



Outage Management within other Independent System Operators (ISOs)

ISO New England

- **Outages categories:**
 - Critical (Intra & Inter-connection Impactive + All Tie-lines)
 - Non-Critical
 - Low Voltage & 115 kV Radial Lines
- **Outage classifications:**
 - Planned
 - Forced (relayed O/S)
 - Emergency (equipment must be removed from service within hours/days)
 - Opportunity (equipment can be removed from service as a result of some other outage)
- **Long term and near term submission and assessment deadlines:**
 - Long Term submissions due 21 days to 24 months ahead
 - Assessments are due within 10 days of being received
 - Near Term submissions due 5 to 21 days ahead
 - Assessments due by 2 days prior to the outage start date to ensure inclusion in the day-ahead market
 - Short Notice submissions = less than 5 days ahead (Emergency and/or Opportunity outages only)
- **Outage Priority & Conflict Resolution:**
 - Emergency/Forced → Long-Term Critical → Near Term → Opportunity
 - Time of outage submission used for tie-breaking
- **Other Notes:**
 - Once an outage request is under assessment or in a “study” state, participants are unable to make changes. To make changes, the existing outage must be cancelled and re-submitted as a new request.

New York ISO

- **Outages categories:**
 - Critical (Intra & Inter-connection Impactive)
 - Non-Critical
 - Auxiliary Equipment
- **Outage classifications:**
 - Planned
 - Urgent
 - Forced
- **Long term and near term submission and assessment deadlines:**
 - Long Term submissions due 2 years ahead for generation, 1 year ahead for transmission (due annually by Sept 1 for generation and Oct 1 for transmission)
 - Assessments performed by Oct 1 for generation and Nov 1 for transmission
 - Near Term submissions due 1 to 150 days ahead depending on their level of impact. For example, critical outages are due at least one month prior to the month in which the outage is scheduled to start. Notification type outages may only be due within 1 day of starting.
 - Assessment deadlines are linked to outage submission lead time (the further in advance the submission, the sooner the approval). For example, outages with 150 days notice receive an assessment by 90 days prior to their start date. Outages submitted with only 44 days notice may have to wait until 2 days prior their start date.
 - Critical outages greater than 7 days long require a minimum assessment period of 30 days while those less than 7 days long require a minimum of 7 days to assess.
- **Outage Priority & Conflict Resolution:**
 - Urgent → Planned
 - Time of outage submission used for tie-breaking
- **Other Notes:**
 - Late outage requests are automatically rejected unless urgent or provide a benefit to the grid.
 - Critical outages greater than 7 days long require a minimum assessment period of 30 days while those less than 7 days long require a minimum of 7 days to assess.

Midwest ISO

- **Outages categories:**
 - Critical (Intra & Inter-connection Impactive)
 - Non-Critical
 - Low Voltage & 115 kV Radial Lines
 - Auxiliary Equipment
- **Outage classifications:**
 - Planned
 - Forced (relayed O/S)
 - Discretionary (outages used as a control action, for example voltage control)
 - Emergency (equipment must be removed from service within hours/days)
 - Opportunity (equipment can be removed from service as a result of some other outage)
- **Long term and near term submission and assessment deadlines:**
 - Long Term submissions are due 2 to 3 years ahead for generation, 1 year ahead for transmission.
 - Generation assessed within 3 months of being submitted
 - Transmission assessment deadlines are linked to outage submission lead time (the further in advance the submission, the sooner the approval). For example, outages with 6 months notice receive an assessment within 90 days of being received, while those submitted with 2 weeks notice receive an assessment within 5 days).
 - Near Term submission due as soon as identified for generation, 1 to 14 days ahead for transmission (14 days for Critical, 7 days for non-critical, 2days for low voltage & 115 kV radial, 1 day for auxiliaries)
 - Generation assessed as soon as possible
 - Transmission deadlines follow long-term methodology
- **Outage Priority & Conflict Resolution:**
 - Generation → Transmission
 - Emergency/Forced → Planned → Discretionary
 - Time of outage submission used for tie-breaking
- **Other Notes:**
 - Conflicting outages must be scheduled at least 2 days apart to mitigate the risk of overlap.