

TRANSMISSION OPERATIONS

- 345 kV Busses and 345 kV Lines
- 345/138kV Transformers
- 138 kV Busses and 138 kV Lines
 - Depending on location
 - 138/69kV Transformers
 - 138/34kV Transformers
 - 69 kV Busses
 - 34 kV Busses

PLANNED OUTAGES

■ Worker Safety

- It is the worker's responsibility to request the outages needed.
- All necessary outages will be granted in order to perform the work safely.
- Safety will not be compromised.

PLANNED OUTAGES

■ System Reliability

➤ Internal Study

- Study the system impact of initial outage
- Study the system impact of additional unplanned outages
- Always desirable to have more than one energy source – prevents customer outages or equipment overloads

MISO APPROVAL PROCESS

- MISO must approve all transmission outage requests
 - Performs similar system impact studies
- Time Requirements
 - 230kV and above
 - 10 Business days
 - Below 230kV
 - 5 Business days