consumers Energy's expenditures for ZRCs to meet planning reserve margin requirements totaled approximately \$9.1 million.⁹ He testified that these expenditures reflect a reverse auction conducted in 2016 for the 2017 planning year,¹⁰

⁵ See 2 Tr 263-264.

⁶ Mr. Troyer's educational background includes a bachelor's degree in engineering, and he has worked for Consumers Energy since 2009. Mr. Troyer's direct testimony is transcribed at 2 Tr 313-327.

⁷ See 2 Tr 318.

⁸ See 2 Tr 319.

⁹ See 2 Tr 325-326.

¹⁰ See 2 Tr 325-326.

while ZRC purchases in 2017 from the MISO Planning Resource Auction (PRA) for the 2016 planning year were offset by equivalent sales of ZRCs.¹¹

Mr. Troyer presented a summary of these transactions in his Exhibit A-17, with supporting detail in Exhibits A-18 through A-20, indicating that additional detail on the MISO market purchases and MISO transmission costs would be provided by Mr. Scaife.¹² Mr. Troyer explained that renewable energy purchases for the company's RRP are reflected in the PSCR cost reconciliation at only the average PSCR cost, to be finalized after the conclusion of this case, and further described the components and size of the company's program.¹³ He also explained that renewable energy purchases and generation from company-owned projects are included at the approved transfer cost, referring to Ms. Hatcher's testimony.¹⁴

Raymond T. Scaife is the MISO Settlements Manager in the Electric Transactions and Wholesale Settlements Section of Consumers Energy's Electric Supply Department.¹⁵ Mr. Scaife presented the company's accounting for the MISO market and MISO transmission charges and credits included in the 2017 PSCR costs, summarized in his Exhibit A-15. He testified that net MISO energy and ancillary market charges were approximately \$122 million in 2017, and transmission charges were approximately \$353 million, with reactive power service revenues of approximately \$7 million. He also identified an approximately \$64,000 net expense associated with bilateral transactions outside the MISO market.¹⁶

¹¹ See 2 Tr 324-325.

¹² See 2 Tr 318.

¹³ See 2 Tr 320-323.

¹⁴ See 2 Tr 317, 319-320.

¹⁵ Mr. Scaife's educational background includes a bachelor's degree in business administration; he has worked for Consumers Energy since 2001. His direct testimony is transcribed at 2 Tr 302-306.

¹⁶ See 2 Tr 304-306.

Michael B. Shi is the Senior Engineer in Resource Planning for Consumers Energy.¹⁷ Mr. Shi described the PSCR expenses associated with the company's participation in financial transmission right (FTR) and auction revenue right (ARR) markets. He cited the Commission's August 22, 2006 order in Case No. U-14701 in support of the company's treatment of these costs. He testified that Consumers Energy's PSCR plan projected a total cost of \$358,000, but for the plan year, Consumers Energy actually received a net credit of approximately \$3.3 million, as shown in Exhibit A-16. He testified that in his opinion the company was prudent in its participation in the FTR and ARR market in 2017.¹⁸

Theresa E. Hatcher is the Director of Renewable Energy in the Transactions and Wholesale Settlements Section of Consumers Energy's Electric Supply Department. Ms. Hatcher testified in support of the transfer price and transfer cost calculations for renewable energy included in PSCR expenses.¹⁹ She testified that the company booked approximately 1.5 million MWhs of renewable energy eligible for recovery through the transfer price, as reflected in her Exhibit A-2. She explained this exhibit also shows the third-party providers and company-owned generation included in the total, and the transfer cost and transfer price calculated for each. As calculated in this exhibit, the total transfer cost included in the 2017 PSCR expense is \$118,766,249, with the average transfer price calculated as \$79,19 per MWh.

¹⁷ Mr. Shi's education background includes a bachelor's degree in industrial engineering and master's degree in industrial and manufacturing systems engineering; he has worked for Consumers Energy since 2016. Mr. Shi's testimony is transcribed at 2 Tr 308-311.

¹⁸ See 2 Tr 311.

¹⁹ Ms. Hatcher's qualifications include a bachelor's degree in mechanical engineering and an MBA. Her testimony is transcribed at 2 Tr 266-271A.

Stephen J. Nadeau is the Manager of Natural Gas Supply for Generation in the Fossil Fuel Supply Department of Consumers Energy.²⁰ He testified in support of the reasonableness and prudence of the company's oil and gas costs for the plan year. His Exhibit A-10 presents a comparison of the as-burned oil and gas costs to the plan case forecasts. He testified that total oil and gas costs were less than projected in the plan case, based on lower-than-projected gas commodity costs, with lower generation than projected for Zeeland and Jackson, and higher levels of generation than projected for Karn units 3 and 4.²¹ Mr. Nadeau also discussed the company's planned purchase of the SEMCO lateral pipeline serving the Zeeland plant, explaining that Consumers Energy changed its plans to purchase the pipeline because SEMCO proposed to continue to provide service at a lower annual demand charge, which Consumers Energy concluded was more cost effective than purchasing the line.²²

Angela K. Rissman is the Manager of Coal Procurement in Consumers Energy's Fossil Fuel Supply Department.²³ She testified in support of the reasonableness and prudence of the company's coal purchase volumes and cost for the PSCR year. She described Consumers Energy's coal procurement strategy, including its plan to have 70-90% of anticipated volumes purchased by the fall for the upcoming calendar year. She testified that Consumers Energy also layers its coal purchases to have a portfolio of various vintages, volumes, length of term, and price. She testified that all coal contracts are competitively bid. Ms. Rissman presented a comparison of projected and actual

²⁰ Mr. Nadeau's bachelor's degree is in biochemistry, and he has an MBA. He has worked for Consumers Energy since 2002. Mr. Nadeau's testimony is transcribed at 2 Tr 272-277.

²¹ See 2 Tr 276-277.

²² See 2 Tr 274-275.

²³ Ms. Rissman's educational background includes a bachelor's degree and a master's degree in business administration; she has worked for Consumers Energy since 2006. Her testimony is transcribed at 2 Tr 294-300.

delivered volumes and costs in Exhibit A-13. She testified that actual receipts of approximately 6.5 million tons of western coal were 6% below planned levels. She testified that delivered costs for western coal were 2.1% below projected levels on a per/MMBtu basis, and that Consumers Energy also purchased approximately 48 thousand tons of unplanned eastern coal volumes.²⁴

Ms. Rissman also presented a comparison of projected with actual as-burned coal volumes and costs for each plant in Exhibit A-14. She testified that on a system-wide basis, the company's coal-fueled generating units had a lower capacity factor than projected, using coal volumes 16% below projected levels.²⁵

David B. Kehoe testified to support the reasonableness and prudence of unit outages at Consumers Energy's fossil generating plants and at the Ludington Pumped Storage facility, as well as the chemical and allowance expenses associated with environmental compliance. Mr. Kehoe is currently the Executive Director of Energy Resources Business Services for Consumers Energy.²⁶ Mr. Kehoe presented Exhibits A-3 through A-9 to provide a description of plan-year outage events and related statistics for the fossil generating units and the Ludington pumped-storage facility units. He testified that these units experienced a total of 481 outage events, with a description of each event in Exhibit A-3. For units with lower availability averages than indicated by the five-year average availability for comparable units included in the Generating Availability Data System (GADS) database,²⁷ he provided additional detail in Exhibit A-

²⁴ See 2 Tr 298.

²⁵ See 2 Tr 299.

²⁶ Mr. Kehoe has a bachelor's degree in chemistry as well as an MBA. He has worked for Consumers Energy since 2004, with experience in prior years working for CMS Energy subsidiaries, DTE Energy, and CQ, Inc., a subsidiary of the Electric Power Research Institute. Mr. Kehoe's direct, rebuttal, and cross-examination testimony is transcribed at 2 Tr 180-258.

²⁷ The comparisons are presented in Exhibit A-8.

5; for units with outages lasting 28 days or more, he provided additional detail in Exhibit A-6.

He testified that in the PSCR plan case, Consumers Energy planned for 5 outages lasting 28 days or longer, but completed only 4 of the planned outages due to budgetary constraints and because a related capital project for Karn unit 3 was not ready to implement. He testified that 9 additional outages lasted 28 days or longer. He also provided testimony further explaining the extended outages included in Exhibit A-6.²⁸ Mr. Kehoe provided his opinion that all these outages were carefully planned, prudently managed, and not the result of negligence.²⁹

For units with below average availability in comparison to the GADS data, Campbell unit 2 and Karn units 1 and 2, Mr. Kehoe described the contributing outages, planned and unplanned. He provided his opinion that in connection with all the outages identified in Exhibit A-3, Consumers Energy acted in a reasonable and prudent manner.³⁰

Mr. Kehoe testified regarding emission allowances, explaining that Consumers Energy purchased no NOx allowances in 2017 due to the effectiveness of the Selective Catalytic Reduction Units (SCRs), and did not incur expenses or receive credits related to SO₂ or CO₂ allowances. He also identified emission control expenses for chemicals including urea, aqueous ammonia, lime, and activated carbon, explaining that expenses were below forecast levels primarily due to generation below projected levels.³¹ His Exhibit A-9 includes information on baseload power plant cost efficiency. Mr. Kehoe

²⁸ See 2 Tr 191-194.

²⁹ See 2 Tr 191.

³⁰ See 2 Tr 197.

³¹ See 2 Tr 199-201.

also presented rebuttal testimony and was cross-examined on that testimony, as discussed below.

Jenny L. Rickard is the Senior Business Support Consultant in the Electric Transactions and Wholesale Settlement Section of Consumers Energy's Energy Supply Operations Department.³² In her testimony, she addressed the payments Consumers Energy calculates are due to the BMPs for the year ending October 2017, to meet the requirements of MCL 460.6a(9)-(11), and the Commission's August 11, 2009 order in Case No. U-16048. She relied on the total delivered energy and booked payments included on Exhibit A-19, sponsored by Mr. Troyer. She testified that the company's calculations show the BMPs are entitled to recover approximately \$12 million in expenses, with the difference between actual payments and this amount also presented in Exhibit A-19.

B. Biomass Merchant Plants

The testimony of all the Biomass Merchant Plant (BMP) witnesses was bound into the record, and their exhibits admitted, without the need for them to appear.

Matthew C. Paradise is the Finance Manager for Atlantic Power Corporation, which owns Cadillac Renewable Energy, LLC (Cadillac).³³ Mr. Paradise testified to support the reasonableness and prudence of the 2017 fuel and variable operations and maintenance (O&M) expenses for the Cadillac plant. After attesting to facts to establish the plant's eligibility for cost recovery under MCL 460.6a(9),³⁴ Mr. Paradise reviewed the

³² Ms. Rickard's educational background includes a bachelor's degree in accounting as well as an MBA. She has worked for Consumers Energy since 2013, with 30 years of experience in accounting prior to that. Ms. Rickard's direct testimony is transcribed at 2 Tr 223-229.

³³ Mr. Paradise has an undergraduate degree in corporate finance and accounting; his testimony is transcribed at 2 Tr 21-34.

³⁴ See 2 Tr 25-27.

plant's 2017 expenses as shown in Exhibit BMP-3. He identified fuel and variable O&M costs totaling \$6,741,455, testifying that Cadillac is only seeking to recover this amount, although it does not include all of the company's variable O&M expenses. He testified that Consumers Energy paid \$4,180,305 toward these costs under the applicable PPA, resulting in a shortfall of \$2,561,150. Mr. Paradise testified that Cadillac is seeking to recover only \$1,806,930 of this amount, based on an allocation of the total capped amount as shown in Exhibit BMP-1, and that Consumers Energy has made additional interim payments of \$1,196,788, leaving \$610,142 outstanding.³⁵

In further support of Cadillac's requested recovery, Mr. Paradise testified that the company's 2017 fuel and variable O&M expenses were audited by KPMG, LLC. He also reviewed the BMPs' obligations under the settlement agreement approved in Consumers Energy's 2016 PSCR reconciliation, Case No. U-17918-R, presenting Exhibit BMP-17 to demonstrate compliance, and describing the 2017 expenses in more detail.³⁶

Larry Heibel is also employed by Atlantic Power Corporation, serving as Fuel Manager for the Cadillac plant.³⁷ Mr. Heibel testified to support the reasonableness and prudence of the fuel and variable O&M costs for the Cadillac plant. He testified that the plant used 100% wood waste from various sources to generate electricity in 2017, including forest waste, mill waste, and recycled wood waste. He explained that all fuel is purchased on the spot market, and explained other measures taken to minimize costs. He identified four categories of variable O&M costs Cadillac seeks to recover,

³⁵ See 2 Tr 28-30. Based on the stipulated revised exhibits, Cadillac is now seeking to recover \$1,753,386 of the shortfall as shown in Exhibit BMP-25, leaving \$556,598 outstanding.

³⁶ See 2 Tr 31-33; also see June 28, 2018 order, Case No. U-17918-R, settlement agreement, ¶15.

³⁷ Mr. Heibel's educational background includes an undergraduate degree in forestry management; he has worked at the Cadillac plant since 1993. His testimony is transcribed at 2 Tr 159-169.

and cost control measures Cadillac has implemented.³⁸ Mr. Heibel testified that the company's fuel and variable O&M costs for 2017 were reasonably and prudently incurred.³⁹

Kenneth A. DesJardins is the Plant General Manager of the Genesee Power Station. Mr. DesJardins is employed by CMS Generation Operating LLC, and the plant is owned by Genesee Power Station Limited Partnership (Genesee).⁴⁰ Mr. DesJardins testified to support the reasonableness and prudence of the 2017 fuel and variable O&M expenses for the plant. After attesting to facts to establish the plant's eligibility for cost recovery under MCL 460.6a(9),⁴¹ Mr. DesJardins reviewed the plant's 2017 expenses as shown in Exhibit BMP-4. He identified fuel and variable O&M costs totaling \$5,887,830, and testified that Consumers Energy paid \$2,972,811 toward these costs under the applicable PPA, resulting in a shortfall of \$2,915,019. He testified that Genesee is seeking to recover only \$1,858,972 of this amount, based on an allocation of the total capped amount as shown in Exhibit BMP-1, and that Consumers Energy has made interim payments of \$1,157,141, leaving \$701,831 outstanding.⁴² Mr. DesJardins reviewed key terms of Genesee's fuel supply arrangement with Mid-Michigan Recycling, L.C. (MMR) and testified to his opinion that the agreement was reasonable and prudent.⁴³ And he identified seven categories of O&M expense that Genesee is seeking

³⁸ See 2 Tr 166-168.

³⁹ See 2 Tr 166, 168.

⁴⁰ Mr. DesJardins has been employed by CMS Generation Operating LLC as the Plant General Manager since 2013, but worked for Consumers Energy Company for over 30 years in various capacities prior to this employment. His testimony is transcribed at 2 Tr 35-57.

⁴¹ See 2 Tr 39-41.

⁴² See 2 Tr 42-44. Based on the stipulated revised exhibits, Genesee is now seeking a capped payment of \$1,588,872, as shown in Exhibit BMP-25, leaving an outstanding amount of \$658,224.

⁴³ See 2 Tr 45-48.

to recover in this proceeding, also attesting that these costs were reasonable and prudent.

In further support of Genesee's requested recovery, Mr. DesJardins testified that the company's 2017 fuel and variable O&M expenses were audited by Plante & Moran, PLLC. He also reviewed the BMPs' obligations under the settlement agreement approved in Consumers Energy's 2016 PSCR reconciliation, Case No. U-17918-R, presenting Exhibit BMP-18 to demonstrate compliance.⁴⁴

Mr. DesJardins also testified on behalf of all the BMPs. He presented Exhibit BMP-1, and testified that this exhibit shows that the fuel and variable O&M costs for the BMPs exceeded the capped payments under the applicable provision of 2008 PA 286, MCL 460.6a(10), as amended. He explained the calculation of the unadjusted capped payment totals, the recovery percentage, and the capped payments due each BMP, both before and after application of a CPI adjustment for 2017. Mr. DesJardins also presented Exhibit BMP-2 to provide further detail and to include the environmental costs requested by TES Filer City Station Limited Partnership as outside the statutory cap.

Michael D. Bean is the Asset Manager of the Grayling Station Plant. Mr. Bean is employed by CMS Enterprises, while the plant is owned by Grayling Generating Station Limited Partnership (Grayling).⁴⁵ Mr. Bean testified to support the 2017 fuel and variable O&M expenses for the plant. After attesting to facts to establish the plant's eligibility for cost recovery under MCL 460.6a(9),⁴⁶ Mr. Bean reviewed the plant's 2017 expenses as shown in Exhibit BMP-5. He identified fuel and variable O&M costs

⁴⁴ See 2 Tr 51-52.

⁴⁵ Mr. Bean has been employed by CMS Energy since 1988, also serving as interim plant manager at the Grayling plant more recently. His testimony is transcribed at 2 Tr 58-75.

⁴⁶ See 2 Tr 62-65.

totaling \$7,066,900, and testified that Consumers Energy paid \$4,826,936 toward these costs under the applicable PPA, resulting in a shortfall of \$2,239,964. He testified that Grayling is seeking to recover only \$1,460,779 of this amount, as shown in Exhibit BMP-1, and that Consumers Energy has made interim payments of \$964,163, leaving \$526,616 outstanding.⁴⁷ Mr. Bean reviewed Grayling's fuel procurement practices, including its reliance on a contract with AJD Forest Products for wood fuel and on spot market purchases for tire-derived fuel (TDF), and testified to his opinion that the 2017 fuel costs were reasonable and prudent.⁴⁸ Mr. Bean also identified seven categories of O&M expense that Grayling is seeking to recover in this proceeding, also attesting that these costs were reasonable and prudent.

In further support of Grayling's requested recovery, Mr. Bean testified that the company's 2017 fuel and variable O&M expenses were audited by Plante & Moran, PLLC. He also presented Exhibit BMP-19 to demonstrate compliance with Hillman's obligations under the settlement agreement approved in Case No. U-17918-R.⁴⁹

Doug A. Audette is the Plant Manager for the Hillman Power Company, LLC (Hillman).⁵⁰ Mr. Audette testified to support the reasonableness and prudence of the 2017 fuel and variable O&M expenses for the Hillman plant. After attesting to facts to establish the plant's eligibility for cost recovery under MCL 460.6a(9),⁵¹ Mr. Audette reviewed the plant's 2017 expenses as shown in Exhibit BMP-6. He identified fuel and variable O&M costs totaling \$5,807,582, and testified that Consumers Energy paid

⁴⁷ See 2 Tr 65-67. Based on the stipulated revised exhibits, Grayling is now seeking a capped payment of \$1,426,125, with an outstanding balance of \$491,962, as shown in Exhibit BMP-25.

⁴⁸ See 2 Tr 68-73.

⁴⁹ See 2 Tr 74.

⁵⁰ Mr. Audette has worked for Hillman since 2015, and has worked in various capacities for Northern States Power Company and then for Evergreen Energy beginning in 1996. His testimony is transcribed at 2 Tr 81-98.

⁵¹ See 2 Tr 80-83.

\$4,029,560 toward these costs under the applicable PPA, resulting in a shortfall of \$1,778,022. He testified that Hillman is seeking to recover only \$1,205,377 of this amount, based on an allocation of the total capped amount as shown in Exhibit BMP-1, and that Consumers Energy has made interim payments of \$836,203, leaving \$369,174 outstanding.⁵² Mr. Audette reviewed key terms of Hillman's fuel supply practices and testified to his opinion that the fuel supply costs were reasonable and prudent.⁵³ And he identified five categories of O&M expense that Hillman is seeking to recover in this proceeding, also attesting that these costs were reasonable and prudent.⁵⁴

In further support of Hillman's requested recovery, Mr. Audette testified that the company's 2017 fuel and variable O&M expenses were audited by Rehmann & Co. He also presented Exhibit BMP-20 to demonstrate compliance with Hillman's obligations under the settlement agreement approved in Case No. U-17918-R.⁵⁵

Neil R. Taratuta is the Plant Manager for the Lincoln Power Station (Lincoln), which is owned by Viking Energy of Lincoln, LLC.⁵⁶ Mr. Taratuta testified to support the reasonableness and prudence of the 2017 variable O&M expenses for the plant, deferring to Mr. Adams to support the fuel procurement practices for the plant. After attesting to facts to establish the plant's eligibility for cost recovery under MCL 460.6a(9),⁵⁷ Mr. Taratuta reviewed the plant's 2017 fuel and O&M expenses as shown in Exhibit BMP-8. He identified fuel and variable O&M costs totaling \$5,883,398, and

⁵² See 2 Tr 85. Based on the stipulated revised exhibits, Hillman is now seeking a capped payment of \$1,175,554, as shown in Exhibit BMP-25, leaving an outstanding amount of \$339,351.

⁵³ See 2 Tr 86-90.

⁵⁴ See 2 Tr 90-91.

⁵⁵ See 2 Tr 91.

⁵⁶ Mr. Taratuta has an undergraduate degree in electrical engineering; he has worked for Viking Energy of Lincoln since 1990, and has been the plant manager since 2008. His testimony is transcribed at 2 Tr 130-143.

⁵⁷ See 2 Tr 134-136.

testified that Consumers Energy paid \$4,367,543 toward these costs under the applicable PPA, resulting in a shortfall of \$1,515,815. He testified that Viking Energy of Lincoln is seeking to recover only \$1,095,929 of this amount, based on an allocation of the total capped amount as shown in Exhibit BMP-1, and that Consumers Energy has made interim payments of \$763,601, leaving \$332,328 outstanding.⁵⁸ Mr. Taratuta identified six categories of O&M expense that the company is seeking to recover in this proceeding, also attesting that these costs were reasonable and prudent.

In further support of Viking Energy of Lincoln's requested recovery, Mr. Taratuta testified that the company's 2017 fuel and variable O&M expenses were audited by its parent company, Engie NA. He also presented Exhibit BMP-21 to demonstrate compliance with the settlement agreement approved in Case No. U-17918-R.⁵⁹

Thomas V. Vine is the Plant Manager for the McBain Power Station, owned by Viking Energy of McBain, LLC.⁶⁰ Mr. Vine testified to support the reasonableness and prudence of the 2017 fuel and variable O&M expenses for the plant, also testifying that Mr. Adams has some responsibility for fuel procurement for the plant. After attesting to facts to establish the plant's eligibility for cost recovery under MCL 460.6a(9),⁶¹ Mr. Vine reviewed the plant's 2017 fuel and O&M expenses as shown in Exhibit BMP-9. Mr. Vine identified fuel and variable O&M costs totaling \$6,158,019, and testified that Consumers Energy paid \$4,331,705 toward these costs under the applicable PPA, resulting in a shortfall of \$1,826,314. He testified that Viking Energy of McBain is

⁵⁸ See 2 Tr 137-139. Based on the stipulated revised exhibits, Viking Energy of Lincoln is now seeking a capped payment of \$1,065,739, as shown in Exhibit BMP-25, leaving an outstanding amount of \$302,138.

⁵⁹ See 2 Tr 141-142.

⁶⁰ Mr. Vine has been the plant manager since 2008. From 1981 until 2008, he held positions first in the commercial nuclear power field and then at the University of Iowa Power Plant. His testimony is transcribed at 2 Tr 144-158.

⁶¹ See 2 Tr 148-151.

seeking to recover only \$1,238,469 of this amount, based on an allocation of the total capped amount as shown in Exhibit BMP-1, and that Consumers Energy has made interim payments of \$1,136,153, leaving \$102,296 outstanding.⁶²

Mr. Vine reviewed Viking Energy of McBain's fuel portfolio and what he characterized as an innovative fuel procurement strategy to acquire whole used railroad ties and process them on site into usable boiler fuel.⁶³ He testified to his opinion that the fuel supply costs were reasonable and prudent.⁶⁴ Mr. Vine identified six categories of O&M expense that the company is seeking to recover in this proceeding, also attesting that these costs were reasonable and prudent.⁶⁵

In further support of Viking Energy of McBain's requested recovery, Mr. Vine testified that the company's 2017 fuel and variable O&M expenses were audited by its parent company, Engie NA. He also presented Exhibits BMP-29 and BMP-30 to demonstrate compliance with Viking Energy of McBain's obligations under the settlement agreement approved in Case No. U-17918-R.⁶⁶

Donald Adams testified on behalf of both Viking Energy of Lincoln and Viking Energy of McBain. He is employed by Engie NA as a Regional Fuel Manager for Viking Energy, and in this position is responsible for fuel procurement for both the Lincoln and

⁶² See 2 Tr 151-153. Exhibit BMP-26, which is the stipulated revised version of Exhibit BMP-9, reports fuel and variable O&M costs for Viking Energy of McBain totaling \$6,650,118, and Consumers Energy contract payments totaling \$4,331,705, resulting in a shortfall of \$2,318,413. As shown in Exhibit BMP-25, the revised version of Exhibit BMP-2, Viking Energy of McBain is now seeking capped payments totaling \$1,569,101, less than the total shortfall, of which Consumers Energy has already made payments of \$1,136,153, leaving \$432,948 outstanding.

⁶³ See 2 Tr 155.

⁶⁴ See 2 Tr 155-157.

⁶⁵ See 2 Tr 155-158.

⁶⁶ See 2 Tr 156-157.

McBain plants.⁶⁷ Testifying to the reasonableness and prudence of the 2017 fuel expenses for the plants, Mr. Adams explained that the company relies on “at will” contracts for fuel under which suppliers are given guaranteed quotas for 12 months, and explained efforts he undertakes to minimize the cost of fuel.⁶⁸ He explained the basis for his opinion that the fuel procurement was reasonable and prudent.

Robert Joe Tondou is the owner and president of Tondou Corporation, which in turn is an owner of the T.E.S. Filer City Station Limited Partnership (TES), through affiliates.⁶⁹ After attesting to facts to establish the plant’s eligibility for cost recovery under MCL 460.6a(9),⁷⁰ Mr. Tondou reviewed the plant’s 2017 fuel and O&M expenses as shown in Exhibit BMP-7. He identified fuel and variable O&M costs totaling \$21,786,845, and testified that Consumers Energy paid \$14,668,153 toward these costs under the applicable PPA, resulting in a shortfall of \$7,118,692. He testified that TES is seeking to recover \$5,044,165 of this amount, based on an allocation of the total capped amount as shown in Exhibit BMP-1, and that Consumers Energy has made interim payments of \$3,575,946, leaving \$1,468,219 outstanding.⁷¹ Mr. Tondou described the fuel procurement practices for the plant, including its contract with Packaging Company of America (PCA) for wood waste, two contracts for coal, and spot market purchases for TDF, testifying that the 2017 purchases were reasonable and prudent.⁷² He also identified seven categories of variable O&M expense that the

⁶⁷ Mr. Vine has been employed with Viking Energy for more than 25 years. His testimony is transcribed at 2 Tr 170-179.

⁶⁸ See 2 Tr 175-178.

⁶⁹ Mr. Tondou’s background includes an undergraduate degree and a master’s degree in geology. Mr. Tondou’s testimony is transcribed at 2 Tr 94-129.

⁷⁰ See 2 Tr 98-100.

⁷¹ See 2 Tr 101-103. Based on the revised stipulated exhibit, Exhibit BMP-25, TES is now seeking capped payments of \$4,905,329, leaving \$1,403,843 outstanding.

⁷² See 2 Tr 104-109.

company is seeking to recover in this proceeding, included within the capped expenses, also attesting that these costs were reasonable and prudent.⁷³

In further support of TES's requested recovery, Mr. Tondou testified that the company's 2017 fuel and variable O&M expenses were audited by Hungerford, Aldren, Nichols & Carter, PC. He also presented Exhibits BMP-25 and BMP-26 to demonstrate compliance with Hillman's obligations under the settlement agreement approved in Case No. U-17918-R.⁷⁴

Mr. Tondou next explained the basis for TES Filer City's claim for recovery of the cost of seasonal and annual NOx allowances required by the federal Cross State Air Pollution Rule (CSAPR), 40 CFR 97, presenting the total costs of \$74,460 in Exhibit BMP-7.⁷⁵ Mr. Tondou reviewed the plant's emissions and the calculation of the federally-required allowances. He testified that TES Filer City needed a total of 512 CSAPR seasonal NOx allowances in 2017 and actually purchased 372 allowances in addition to the allowances allocated to it by the EPA, which gave the company 32 allowances more than needed. He testified that it was prudence for TES to purchase these additional allowances.⁷⁶ He also testified that TES purchased 1,000 annual NOx allowances, or 127 more than the 873 allowances TES needed to purchase. He again testified that it was reasonable for the company to acquire the additional allowances.⁷⁷ He testified that TES Filer City was not required to purchase SO₂ allowances.

Mr. Tondou explained the basis of the company's claim that the allowance costs are not subject to the cap under MCL 460.6a(8), citing Exhibits BMP-11 through BMP-

⁷³ See 2 Tr 109-110, 128-129.

⁷⁴ See 2 Tr 111.

⁷⁵ See 2 Tr 112.

⁷⁶ See 2 Tr 117-119.

⁷⁷ See 2 Tr 121.

16. He testified that CSAPR requirements were not promulgated until August 8, 2011, after the passage of 2008 PA 286. He also testified that TES Filer City acquired the seasonal allowances through CMS Energy Resource Management Company, a wholly-owned subsidiary of CMS Energy Company, and explained why he believed the resulting costs were reasonable and prudent.⁷⁸

C. Staff

Staff witness Gretchen M. Wagner is an Auditor in the Act 304 Reconciliation Section of the MPSC's Regulated Energy Division.⁷⁹ She presented Staff's revision of the company's reconciliation calculations in Exhibit S-1. She explained that this exhibit reflects minor layout changes to the company's Exhibit A-11, and included the interest calculation.⁸⁰ She also identified two adjustments to the reconciliation calculations. The first adjustment incorporates the \$74,460 in NOx expenses from Exhibit BMP-7, and the second adjustment increases the capped payment amount owed to the BMPs by \$1,710,603, to reflect the calculation of the inflation adjustment.⁸¹ She testified that these adjustments result in an overrecovery of \$29,919,993.

D. Attorney General

Sebastian Coppola is an independent business consultant whose qualifications are summarized in his testimony and Attachment A to that testimony.⁸² Mr. Coppola recommended a disallowance of \$2.4 million based on the replacement power costs associated with five plant outages that Mr. Coppola concluded were attributable to

⁷⁸ See 2 Tr 125-128.

⁷⁹ Ms. Wagner's educational background includes a bachelor's degree and a master's degree in accounting. Her testimony is transcribed at 3 Tr 366-372.

⁸⁰ See 2 Tr 370.

⁸¹ See 2 Tr 371-372.

⁸² Mr. Coppola's testimony is transcribed at 2 Tr 330-364.

performance errors and imprudent actions by Consumers Energy. The outages he identified occurred at Karn unit 1 and Campbell unit 2.⁸³ He presented Exhibits AG-1 through AG-5 in support of his testimony. Mr. Coppola also testified to an error in the calculations of the additional O&M costs owed to the BMPs, concluding that an additional \$1.8 million should be added to the recoverable PSCR costs, as shown in his Exhibit AG-6.⁸⁴

E. Rebuttal

Consumers Energy was the only party to present rebuttal testimony. In his rebuttal testimony, Mr. Kehoe addressed the Attorney General's recommended disallowances for the replacement cost of power attributable to certain outage incidents at Karn unit 1 and Campbell unit 2. For each of the five outages, Mr. Kehoe disputed that a disallowance is warranted. He reviewed the underlying events for each, and presented Exhibit A-21 to provide supporting documentation to show that the Karn unit 1 outage had been planned since October 2016.

Mr. Kehoe was cross-examined on his testimony as discussed in more detail below.

F. Post-hearing Stipulation

As noted above, on July 10, 2019, the parties filed a stipulation to revise certain of the calculations presented by the BMPs. By ruling of July 11, 2019, the ALJ admitted Exhibits BMP-24, BMP-25, and BMP-26, which are corrected versions of Exhibits BMP-1, BMP-2, and BMP-9. The ALJ notes that the BMPs detected the error and called it to the parties' attention. Exhibit BMP-26 is the revised version of Exhibit BMP-9, and

⁸³ See 2 Tr 337-347.

⁸⁴ See 2 Tr 347-348.

reflects an increase in the plan year fuel and variable O&M expense for Viking Energy of McBain from \$6,158,019 to \$6,650,118, with a shortfall in comparison to Consumers Energy's PPA payments of \$2,318,413.

The revised exhibits do not change overall capped obligation of Consumers Energy, which remains at \$13,710,600, or the amount of this obligation Consumers Energy has already paid (\$9,599,995), but the revised exhibits do change the allocation of the capped amount among the BMPs. Exhibit BMP-25 has the per-BMP capped payment amounts as well as the additional uncapped amount requested by TES, the additional payments made by Consumers Energy, and the total amounts owed to each BMP.

G. Positions of the Parties.

Through revised and rebuttal testimony and through briefs, the parties have reduced the disputed issues in this proceeding. First, there is no dispute regarding the BMPs' request to recover a total of \$13,710,600 in capped payments, adjusted for inflation under MCL 460.6a(10), which is \$4,110,605 above the \$9,599,995 already paid, plus an additional \$74,460 owed to TES Filer City for certain emission allowance expenses not subject to the cap. The total amounts and amount outstanding after reflecting payments Consumers Energy has already made are shown in the stipulated Exhibit BMP-25. Second, the Attorney General has withdrawn two of the five proposed disallowances of replacement power costs associated with plant outages.

Based on the briefs of the parties, the issues requiring resolution in this case thus include: whether Consumers Energy is responsible for the replacement cost of power

associated with three outages at the Campbell plant, unit 2. These proposed disallowances are discussed in section III below.

III.

DISCUSSION

The Attorney General argues for disallowance of costs related to Outage Events 135, 158, and 159, all at Campbell Unit 2. The Attorney General does not argue for disallowances associated with two additional outages (one at Karn unit 1, outage event 23, and the other at Campbell unit 2, outage event 18) that were also the subject of Mr. Coppola's testimony. Citing MCL 460.6j, the Attorney General argues that Consumers Energy "carries the burden of proving to the Commission that it took all appropriate steps to minimize the cost of fuel and that its proposed PSCR costs were 'incurred under reasonable and prudent policies and practices'."⁸⁵

Consumers Energy opposes any disallowance, arguing:

Whether the Company's actions were reasonable and prudent is not synonymous with perfection. Instead, a utility's reasonableness and prudence is measured by what the utility knew when it made its decision, and not based on hindsight regarding the outcome of that decision. See *Attorney General v Pub Serv Comm*, 161 Mich App 506, 517; 411 NW2d 469 (1987).⁸⁶

Consumers Energy contends it "has met its burden of proof in this proceeding, and has presented competent, material, and substantial evidence" to "demonstrates that the expenses associated with the identified outages were reasonably and prudently incurred."⁸⁷

⁸⁵ See Attorney General brief, page 5.

⁸⁶ See Consumers Energy reply brief, page 3.

⁸⁷ See Consumers Energy reply brief, page 3.

In general, the RCG supports the Attorney General's recommended disallowances. RCG argues that the Commission should disallow costs "associated with [Consumers Energy's] negligence, or unreasonable and imprudent conduct."⁸⁸ RCG takes the position that "ratepayers should not be burdened with avoidable, imprudent and unreasonable costs, and to, in effect, be assigned the role of an insurance company with respect to said costs."⁸⁹ RCG argues that "a downward cost adjustment . . . is appropriate to establish and enforce standards of reasonableness and precedence, which in turn protects customers and encourages utility diligence and discipline with respect to utility plant operations and maintenance."⁹⁰

The specific outage events at issue are discussed separately in sections A through C below. The starting point for the analysis of each outage is the periodic outage reports contained in Exhibit A-5, sponsored by Mr. Kehoe. In this exhibit, there is a sheet for each outage event that includes the event type,⁹¹ an expanded description of the event, a final root cause, and information regarding work that was performed following the event.⁹² Mr. Kehoe compiled these sheets for units with lower availability averages than those for comparable units as reflected in GADS data.⁹³

A. Outage Event 135

Outage Event 135 began on July 31, 2017 and ended on August 4, 2017.⁹⁴ However, the events that led to this outage began 17 years earlier in 2000. As described in Exhibit A-5, Consumers Energy made a modification in replacing one of its

⁸⁸ See RCG brief, page 1.

⁸⁹ See RCG brief, page 2.

⁹⁰ See RCG brief, page 3.

⁹¹ The event types are described in Exhibit A-4.

⁹² See 2 Tr 189-190.

⁹³ See 2 Tr 189, 195-196.

⁹⁴ See Exhibit A-5, page 21; also see Coppola, 2 Tr 342.

substation fault recorders that “resulted in a current transformer (CT) for a current polarizing scheme to be wired backwards.”⁹⁵ Because of Consumers Energy’s improper wiring of the CT, Consumers’ Campbell plant became “susceptible to false trips on external grid faults.”⁹⁶ In 2002, as part of Consumers’ sale of its transmission system to Michigan Electric Transmission Company (METC), ownership of the improperly wired CT was transferred to METC.⁹⁷

On July 31, 2017, a fault occurred on METC’s 345 kV Roosevelt Line. 2 Tr 213. Because of the mis-wiring, “the line protection for the 138 kV breakers at the Campbell 138 kV Substation mis-operated on directional ground overcurrent, resulting in the loss of startup power to Campbell Units 1, 2, and 3.”⁹⁸ In Exhibit A-5, page 21, Consumers Energy provided additional details of the event, stating:

JHC1 lost power during startup because the 799 startup breaker tripped during an external ground fault because of the wiring error.

At the time of the event, JHC2 was online. JHC2 briefly remained online, however operators removed JHC2 from service due to complications from the loss of power on Unit 1. . . . When Unit 2 was removed from service all station power was lost to JHC 1&2 (because there was no startup power due to the 799 trip). This resulted in an uncontrolled shutdown and the blown condenser rupture discs.

Consumers Energy concluded that the root cause of the Campbell Unit 2 outage was the wiring error.⁹⁹ To explain why the wiring error was not discovered prior to the outage, in a discovery response to the Attorney General contained in Exhibit AG-3, Mr. Kehoe stated:

⁹⁵ See Exhibit A-5, page 21; also see Kehoe, 2 Tr 212.

⁹⁶ See Exhibit A-5, page 21.

⁹⁷ See Kehoe, 2 Tr 213.

⁹⁸ See 2 Tr 213.

⁹⁹ See Exhibit A-5, page 22.

Full system functional testing of the polarization scheme had not been performed since the sale of the Campbell 138 kV substation to [METC]. [Consumers assumed METC] would continue all testing previously performed. However, [METC] did not test this scheme because only Consumers' assets use this scheme for tripping. Also, the addition of new transformers for Campbell Unit #1 . . . and Campbell Unit #2 Air Quality Control System (AQCS) upgrade projects . . . changed the operating characteristics of the polarizing scheme in the event of a fault. This miss-wire may have not manifested itself for prior faults, before installation of the AQCS transformers.¹⁰⁰

As a result of this outage, Consumers Energy calculated that it incurred \$458,696 in replacement power costs.¹⁰¹ Mr. Coppola recommended a disallowance of this amount associated with this outage. He acknowledged that the company had sold the substation to ITC, and he acknowledged the company's explanation that it assumed ITC would continue the same type of testing Consumers Energy regularly employed, but further explained:

The basic problem here is an error by the Company in initially installing the transformer and wiring the polarizing scheme backwards. The problem persevered due to a lack of communication and coordination of equipment testing procedures between the Company and ITC. The combination of these two problems resulted in a power outage for which the Company should solely be held responsible. Customers should not pay for the financial impact on power costs from errors made by the Company, even if the source of those errors date back several years and manifested in 2017.¹⁰²

Based on Mr. Coppola's testimony, the Attorney General recommends a \$458,696 disallowance of replacement power costs associated with Outage Event 135.¹⁰³

Consumers Energy opposes the disallowance arguing that it "had no control over the July 31 Fault on METC's transmission system."¹⁰⁴ In his rebuttal testimony, Mr. Kehoe explained the company's position:

¹⁰⁰ See Exhibit AG-3, page 1.

¹⁰¹ See Exhibit AG-3, p 3.

¹⁰² See 2 Tr 343.

¹⁰³ See Attorney General brief, page 8.

The #5 neutral CT was not initially installed in 2000; it was mis-wired in 2000 when a modification to install digital fault recording equipment was made. And since METC has been the owner of the #5 neutral CT since 2002, the Company expected METC to properly maintain the equipment. Also, the addition of new Air Quality Control Systems (“AQCS”) transformers for Campbell Unit 1 in 2015 and Campbell Unit 2 in 2013 changed the operating characteristics of the polarizing scheme in the event of a fault. The original mis-wiring of the Transformer #5 neutral CT, the failure to perform full system functional testing of the polarization scheme utilized by Consumers Energy at its generation substations, and the change to the operating characteristics of the polarizing schemes at the Campbell substation upon installation of the AQCS equipment transformers, all led to the event. Had any one of these three contributing factors not occurred, it is likely that the outage would not have occurred.¹⁰⁵

In Mr. Kehoe’s opinion:

The Company sold its transmission assets to an independent third party, METC. That third party is wholly responsible for operating and maintaining its assets; Consumers Energy cannot, and should not, be held responsible for METC’s failure to properly maintain its assets. There is no basis to suggest that the Company did not make every effort to communicate and coordinate with METC on matters which impact the Company’s assets, especially its generating assets.¹⁰⁶

In its brief, Consumers Energy relies heavily on Mr. Kehoe’s rebuttal testimony, arguing:

. . . While the Company agrees that the mis-wiring of the #5 neutral CT occurred when Consumers Energy owned the asset in 2000, the Company reasonably expected METC to properly maintain the equipment when METC became the equipment owner. 2 TR 213. METC has been the owner of the #5 neutral CT since 2002, and is solely responsible for operating and maintaining the equipment. 2 TR 214. It is unreasonable to criticize Consumers Energy for failing to maintain and test the #5 neutral CT during the 15 years that METC was the owner of the #5 neutral CT.

Consumers Energy had no control over the two issues that precipitated the July 31, 2017 through August 4, 2017 outage at Campbell Unit 2. First, the July 31 Fault on METC’s 345 kV transmission system initiated the series of events that resulted in the outage. Absent the fault on METC’s transmission system, over which the Company had no control, the Campbell Unit 2 outage would not have occurred. . . . Second, the July 31 Fault on METC’s transmission system led to the mis-operation of

¹⁰⁴ See Consumers Energy brief, page 19.

¹⁰⁵ See 2 Tr 213-214.

¹⁰⁶ See 2 Tr 214.

METC's equipment – the line protection for the 138 kV breakers at METC's Campbell 138 kV substation.¹⁰⁷

The Attorney General argues that Consumers Energy is attempting “to shift responsibility for the outage” to METC.¹⁰⁸ The Attorney General finds Consumers Energy's position flawed:

[Outage Event 135] can be traced back to the Company erroneously wiring the polarizing scheme backwards. As the Company acknowledges, “this miss-wire (sic) may have not manifested itself for prior faults, before installation of the AQCS transformers.” The problem persevered due to a lack of communication and coordination of equipment testing procedures between the Company and ITC and the unique scheme used by the Company for tripping a fault. This combination of circumstances resulted in a power outage and the Company is the common denominator in them all. The Company's attempt to distance itself from its own error by emphasizing that does not currently own the system should be rejected.¹⁰⁹

In response, Consumers Energy argues that the Attorney General “seeks to hold Consumers Energy responsible for maintaining and testing equipment during the 15 years that METC was the owner of the equipment.”¹¹⁰ As the company sees it, the Attorney General “presented no evidence showing that Consumers Energy was in any way responsible for the July 31 Fault.”¹¹¹ Consumers Energy argues that it “should not be subject to a disallowance that was initiated by an external grid fault without any evidence that the Company caused, or had any control over, the fault.”¹¹² Further, quoting Mr. Kehoe's rebuttal testimony, Consumers Energy contends “there is ‘no basis to suggest that the Company did not make every effort to communicate and coordinate with METC on matters which impact the Company's assets, especially its generating

¹⁰⁷ See Consumers Energy brief, pages 19-20.

¹⁰⁸ See Attorney General brief, page 7.

¹⁰⁹ See Attorney General brief, page 8.

¹¹⁰ See Consumers Energy reply brief, page 4.

¹¹¹ See Consumers Energy reply brief, page 5.

¹¹² See Consumers Energy reply brief, page 5. For support, Consumers Energy cites U-17317-R, Order, p 8 (July 22, 2016).

assets.”¹¹³ Consumers Energy notes that “METC is an independent third party” and argues that the Commission “should not hold Consumers Energy responsible for METC’s failure to properly maintain those assets.”¹¹⁴

RCG argues that Consumers Energy “should not be allowed to shift costs to ratepayers because [it] discovered only recently that it had mis-wired equipment years ago, or on the basis that a third-party such as [METC] bears a portion of the responsibility for an outage.”¹¹⁵ RCG adds, “since there is no dispute that the cause for the outage was caused by the wiring mistake made by [Consumers Energy] in 2000, and not a third party, Consumers should be held responsible for absorbing the costs of the mistake.”¹¹⁶

After reviewing the record, the ALJ rejects Consumers Energy’s claim that the Attorney General is seeking to hold the company responsible for a fault on METC’s system that it did not cause. The issue presented in this case is not whether Consumers Energy is responsible for the initial fault, but whether it is responsible for the failure of protection to minimize the damage from the fault. As Mr. Kehoe explained in his rebuttal testimony:

When the fault occurred, the 345 kV breakers operated as designed to clear the fault. However, when the fault occurred, the line protection for the 138 kV breakers at the Campbell 138 kV Substation mis-operated on directional ground overcurrent, resulting in the loss of startup power to Campbell Units 1, 2, and 3.¹¹⁷

Granted that Consumers Energy no longer owned the mis-wired equipment, and that significant time passed from the transfer of ownership from Consumers Energy to

¹¹³ See Consumers Energy reply brief, page 5; Kehoe, 2 Tr 214.

¹¹⁴ See Consumers Energy reply brief, page 5.

¹¹⁵ See RCG brief, page 2.

¹¹⁶ See RCG reply brief, page 1.

¹¹⁷ See 2 Tr 213.

METC, Consumers Energy also was responsible for a more recent event that contributed to the failure. As it argues, the installation of Air Quality Control Systems (AQCS) transformers at the plant in 2013 and 2015 changed the operational characteristics of the polarizing scheme in the event of a fault, and had that change not occurred, it is likely that the outage would not have occurred.¹¹⁸

Regarding the company's claim that there is no evidence it did not make every effort to communicate and coordinate with METC on matters which impact the Company's assets, the ALJ notes that Consumers Energy bears the burden of proof to show that its actions were reasonable and prudent, and it presented no evidence regarding its efforts to communicate with METC regarding protection for Consumers Energy's plant. On cross examination, Mr. Kehoe again asserted that Consumers Energy "expected METC to properly maintain and discover the problem with the wiring."¹¹⁹ However, Mr. Kehoe admitted that he did not know "how METC was supposed to realize that there was this wiring problem", nor did he know of "a particular test that METC could have performed that would have alerted it to the wiring problem prior to this incident."¹²⁰ He testified that this was beyond his area of expertise. He also testified that he did not know whether there were any disclaimers or disclosures made about the wiring conditions at the time of the sale to METC.¹²¹ Thus, the ALJ concludes that the Attorney General's proposed disallowance should be adopted.

¹¹⁸ See Kehoe, 2 Tr 213-214.

¹¹⁹ See 2 Tr 245.

¹²⁰ See 2 Tr 246.

¹²¹ See 2 Tr 246.

B. Outage Event 158

Outage Event 158 was a 45-hour outage at Campbell Unit 2, on September 19-20, 2017. This outage arose during turbine trip testing at the unit. In Exhibit A-5, page 23, the root cause description reads:

[D]uring turbine trip testing, the operator released the Test Lever prior to returning the Trip and Reset Lever to the normal position, resulting in the turbine trip.

In Exhibit A-5, Consumers Energy ascribes the outage to “operator error,” further concluding that the “Operator failed to follow the test procedure” and that the outage was the result of “human error.”¹²² Mr. Coppola cites this analysis¹²³ in recommending a disallowance of the replacement cost of power associated with this outage:

This outage is the result of an employee error in failing to follow proper procedure. The result is higher power costs. Ultimately, the Company is responsible for the actions of its employees. The responsibility for higher costs must then reside with the Company. It certainly would not be fair to burden customers with higher power costs resulting from employee errors.¹²⁴

Mr. Coppola also relied on information supplied by Consumers Energy in Exhibit AG-4 for the calculation of the replacement cost of power associated with this outage, \$179,537.

In his rebuttal testimony, Mr. Kehoe testified that Mr. Coppola’s summary of this event is accurate, but “does not include the up-front planning and caution which the Company undertook in the performance of the low vacuum trip test.”¹²⁵ He explained that prior to performance of the test, “a pre-job brief was conducted in the control room

¹²² See Exhibit A-5, p 23.

¹²³ See 3 Tr 343.

¹²⁴ See 3 Tr 344.

¹²⁵ See 2 Tr 215.

which included a review of the trip testing” and that the “testing procedure for performance of the low vacuum trip testing was distributed to all personnel involved in the testing.”¹²⁶ Mr. Kehoe added that “[o]nce the operators established their position at the turbine to conduct the testing, they established communication with the control room via radio. However, despite the preceding preparation, the turbine trip occurred due to unclear remote communication regarding the position of the test lever.”¹²⁷

On cross-examination, Mr. Kehoe explained that what “happened here [was] that the operator left his remote and the operator in the control room had a misunderstanding as to the relative position of the lever.”¹²⁸ At 2 Tr 249, he added:

Unfortunately, in this particular instance, either due to miscommunication or a misunderstanding of where they were at in the procedure relative to the position of that lever, the fault occurred. We have since, . . . taken some corrective action. But yes, this was clearly a mistake by the operators.

In continuing to seek a disallowance of the \$180,000 replacement power costs for this outage, the Attorney General argues:

Based on the record there was either an inadequate procedure or a total breakdown in performance or both. . . . The operators’ actions in proceeding without clear direction was not reasonable and prudent. [The] fact that really demonstrates the lack of reasonableness and prudence is that an operator seemingly left their remote, but instead of taking action to ensure that the other operator was aware of his or her actions, the operation continued. Apparently, the procedure or training of the employee failed to address what to do to ensure adequate communication of one’s actions. The decision to continue the testing under the circumstances was neither reasonable or prudent.¹²⁹

¹²⁶ See 2 Tr 215.

¹²⁷ See 2 Tr 216.

¹²⁸ See 2 Tr 248-49.

¹²⁹ See Attorney General brief, page10.

The Attorney General adds that Consumers Energy “is responsible for the actions of its employees” and that it “certainly would not be fair to saddle customers with higher power costs resulting from employee errors.”¹³⁰ The Attorney General further takes issue with Mr. Kehoe’s rebuttal testimony, arguing that he provided a “somewhat different explanation of the outage event” in his description of the event as resulting from a failure to communicate between the control room and the operator.¹³¹ The Attorney General contends that although he acknowledged a mistake by the operators, Mr. Kehoe “cavalierly dismiss[ed] the importance of understanding the underlying reason for the outage.”¹³²

Citing Mr. Kehoe’s rebuttal testimony, Consumers Energy argues that no disallowance is warranted, because “reasonable low vacuum trip testing procedures . . . were in place prior to the operator error that resulted in the turbine trip, including conducting a pre-job brief and establishing remote communications.”¹³³ In its reply brief, Consumers Energy disputes that inconsistencies exist between the explanation of the outage event in Exhibit A-5 and Mr. Kehoe’s rebuttal, arguing that Mr. Kehoe only provided additional detail in his rebuttal but was fully consistent with the description in Exhibit A-5.¹³⁴ Consumers Energy also disputes that Mr. Kehoe was unconcerned with the understanding the reason for the outage, reviewing his testimony on cross-examination at 2 Tr 248-249 to show that he was only contending that it was less

¹³⁰ See Attorney General brief, page 9, citing Mr. Coppola’s testimony at 2 Tr 344.

¹³¹ See Attorney General brief, page 9.

¹³² See Attorney General brief, page 10.

¹³³ See Consumers Energy brief, page 22.

¹³⁴ See Consumers Energy reply brief, page 7.

important whether the misunderstanding regarding the position of the level is characterized as a “procedural” or “communication” error.¹³⁵

The ALJ finds the Attorney General’s analysis persuasive that preventable error caused the outage. Neither of the employees involved in the miscommunication testified to account for the misunderstanding, and Consumers Energy has not attributed the error to a faulty piece of communications equipment. The ALJ recommends that the Commission adopt the Attorney General’s proposed disallowance.

C. Outage Event 159

Outage Event 159 began on September 20, 2017 and ended on October 3, 2017 and incurred replacement power costs of \$1,135,495.¹³⁶ In general, this outage was caused by the failure of the plant’s start-up boiler feed pump (also referred to by acronym SUBFP). In Exhibit A-5, Consumers describes the root cause of the failure as “[p]ump failure due to lack of procedural direction” and the final root cause as “[p]ump run at less than min flow.”

In a discovery response included in Exhibit AG-5, when asked to explain why the pump had been run at less than minimal flow, Consumers Energy stated:

Prior to 2012, the startup boiler feed pump recirculation valve operated either fully open or fully closed. During shutdown operations this typically induced severe pressure transients that caused the pump to trip off which resulted in several bearing/coupling failures in 2010. In 2012, a controller was put on the automatic recirculation valve to allow for smooth transition of the unit when switching between the startup boiler feed pump to the main boiler feed pumps.

The start-up boiler feed pump can operate between 400,000 pounds per hour and 740,000 pounds per hour. For short periods of time, during transients, the startup boiler feed pump can operate at rates as low as

¹³⁵ See Consumers Energy reply brief, page 7.

¹³⁶ See Exhibit A-5.

200,000 pounds per hour. In automatic control mode, the recirculation valve (which is designed to handle 175,000 pounds per hour) operates to keep a targeted minimum of 500,000 pounds per hour of flow to the boiler. As the duty is transferred to the main boiler feed pumps the discharge of the startup boiler feed pump closes, which increases the demand flow rate of the recirculation valve above the 175,000 pounds per hour design basis.

There was no direction in the operating procedure which specified that maximum time interval between the closing of the startup boiler feed pump discharge valve and removal of the pump from service. During the transfer, the startup boiler feed pump valve was left closed, restricting flow. This resulted in water flashing to steam inside of the pump cavity and the pump being damaged.¹³⁷

Consumers Energy also explained in a discovery response included in that exhibit that the work done in 2012 was not intended to evaluate the operation of the startup pump in full recirculation mode, and added:

Following the [startup boiler feed pump (SUBFP)] failure in 2017, Engineering performed an evaluation of the SUBFP operating data which reflected that the SUBFP was operated below minimum flow . . . for more than 3 minutes. The operating procedure did not specify a minimum time at which the pump could operate below minimum flow prior to stopping the SUBFP. Following the failure and the engineering evaluation, the operating procedure was modified to require the operator to stop the SUBFP once the minimum flow condition was achieved.¹³⁸

In his direct testimony, Mr. Kehoe also provided an extensive discussion of this incident, explaining:

During unit startup, the SUBFP supports the boiler load until the time when load is transferred to the [main boiler feed pump (MBFP)]. . . . To accomplish this transfer, the SUBFP discharge flow control valve is slowly closed, thereby increasing the SUBFP discharge pressure and lowering the SUBFP suction flow. As the SUBFP suction flow decreases, the SUBFP flow transmitter actuates a solenoid-operated air valve which in turn causes the diaphragm-operated SUBFP recirculation valve to modulate open.¹³⁹

¹³⁷ See Exhibit AG-5, page 1.

¹³⁸ See Exhibit AG-5, page 3.

¹³⁹ See 2 Tr 218.

Mr. Kehoe testified that the procedure for transferring from the SUBFP to the MBFP “was followed correctly”, adding:

The operating procedure did not contain any guidance regarding how long the SUBFP could operate in recirculation mode once the discharge flow control valve was fully closed. During the transfer from the closing of the SUBFP discharge flow control valve and the removal of the SUBFP from service, the SUBFP discharge flow control valve was left closed, restricting flow. This resulted in water flashing to steam inside of the pump cavity and the pump being damaged.

He further explained:

Through subsequent analysis of this failure, the Company discovered that the SUBFP was not designed to operate in full recirculation mode. The Company’s analysis revealed that with the SUBFP discharge flow control valve fully closed and the recirculation valve fully open, the maximum recirculation flow is only 200,000 lbs/hour Although the SUBFP only operated at this flow rate for 45 seconds before failure, the condition of the SUBFP as measured by vibration readings clearly show that the SUBFP should not be operated in this mode for any period of time.¹⁴⁰

Mr. Coppola took issue with the company’s actions:

From reading page 24 of Exhibit A-5 and the Company’s explanations provided in response to discovery questions, it is apparent that the Company did not have an adequate understanding of how the startup water pump should work and what procedures it should follow to avoid a failure. The problem may have been compounded by equipment suppliers not providing the best equipment or operating procedures.

However, this is not new technology. The Company has been operating Campbell Unit 2 for decades using water pumps with multiple startups and shutdowns. It is difficult to understand why the Company would have such difficulties with a process that should be rather routine. This outage shows that the Company failed to perform these basic functions. The higher power costs emanating for this outage cannot be considered prudently incurred.¹⁴¹

¹⁴⁰ See 2 Tr 220.

¹⁴¹ See 2 Tr 346.

He recommended a disallowance of \$1,135,495, based on the cost of replacement power calculated by Consumers Energy in Exhibit AG-5.¹⁴² In its brief, the Attorney General argues that “it appears [Consumers Energy had] an adequate understanding of how the startup water pump should work and an adequate procedure to avoid the problem, but for whatever reason, its employee failed perform the procedure properly.”¹⁴³ The Attorney General concedes that the “problem may have been compounded by equipment suppliers not providing the best equipment or operating procedures”, but argues that “over time the Company has established a start-up procedure that the employee strayed from and it was that deviation that set in motion the events that caused the outage.”¹⁴⁴ In her brief at page 14, the Attorney General adds:

The Company attempts to point to the manufacturer’s pump curve and that somehow relying on it and the limits it provided was the real cause of the damage to the pump and consequently the outage. But, a few things clearly dispel that notion: (1) The Company has over time established a procedure for the startup and it has been operating Campbell Unit 2 for decades using water pumps with multiple startups and shutdowns and no problems as testified to by Mr. Kehoe. (2) It did not appear to be relying solely on the manufacturer’s pump curve prior to this incident. (3) The Company did not point to any extenuating circumstances to explain the deviation from the normal procedure.

This is not new technology and the process is routine. The Company notes that it has performed this operation successfully over the years. The higher power costs emanating for this outage cannot be considered prudently incurred and ratepayers should not pay for the incremental power costs.

Consumers Energy argues that the Commission “should reject the Attorney General’s argument because the Company reasonably operated the SUBFP” and “had

¹⁴² See 2 Tr 346-347.

¹⁴³ See Attorney General brief, page 12.

¹⁴⁴ See Attorney General brief, page 13.

no reason to believe that the SUBFP could not be operated in full recirculation mode.”¹⁴⁵

Consumers Energy more fully explains its position by arguing that:

The amount of time taken to shut down the SUBFP . . . was not unreasonable or imprudent based on the information available to the Company at the time of the outage. Because of the manufacturer’s SUBFP pump curve and the manufacturer’s design of the SUBFP recirculation path, the Company reasonably did not expect that it was necessary to limit the operation of the SUBFP in full recirculation mode. 2 TR 257. The Company had a reasonable shutdown procedure in place that reflected a logical sequence of events to shut down the SUBFP once the boiler load had been transferred to the MBFP. 2 TR 221. The Company had no reason to know that the SUBFP could not be operated for even a short amount of time in full recirculation mode without the pump failing. 2 TR 255-256. . . .

The operator followed the Company’s reasonable and prudent procedure in transferring load from the SUBFP to the MBFP, and the failure of the SUBFP resulted from inability of the SUBFP to operate in full recirculation mode. . . . The Attorney General presented no evidence showing that the Company could have reasonably known that the SUBFP was unable to operate in full recirculation mode, and it is only in hindsight that the Attorney General assumes that the Company did not perform the startup procedure properly.¹⁴⁶

In its reply brief, the Attorney General argues that:

[T]his is not an issue of an undiscovered failure of a part as much as it is a failure to follow a proven procedure. . . . [Consumers] developed a proven process for making the switch over from the SUBFP to the Main Feed Pump and . . . had performed this operation successfully over the years presumably with knowledge of the pump curve. . . . While the process used to perform the switch-over likely originated with the manufacturer, it had been modified over time and has become Consumers Energy’s procedure, the development and execution of which was and is completely under the control of the Company. And, if the operation had been performed consistently, the outage would not likely have occurred. The Company’s attempt to absolve itself of responsibility by shifting the focus and blame to the manufacturer should be rejected.¹⁴⁷

¹⁴⁵ See Consumers Energy brief, page 22.

¹⁴⁶ See Consumers Energy brief, pages 10-11.

¹⁴⁷ See Attorney General reply brief, pages 4-5.

Based on a review of the record, the ALJ finds that this outage was caused by Consumers Energy's failure to follow its long-established procedure of immediately shutting down the start-up boiler feed pump after the switch to the main boiler feed pump. Consumers Energy failed to explain when, how, and why this procedure went into place, but it is clear it was violated and the result was a damaged pump and a 14-day outage.

The most illuminating evidence explaining the cause of this outage, however, was provided during the cross-examination of Mr. Kehoe. He began by noting that he had no knowledge regarding the genesis of the start-up procedure for the start-up boiler feed pump, but that the start-up boiler feed pump had been in the plant for a long time and the start-up procedure had too.¹⁴⁸ Mr. Kehoe then gave extended testimony on the incident, as follows:

A]t a power plant there are two boiler feed pumps. One is the Startup Boiler Feed Pump. That's an electrically driven pump. . . . The electric motor isn't large enough to bring the power plant up to full load. The Main Boiler Feed Pump, the thing that pushes water through the boiler, is powered by steam. Well, clearly in order to get steam you have to start the boiler up. So at a certain point in the startup procedure there is a transfer from the Startup Boiler Feed Pump to the Main Boiler Feed Pump. And that involves bringing the flow down on the Startup Boiler Feed Pump as you're ramping up the flow from the Main Boiler Feed Pump.

[So] when you back down the flow, the way one does that is by opening up what's called a recirculation valve. So essentially water goes in a circle in the pump. And then you throttle back on the amount of water that's coming out of the Startup Boiler Feed Pump.

* * *

The particular pump that is involved here, the characteristics of a pump are described by something called pump curve. And what it demonstrates is the flow that comes out of the pump at a given horsepower rate. The

¹⁴⁸ See 2 Tr 251.

pump curve for this pump said the minimum flow rate of the pump is 400,000 pounds per hour of water going through the pump. But it shows on the pump curve operation at 200, which is -- But they do indicate that at those very low loads or those very low flow rates, that pump is unstable. . .

In this particular instance what happened is, as one is normally following the procedure, what happens is, the moment you transfer the load from the Startup Boiler Feed Pump over to the Main Boiler Feed Pump, you immediately shut down the Startup Boiler Feed Pump. In this particular instance, the operator is following this procedure. The next step says shut down the Startup Boiler Feed Pump, but it took some time to go between the step prior to that and the next step where it says shut down the Startup Boiler Feed Pump. The amount of time -- and you can see this on the timeline that's in my testimony -- was that it was operational in full recirculation for 45 seconds. Under . . . all other startups that we've had on this, the operator shuts the unit down relatively rapidly between transfer to the Main Boiler Feed Pump and shutdown of the Startup Boiler Feed Pump. So that happens very rapidly. And the water in the pump doesn't have an opportunity to convert to steam. And that was the thing that damaged the Startup Boiler Feed Pump.

If you look at the manufacturer's pump curve, and upon subsequent analysis, what we found was that the recirc path in the pump had a maximum flow of 200,000 pounds an hour. If you look at the pump curve, it implies that the operation of the pump is possible at 200,000 pounds an hour. And in fact, the recirc path through the pump is designed for a full rate of 200,000 pounds per hour.

Unfortunately, what we found was, you cannot operate it for any . . . substantial length of time -- and by substantial I mean 45 seconds -- at that flow rate, in full recirculation mode without changing the water into steam. And that's what damaged the pump.¹⁴⁹

Notably, Mr. Kehoe could provide no evidence to explain why the operator of the startup boiler feed pump failed to "immediately shut down the Startup Boiler Feed Pump" as per established procedure.¹⁵⁰ Although the written procedure did not specify a time to complete the shutdown task, Mr. Kehoe clearly acknowledged that on every other

¹⁴⁹ See 2 Tr 252-56,

¹⁵⁰ See 2 Tr 254, 256.

startup the company has had using this equipment, the operator has shut down the unit “very rapidly.”¹⁵¹

Mr. Kehoe testified that the minimum flow for the startup boiler feed pump was 400,000 pounds per hour.¹⁵² The timeline in Mr. Kehoe’s rebuttal testimony at 2 Tr 221 shows the pump operated for 1 minute and 21 seconds below this rate, and for 45 seconds of that time period operated at 200,000 pounds per hour, before the start-up boiler feed pump was shut down leading to this outage event. On this record, no one has accounted for the 81 seconds the pump operated below 400,000 pounds per hour or the 45 seconds of time it operated at 200,000 pounds per hour, to explain the deviation from the established practice.¹⁵³ Mr. Kehoe also acknowledged that the vibrations during the 45-second time period were at “unacceptable levels.”¹⁵⁴

Mr. Kehoe’s testimony that the pump curve “implies” it is “possible” to operate the SUBFD and rates as low as 200,000 pounds an hour¹⁵⁵ does not establish that it would be reasonable to do so, when the same pump curve indicated that the minimum flow rate for the SUBFD was 400,000 pounds per hour and that operation at the lower rates would cause the pump to become “unstable.”¹⁵⁶ Thus, although Mr. Kehoe testified that the company “relied on” the pump curve, there is no evidence that such reliance was reasonable. While Mr. Kehoe testified that the recirculation path through the pump is “designed for a full rate of 200,000 pounds per hour,” his own rebuttal testimony stated

¹⁵¹ See 2 Tr 254-255.

¹⁵² See 2 Tr 217.

¹⁵³ Mr. Kehoe testified that there had been 18 startup/shutdowns since 2012, 2 Tr 219, and the pumps have been in operation considerably longer than that, 2 Tr 251-252.

¹⁵⁴ See 2 Tr 220.

¹⁵⁵ See 2 Tr 255.

¹⁵⁶ See 2 Tr 254.

that until this incident, Consumers Energy did not know that the path would not support a rate of 400,000 pounds per hour.¹⁵⁷

In addition, the ALJ is not convinced that the company's written procedures were designed based on an analysis of the capability of operating the pump at rates below 400,000 pounds per hour derived from the pump curve, or that the actual operation of the pump on September 20, 2017 was made in consideration of the pump curve. If the procedures were written based on an interpretation of the pump curve, the procedures would have expressly addressed the reported "unstable"¹⁵⁸ and "erratic"¹⁵⁹ limitations identified by Mr. Kehoe. If the operator actually consulted the pump curve, the operator would have been made aware of the same limits.

Consumers Energy has failed to establish that its actions, in this instance, were reasonable and thus that the resulting replacement power purchases were reasonable. Consumers Energy failed to follow a well-established procedure, one that, presumably, was designed to address the instability of the startup boiler feed pump at low flow rates. Without explanation, Consumers Energy deviated from this procedure, and the result was a burned-out water pump. The disallowance should be adopted.

VII.

CONCLUSION

For the reasons explained above, this PFD recommends that the Commission adopt the findings and conclusions presented above, including the following findings and recommendations:

¹⁵⁷ See 2 Tr 221.

¹⁵⁸ See 2 Tr 254.

¹⁵⁹ See 2 Tr 217.

1. The BMPs should receive payment in accordance with the schedule shown in Exhibit BMP-25, which is the corrected version of Exhibit BMP-2, and the costs should be included as recoverable PSCR costs in accordance with MCL 460.6a(11), as follows: the capped payments to all BMPs total \$13,710,600; the additional uncapped payment for T.E.S. Filer City LP is \$74,460; of this total \$13,710,600, the total amount unpaid as of the hearing was \$4,185,065;

2. The disallowances recommended by the Attorney General for Campbell unit 2 outage events 135, 158, and 159 should be adopted.

Based on these findings and conclusions, this PFD recommends that the Commission find that Consumers Energy's reported cumulative overrecovery of \$26,585,283 not including interest, as presented in Exhibit A-11, should be adjusted to reflect the full amount of the payments to the BMPs in accordance with MCL 460.6a(11), and to reflect the disallowances of the replacement costs of power associated with the outage events described above.

MICHIGAN OFFICE OF ADMINISTRATIVE
HEARINGS AND RULES
For the Michigan Public Service Commission

**Sharon L.
Feldman**

Digitally signed by: Sharon L.
Feldman

DN: CN = Sharon L. Feldman email
= feldmans@michigan.gov C = US
O = MOAHR OU = MOAHR - PSC
Date: 2019.08.12 09:09:29 -04'00'

Sharon L. Feldman
Administrative Law Judge

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