#### STATE OF MICHIGAN

#### BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

\* \* \* \* \*

In the matter, on the Commission's own motion,	)	
to commence an investigation into a January 30,	)	
2019 fire at CONSUMERS ENERGY COMPANY's	)	Case No. U-20463
Ray Compressor Station in Macomb County.	)	
	)	

At the July 2, 2019 meeting of the Michigan Public Service Commission in Lansing, Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman Hon. Norman J. Saari, Commissioner

Hon. Daniel C. Scripps, Commissioner

#### **ORDER**

#### Procedural History

At approximately 10:30 a.m. on January 30, 2019, a fire occurred at Consumers Energy Company's (Consumers) Ray Natural Gas Compressor Station in Macomb County (the Ray facility). As a result of the fire, equipment was damaged, and Consumers stopped gas flow from the compressor station into the company's gas distribution system. The Ray facility supplies a significant portion of Consumers' natural gas to serve its 1.6 million customers' needs during peak winter periods. The fire and shutdown of the Ray facility occurred at a time of unprecedented demand in natural gas usage due to extremely cold weather conditions on January 30 and 31, 2019. To ensure continued delivery of natural gas during this emergency, Consumers arranged to receive alternative supplies from natural gas pipelines and other storage fields, limited natural gas used for electricity production, coordinated with large commercial and industrial customers to curtail

usage, and requested that all customers conserve energy. Late on January 30, 2019, Consumers resumed operation of Plant 1 of the Ray facility; however, the other two plants continued to be inoperable due to the fire. To ensure the stability of the natural gas system and avoid a potentially life-threatening situation with forced outages of natural gas service to residential customers, the Michigan State Police (MSP) issued an emergency alert to cellular phones in the Lower Peninsula of Michigan asking residents to reduce their home thermostats to 65 degrees or less. Governor Gretchen Whitmer called on Michigan residents to do the same through the media. At 12:00 a.m. on Friday, February 1, 2019, Consumers resumed normal natural gas delivery operations.

Given the significance of this emergency event, the Commission opened this docket on February 7, 2019 (February 7 order) for the purpose of investigating the fire to determine: Consumers' response to the fire, the company's gas curtailment procedures, whether there is evidence of a failure by Consumers to properly maintain its equipment or any non-compliance with Commission rules, the total cost of the incident, and other related issues. In the February 7 order, the Commission directed Consumers to file a report in this docket addressing these issues and provided the Commission Staff (Staff) and stakeholders an opportunity to file a response to the company's report. The Staff's response was to include an anticipated timeline for the subsequent Root Cause Analysis (RCA) Report that the Commission's Gas Operations Section will provide, and any potential changes to utility operations or procedures, if such changes are identified. The February 7 order also allowed Consumers to file a reply to the Staff's response and stakeholder input.

On April 5, 2019, Consumers filed a timely report addressing the items set forth in the February 7 order. The Staff filed a timely response to the company's report on May 8, 2019. The Michigan Department of the Attorney General (Attorney General) and the Association of

Businesses Advocating Tariff Equity (ABATE) filed comments in response to Consumers' report on May 8 and 9, 2019, respectively. On May 30, 2019, the company filed a timely reply to the Staff's response and the Attorney General's and ABATE's comments.

# "Consumers Energy Company's Ray Compressor Station Fire, Jan. 30, 2019" Report and the Commission Staff's Response

Consumers' report and the Staff's response address the items identified by the Commission for investigation in the February 7 order, *ad seriatim*.

#### 1. Origin of the Fire

Consumers states that, at approximately 10:23 a.m. on January 30, 2019, "Plant 3 at the Ray Compressor station detected an abnormal operating condition in the Det-Tronics control system. As part of the emergency safety fire-gate process, the plant released natural gas into the atmosphere through Plant 3 blowdown silencers." Consumers' report, p. 2. The company believes that, due to prevailing wind conditions, the natural gas that was released from the fire-gate process was carried over the Plant 2 processing equipment. According to Consumers, at approximately 10:25 a.m., the first visible sign of fire was observed near the Plant 2 thermal oxidizer, leaving the company to conclude that the Plant 2 thermal oxidizer's exhaust stream auto-ignited the gas plume. The company avers that, as part of its standard safety protocols, personnel at the Ray facility manually fire-gated Plant 1 and Plant 2 at approximately 10:27 a.m. and 10:28 a.m., respectively. Consumers states, "there was a second ignition at the Plant 2 vent stack, which is located next to Plant 3's blowdown silencers and is the location where the natural gas is released for Plant 2 . . . . The flames extinguished when the natural gas was completely vented. The fire department arrived on scene at 10:38 a.m. and left at 3:34 p.m." *Id.*, p. 6.

In response, the Staff contends that, regarding the "abnormal operating condition in the Det-Tronics control system," Consumers did not include in its report an investigation of this Page 3

unusual condition. Staff's response, p. 7, quoting Consumers' report, p. 2. In addition, the Staff notes that the company failed to discuss whether the design and/or location of the silencer at Plant 3 contributed to the fire at the Ray facility. The Staff asserts that it will address these two issues in its RCA report and will work with Consumers to further understand the timeline of the Ray facility event in relation to the data originally provided.

2. Response to the Fire, Both at the Site and at Consumers Energy Company's Corporate Office

Consumers states that, since 2014, it has developed and improved emergency management through the use of an Incident Command System (ICS). In response to the January 30, 2019 incident at the Ray facility, the company activated the Crisis Management Team, which was comprised of senior level executives, who classified the incident as an ICS Level 3 – Full Scale Activation. Because the incident was classified as Level 3, the company notes that the ICS structure included a command post and an Emergency Operations Center (EOC). Consumers explains that the Ray Command Post assigned roles to form a chain of command and general staff, and the ICS team established a formal incident action plan, which included situational summaries, high level objectives, and tactics, and set forth the ICS structure. Consumers' report, p. 7. The company states that "the EOC worked to support the Ray Command Post and manage the larger impact on the gas supply system." Id. Consumers asserts that the incident action plans "provided a clear operating picture to help guide the response and deliver consistent, accurate communication. This communication followed a clear path from the Ray Command Post to the EOC to the Crisis Management Team." *Id.* In addition, the company believes that the ICS structure supplied a method of rapid, comprehensive, and transparent communication with the Commission, the State Emergency Operations Center (SEOC), and the Governor's office. Finally, Consumers avers that the safety plans developed by the safety officers minimized risks for employees and the public.

Although the company stated that it provided swift, comprehensive, and transparent communication with the Commission, SEOC, and the Governor's office, the Staff argues that Consumers' communication with other Michigan utilities was deficient. The Staff states that "other utilities indicated that Consumers failed to notify them of the seriousness of the situation, in addition to not being provided any advance notice that there was going to be an emergency plea issued to residents within the State, many of whom did not have Consumers as a natural gas provider." Staff's response, p. 8. The Staff recommends that this issue be addressed in the Statewide Energy Assessment (SEA) report in Case No. U-20464.

#### 3. Implementation of Gas Curtailment Procedures

The company states that, on the morning of January 30, 2019, Consumers' Business Customer Care (BCC) received an alert that there was an incident at the Ray facility and that gas curtailment may be necessary. In its report, Consumers details a timeline of events and actions taken by BCC. *See*, Consumers' report, p. 9. According to the company, after notification of the incident, BCC compiled a curtailment customer list, posted notification of the operational flow order (OFO) to the information posting website, and aligned team leadership. Then, Consumers asserts that the team began contacting the highest volume customers to request voluntary gas load reductions to mitigate stress on the depleting natural gas supply. However, the company states that by the afternoon of January 30, 2019, low-pressure concerns on the gas distribution system required formal curtailment by some customers. Consumers contends that the curtailment continued throughout the day on January 31, 2019, and was formally lifted as of 12:00 a.m. on February 1, 2019. The company also notes that it "communicated with MISO [Midcontinent Independent

System Operator, Inc.] to determine the need to continue to serve Michigan natural gas-powered power plants during the curtailment," and concluded that Midland Cogeneration Limited Partnership could operate without using gas supply by Consumers for electric generation, Kalamazoo River Generating Station could shut down, and other natural gas plants on the company's system could reduce usage, but continue to generate power. Consumers' report, p. 9.

The Staff commends Consumers' efforts leading up to, and implementing, the curtailment.

However, the Staff notes that the company failed to:

provide statistics pertaining to the overall effectiveness of the mandatory curtailment, such as the load in Priorities Two through Five, as outlined in Rule C3.3, Section F of the Company's Rate Book for Natural Gas Service, that was reduced as a result of the mandate. Further, the report does not describe the enforcement actions taken pursuant to Rule C3.3, Section I, nor does it provide discussion of penalties as described under Rule C3.3, Section J.

Staff's response, p. 8. As a result, the Staff is unable to evaluate "whether the implementation, enforcement actions, and penalties were effective in ensuring the curtailment." *Id.* And, because Consumers had to request assistance from the SEOC and the Governor's office, the Staff believes that the company's curtailment procedures could be improved. Therefore, the Staff recommends that Consumers evaluate the effectiveness of its curtailment procedures and that the Commission consider reviewing all natural gas utility emergency curtailment procedures in the SEA report in Case No. U-20464.

4. Whether There is Evidence of a Failure to Properly Maintain Equipment or any Non-compliance with Commission Rules

Consumers contends that, based on its review of the incident at the Ray facility, there is no evidence that the company failed to properly maintain its equipment. According to the company, the "current installation meets [the] requirements of Michigan's gas regulations. Additional

design enhancements are being considered for current and future installations as we incorporate this most recent event into our plan-do-check-act cycle." Consumers' report, p. 10.

The Staff disputes Consumers' claim that the "current installation meets [the] requirements of Michigan's gas regulations." Staff's response, p. 9, quoting Consumers' report, p. 10. The Staff notes that the cause of the fire appears to have been a gas plume from a blowdown of gas that was vented through silencers, which was then ignited by the exhaust from a nearby thermal oxidizer. According to the Staff, the design of the compressor station does not meet the requirements of 49 CFR 192.167(a)(2), which states in part: "Each compressor station must have an emergency shutdown system that meets the following: . . . (2) It must discharge gas from the blowdown piping at a location where the gas will not create a hazard." *Id.*, p. 9.

5. Whether Consumers Energy Company Properly Responded to the Natural Gas Shortage
As a result of the Ray facility incident, Consumers states that it was unable to deliver
approximately 900 million cubic feet (Mmcf) of natural gas between January 30 and 31, 2019. In
response, the company contends that it implemented measures that avoided unplanned customer
gas outages and ensured service to residential and vulnerable customers during an extremely cold
weather event.

Consumers asserts that, at the beginning of the cold weather pattern on January 30, 2019, prior to the Ray facility incident, the company had sufficient working gas inventory in storage to meet the demand for that 24-hour period. The company avers that the system was operating according to plan until the Ray facility incident at approximately 10:30 a.m. on January 30, 2019. Then, Consumers explains, "the loss of Ray flow caused the system to begin unpacking at an excessive rate. Unpacking means the amount of gas and the available pressure in the pipeline system are

decreasing. . . . The loss of Ray and the rate at which the pipeline system was unpacking caused key system pressures to decline at excessive rates." Consumers' report, p. 11.

The company states that, after the Ray facility fire-gate alarm was received at approximately 10:41 a.m. on January 30, 2019, Consumers' Gas Control Center (GCC) dispatched all peaking storage fields at maximum flow rates, which added approximately 975 MMcf per day to the system and reduced the unpack rate. However, Consumers notes that the peaking capacity "was forecasted to decline by approximately 500 MMcf/day by the next morning's peak hour as field inventories depleted." *Id.*, p. 12. As a result, the company avers, its GCC contacted the owners of five major pipelines that interconnect with Consumers' system and they agreed to assist the company on a best-efforts basis. In addition, Consumers asserts that additional gas supply was needed and, therefore, Gas Supply began the procurement process. The company notes that gas deliveries must be scheduled by the North American Energy Standards Board nomination deadline of 11:00 a.m. Because of the short time line, Consumers explains that it was forced to schedule procured gas at 3:30 p.m. for delivery no earlier than 7:00 p.m. on January 30, 2019.

The company also states that it employed pre-curtailment and an OFO notification, and explored other potential supply options, such as diverting gas supply from the company's Zeeland and Jackson gas-fired electric generating plants. However, the company asserts that there were "upstream interstate capacity constraints which prevented the diversion of Zeeland supply. Gas Supply was able to procure an additional 31 MMcf/day by diversion away from the Jackson plant." *Id.*, p. 15.

When key gas pressures dropped within the southeast market area and the Lansing region,
Consumers states that it began implementing formal curtailment pursuant to Rule 3.3 of the
company's natural gas tariffs. The company avers that it added interruptible supply contracts to

access gas supply on an interstate pipeline that could have sufficient capacity. According to Consumers, "[o]f the 925 MMcf/day procured, approximately 80% was confirmed in the scheduling process and 61% — or 564 MMcf/day — was ultimately delivered." *Id*.

The company notes that from 12:00 p.m. to 9:00 p.m. on January 30, 2019, system pressures continued to drop and pipeline gas supply increased less than expected. Therefore, Consumers states that, in coordination with the SEOC and the Governor's office, the company employed the Emergency Broadcast System and appealed to the public to reduce gas usage. The company asserts that, at approximately 10:40 p.m. on January 30, 2019, the Ray facility "was able to provide about 30% of its originally intended supply through the minimally damaged Plant 1 unit. This supply — combined with the reduction of demand and the receipt of growing pipeline supply — enabled Gas Control to stabilize at-risk areas in the statewide system and repack the entire network." *Id.*, p. 17. According to Consumers, because of the actions taken on January 30, 2019, the demand reduction measures could be lifted at 12:00 a.m. on February 1, 2019, which was earlier than expected.

In response to the company's claim that "'[t]he actions taken by Consumers Energy avoided unplanned customer gas outages due to this event . . . ," the Staff believes that the curtailments, voluntary outages, and voluntary reductions in gas usage "impacted [customers'] ability to conduct business, generate electricity, or maintain their residences at their preferred temperatures during the harsh winter conditions, to be an unacceptable contingency plan." Staff's response, quoting Consumers' report, p. 10. The Staff asserts that it was the voluntary compliance by businesses and residents that allowed Consumers to avoid an outage, not the company's actions.

6. Estimated Reductions in Natural Gas Usage from Large Customer Curtailments and Residential Conservation Over Time During the Emergency with Corresponding Timeframes of Actions (e.g., Public Appeals, Emergency Alerts) by Consumers Energy Company and the State of Michigan

Consumers explains that the "incident at Ray Compressor Station required a swift and strategic communications response to ensure the safety of those close to the facility, to keep customers abreast of the impact statewide and — perhaps most importantly — to appeal for assistance in managing our natural gas supply amid extreme temperatures." Consumers' report, p. 17. The company states that it utilized a wide variety of media channels, such as social media, digital outreach, news media, and paid media, to reach customers in real time and provide information to stakeholders. Consumers notes that its primary audiences included first responders, key stakeholders, large businesses, and residential customers. *Id.*, p. 18.

The Staff notes that Consumers claimed that it "maintained communications with stakeholders and customers through various media channels throughout the event," that the company's live Facebook post regarding the company's response to the Ray facility incident "drew 5,000 viewers in real time and drew 21 times the average number of impressions (30,000) for a Facebook post," and that "[o]ver the two days, [Consumers] sent 1 million emails to residential customers and 70,000 emails to business customers." Staff's response, pp. 9-10, quoting Consumers' report, p. 19. Because 5,000 viewers of the live Facebook post represents less than one half of 1% of Consumers' customers, the Staff argues that this was not a significant or effective communication. And, the Staff states that the one million e-mails to residential customers and 70,000 e-mails to business customers "seems to conflict with the 535,000 residential and business emails referenced on page 26 [of Consumers' report]. A better data point for email notification would be the number of households contacted. This would help reduce the inaccuracies of multiple emails sent to the same email address and for where there may be more than one email address per account." Staff's

response, p. 10. Finally, the Staff disputes that Consumers effectively maintained communications with other natural gas providers in the state of Michigan. The Staff asserts that the aforementioned issues should be addressed in the SEA report in Case No. U-20464.

7. Coordination and Communication with State of Michigan Officials and Local Emergency Response Agencies

Consumers asserts that, promptly after the start of the fire at the Ray facility and throughout the duration of the incident, the company "was committed to keeping legislative, regulatory, and emergency officials apprised of the situation at Ray Compressor Station and the status of the natural gas system." Consumers' report, p. 20. According to Consumers, its senior leadership maintained contact with the Governor's senior staff throughout the event, and during the two days following, to provide status updates and explain potential response activities. In addition, shortly after the fire ignited at the Ray facility, the company states that it contacted the Commission to provide status updates and notification of communications and press briefings, and to answer questions. Consumers also notes that its Gas Compliance Technical Analyst and a Gas Safety Engineer from the Commission, along with MSP and the federal Bureau of Alcohol, Tobacco, Firearms and Explosives, met at the Ray facility on January 30 and 31, 2019, to investigate the incident.

The company states that, during the Ray facility incident, it communicated regularly with the SEOC, local EOCs, local fire departments, and MSP to provide system updates, discuss potential community impacts, and answer questions. Additionally, Consumers asserts that, immediately after the beginning of the Ray facility incident, it contacted state and federal legislators to provide an early notification and ongoing system updates.

The Staff notes that Consumers claimed that, because of a continuing reduction in system pressure, around 8:00 p.m. on January 30, 2019, it was necessary to utilize the Emergency

Broadcast System to request that residential customers reduce natural gas usage. The Staff responds that system pressure had been dropping since 11:00 a.m. on January 30, 2019, and it may have been reasonable and prudent for the company to discuss the options for a public service announcement prior to 8:00 p.m. Although the Staff acknowledged Consumers' establishment of the ICS structure and the company's continued communications with state and local authorities and stakeholders, the Staff asserts that the "lack of coordinated conversations sometimes led to overlapping or conflicting information being shared with state entities and leadership. This inefficiency leads to confusing narratives, timelines, and wasted resources." Staff's response, pp. 10-11. The Staff recommends that the company streamline these paths of communication for future emergency events. Additionally, regarding Consumers' claim that it communicated frequently with the SEOC, local EOCs, and MSP, the Staff argues that the company failed to correctly identify areas of concern, which led to "some counties needlessly preparing for potential loss of residential service (e.g., warming centers, evacuations, etc.) and others not preparing at all. Ensuring proper identification and communication of risk is a critical component of maintaining proper situational awareness." *Id.*, p. 11. The Staff recommends that this issue be addressed in the SEA report in Case No. U-20464.

8. Actions Directed Toward Physical Security and Cybersecurity Before, During, and After the Event

Consumers states that when its Security Command Center was notified of the fire at the Ray facility, it immediately responded with a conference call to discuss the incident. According to the company, "Corporate Security dispatched three Corporate Security personnel to the site to assist in the response to the incident. Corporate Security also arranged for two private security personnel to be on site 24 hours a day during the event and subsequent response." Consumers' report, p. 22. The company avers that the additional security staff were still onsite as of April 5, 2019.

Consumers contends that the Ray facility's several security systems were reviewed by the Corporate Security Team after the incident, and the company requested any information relevant to the incident from the Federal Bureau of Investigation and MSP. Consumers asserts that "no known threats were detected." *Id.* 

The company also states that it has developed an excellent cybersecurity program, which focuses on prevention, detection, and response to cybersecurity threats. Consumers contends that, "[w]hile there continued to be no indication of malicious activity, we felt it best to conduct a deep-dive analysis to rule out a cyberattack as a root cause or contributing factor. We reviewed all available data from both a system and network perspective and found no indication of malicious activity." *Id*.

The Staff commends Consumers' response to the Ray facility incident for its dispatch of security personnel, the company's review of the physical security system for signs of intrusion, Consumers' engagement of law enforcement for incident management and the protection of public health and safety, and the company's deep-dive cybersecurity analysis. However, the Staff contends that "indications of malicious activity' should not be viewed as a critical element to initiate such a [deep-dive cybersecurity] review. Staff argues this partly because the current threat environment demands an increasingly proactive cybersecurity approach, and partly because sophisticated actors take great care to mask their malicious actions." Staff's response, pp. 11-12, quoting Consumers' report, p. 22. The Staff recommends that security issues be addressed in the SEA report in Case No. U-20464.

#### 9. Total Cost of the Incident

Consumers states that the total cost of emergency natural gas purchases for January 30 and 31, 2019, was approximately \$10.6 million, and the incremental cost of these purchases compared to

the cost of gas in storage was approximately \$7.2 million. Consumers' report, p. 23. Next, the company explains that some gas transportation customers reduced their consumption in response to the curtailment order and elected to sell excess gas to Consumers. The company avers that the estimated cost of the gas sold to Consumers, through April 5, 2019, is \$300,000. Finally, Consumers states that the estimated high level of repair costs for the Ray facility is \$18 million. Therefore, according to the company, the total estimated cost of the Ray facility incident is \$25.514 million, as of April 5, 2019.

The Staff states that it will review the prudency of Consumers' costs for the Ray facility incident in the company's next general rate case, power supply cost recovery (PSCR) case, and/or gas cost recovery (GCR) case.

Concluding its response to Consumers' report, the Staff provided an outline of the processes and anticipated timeline for the RCA report. The Staff states that it performed an onsite incident investigation and attended follow-up meetings. In addition, the Staff intends to work with Consumers to garner a more complete understanding of any remaining issues and recently discovered facts. The Staff plans to "have a preliminary draft of the incident report no later than 60 days after the last investigation piece has concluded. Staff is expecting to finalize its report by January 1, 2020." Staff's response, p. 12.

The Ray facility incident did not involve personal injury or widescale outages, but the Staff believes there was real potential for more serious consequences. The Staff contends that, at this point in its investigation, the blowdown silencer for Plant 3 was placed in a location where it could create a hazard because of its proximity to the Plant 2 thermal oxidizer. As a result, the Staff recommends that:

Consumers perform a system-wide study of compressor station blowdown methods and locations. The blowdown method considerations should include discharge

velocity, volumetric flow characteristics, height of discharge, plume modeling, etc. The blowdown locations should be evaluated considering proximity to competent ignition sources, including equipment that can meet or exceed natural gas autoignition temperatures, open flames or sparks, and potential static electricity discharge. This study should include consideration of single failure of components that may have designs protecting against these ignition sources from being exposed to [the] atmosphere. Consumers should then develop an action plan to remediate all such instances identified in this study.

*Id.*, pp. 12-13. Additionally, the Staff requests that Consumers focus on factors that may have contributed to this event, implement countermeasures to its findings, and communicate learned information and best practices to the utility industry. In the event the Staff discovers violations that led to and/or contributed to the Ray facility incident, the Staff will include them with its recommendations at the completion of the RCA report.

## Comments in Response to Consumers Energy Company's Report

1. Michigan Department of the Attorney General

On page 1 of the Attorney General's May 8, 2019 comments, she contends that, "[a]t this point, it is hard to make any conclusions regarding the reasonableness and prudence of the Company's actions before and after the fire based simply on a review of the Company's account. While the report provides some useful background information, there may be other facts and issues not addressed by the report that should be evaluated." The Attorney General states that she intends to further monitor the docket in this case and respond to the Staff's report and recommendations, if necessary. She also reserves the right to respond to the Ray facility incident and Consumers' actions in future proceedings.

2. Association of Businesses Advocating Tariff Equity

After reviewing Consumers' report of the Ray facility incident, ABATE argues that a more detailed review of the company's curtailment service is required. Specifically, ABATE asserts that the review should explore whether Consumers' current curtailment program should be

expanded, whether the underlying pricing strategy is equitable, and whether the pricing distinguishes between firm and curtailment service, and should also consider the terms under which the company may call curtailments. ABATE's May 9, 2019 comments, p. 3. In addition, ABATE recommends that the Commission examine, in this case or Consumers' next general rate case, OFO curtailments for sales and transportation customers. Finally, ABATE questions the company's method of arriving at a \$25.514 million cost for the Ray facility incident. ABATE recommends that, in a future proceeding, the Commission require Consumers to provide a more detailed prudency analysis of its costs for the incident.

#### 3. Other Comments

Dale Puckett, retired former Manager of Gas Control & System Planning for Consumers, filed comments cautioning that the proceeding may become a "vulnerability analysis." Mr. Puckett's February 18, 2019 comments, p. 1. He expresses security concerns regarding the confidentiality of the company's critical assets and requests that the Commission "carefully balance the public's right to know with the enhanced security we need to increase reliability." *Id*.

<u>Consumers Energy Company's Reply to the Michigan Public Service Commission Staff's Response and Other Stakeholders' Comments</u>

Consumers states that, during its ongoing investigation of the Ray facility incident, it discovered that:

a grounding fault was the underlying cause of the initial firegate event. When the station's well pump started up, its variable frequency drive caused a voltage spike in the grounding system of the Det-tronics panel located in the headquarters building. These high voltages caused enhanced discrete input/output (EDIO) and analog input module (AIM) modules to lose communication with the Det-tronics pilot air system, a fault which triggered the initial firegate.

Consumers' reply, p. 1. To remedy this issue, the company states that it will relocate the well pump pressure switch and pressure transmitter to the east side of the Plant 3 auxiliary building. In

addition, Consumers notes that it contracted with an engineering company to develop an air/gas dispersion model that explains the origin of the fire, assesses the condition of the affected facility components, and identifies better facility designs. According to the company, the model revealed a better design for the gas dispersion pipes, which has already been installed at the Ray facility. Consumers states that it "continues to model additional scenarios for analysis and, by year end, will have developed a standard for Plant Hazard Analysis that will apply to all future projects and sites." *Id.*, p. 2.

Consumers states that following its review of the Ray facility incident, it identified many of the same issues recognized by the Staff regarding its ICS incident action planning, resource management, interagency coordination, crisis communication, and business continuity. The company avers that it made "good-faith efforts to supply clear, transparent, and accurate information as quickly as it became available, and reached out to each of these stakeholders, but the rapidly changing status at Ray Compressor Station, and throughout the gas delivery system, resulted in those communications not always being consistent and contemporaneous." *Id.*Consumers contends that it plans to work with the Staff, state and local officials, and emergency responders to improve its ICS communications going forward.

The company is reviewing its curtailment procedures, including the tariff provision for OFO, and is evaluating "the effectiveness of the existing tariff procedures in emergencies . . . ." *Id*. Consumers states that, if it determines that improvements are necessary, it will propose changes in a future gas rate case. The company is also investigating new demand response and interruptible provisions for its tariffs.

Consumers notes that on May 16, 2019, it hosted an open house to meet with and answer questions from residents who were affected by the fire. In addition, the company states that it

continues to review the Ray facility incident, plans to work with the Staff to implement recommended improvements, and intends to try to identify and mitigate previously unforeseeable risks.

#### Discussion

As a threshold matter, the Commission expresses its significant disappointment with the limited nature of Consumers' April 5, 2019 initial report and its three-page May 30, 2019 reply to the responses and comments filed by the Staff, Attorney General, and ABATE. Given the seriousness of the fire incident at the Ray facility and the near calamitous consequences that followed, the brevity of the company's response suggests a failure to truly reflect on the scope and scale of the incident or to take corrective measures necessary to ensure that the incident does not reoccur in the future.

The Commission has reviewed Consumers' report, the Staff's response, stakeholder comments, and the company's reply. The items identified in the February 7 order are addressed *ad seriatim*, followed by additional findings and recommendations.

#### 1. Origin of the Fire

In its initial report, Consumers determined that the origin of the fire was a failure in the Det-Tronics control system, which initiated the emergency safety fire-gate process and caused the release of natural gas into the atmosphere through Plant 3 blowdown silencers, which was then ignited by the Plant 2 thermal oxidizer exhaust system. Through subsequent investigation, the company states that it identified a grounding fault as the underlying cause of the initial firegate event. Consumers asserts that it has relocated the well pump pressure switch and pressure transmitter to eliminate future grounding fault issues. In addition, the company avers that it has contracted with an engineering firm to evaluate the origin of the fire and improve facility design;

some improvements have already been identified and installed. As noted by the Staff, the issues with the Det-Tronics control system and the blowdown silencers will be further addressed in the RCA report. Notwithstanding, as discussed on page 23, the Commission is directing Consumers to conduct a system-wide evaluation of compressor blowdown methods and locations.

2. Response to the Fire, Both at the Site and at Consumers Energy Company's Corporate Office

Consumers provided a limited overview of its ICS structure and how the process was implemented during the Ray facility incident. The Staff contends that communication between the company and other utilities needs improvement, and Consumers agreed to work with the Staff on this issue.

To begin, the Commission finds that a utility's energy emergency communication plan should include other utilities impacted by the emergency so that statewide pleas for curtailment are received by other utilities and the curtailment message is consistent throughout the utility industry. Next, although a number of the company's ICS issues shall be addressed in the initial and final SEA reports filed in Case No. U-20464, the Commission finds that Consumers' ICS structure and process needs additional improvement. Therefore, Consumers shall conduct, preferably through an independent third-party, an evaluation of the company's ICS and procedures, and shall prepare a report that includes: (1) an evaluation of the company's response to the incident at the Ray facility and (2) recommendations for improving the company's procedures for activation and operation of its ICS. The report shall be filed no later than 5:00 p.m. (Eastern time) on November 1, 2019, in this docket. The Commission also instructs the Staff to examine records and information on Consumers' ICS and implementation.

#### 3. Implementation of Gas Curtailment Procedures

In response to the Ray facility incident, the company implemented gas curtailment to certain customers. However, the Staff asserts that, from the information provided in Consumers' report, it was unable to determine whether implementation, enforcement actions, and penalties were effective in ensuring curtailment. The company replied that it was reviewing its curtailment procedures and possible tariff updates.

ABATE asserts that the Commission should determine whether Consumers' current curtailment program should be expanded, whether the underlying pricing strategy is equitable, and whether the pricing distinguishes between firm and curtailment service, and should also consider the terms under which the company may call curtailments. In addition, ABATE recommends that the Commission examine, in this case or Consumers' next general rate case, OFO curtailments for sales and transportation customers.

These issues, including the Commission's preliminary findings, are addressed in the initial SEA report that was filed on July 1, 2019, in Case No. U-20464. The final report and specific directives will be issued on or before September 13, 2019, in Case No. U-20464.

4. Whether There is Evidence of a Failure to Properly Maintain Equipment or any Non-compliance with Commission Rules

Although Consumers contends that there is no evidence that the company failed to properly maintain its equipment, the Staff argues that design elements of the Ray facility appear to violate 49 CFR 192. The Commission directs the Staff to include analyses and findings in its RCA report regarding the company's compliance with the Michigan Gas Safety Standards and incorporated requirements of 49 CFR 192 at the Ray facility.

5. Whether Consumers Energy Company Properly Responded to the Natural Gas Shortage
To offset the natural gas shortage, Consumers states that it arranged alternative supplies from
natural gas pipelines and other storage fields, limited natural gas used for electricity production,
coordinated with large commercial and industrial customers to curtail usage, and requested that all
customers conserve energy. The Staff agrees with the company that there were no forced system
outages; however, the curtailments, voluntary outages, and voluntary reductions in gas usage
affected customers' ability to conduct business, generate electricity, and maintain the temperature
in residences. Consumers responds that it continues to review the incident and plans to work with

A number of these issues, including the Commission's initial findings, are addressed in the initial SEA report that was filed on July 1, 2019, in Case No. U-20464. The final report and specific directives will be issued on or before September 13, 2019, in Case No. U-20464.

the Staff to implement improvements.

6. Estimated Reductions in Natural Gas Usage from Large Customer Curtailments and Residential Conservation Over Time During the Emergency with Corresponding Timeframes of Actions (e.g., Public Appeals, Emergency Alerts) by Consumers Energy Company and the State of Michigan

According to the company, it utilized a wide variety of media channels, such as social media, digital outreach, news media, and paid media, to reach customers in real time and to maintain transparency with stakeholders. Consumers' primary audiences included community and state first responders, key stakeholders, large businesses, and residential customers. The Staff disputes the effectiveness of the company's communication strategy and suggested improvements.

In retrospect, Consumers' communications did not adequately convey messages that could have better prepared the public to accommodate the broad appeal to conserve gas. The Commission's initial findings on this issue are set forth in the initial SEA report that was filed on

July 1, 2019, in Case No. U-20464. As noted above, the final report and specific directives will be issued on or before September 13, 2019, in Case No. U-20464.

7. Coordination and Communication with State of Michigan Officials and Local Emergency Response Agencies

Consumers states that it maintained contact with the Commission, the Governor's office, the SEOC, local EOCs, local fire departments, and MSP throughout and after the Ray facility incident to provide status updates, notification of communications and press briefings, and to answer questions. The Staff asserts that the company could improve the timeframe and effectiveness of its communications during emergency events.

The Commission's initial findings on this issue are addressed in the initial SEA report that was filed July 1, 2019, in Case No. U-20464. The final report and specific directives will be issued on or before September 13, 2019, in Case No. U-20464.

8. Actions Directed Toward Physical Security and Cybersecurity Before, During, and After the Event

Consumers states that, in response to the incident, it sent three corporate security personnel to the site, it arranged for two private security personnel to be onsite 24 hours a day during the event, and that additional security staff was still onsite as of April 5, 2019. In addition, the company asserts that there was no indication of malicious activity, and Consumers did a deep-dive analysis to rule out a cyberattack as a root cause or contributing factor. The Staff contends that, even in the absence of indications of a malicious attack, the company should be conducting thorough cybersecurity analyses.

These issues, including the Commission's initial findings, are addressed in the initial SEA report that was filed July 1, 2019, in Case No. U-20464. As noted above, the final report and specific directives will be issued on or before September 13, 2019, in Case No. U-20464.

#### 9. Total Cost of the Incident

Consumers states that, as of April 5, 2019, the total estimated cost of the Ray facility incident is \$25.514 million. The Staff states that it will review the prudency of Consumers' costs for the Ray facility incident in the company's next general rate case, PSCR case, and/or GCR case.

ABATE recommends that, in a future proceeding, the Commission require Consumers to provide a more detailed prudency analysis of the costs for the incident.

The Commission directs Consumers to provide testimony and exhibits detailing the costs for the Ray facility incident in the company's next general rate case, PSCR case, and/or GCR case, which shall be subject to a prudency review.

#### Additional Findings and Conclusions

In addition to the above, the Commission expresses concern that the events triggering the fire at the Ray facility could occur in the future, potentially involving injury or loss of life. As such, the Commission adopts the Staff's recommendation that Consumers conduct a system-wide study of compressor station blowdown methods and locations, which shall be filed no later than 5:00 p.m. (Eastern time) on September 3, 2019, in this docket. As stated by the Staff on pages 12-13 of its May 8, 2019 response, Consumers' study shall analyze and evaluate blowdown methods and shall consider factors such as discharge velocity, volumetric flow characteristics, height of discharge, plume modeling, etc. Consumers shall also analyze and evaluate its blowdown locations and shall consider the proximity to competent ignition sources, including equipment that can meet or exceed natural gas auto-ignition temperatures, open flames or sparks, and potential static electricity discharge. The company's study must include consideration of single failure of components that may have designs protecting the ignition sources from atmospheric exposure. After the study is complete, Consumers shall develop an action plan to

address and remediate the identified issues and it shall be filed, with the study, on September 3, 2019, in this docket.

Additionally, the Commission directs Consumers to file, no later than 5:00 p.m. (Eastern time) on August 2, 2019, a report in this docket that details the Ray facility storage field natural gas injection timeline and a status update on the plant repairs at the Ray facility. Then, by 5:00 p.m. (Eastern time) on October 1, 2019, the company shall file in this docket a final report on the Ray facility storage field capacity for the 2019/2020 heating season and updates on repairs and other changes made at the facility since January 31, 2019. The Commission finds that the October 1, 2019 report should also include a study into the vulnerabilities at Consumers' other compressor stations. The report shall contain a company-wide assessment of findings related to:

- Potential grounding faults that can impact control systems at other compressor stations;
- Potential compressor station blowdown silencers that could unsafely vent creating a gas plume close to ignition sources;
- Potential compressor station blowdown silencers from one plant that vent in close proximity to another plant's blowdown silencer; and
- Potential compressor station blowdown silencers that, if vented, gas ignited would cause fire damage to adjacent equipment.

In addition, the Commission finds that the Staff's final RCA report shall be completed and filed in this docket by 5:00 p.m. (Eastern time) on January 31, 2020. During the proceedings of this case, the Commission directs Consumers and the Staff to conduct follow-up meetings, as necessary, and to establish timelines for information sharing so that they may complete the required reports in a timely manner.

### THEREFORE, IT IS ORDERED that:

A. As set forth in this order, Consumers Energy Company shall conduct a system-wide study of compressor station blowdown methods and locations and shall compose a related incident

action plan, both of which shall be filed no later than 5:00 p.m. (Eastern time) on September 3, 2019, in this docket.

- B. As set forth in this order, Consumers Energy Company shall conduct an evaluation of the company's incident command system and procedures and shall prepare a report with recommended improvements. The report shall be filed no later than 5:00 p.m. (Eastern time) on November 1, 2019, in this docket.
- C. In Consumers Energy Company's next general rate case, power supply cost recovery case, and/or gas cost recovery case, the company shall provide testimony and exhibits detailing the costs for the Ray Natural Gas Compressor Station incident.
- D. By 5:00 p.m. (Eastern time) on August 2, 2019, Consumers Energy Company shall file a report in this docket that details the Ray Natural Gas Compressor Station storage field natural gas injection timeline and a status update on the plant repairs at the facility.
- E. By 5:00 p.m. (Eastern time) on October 1, 2019, Consumers Energy Company shall file in this docket a final report on the Ray Natural Gas Compressor Station storage field capacity for the 2019/2020 heating season and updates on repairs and other changes made at the facility since January 31, 2019.
- F. The Commission Staff's final Root Cause Analysis report shall be completed and filed in this docket by 5:00 p.m. (Eastern time) on January 31, 2020.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, pursuant to MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel.

Electronic notifications should be sent to the Executive Secretary at <a href="majorage-majorag

pungp1@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION
Sally A. Talberg, Chairman
Norman J. Saari, Commissioner
Daniel C. Scripps, Commissioner

By its action of July 2, 2019.

Barbara S. Kunkel, Acting Executive Secretary

Page 26 U-20463

# PROOF OF SERVICE

STATE OF MICHIGAN	)	
		Case No. U-20463
County of Ingham	)	

Brianna Brown being duly sworn, deposes and says that on July 2, 2019 A.D. she electronically notified the attached list of this **Commission Order via e-mail transmission**, to the persons as shown on the attached service list (Listserv Distribution List).

Brianna Brown

Subscribed and sworn to before me this 2<sup>nd</sup> day of July 2019.

Angela P. Sanderson

Notary Public, Shiawassee County, Michigan

As acting in Eaton County

My Commission Expires: May 21, 2024

Service List for Case: U-20463

Email Address	
mpsc.filings@cmsenergy.com matorrey@cmsenergy.com	

#### GEMOTION DISTRIBUTION SERVICE LIST

kadarkwa@itctransco.com ITC

tjlundgren@varnumlaw.comEnergy Michiganlachappelle@varnumlaw.comEnergy Michiganawallin@cloverland.comCloverlandbmalaski@cloverland.comCloverlandmheise@cloverland.comCloverland

vobmgr@UP.NETVillage of BaragabraukerL@MICHIGAN.GOVLinda Braukerinfo@VILLAGEOFCLINTON.ORGVillage of Clinton

jgraham@HOMEWORKS.ORGTri-County Electric Co-Opmkappler@HOMEWORKS.ORGTri-County Electric Co-Oppsimmer@HOMEWORKS.ORGTri-County Electric Co-Opfrucheyb@DTEENERGY.COMCitizens Gas Fuel Companympscfilings@CMSENERGY.COMConsumers Energy Companyjim.vansickle@SEMCOENERGY.COMSEMCO Energy Gas Companykay8643990@YAHOO.COMSuperior Energy Company

<u>christine.kane@we-energies.com</u> WEC Energy Group

jlarsen@uppco.com Upper Peninsula Power Company

dave.allen@TEAMMIDWEST.COMMidwest Energy Coopbob.hance@teammidwest.comMidwest Energy Cooptharrell@ALGERDELTA.COMAlger Delta Cooperative

tonya@CECELEC.COM
bscott@GLENERGY.COM
Great Lakes Energy Cooperative
sculver@glenergy.com
kmarklein@STEPHENSON-MI.COM
debbie@ONTOREA.COM
Great Lakes Energy Cooperative
Stephenson Utilities Department
Ontonagon County Rural Elec

ddemaestri@PIEG.COM Presque Isle Electric & Gas Cooperative, INC

dbraun@TECMI.COOPThumb Electricrbishop@BISHOPENERGY.COMBishop Energymkuchera@AEPENERGY.COMAEP Energytodd.mortimer@CMSENERGY.COMCMS Energy

jkeegan@justenergy.comJust Energy Solutionsdavid.fein@CONSTELLATION.COMConstellation Energykate.stanley@CONSTELLATION.COMConstellation Energykate.fleche@CONSTELLATION.COMConstellation New Energy

mpscfilings@DTEENERGY.COMDTE Energybgorman@FIRSTENERGYCORP.COMFirst Energyrarchiba@FOSTEROIL.COMMy Choice Energygreg.bass@calpinesolutions.comCalpine Energy Solutions

<u>rabaey@SES4ENERGY.COM</u> Santana Energy

<u>cborr@WPSCI.COM</u> Spartan Renewable Energy, Inc. (Wolverine Power Marketing Corp)

<u>cityelectric@ESCANABA.ORG</u> City of Escanaba <u>crystalfallsmgr@HOTMAIL.COM</u> City of Crystal Falls

felicel@MICHIGAN.GOV Lisa Felice

<u>mmann@USGANDE.COM</u>
Michigan Gas & Electric
mpolega@GLADSTONEMI.COM
City of Gladstone

#### GEMOTION DISTRIBUTION SERVICE LIST

<u>rlferguson@INTEGRYSGROUP.COM</u> Integrys Group <u>lrgustafson@CMSENERGY.COM</u> Lisa Gustafson

daustin@IGSENERGY.COM Interstate Gas Supply Inc

<u>krichel@DLIB.INFO</u> Thomas Krichel

cityelectric@BAYCITYMI.ORGBay City Electric Light & PowerStephen.serkaian@lbwl.comLansing Board of Water and Lightjreynolds@MBLP.ORGMarquette Board of Light & Powerbschlansker@PREMIERENERGYLLC.COMPremier Energy Marketing LLC

ttarkiewicz@CITYOFMARSHALL.COM
d.motley@COMCAST.NET
Doug Motley
mpauley@GRANGERNET.COM
Marc Pauley

ElectricDept@PORTLAND-MICHIGAN.ORGCity of Portlandgdg@alpenapower.comAlpena Power

 dbodine@LIBERTYPOWERCORP.COM
 Liberty Power

 leew@WVPA.COM
 Wabash Valley Power

<u>kmolitor@WPSCI.COM</u>
ham557@GMAIL.COM
Wabash Valley Power
Lowell S.

BusinessOffice@REALGY.COMRealgy Energy Serviceslanderson@VEENERGY.COMVolunteer Energy Servicescmcarthur@HILLSDALEBPU.COMHillsdale Board of Public Utilities

mrzwiers@INTEGRYSGROUP.COM Michigan Gas Utilities/Upper Penn Power/Wisconsin

Teresa.ringenbach@directenergy.comDirect Energychristina.crable@directenergy.comDirect Energyangela.schorr@directenergy.comDirect Energyryan.harwell@directenergy.comDirect Energyjohnbistranin@realgy.comRealgy Corp.

<u>kabraham@mpower.org</u>

Katie Abraham, MMEA

mgobrien@aep.com Indiana Michigan Power Company

mvorabouth@ses4energy.com Santana Energy

suzy@gomega.comMEGAhnester@itctransco.comITC Holdingslpage@dickinsonwright.comDickinson WrightDeborah.e.erwin@xcelenergy.comXcel Energymmpeck@fischerfranklin.comMatthew PeckCANDACE.GONZALES@cmsenergy.comConsumers Energy

<u>JHDillavou@midamericanenergyservices.com</u>
<u>JCAltmayer@midamericanenergyservices.com</u>

LMLann@midamericanenergyservices.com

MidAmerican Energy Services, LLC

MidAmerican Energy Services, LLC

MidAmerican Energy Services, LLC

karl.j.hoesly@xcelenergy.comNorthern States Powerkerri.wade@teammidwest.comMidwest Energy Coopdixie.teague@teammidwest.comMidwest Energy Coopmeghan.tarver@teammidwest.comMidwest Energy CoopKaren.wienke@cmsenergy.comConsumers EnergyMichael.torrey@cmsenergy.comConsumers Energy

croziera@dteenergy.com DTE Energy

# **GEMOTION DISTRIBUTION SERVICE LIST**

stanczakd@dteenergy.com

Michelle.Schlosser@xcelenergy.com

dburks@glenergy.com

handrew@atcllc.com

kabraham@mpower.org kerdmann@atcllc.com

mary.wolter@wecenergygroup.com

phil@allendaleheating.com

DTE Energy Xcel Energy

**Great Lakes Energy** 

Michigan Public Power Agency
American Transmission Company

American Transmission Company

UMERC, MERC and MGU

**Phil Forner**