

CORONAVIRUS DISEASE (COVID-19) Frequently Asked Questions (updated 4.01.20)

Incident Management

- 1) What is MISO doing to respond to the coronavirus disease (COVID-19) outbreak?**
MISO leadership has deployed its Incident Management Team (IMT) to respond to the needs of employees, stakeholders and MISO's operations. Our top priorities are the health and safety of employees and to maintain a reliable electric grid. We are in regular contact with our members, North American RTO/ISO's and the world's largest grid operators including China, South Korea, Japan and Italy, to ensure MISO has the best available information to make decisions for our employees and stakeholders.
- 2) How is MISO keeping employees and stakeholders informed?**
MISO is monitoring all federal, state and local health official statements in order to share information with employees and stakeholders. Regular updates are available on the MISO website. Employees and contractors receive frequent email updates and stay in regular contact with their direct supervisors for specific guidance. We will share operational updates at the regularly scheduled Reliability Subcommittee and Market Subcommittee meetings within our stakeholder process.
- 3) What is MISO doing to protect the bulk electric system?**
MISO is unique in that we have four geographically separate sites to share operational functions that can act as a buffer against spread of the virus within our facilities. MISO Control Room access is limited to critical operations staff only at this time.
- 4) How soon will MISO resume normal operations?**
MISO continues normal operations during the outbreak of the disease and is working to ensure that normal operations can continue regardless of the spread of the disease throughout North America.
- 5) With so much work from home, are you concerned about cyber security issues?**
The Security and IT operations teams are closely monitoring our technology systems and are in close communication with our external partners for threat intelligence. While we have seen an increase in COVID-19 phishing campaigns, we have had no operational impacts due to them. We are focused on increasing employee awareness of these campaigns and urge our employees that if they "see something, say something" by reporting the concern to MISO's IT Operations Center.
- 6) What preparations are being considered if the current conditions become an extended period such as 6 months, 12 months or more?**
We will continue to implement our Business Continuity Plan, regardless of time. The health and safety of our employees and stakeholders is a top priority.

- 7) **What is MISO doing to protect its IT system?**
The Security and IT operations teams are closely monitoring our technology systems and are in close communication with our external partners for threat intelligence.

Facilities and Travel

- 8) **How is MISO safeguarding the many employees and daily visitors to MISO facilities?**
Visitors, including stakeholders, are not allowed in MISO facilities at this time. All Control Room tours have been suspended and extra crews are deep cleaning regularly. For non-essential personnel, a work-from-home policy is in effect to reduce on-site employee exposure to the virus while maintaining business operations.
- 9) **How is MISO interacting / communicating with state emergency management agencies?**
Each state is handling COVID-19 differently. The consistent approach for MISO is to aggressively outreach to state law enforcement (including FBI & DHS), medical and Governors (including their Emergency Operations Centers). Our focus from the onset was ensuring the safety of our employees and the reliable operation of the power grid. That continues with our efforts to secure priority testing and expedited results for our critical operations and IT engineers that staff and support our four control centers.
- 10) **How is MISO dealing with business travel?**
MISO is restricting all business travel through Friday, May 1. Employees must seek officer approval in advance of any scheduled business travel and should utilize virtual communication tools if possible.
- 11) **What about personal travel?**
We have asked our employees and contractors are to exercise extreme caution for personal travel, especially to areas on the [CDC's Travel Advisory list](#). Please familiarize yourself with any travel limitations that in place at your destination. The 14-day quarantine is required of employees who have traveled internationally as well as cruise ships.

Stakeholder Engagement

- 12) **How can people participate in stakeholder meetings?**
Stakeholder meetings scheduled through Friday, May 1, are available via WebEx and phone. At or prior to that time, MISO will reassess the situation.
- 13) **What should I do if I cannot reach my primary point-of-contact at MISO?**
MISO employees continue working from home. If you have a general question or inquiry that is not addressed through normal channels, please contact MISO Client Relations by email at clientrelations@misoenergy.org or via phone at 1-866-296-6476 (option 3).
- 14) **What is MISO doing to keep in contact with members and stakeholders?**
We are keeping in close contact with our members regarding their pandemic action plans so that we can help anticipate their needs and provide support. We are developing online tutorials to help ensure stakeholders can successfully participate online.

System Operations

15) According to MISO, what are “critical business functions”?

MISO defines critical business functions as anything directly related to grid reliability. This includes all Control Room operations and essential IT support roles.

16) Has MISO observed any load behavior changes since closures started on March 14, 2020?

MISO’s morning peak hour is now occurring later in the morning and tends to stay higher, longer. This is expected given that people are staying at home and using more electricity. As we continue to observe the actual load coming in, our software retrains itself, therefore, we see some shape adjustments taking place toward the end of the month.

We continue to monitor and provide updates as necessary. To smooth out the effects of the later ramp, we implemented a load scaler to slow down the morning forecast. We will evaluate this change, and likely expect to see intraday load be a little closer to actual.

17) Have we had any instances of market participants claiming Force Majeure or otherwise not being able to perform?

There have not been any claims of Force Majeure. MISO engages with its member companies on multiple fronts, including Operations, External Affairs and Legal. Like our process of standing up an incident response team and assessing all business continuity plans, we know our members are doing the same. Although we have not seen any Force Majeure from our members due to COVID-19 impacts, we know they are instituting contingency plans and processes. We will continue to coordinate with them, and we will take measures to reliably serve the needs of the customers in our footprint.

18) What magnitude of load reduction has MISO seen footprint-wide due to the COVID-19 pandemic?

Compared to 2019 and normal March highs, month-to-date load is down primarily driven by milder temperatures in 2020. MISO has observed a shift in load since the implementation of widespread stay-at-home orders. As of March 30, MISO operators have witnessed smoother morning ramp as people stay at and work from home. The expected morning and evening peaks have been muted within the traditional morning peak moving much later in the morning.

We are continuously monitoring and updating our load forecast which relies on historic observations and weather forecasts to generate a load forecast. During this unprecedented time, changes to historical observations will improve as we learn more about the emerging usage patterns.

19) How do you plan to protect the control room and critical operations if the situation worsens?

MISO will continue our operations with contingency plans we have established.

- We have already split our operations personnel across our 4 locations
- We have enhanced cleaning procedures and provided CDC driven self-care guideline.

- We will continue working current schedules and filling vacancies due to exposed/recovering operators as needed
- We have identified a bench of employees that have had recent operator experience that are ready now and a few more that could be ready with few weeks of training.
- We continue to look at additional options like converting our training rooms to temporary control rooms to increase separation for our operators if necessary while at work.

Many options and sensitivities have been considered and at this time, we do not see a need to sequester or isolate a team(s) of operators. We had a thorough discussion and analysis with the advice from medical experts. Sequestration or live-at-work option increases the common surfaces for our operators when compared to having them at home when not working. This would increase the risk of having everyone in sequester exposed or sick at the same time. Additionally, Sequestration is also disruptive to our employees lives and once triggered must be sustainable for a three to six month period.

First off, our shift schedule with six-person rotation with three-weeks-on and three-weeks-off gives us natural distancing of operators.

Secondly, our regional model is a strategic advantage. The geographic diversity of our operations and the locations of our control centers provide a form of sequestration, uniquely positioning MISO to respond to this event by which allows for continued work-life balance for our operations staff and maintenance of current operator work schedules.

- 20) Will MISO change its outage procedures for upcoming outage seasons due to COVID-19?**
At this time, we are not changing our outage procedures. Coordination of planned outage requests continues to be imperative. For change requests or new outages caused by the impacts of COVID, record the reasons in the *Requestor Notes* section of the CROW ticket. Also, contact MISO as soon as possible if a MISO member foresees an increase in impacts to outage scheduling due to the virus.
- 21) Which units does MISO consider critical when trying to plan for reduced staff levels?**
MISO will coordinate planned outages to maintain reliability within Tariff requirements and BPMs. Please contact MISO as soon as possible if a MISO member foresees an increase in impacts to outage scheduling due to the virus
- 22) Will the Planning Resource Auction (PRA) load forecasts we are considering allow for modifications to PRA forecasts to reflect the impact of COVID-19?**
At this point, we are not considering seeking a waiver or postponing PRA to allow for updated forecasts. The peak tends to occur in July/August. Therefore, while energy volumes might be lower in the calendar year, the PRA focuses on the highest peak value on MISO's system over the entire planning year. We do not have any additional information at this time upon which to base potential decisions about activity that might happen later in the year.