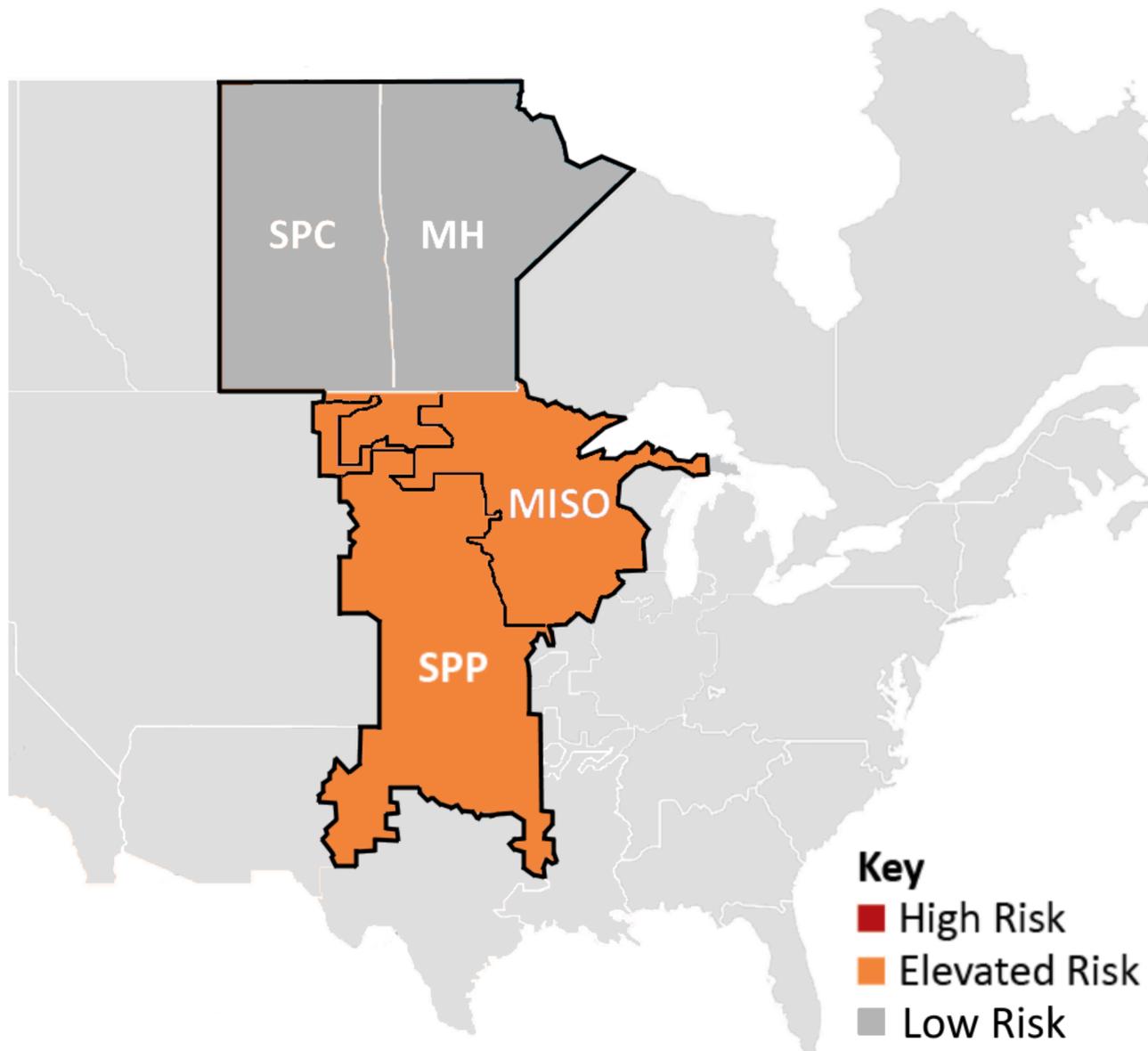




# MRO 2023 Regional Summer Assessment

Areas at elevated risk that will require increased monitoring during the 2023 summer season



**MRO Regional Summer Assessment Risk Areas**

## Key Findings

- Manitoba Hydro (MH), Midcontinent Independent System Operator (MISO), SaskPower Corp. (SPC) and Southwest Power Pool (SPP) project sufficient capacity is available to meet normal forecasted seasonal peak load (with typical maintenance and forced outages) this summer.
- Above-normal summer peak load and/or unplanned outages could result in insufficient capacity to cover anticipated extreme summer peak demands, which would place MISO and SPP at high risk of implementing Energy Emergency Alerts and would likely require use of available demand response programs and short-term power transfers from neighboring utilities.
- Performance of wind generation during periods of high demand will be a key factor in determining whether there will be sufficient electricity supply on the system. MISO and SPP may face challenges in meeting peak demand if wind output is low.

## Ongoing Trends

- An upward trend in conventional generation forced outage rates indicates that these resources are cycling more than originally designed, causing component failures.
- As dependence on intermittent resources increases, there will be a greater need for fast-responding, dispatchable resources capable of following large, unexpected changes in intermittent resource output.
- Human error is the primary contributing factor for system protection misoperations. Utilizing a robust system of controls, including human performance tools, throughout a project lifecycle can reduce misoperations due to human error.

## Recommendations

- Reliability Coordinators (RCs), Balancing Authorities (BAs), Transmission Operators (TOPs) and Generator Operators (GOPs) should maintain situational awareness of unplanned generation and transmission outages, abnormal and extreme weather conditions, and low wind forecast periods and employ operating procedures as needed to ensure adequate resource availability.
- RCs, BAs and Generator Owners (GOs) should have safeguard protocols in place to ensure adequate generation resources are available prior to the summer season high demand period.
- State and provincial regulators should have plans in place at the start of summer for managing emergency requests from grid operators.
- PCs, Resource Planners (RPs) and Transmission Planners (TPs) need to develop new and improved methods to assess and evaluate supply adequacy, especially when a significant amount of generation capacity has an intermittent fuel source that can have significant forecast error.

More information on these findings, trends and recommendations is in the full report here: [www.mro.net](http://www.mro.net)