Outage Scheduler User Guide
For Qualified Scheduling Entities and Transmission Service Providers

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1 Overview

1.1 Purposes of the Outage Scheduler

The ERCOT Outage Scheduler is a web-based database and scheduling application. Its purposes are to:

- Allow ERCOT Market Participants to create, submit, view and edit various types of Resource (Generation and Load) and Transmission Facility outage requests.
- Allow ERCOT to study the impact of outage requests and meet outage coordination goals described in Section 3.1 of the ERCOT Nodal Protocols, Outage Coordination.

Refer to http://www.ercot.com/mktrules/nprotocols/current for the latest version of the Nodal Protocols.

1.2 Using this Guide

The guide provides instructions for creating, submitting, updating and canceling submissions by providing a screenshot with instructions for performing the necessary user interactions.

The information and rules in this guide apply to all outage types for both Transmission and Resource categories, unless otherwise noted.

- Fields in bold are required fields.
- Business rules are displayed like this:

  Planned outages must be submitted at least three days in advance.

- Indicates Outage Scheduler screen entry and/or activity.

- Indicates a keyboarding, navigation or other tip/trick which may be used to more easily navigate the way through the Outage Scheduler.

- Indicates a business rule, screen edit or other information that applies to the Outage Scheduler.

- Data on screenshots is mock data. The fields displayed are accurate, but dates, resources and company names are not accurate.

This guide describes how to schedule Resource and Transmission outages using the Outage Scheduler user interface for the following outage types:

- Planned Outages
- Maintenance Outages (Levels 1, 2 & 3)
• Forced Outages
• Remedial Switching Actions
• Opportunity Outages
• Simple Outages

Additionally, users will learn how to:
• Copy outages
• Create recurring planned outages
• Create grouped outages
• Extend outages
• Cancel Outages
• Revise outages in Received at ERCOT status
• Retrieve Outage data and history

1.3 Technical Support and Contacts
For all technical support issues, contact the ERCOT Help Desk at (512) 248-6800.

1.4 System Requirements
The ERCOT Outage Scheduler has minimal hardware and operating system requirements. Aside from a suitable browser and a security certificate that will be loaded by a system administrator, no additional software needs to be installed on a user’s computer.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Browser</td>
<td>Internet Explorer 11.0</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7+</td>
</tr>
</tbody>
</table>

2 Definitions
The information and rules in this section apply to all outage types for both Transmission and Resource categories, unless otherwise noted.

Active outages: Those outages that have a Planned Start of today or earlier, no Actual End value, and a Planned End value that is future of the current date/time.
**Forced Outage:** An Outage initiated by protective relay, or manually in response to an observation by personnel that the condition of equipment could lead to an event, or potential event, that poses a threat to people, equipment, or public safety. For a Generation Resource, an Outage that requires immediate removal, either through controlled or uncontrolled actions, of all or a portion of the capacity of the Resource from service through automated or manual means. This type of Outage usually results from immediate mechanical/electrical/hydraulic control system trips and operator-initiated actions in response to a Resource’s condition.

**Forced Extension:** A Forced Outage that cannot be returned to its normal status by the Planned End Date is a Forced Extension.

- Forced Extensions may be extended more than once but cannot exceed one year in duration from the original outage start date.
- A New Planned End may be submitted for up to two hours past the Planned End
- New Planned End may be submitted multiple times – if within the two hour limit
- After Planned End plus two hours – a New Forced Outage must be submitted

**Grouped Outages:** Multiple outages that share the same start and end date/times. QSEs and TSPs may use grouped outages for all outage types except that Planned Outages cannot use the Group and Recurring features for the same outage.

**Maintenance Outage:** An Outage initiated manually to remove equipment from service to perform work on components that could be postponed briefly but that is required to prevent a potential Forced Outage and that cannot be postponed until the next Planned Outage. Maintenance Outages are classified as follows:

- Maintenance Level 1: Equipment that must be removed from service within 24 hours to prevent a forced outage.
- Maintenance Level 2: Equipment that must be removed from service within 7 days to prevent a forced outage.
- Maintenance Level 3: Equipment that must be removed from service within 30 days to prevent a forced outage.

**Opportunity Outage:** An Opportunity Outage is a special category of Planned Outage.

- A Resource Opportunity Outage (ROO) occurs when a specific Resource experiences a Forced Outage and the Resource has been previously Accepted or Approved for a Planned Outage during the next eight days.
- A Transmission Opportunity Outage (TOO) is a two-stage process:
  - The first stage involves submitting the initial request for a TOO with its duration, set of designated Resources and the desired transmission facilities.
  - The second stage involves the actual approval and implementation of a TOO if a Forced Outage occurs on the designated Resource.

**Outage:** The condition of a Transmission Facility or a portion of a Facility, or Generation Resource that is part of the ERCOT Transmission Grid and defined in the Network Operations Model that has been
removed from its normal service, excluding the operations of Transmission Facilities associated with the start-up and shutdown of Generation Resources.

**Planned Outage:** An Outage that is planned and scheduled in advance with ERCOT, other than a Maintenance Outage or Opportunity Outage.

**Recurring Outage:** A recurring outage is a type of planned Transmission or Rsource outage, where the equipment will be taken out repeatedly, resulting in multiple outages. The duration of a recurring outage must be less than 24 hours. The maximum number of recurrences is 50 and the number of days between recurrences cannot exceed 30.

**Remedial Switching Action:** A type of Forced Outage submitted for near real-time switching devices that will be opened to relieve or prevent an overload condition. The Outage must start within 3 days, have a maximum restoration time of 4 hours and cannot exceed 72 hours in duration.

**Resource**
The term is used to refer to both a Generation Resource and a Load Resource.

Within the category of resource outages, there are two types of resources, or units:

- Non-contracted units – rules for these resources fall under the heading “Resources”
- Contracted units – rules for these resources fall under the heading “Reliability Resources.”
  - Reliability resources include:
    - Reliability Must Run units
    - Black Start units
- **Generation Resource**
  - A generator capable of providing energy or Ancillary Service to the ERCOT System and is registered with ERCOT as a Generation Resource.
- **Black Start Resource**
  - A Generation Resource under contract with ERCOT to provide BSS.
- **Intermittent Renewable Resource (IRR)**
  - A Generation Resource that can only produce energy from variable, uncontrollable Resources, such as wind, solar, or run-of-the-river hydroelectricity.
- **PhotoVoltaic Generation Resource (PVGR)**
  - A Generation Resource that is powered by PhotoVoltaic (PV) equipment exposed to light.
- **Wind-powered Generation Resource (WGR)**
  - A Generation Resource that is powered by wind.

**Load Resource**
A Load capable of providing Ancillary Service to the ERCOT System and/or energy in the form of Demand response and registered with ERCOT as a Load Resource.

**Simple Outage:** A Planned Outage or Maintenance Outage of any Transmission Element in the Network Operations Model such that when the Transmission Element is removed from its normal service, absent a Forced Outage of other Transmission Elements, the Outage does not cause a
topology change in the LMP calculation and thus cannot cause any LMPs to change with or without the Transmission Element that is suffering the Outage.

**Supporting Information:** Provides an explanation of how an outage qualifies as a Forced Outage, Force Extended Outage, Unavoidable Extension Outage or Remedial Switching Action

**Transmission Element**
A physical Transmission Facility that is either an Electrical Bus, line, transformer, generator, Load, breaker, switch, capacitor, reactor, phase shifter, or other similar device that is part of the ERCOT Transmission Grid and defined in the ERCOT Network Operations Model.

**Transmission Facilities**
1) Power lines, substations, and associated facilities, operated at 60 kV or above, including radial lines operated at or above 60 kV;
2) Substation facilities on the high voltage side of the transformer, in a substation where power is transformed from a voltage higher than 60 kV to a voltage lower than 60 kV or is transformed from a voltage lower than 60 kV to a voltage higher than 60 kV; and
3) The direct current interconnections between ERCOT and the Southwest Power Pool or Comision Federal de Electricidad (CFE).

**Unavoidable Extension:** Unavoidable extensions may only be created for active Accepted or Approved Planned, Maintenance or Simple Outages. An Unavoidable Extension occurs when a Planned, Maintenance or Simple Outage is not completed within the original timeframe.

- Unavoidable Extensions may be extended more than once but cannot exceed one year in duration from the original outage start date.
- A New Planned End may be submitted for up to two hours past the Planned End.
- New Planned End may be submitted multiple times – if within the two hour limit.
- After Planned End plus two hours – a New Orced Outage must be submitted.

# 3 Business Rules

## 3.1 Common Rules
Transmission Service Providers (TSPs) may only request outages on transmission facilities (breakers, switches, lines, transformers and loads).

- TSPs can view all Transmission and Resource Outages.
- A TSP may create a Transmission Outage for any other TSP and on any facility or transmission element defined in the current Network Operations Model.
- A TSP can not create a Resource Outage.
• A TSP can not change the name of the Requesting Company. That is tied to the digital certificate.

• A TSP can not edit an outage submitted by another Requesting Company.

Qualified Scheduling Entities (QSEs) may only schedule and view Outages for the Resources and Transmission Facilities which they operate.

• Must log in separately for sub-QSEs.
• QSEs cannot view Transmission Outages in the Outage Scheduler application which have been submitted by TSPs
• QSEs cannot submit Transmission and Resource Outages in a single request due to differing Protocol Requirements

<table>
<thead>
<tr>
<th>Outage Type</th>
<th>Transmission</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Maintenance</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Forced</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Opportunity</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Remedial Switching Action</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Simple</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Forced Extension</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Unavoidable Extension</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

• Actual Start must be earlier than or equal to the current time, and can be no earlier than two hours prior to the Planned Start date/time.

• Actual End must be later than Actual Start and earlier than or equal to the current time. It can be no later than two hours after the Planned End date/time.

• Actual End cannot be entered until after the Actual Start is submitted successfully.

• Earliest Start must be ≤ Planned Start.

• Planned End must be > Planned Start.
3.2 Two hour Rule for Revising Actual Start and Actual End

These rules apply to all outage types for both transmission and resources, except for Forced outages. Rules for forced outages are in that section.

3.2.1 Actual Start

- The Actual Start field will not appear until after the outage is Approved/Accepted.

- The Actual Start Date/Time may be changed for up to two hours after it is submitted.

- The new Actual Start must be earlier than the old Actual Start.

- Requestors may ask ERCOT to delete the Actual Start and Actual End Date/times. If the Actual Start or Actual End Date/Time is deleted, it can be entered again. The two-hour editing period also begins again.

Tip: When the two hour window expires, the Actual Start field appears editable. If requestors try to update it, the system displays an error message.

Once requestors enter an Actual End Date/Time, the Actual Start field changes to read-only. This happens even if the two-hour editing window for Actual Start is still open.

Tip: On Forced Extensions and Unavoidable Extensions, entering a New Planned End date makes the Actual Start field appear editable. If requestors try to update it, the system displays an error message.
3.2.2 Actual End
- The Actual End field will not appear until after the Actual Start has been submitted.
- An Actual End Date/Time may be changed for two hours from the time it was first submitted.
- The new Actual End must be earlier than the old Actual End.
- If requestors ask ERCOT to remove the actual end, they may begin again.

Tip: When the two hour window expires, the Actual End field appears editable. If requestors try to update it, the system displays an error message.

The Actual End field never displays as read-only.

3.2.3 Two Hour Rule for Submitting a New Planned End
• A New Planned End may be submitted for up to two hours past the Planned End
• New Planned End may be submitted multiple times – if within the two hour limit
• After Planned End plus two hours – a New ForcedOutage must be submitted
• Applies to Unavoidable Extensions and Forced Extensions

3.3 Planned Outage Rules
• Planned Start and Earliest Start must be at least 3 days from current date.
• All Common Rules apply.

3.4 Maintenance Outage Rules
• The Maintenance Outage Level cannot be updated once an outage is submitted/created.
• If the Planned Start for a Maintenance Outage is changed when the outage status is approved but the outage is not active, the rules for enforcing Maintenance Outage Levels still apply.
• When a Maintenance Outage is copied, the Outage Type is populated with the Maintenance Level of the original outage, and the new Maintenance Level must be designated by the user. Validation is the same as entering a new outage if it is different.
• If the Maintenance Outage Level needs to be updated, the outage must be canceled and resubmitted.
• For M1 outages, Planned Start date and time must be equal to current date and time + 24 hours.
  Current time is not compared with the Planned Start time – only the Date is used.
• For M2 outages, Planned Start date must be equal to current date and time + 7 days. The Current time is not compared with the Planned Start time – only the Date is used.
• For M3 outages, Planned Start date must be equal to current date and time + 30 days. The Current time is not compared with the Planned Start time – only the Date is used.
• All Common Rules apply.

3.5 Forced Outage Rules
• Actual Start may be earlier than the current time.
• Actual Start must be the time the Forced Outage occurred.
• Supporting information is required.
• All Common Rules apply.

3.6 Remedial Switching Action Rules
• Planned Start must be ≥ current time and must be within 3 days of current date.
• Planned End cannot cause the outage duration to exceed 72 hours.
• Emergency Restoration cannot exceed 4 hours.
• Supporting information is required.
• All Common Rules apply.
3.7 Opportunity Outage Rules
- The Opportunity Window End date is automatically set for 90 days after the Request Date.
- The Opportunity Outage will automatically be removed from the Outage Summary on the Opportunity Window End Date.
- All Common Rules apply.

3.8 Simple Outage Rules
- Should be submitted at least one day in advance
- Maximum restoration Time of 1 hour
- Cannot exceed 72 hours in duration
- All Common Rules apply.

3.9 Grouped Outage Rules
- Transmission and Resources Outages may both use grouped outages for all outage types except that Planned Outages cannot use the Group and Recurring features for the same outage.

3.10 Recurring Outage Rules
- The duration of a recurring outage must be less than 24 hours.
- The maximum number of recurrences is 50.
- The maximum number of days between recurrences is 30.

3.11 Forced Extension Rules
- Supporting information is required.
- Forced Extensions may not be created as new outages. They must be created from an existing Forced outage.
- Forced Extensions may be extended more than one time but cannot exceed one year in duration from the original outage start date.
- Forced Extensions may be extended multiple times after the Planned End. See Two Hour Rule for New Planned End

3.12 Unavoidable Extension Rules
- Supporting information is required.
- Unavoidable Extensions may not be created as new outages. They must be created from an existing Planned, Maintenance or Simple outage.
- Unavoidable Extensions may be extended more than one time but cannot exceed one year in duration from the original outage start date.
- Unavoidable Extensions may be extended multiple times after the Planned End. See Two Hour Rule for New Planned End
4 Warnings

4.1 Warning Conditions

When a new warning is generated, it displays on the Warnings screen. The warnings tab turns red and displays the total number of warnings. The warning also displays on the Outage Detail screen. The warnings display until requestors enter the appropriate information to remedy the warning.

Outage Scheduler generates warnings for the following conditions:

- Current time is 30 minutes after Planned Start and no Actual Start has been entered
- Current time is 30 minutes before Planned End and no Actual End has been entered
- Current time is 30 minutes after Planned End and no Actual End has been entered
- Actual End has been entered for Forced Outage, Forced Extension, Remedial Switching Action or Unavoidable Extension and no Supporting Information has been entered.
- A Forced Outage has been submitted (outage details are provided).
- A Maintenance Level 1 outage has been submitted (outage details are provided).
- Outage is late with Actual Start.
- Outage is late with Actual End.

<table>
<thead>
<tr>
<th>Outage ID</th>
<th>Group Label</th>
<th>Outage Type</th>
<th>Status</th>
<th>Station</th>
<th>Eq.Name</th>
<th>Eq.Type</th>
<th>Planned Start</th>
<th>Actual Start</th>
<th>Planned End</th>
<th>Actual End</th>
</tr>
</thead>
<tbody>
<tr>
<td>LM0000070</td>
<td>Main 1</td>
<td>Accepted</td>
<td>LCDS5</td>
<td>UNIT1</td>
<td>UN</td>
<td>Nov 21 2010 20:55</td>
<td>21 Nov 2010 21:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM0000074</td>
<td>Forced Ext</td>
<td>Accepted</td>
<td>O02SES</td>
<td>UNIT1</td>
<td>UN</td>
<td>Jun 02 2010 00:33</td>
<td>06 Jun 2010 00:33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM0000079</td>
<td>Planned</td>
<td>Approved</td>
<td>VLSES</td>
<td>UNIT3</td>
<td>UN</td>
<td>Jun 06 2010 00:52</td>
<td>08 Jun 2010 00:52</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>LM0000091</td>
<td>Planned</td>
<td>Accepted</td>
<td>VLSES</td>
<td>UNIT3</td>
<td>UN</td>
<td>Jun 04 2010 09:00</td>
<td>05 Jun 2010 09:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM0000094</td>
<td>Forced Ext</td>
<td>Accepted</td>
<td>EPS555</td>
<td>UNIT1</td>
<td>UN</td>
<td>Jun 15 2010 13:54</td>
<td>15 Jun 2010 13:54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM0000098</td>
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<td>Accepted</td>
<td>CHLS5</td>
<td>UNIT1</td>
<td>UN</td>
<td>Jun 15 2010 14:02</td>
<td>15 Jun 2010 14:02</td>
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<td></td>
</tr>
<tr>
<td>LM0000101</td>
<td>Planned</td>
<td>Accepted</td>
<td>URS555</td>
<td>UNIT1</td>
<td>UN</td>
<td>Jun 15 2010 14:02</td>
<td>15 Jun 2010 14:02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM0000104</td>
<td>Planned</td>
<td>Accepted</td>
<td>O2LS54</td>
<td>UNIT1</td>
<td>UN</td>
<td>Jun 15 2010 19:00</td>
<td>15 Jun 2010 19:00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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4.2 Warning Corrections

<table>
<thead>
<tr>
<th>Warning Message</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outage AEN00027691 AEN00037691 is late with Actual Start</td>
<td>Enter the Actual Start Date/Time</td>
</tr>
<tr>
<td>Current time is 30 minutes before Planned End.</td>
<td>Enter the Actual End Date/Time</td>
</tr>
<tr>
<td>Outage AEN00037691 is late with Actual End</td>
<td>Enter Actual End Date/Time</td>
</tr>
<tr>
<td>Supporting information is required for (Forced Outages, Forced Extensions, Remedial Switching Actions and Unavoidable Extensions; whichever is appropriate). Enter supporting information on the Outage Details Screen.</td>
<td>Enter supporting information on the Outage Details screen.</td>
</tr>
</tbody>
</table>

4.3 System and Form Validation

Before saving the outage, the system looks for an existing outage (one that is not Canceled, Rejected or Withdrawn) whose date/time and equipment overlaps with the potential new outage. If it locates one, it displays a warning message with information about that outage. Requestors may change the information on the Create Outage Request screen and re-submit or cancel that request.
5 Accessing the Outage Scheduler

Each Market Participant (MP) must apply for and receive a digital certificate. The MP administrator will in turn create digital certificates for all individuals authorized to create and edit outage data according to their roles.

Tip: Requestors may have one certificate or many. If they have more than one ERCOT-issued certificate, they must select the appropriate certificate each time they log in.

5.1 Logging In

Open a web browser.

Click or enter the ERCOT MIS link.

From ERCOT.com – click on Market Information System

From the MIS Home page, select the Applications tab.

Click on Outage Scheduler.

If requestors have multiple certificates, they are presented with a digital certificate selection dialog box.
Click an identity **Name** to select it.

Click **OK**.

**Tip:** Requestors may have one certificate or many. If they have more than one ERCOT-issued certificate, they must make select the appropriate certificate each time they log in. The outages that display are specific to the requesting entities identity as specified in the digital certificate.

After approximately 12 hours of inactivity in the Outage Scheduler, the connection times out. If this happens, close the browser and repeat the above steps. Please note that any unsubmitted outage requests will be lost.

### 5.2 Logging Out

To log out, close the browser window by clicking the close icon (x) in the upper right.

### 6 Outage Summary

#### 6.1 Common Features and Controls

After requestors log in, the Outage Summary page appears. By default, all columns and rows are displayed as saved by the requestor during a previous session.
The width of the Summary Screen will automatically adjust to fit Tablets, Laptops or Monitors. If a scroll bar is visible on the right side of the browser window, it may be used to navigate up and down on the current page of the outage list.

The Request Date for an outage never changes, even if the outage is edited.

The following options are available on the Outage Summary screen:

- **Create New Outage**
  Clicking this tab brings up the Create Outage Request menu.
  - TSPs menu allows the submittal of Transmission outages.
  - QSEs menu allows the submittal of both Resource and Transmission outages for the equipment which they operate.

- **Outage Summary**
  Clicking this tab displays a summary view of outages. This is the default view.
• Warnings
Clicking this tab refreshes the screen to display warning messages. See Warnings.

• Expand/Collapse Grouped Outages Column
  o Clicking on the +/- sign at the top of the column Expands/Collapses all Grouped Outages
  o Clicking on the +/- in front of a Grouped Outage Expands/Collapses the selected Group only.

The Expand/Collapse Group feature works for the following conditions:
  o Effective From/Effective To date plus Requesting Company and Operating Company
  o Request From/Request To date plus Requesting Company and Operating Company
  o If using Effective From/Effective To and Request From/Request To at the same time, the date ranges must be equal to each other
  o Expand/Collapse feature is not available when searching by Outage ID, Group Name, Station, Outage Type or Nature of Work

• Select and view detailed Outages
  o Single-clicking on any row highlights the row.
  o Double-clicking on any row opens the Outage Detail screen.

• Show Actual Start & End
Checking this box refreshes the screen to display entry fields which allow a requestor to submit Actual Start or Actual End dates/times. See Show Actual Start & End

• View
Allows requestor to view 25, 50, 100 or 200 rows of outage data.

• Outages: Show Resource and/or Transmission
Checking these boxes and then clicking on the GO box will set the default to always show Resource outages and/or Transmission Outages.

Outages displayed in the summary are based on the qualifications set in the Requestors digital certificate.

• Hide: Actual Ends and Canceled
  o Checking the Actual Ends box will remove from the Summary view all Completed outages with an Actual End time.
  o Checking the Canceled box will remove all Canceled Outages from the Summary view

• Selecting GO will retain the desired default settings between logins.
Completed and Canceled outages are removed from the Summary database at 0001 Hours the day following the outages Planned End date/time.

- **Show/Hide Preferences**
  Clicking this link allows requestors to change the way columns and rows are displayed in the outage summary view. See [Show/Hide Columns](#).

- **Print Summary Information**
  Allows requestors to print the number of Total Records in the current Summary.

  Tip: Check the number of **Total Records** prior to printing.

- **Export .csv**
  Allows requestors to export, view and filter in .csv format the number of Total Records in the current Summary.

- **Export .xml**
  Allows a requestor to export and view in .xml format the Total Number of Records in the current summary.

- **Pagination navigation**
  Allow's a requestor to navigate to additional pages of the outage summary.

- **Refresh button**
  Allow's a requestor to manually refresh the screen.

  Clicking on the **Refresh** button periodically will refresh the Outage Summary data and reset the 12 hour automatic timeout feature.

- **Show Search/Hide Search**
  Clicking the Show Search/Hide Search link refreshes the screen to display or not display the custom filter table. The custom filter allows requestors to filter the outage summary information. See [Show/Hide Search](#).

  When the Custom Filter is applied, a link displays next to the Custom Filter button to return to the default settings.

- **Sort Columns**
  Columns may be sorted in ascending and descending order by clicking on the Column Heading. All other Columns will resort based on the Column selected.

  To sort the results by a specific column in descending order, click the column heading. Clicking the arrow in the column heading reverses the sort order. The default sort order is by Request Date, from oldest to newest.

  Tip: For multiple levels of sorting, [export the outage](#) list data usint the **Export.csv** feature and work with it in a spreadsheet.
6.2 Show/Hide Preferences

The Show/Hide Preference window displays when requestors click the Show/Hide Preferences link.

Select the columns or rows of information to show or hide on the Outage Summary:

- Check **All Outages** to select or de-select all column headings in the first column.
- Check **All Transmission-Specific** to select or de-select all column headings in the second column.
- Check **All Resource-Specific** to select or de-select the HSL and/or LSL columns.
- Check **Resource** and/or **Transmission** to display one or both of these outage categories.

Selecting or de-selecting Resource or Transmission will show or hide Rows of data.

- **Hide:**
  - Check **Actual Ends** to hide Completed outages for which an Actual End has been submitted.
  - Check **Canceled** to hide Canceled Outages.

Completed and Cancelled Outages are removed form the Summary at 0001 Hours on the day following the Outages Planned End date.

- Check individual fields in the lists to select or de-select desired columns or rows.
Click **Save & Apply**. The screen closes to display the selected columns.

Click **Close** to exit the screen without saving.

Saved Settings are maintained between sessions.

### 6.3 Custom Filter

The custom filter feature allows a requestor to filter the Outage Summary information.

To display the custom filter:

Select **Show Search** from the Outage Summary. The custom filter will appear on the left-hand side of the Summary Screen. The Summary Screen width will also resize to not hide any column data.

Tip: The Custom Filter feature can be displayed or hidden by selecting **Hide Search** or **Show Search**.
The following options are available on the Custom Filter selection screens:

- TSPs have the ability to select up to five Operating Companies and/or Requesting Companies to include in the search parameters. If no Operating Companies or Requesting Companies are selected, the search will return records for all Operating Companies and Requesting Companies based on other search criteria selected (Effective dates, etc.).

- TSPs may view outages submitted by all Resource and Transmission companies.
Requests for large amounts of data could take several minutes and may return as many as 7000 records.

- For QSEs, the records will default to the Operating Company and Requesting Company specified in the digital certificate.
- QSEs may only view the transmission facilities and resources which are associated with the digital certificate being used.

NOTE: Single or multiple search criteria may be used based on the search criteria as follows:

**Effective Date From** is a date/calendar field that returns outages with a Planned End Date greater than the value shown. The default time is 00:00 on the current day.

**Effective Date To** is a date/calendar field that returns outages with a Planned Start Date less than the value shown. The default time is 00:00 of the following day.

**Outage ID** is a text field that returns the outage that matches the value shown.

Requires the full outage ID alpha-numeric (i.e. ABCD0001234) and is case sensitive.

**Group Name** is a text field that returns outages that match the value shown.

Requires the full Group Name and is Case Sensitive

**Category** allows for the selection of **Transmission** or **Resource** or **Both**. Category defaults to **Both**.

**Outage Status** allows for the selection of multiple values from the drop-down.

Use the Control key to select multiple Outages Status types. No selection returns all Outage Status types.

**Requesting Company** allows for the selection of multiple values from the drop-down.
Requestors may select up to 5 entities by checking the desired Companies.

**Operating Company** allows for the selection of multiple values from the drop-down.
Requestors may select up to 5 entities by checking the desired Companies

**Station** allows for the selection of multiple values from the drop-down. Use the Control key to select up to 15 Stations.

**Equipment Type** allows for the selection of multiple values from the drop-down. Use the Control key to select up to 15 types of Equipment.
The Equipment Types vary based on Outage Category (Transmission or Resource).

**Equipment Name** allows for the selection of multiple values from the drop-down. Requestors may select up to 15 values by pressing the Control button and clicking.

The check buttons ✔ are used to populate the Station List, Equipment Type list and Equipment Name list based on the entries previously selected.

**Request Date From** is a date/calendar field that returns outages with a Request Date greater than the value shown. The default time is 00:00.

**Request Date To** is a date/calendar field that returns outages with a Request Date less than the value shown. The default time is 00:00.

**Outage Type** allows for the selection of multiple values from the drop-down. Selecting no Outage type will return all categories.

**Nature of Work** allows for the selection of multiple Nature of Work categories from the drop-down. Selecting no Nature of Work will return all categories.

Click **Search** to apply the selected filters and re-display the Outage Summary with the filter changes applied.

The **Restore Default Setting** and **Reset** button both restore the default settings, and continues to display the Custom Filter window.

**Tip:** Typing data into a search field will narrow searches by showing matching selections.

Tip: The Custom Filter, when applied, is maintained for the current session only.

Tip: Where lists are populated based on other selections which have been made, any change to an earlier selection causes the lists to clear. For example, if the requestor selected an Operating Company, Station and Equipment Type and then goes back and changes to a different Operating Company, all selection fields below Operating Company will clear.
6.3.1 **TSP Outage Scheduler Filtering Rules**
- TSPs can view all Transmission and Resource outages for all Operating and Requesting Companies.

6.3.2 **QSE Outage Scheduler Filtering Options**
- QSEs may only filter and view Resource and Transmission outages for the equipment in the Network Model associated with the digital certificate they have signed into.
- The Summary page is the only place where QSEs can view outages submitted for the Resources and the Transmission facilities which they operate in one database (per digital certificate).

### 6.4 Show Actual Start and End

When the **Show Actual Start & End** box is checked, the Outage Summary screen refreshes to include a new row under the outage summary row for the submittal of Actual Start and End dates/times.

- **Actual Start and Actual End may only be submitted by the Requesting entity.**
- **Settings are maintained for the current session only.**

<table>
<thead>
<tr>
<th>Outage Summary</th>
<th>View</th>
<th>Show</th>
<th>Outage Type</th>
<th>Nature of Work</th>
<th>PI Start</th>
<th>PI End</th>
<th>Req Company</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual Start</td>
<td>Jun 10 2015 00:01</td>
<td>Actual End</td>
<td>Jun 10 2015 00:01</td>
<td>Accepted</td>
<td>New Equipment Energization</td>
<td>Nov 10 2015 01:00</td>
<td>Nov 10 2015 02:00</td>
</tr>
<tr>
<td>Actual Start</td>
<td>Jun 10 2015 01:00</td>
<td>Actual End</td>
<td>Jun 10 2015 01:00</td>
<td>Accepted</td>
<td>New Equipment Energization</td>
<td>Nov 10 2015 01:00</td>
<td>Nov 10 2015 02:00</td>
</tr>
<tr>
<td>Actual Start</td>
<td>Jun 10 2015 02:00</td>
<td>Actual End</td>
<td>Jun 10 2015 02:00</td>
<td>Accepted</td>
<td>New Equipment Energization</td>
<td>Nov 10 2015 01:00</td>
<td>Nov 10 2015 02:00</td>
</tr>
<tr>
<td>Actual Start</td>
<td>Jun 10 2015 03:00</td>
<td>Actual End</td>
<td>Jun 10 2015 03:00</td>
<td>Accepted</td>
<td>New Equipment Energization</td>
<td>Nov 10 2015 01:00</td>
<td>Nov 10 2015 02:00</td>
</tr>
<tr>
<td>Actual Start</td>
<td>Jun 10 2015 04:00</td>
<td>Actual End</td>
<td>Jun 10 2015 04:00</td>
<td>Accepted</td>
<td>New Equipment Energization</td>
<td>Nov 10 2015 01:00</td>
<td>Nov 10 2015 02:00</td>
</tr>
<tr>
<td>Actual Start</td>
<td>Jun 10 2015 05:00</td>
<td>Actual End</td>
<td>Jun 10 2015 05:00</td>
<td>Accepted</td>
<td>New Equipment Energization</td>
<td>Nov 10 2015 01:00</td>
<td>Nov 10 2015 02:00</td>
</tr>
</tbody>
</table>

**Enter Actual Start** which is a date/calendar field. See [two-hour rule](#).

**Enter Actual End** which is a date/calendar field. See [two-hour rule](#).

**Check Apply to entire group/Apply to this outage only** which are radio buttons which apply to grouped outages. It allows for the submittal of the Actual Start and/or Actual End and applies it to the entire group or to break a single outage from the group and apply the Actual Start and/or Actual End to the single outage only.
Tip: When a change is applied to a single outage that is part of a grouped outage, that outage is removed from the group and no longer part of the grouped outage. It must be managed separately from now on.

### 6.5 Error Handling

There are two types of error messages that can display on the Summary screen:

- General exception error
- No results found as the result of a query.

A **General Exception** error displays when the system experiences a general problem such as a communication error. The user cannot use the system until the problem is fixed.

A **The Query returned no Results** error displays when a query is performed and no results match the query. This error will also display if the default settings are in place and there are no results.

---

### 7 Common Functions across Outage Types

#### 7.1 Using the Calendar to Enter/Update Dates

In the Outage Scheduler, dates can be entered directly into a field by typing or the date can be selected using the calendar function. To access the calendar
Click beside the date field.
The calendar opens.

Click any day to select it.

Click < to scroll back through the calendar one month at a time.

Click > to scroll forward through the calendar one month at a time.

Click < to scroll back through the calendar one year at a time.

Click > to scroll forward through the calendar one year at a time.

Tip: Hold the mouse button on any of the above buttons for faster selection.

Click on any of the Time parts to increase it.

Shift-Click on any of the Time parts to decrease it.

For midnight, select 00:00

Tip: Click and drag for faster selection.

Click ? to display the calendar Help.

Click x to close the calendar.
7.2  Selecting Resource Station, Equipment Type and Equipment Name

All Resource outage types require the selection of the appropriate Station, Resource type and Resource Equipment Name. All outage types allow the selection of multiple pieces of equipment, creating a grouped outage. This section explains how the system enables equipment selection.

7.2.1  Resource Outages

For Resource Outages:

- Use the drop-downs to select a station, resource type and resource. The screen refreshes to display the selected equipment in a table.
- When the Selected Equipment table displays, the pick lists continue to display the selections.
Resource Equipment types are:

- UN for Generating Units
- LD for Loads acting as a Resource

The screen refreshes to display the selected resource in a table.

When the Selected Resource table displays, the pick lists continue to display the selections.

- Resources display two required fields for HSL and LSL values.
  - Enter Zero’s in the HSL and LSL fields to designate that the Resource be off-line
  - Enter the revised HSL and LSL if the Resource is being Derated.

  Depending on the outage type and the resource selected, derate information may be required. See the Derate Resources section.
7.2.2 Select Multiple Resources
Selecting multiple resources creates a grouped outage. Rules for grouped outages are described in the Grouped Outages section.

To select multiple Resources: Use the drop-downs to select the station, resource type and resource name for each resource.

When more than one resource has been selected, the Group Name field is required.

Enter the Group Name associated with this grouped outage.

7.3 Derate Resources
Some equipment outages require the derating of a resource. Derate may apply to Planned, Forced and Maintenance Outages.

7.3.1 Select a Resource to derate
To select a resource or resources:

Use the drop-downs to select a station, resource type and resource.

The Selected Resource Table displays the Operating Company, Station, Resource Type, Resource, Seasonal HSL, HSL & LSL submittal fields and Remove button.
Enter **HSL** during a Derate for the resource unit. It is a required field. Enter the appropriate numeric value.

The HSL during Derate value is always in MW. For example, if HSL During derate is 600, this means the unit can generate up to 600MW during the outage.

HSL during Derate must not be greater than the Seasonal HSL.

Enter **LSL** for the resource. It is a required field. Enter the appropriate numeric value.

LSL cannot be greater than HSL.

**NOTE:** All ERCOT applications will use the lowest HSL value and its associated LSL for all studies and real-time processes.

QSEs are solely responsible for the submission and accuracy of all Derate Outages!

### 7.4 Select Transmission Station, Equipment Type and Equipment Names

All Transmission outage types require requestors to select the appropriate station, equipment type and equipment name. Most outage types allow a requestor to select multiple pieces of equipment, creating a grouped outage. This section explains how the system enables equipment selection.

#### 7.4.1 Select a Single Piece of Equipment

To select a single piece of equipment:

Use the drop-downs to select a station, equipment type and equipment.

The screen refreshes to display the selected equipment in a table.

When the Selected Equipment table displays, the pick lists continue to display the selections.
Depending on the equipment selected, other information may be entered in the table:

- CBs and DSCs display a drop-down list with the default value for the outage state (open or closed). The outage state for a CB or DSC is opposite of the normal state. A requestor may change this setting.

- XFs (transformers) and LNs (lines) display a View button that allows a requestor to view associated equipment (See Selecting Multiple Pieces of Equipment).

  If a requestor has made selections in this list and then change the station or equipment type, all selections below it will clear. For example, if they have selected a station, equipment type and equipment and then change the station, both equipment type and equipment lists will clear.

### 7.4.2 Select Multiple Pieces of Equipment

Selecting multiple pieces of equipment creates a grouped outage. Rules for grouped outages are described in the Grouped Outages section.

There are two ways to select multiple pieces of equipment:

- Single piece of equipment method:

  Use the drop-downs to select the operating company, station, equipment type and equipment for each piece of equipment.

- Associated equipment method:

  For transformers (XF) and lines (LN) equipment types, click the View button in the Selected Equipment table. This refreshes the screen and displays other associated equipment, if it exists.

  Check the Select box(es).

  Click Add.

When more than one piece of equipment has been selected, the Group Name field displays under the Equipment list.
Enter the name associated with this grouped outage. This is a required field.

### 7.5 Enter and View Notes

The Notes section contains enterable areas for Requestor Notes, Remedial Actions or Special Protection Systems, Supporting Information and Reviewer Notes.

- Click the arrow to expand or collapse the Notes section. The default setting is expanded.

Enter the reason for the outage in the Requestor Notes when selecting “Other” or “Unknown” as the Nature of Work. Requestors may also use the Requestor Notes area for other pertinent information about the outage which they wish to convey.

Enter information in the Remedial Actions or Special Protection Systems to notify the ERCOT reviewer if the outage request will disable or impact a Remedial Action Plan or Special Protection System.

Once a requestor enters a note and submits or updates the outage, the screen refreshes to display the note with the Requestors name and the date/time the note was entered in read-only view. An empty text field displays above the note allowing the entry of another note, if needed.

Reviewer Notes are entered by ERCOT only. If a reviewer enters a note, it will display as read-only.

See Provide Supporting Information for more information on that section.

All note fields allow a maximum of 1000 characters.

### 7.5.1 Provide Supporting Information
Supporting information is used to provide an explanation of how an outage qualifies as a Forced Outage.

Supporting information is required for:

- Forced Outages
- Forced Extensions
- Unavoidable Extensions
- Remedial Switching Actions

For these outages, supporting information shows as an optional field, but this information must be entered before the outage can be completed. If an actual end date is entered and no supporting information exists, the system sends a warning to the TSP or QSE to notify them. See Warnings.

Click the arrow to expand or collapse the Notes section. The default is expanded.

Enter the explanation of how the outage qualifies as a forced outage into the Supporting information field.

Click Update.

Supporting Information allows a maximum of 1000 characters.

### 7.6 Cancel an Outage

Requestors may cancel an outage that meets these conditions:

- The outage is inactive (Actual Start has not been entered)
- The status is Received at ERCOT, Approved or Accepted.
Access the Outage Request screen for the outage being canceled by double-clicking on the outage row.

Select the appropriate cancel reason using the **Outage Status** drop-down.

When canceling an outage, select one of the eight reasons:

- Cancel – Coordinating with ERCOT
- Cancel – Reschedule date unknown
- Cancel – Reschedule within next season
- Cancel – Will not reschedule
- Cancel – Weather Conditions
- Cancel – Materials Unavailable
- Cancel – Labor/Crew Unavailable
- Cancel – Emergency Operations

Click **Update**.

The Update Outage Request screen is refreshed showing that the outage is canceled.
ERCOT can cancel a Forced outage that was entered by mistake using the reason Cancel– Error.

7.7 Withdraw an Outage
ERCOT may withdraw any approved outage that is active or inactive except Forced, Forced Extension or Unavoidable Extension.

- When ERCOT withdraws an active outage (Actual Start entered), the status changes to Withdrawn and all fields are read-only except for Actual End which must be entered by the Requestor.

- When ERCOT withdraws an inactive outage (no Actual Start entered), the status changes to Withdrawn and all fields are read-only.
7.8 Reject an Outage Request

ERCOT can reject any outage submitted for approval. Outages must be Received at ERCOT or in Study status.

ERCOT adds Reviewer Notes indicating the reason the outage is Rejected.
7.9 Copy an Outage

All outages may be copied, regardless of their type or status, for both Transmission and Resource.

Access the Outage Request screen for the outage being copied by double-clicking on the outage row on the Summary Screen.

Click Copy Outage.

The Create Outage Request screen is refreshed and the fields are populated with data from the outage being copied.
Update the Outage Type if it is different from the outage being copied.

When the Outage Type is updated, the screen refreshes and displays the fields required for the new outage type. The fields are pre-populated with the data from the copied outage.

Update all other outage information as appropriate.

Click Submit. The outage information is validated and the screen re-displays with a confirmation message. From here, a requestor may make another copy of the outage.

There is no limit to the number of copied outages.

7.10 Create Grouped Outages

Grouped outages are multiple outages that share the same start and end date/times. Transmission outages may use the group feature for all outage types except that Planned Outages cannot use the Group and Recurring features for the same outage.

7.10.1 Adding to a Grouped Outage

Follow the instructions to Create a New Outage and the instructions below for adding multiple pieces of equipment to the outage.
Use the drop-downs to select:

- For Resources – select station, resource type and resource name
- For Transmission – select station, equipment type and equipment for each piece of equipment.

When more than one piece of equipment has been selected, the Group Name field displays under the Equipment list.

Enter the **Group Name** associated with this grouped outage.

For transformers (XF) and lines (LN) equipment types, click **View** in the Selected Equipment table. This refreshes the screen and displays other associated equipment, if it exists.
Check the **Select** box(es).

Maximum pieces of equipment in a Group is 60.

Click **Add**

When all of the equipment for the group is added:

Click **Submit**.

Tip: If a piece of equipment is entered in error, click the **Remove** icon on any row to remove the equipment on that row. The screen refreshes and the removed equipment no longer displays.
7.10.2 Submit Actual Start and/or Actual End for the Entire Group from the Summary Screen

For grouped outages, update the actual start and/or actual end for all of the outages in the group from the Summary screen.

- Check **Show Actual Start & End** on the Outage Summary screen.
  
The Outage Summary screen refreshes to include a new row under the outage summary row for the entry of actual start and end dates/times.

- Enter **Actual Start** for the Grouped Outage or

- Enter **Actual End** for the Grouped Outage.

- Check **Apply to entire group**.

- Click **Enter** on the outage line.
  
The Actual Start or Actual End date is applied to all outages in the Group.

7.10.3 Submit Dates for the Entire Group from the Detail Screen

Actual Start and Actual End dates/times for a Group Outage may be submitted on the Detail Screen.

- Double-click on the outage row from the Outage Summary to open the Outage Detail.
Update Date fields as required.

Click Update Group.

The new date(s) is applied to all outages in the Group.

### 7.10.4 Submit Actual Start/Actual End for an Individual Outage in the Group from the Summary Screen

Check **Show Actual Start & End** on the Outage Summary screen.

The Outage Summary screen refreshes to include a new row under the outage summary row for the entry of actual start and end dates/times.

Enter **Actual Start** for the Outage to be started or

Enter **Actual End** for the Outage to be ended.

Check **Apply to this outage only and remove from group**.

The Actual Start or Actual End date is applied to the selected outage only and the outage is removed from the group.

Tip: When a change is applied to a single outage that is part of a grouped outage, that outage is removed from the group and no longer part of the grouped outage. It must be managed separately from now on. Once the outage is broken apart from the group, it cannot be re-grouped.
7.10.5 Revise Dates for an Individual Outage in the Group from the Detail Screen

Double-click on the outage row of the individual outage to be updated from the Outage Summary to open the Outage Detail.

Update Date fields, as required.

Click **Update This Outage Only**.

The date change(s) is applied to the selected outage only and the outage is removed from the group.

Tip: When a change is applied to a single outage that is part of a grouped outage, that outage is removed from the group and no longer part of the grouped outage. It must be managed separately from now on. Once the outage is broken apart from the group, it cannot be re-grouped.

7.10.6 Cancel the Entire Grouped Outage

A requestor may cancel a Grouped Outage that meets these conditions:

- The outage is inactive (Actual Start has not been entered)
- The status is Received at ERCOT, Approved or Accepted.
Access the Outage Request screen for the Grouped Outage being canceled by double-clicking on the outage row.

Select the appropriate cancel reason using the **Outage Status** drop-down.

When canceling an outage, select one of eight reasons:

- Cancel – Coordinating with ERCOT
- Cancel – Reschedule date unknown
- Cancel – Reschedule next season
- Cancel – Will not reschedule
- Cancel – Weather Conditions
- Cancel – Materials Unavailable
- Cancel – Labor/Crew Unavailable
- Cancel – Emergency Operations

Click **Update Group**.

The Update Outage Request screen is refreshed showing that the Grouped Outage is canceled. All outages that are part of the group are canceled.
7.10.7 Cancel an Individual Outage in the Group

A requestor may cancel an Individual Outage in a Grouped Outage that meets these conditions:

- The outage is inactive (Actual Start has not been entered)
- The status is Received at ERCOT, Approved or Accepted.

Access the Outage Request screen for the Grouped Outage being canceled by double-clicking on the outage row.

Select the appropriate cancel reason using the Outage Status drop-down.

When canceling an outage, select one of eight reasons:

- Cancel – Coordinating with ERCOT
- Cancel – Reschedule date unknown
- Cancel – Reschedule next season
- Cancel – Will not reschedule
- Cancel – Weather Conditions
- Cancel – Materials Unavailable
- Cancel – Labor/Crew Unavailable
- Cancel – Emergency Operations

Highlight the Outage line for the Outage to be canceled by clicking on the Outage ID number on the line.

Click **Update This Outage Only**.

Tip: When a change is applied to a single outage that is part of a grouped outage, that outage is removed from the group and no longer part of the grouped outage. It must be managed separately from now on. Once the outage is broken apart from the group, it cannot be re-grouped.

The Update Outage Request screen is refreshed showing that the selected outage is canceled. The outage has been removed from the group.

### 7.11 Create a Recurring Outage

**Definition:** A recurring outage is a type of planned transmission outage where the equipment will be taken out repeatedly, resulting in multiple outages. The duration of a recurring outage must be less than 24 hours. The maximum number of recurrences is 50.

![Outage Data](image1)

_Repeat Recurring Outage_?

- Yes
- No

**Periodically**

- Weekly

**Planned Start**

![Planned Start](image2)

**Duration**

- 3 hours
- 4 times, every 2 days

**Generate Dates**

![Outage Data](image3)

_Repeat Recurring Outage_?

- Yes
- No

**Periodically**

- Weekly

**Planned Start**

![Planned Start](image4)

**Duration**

- 3 hours
- 2 weeks

**Generate Dates**

**Click Yes for Recurring**? to indicate that the outage is recurring.
Select **Periodically** or **Weekly**

![Information icon]
Enter the **Planned Start Date and Time** in hours.

The **Planned Start Date and Time** sets the date and time which determine all of the resultant Recurring outages based on the desired periodicity.

For periodic Outages - Enter Duration in hours, number of **Times** the Outage is to repeat and number of **Days** between outages

For Weekly Outages - Enter **Duration** in hours, the number of weeks the outages will span and the pattern of recurrence by selecting from the **Repeats** drop-down and entering the recurrence pattern.

When defining Duration, the recurrence pattern, **Number of Times** and **Number of Days** must be whole numbers.

Click **Generate Dates**.

The Create Outage Request screen displays with the proposed dates for the recurring outages based on the information supplied.
To delete one or more of the proposed outage dates:

- Click the Remove icon beside the appropriate outage.
- To remove a recurrence entered in error, click Generate Dates again to generate all recurrences.

Once the proposed outage dates are shown correctly, continue with the outage by entering the equipment information and continuing with Submit a Planned Outage Request.

When the recurring outages are successfully submitted, the system displays the Update Outage Request screen including the recurring outage information.
When submitting a recurring outage series the system looks for existing, active outages (not Canceled, Rejected, or Withdrawn) whose date/times and equipment match any of the potential new outages. Any potential new outages that would conflict with an existing outage will not be created. Even the first potential new outage will not be created if it has a conflict, but this will not prevent the creation of any other outages that do not have conflicts.

The Outage ID in the General Information section shows the outage ID for each instance of the recurring outage.

Once submitted, each outage in the recurrence becomes a separate, stand-alone outage. Any revisions, cancellations, etc. must be applied to each outage individually.

7.12 Submit a Forced Extension Outage

**Definition:** A Forced Extension occurs when a Forced Outage is not completed within the original timeframe and the requestor submits the extension before the Planned End Date/Time.

- Outages may be extended more than once but cannot exceed one year in duration from the original outage start date.
- **New Planned End** times may be submitted up to two hours past the initial **Planned End**.
- **New Planned End** may be submitted multiple times.
- After **Planned End** plus two hours, a new Forced Outage must be submitted.

Access the Outage Detail screen for the outage being extended by double-clicking on the outage row.
Enter the **New Planned End** date; the **Latest End** date will also update.

Enter the **Supporting Information**.

Supporting Information allows a maximum of 1000 characters.

Click **Update**.

When the Forced Extension outage is successfully submitted, the system displays the outage detail screen and a message stating the outage request was successfully submitted. From this point, the Forced Extension outage follows the same view/editing rules as its previous outage type.

**7.13 Submit an Unavoidable Extension**

**Definition:** An Unavoidable Extension occurs when a Planned, Maintenance or Simple Outage is not completed within the original timeframe and the requestor submits the extension before the Planned End Date/Time.

Unavoidable extensions may only be created for active Accepted or Approved Planned, Maintenance or Simple Outages.

- Outages may be extended more than once but cannot exceed one year in duration from the original outage start date.
- **New Planned End** times may be submitted up to two hours past the initial **Planned End**.
- **New Planned End** may be submitted multiple times.
- **After Planned End** plus two hours, a new Forced Outage must be submitted.

Access the Outage Detail screen for the outage being extended by double-clicking on the outage row.
Enter the New Planned End date.

Enter the Supporting Information.

Supporting Information allows a maximum of 1000 characters.

Click Update.

Before saving the outage, the system ensures that there is no an existing outage (not Canceled, Rejected or Withdrawn) whose date/time and equipment overlaps with the potential new outage. If there is, a warning message with information about that outage is displayed. A requestor may change the information and re-submit or cancel the extension request.

When the Unavoidable Extension outage is successfully submitted, the system displays the outage detail screen and a message stating the outage request was successfully submitted. From this point, the Unavoidable Extension follows the same rules as its previous outage type.

8 Planned Outages

Definition: An Outage that is planned and scheduled in advance with ERCOT, other than a Maintenance Outage or Opportunity Outage.
8.1 Planned Outage Rules
See Planned Outage Rules in the Common Business Rules and Definitions section.

8.2 Submit a Planned Outage Request

From the Outage Summary screen, click Create New Outage. The Create Outage Request screen displays in a new window.

The QSE Create New Outage menu allows the requestor to select Resource or Transmission outages. The rules for submission and approval of Transmission outages submitted by QSEs are exactly the same as the rules for Transmission outages which are submitted by TSPs as shown on the TSP Create New Outage menu.

The TSP Create New Outage Request menu allows the selection of Transmission outages only.

Click Resource Planned or Transmission Planned.

The detailed Outage Request screen displays.

The General Information section displays Request Date (current date and time), Requestor, Requesting Company, Primary Phone and Secondary Phone. All are read-only.

Requestor, Requesting Company, Primary Phone and Secondary Phone are all pulled from the requestor’s digital certificate.
Update Requestor Phone and Requestor Name, if required.

Note: these are required fields and cannot be blank.

The Requestor Phone Number and Name fields are retained from the previous login.

The Outage Data section displays Category and Request Type as read-only.

Update Recurring (defaults to ‘no’),

Using the calendar, submit the Planned Start, Earliest Start, Planned End and Latest End dates.

Tip: When Planned Start is selected, all four date/time fields are populated. Once that has occurred, selecting Planned Start populates Earliest Start field; selecting Planned End populates Latest End field.

Outage analysis uses the Planned Start and Planned End only.

Earliest Start and Latest End are used for alternate evaluation only.

Enter hours needed for Emergency Restoration.

Emergency Restoration cannot be longer than the outage duration.

Select Nature of Work.

Nature of Work is a required field

Select the Resource or Transmission Nature of Work which most closely matches the work being performed.

If Other or Unknown is selected – use Requestor Notes area to define the work being performed.
Enter a **Project Name**, if desired.

**Operating Company** displays the company name from the digital certificate.

Select a **Station** from the drop-down list.

Select the **Equipment or Resource Type** from the drop-down list.

**Transmission** outages - Outage State automatically defaults to the state opposite from the Normal State defined in the Network Operations Model.

**Resource** Outages – HSL and LSL are required fields.

- HSL and LSL of zero (0) designate that the Resource will be off-line
- Enter the appropriate HSL and LSL for Derated Resources

Tip: a requestor may add additional equipment and create a [Grouped Outage](#).

Add **Requestor Notes, Remedial Action & Special Protection System Schemes**, and/or **Supporting Information** as needed. See [Enter and View Notes](#).

Click **Submit**.
# Create Outage Request

**Planned Outage**: Any major or minor transmission or resource facility equipment outage (other than a defined maintenance outage) that is planned and scheduled in advance.

## General Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Date</td>
<td>18 Apr 2016 16:32</td>
</tr>
<tr>
<td>Requestor</td>
<td>Joe Smith</td>
</tr>
<tr>
<td>Requesting Company</td>
<td>TABC</td>
</tr>
<tr>
<td>Primary Phone</td>
<td>512 222-2222</td>
</tr>
<tr>
<td>Secondary Phone</td>
<td>512 222-2222</td>
</tr>
<tr>
<td>Requestor Phone</td>
<td></td>
</tr>
<tr>
<td>Requestor Name</td>
<td></td>
</tr>
</tbody>
</table>

## Outage Data

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Transmission</td>
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<tr>
<td>Request Type</td>
<td>Planned</td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Recurring Outage?</td>
<td>Yes</td>
</tr>
<tr>
<td>Duration</td>
<td>10s. times, every 7 days</td>
</tr>
<tr>
<td>Emergency Restoration</td>
<td></td>
</tr>
<tr>
<td>Nature of Work</td>
<td></td>
</tr>
<tr>
<td>Project Name</td>
<td></td>
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</table>

## Operating Company

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Station</td>
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</tr>
<tr>
<td>Equipment Type</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
</tr>
</tbody>
</table>

## Notes

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requestor Notes</td>
<td></td>
</tr>
<tr>
<td>Remedial Actions or Special Protection Systems</td>
<td></td>
</tr>
</tbody>
</table>

* Supporting Information

* Supporting information is required before ending this outage.
When the planned outage is successfully submitted, the system displays the Update Outage Request screen with a message stating the outage request was successfully submitted.

8.3 View and Update a Planned Outage

8.3.1 When Status is 'Received at ERCOT'

When the status for a Planned outage is Received at ERCOT, a requestor may:

- Modify Common data
  - Requestor Phone Number and Name
  - Planned Start/Planned End
  - Earliest Start/Earliest End
  - Emergency Restoration
  - Nature of Work
  - Notes

⚠️ When modifying Common data, requestor may not revise HSL/LSL or add to a Group until after Update Group has been selected
8.3.2 When Status is ‘Study, Rejected or Withdrawn’
When the status for a planned outage is Study, Rejected or Withdrawn, requestors are not able to make updates to the outage. Copy the outage, if desired.

8.3.3 When Status is ‘Approved’ and Outage is Not Active
When status for a Planned outage is ‘Approved’ but the outage is not active, the following changes may be made to a planned outage:

- Change the Requestor Phone number or name.
- Edit Actual Start. May be changed for up to two hours after submittal.
- Requestor may ask ERCOT to delete the Actual Start.
- New Actual Start may also be edited for up to two hours.
- Enter Actual End
- Extend the outage by revising New Planned End
  - New Planned End may be revised multiple times for up to two hours past the Planned End.
  - After Planned End plus two hours, New Forced Outage must be submitted.
- Add notes
- Copy the outage
- Cancel the outage

8.3.4 When Status is ‘Approved’ and Outage is Active
When status for a planned outage is ‘Approved’ and the outage is active, a requestor may make the following changes to a planned outage:

- Change the Requestor Phone number or name
- Edit Actual Start. May be changed for up to two hours after submittal.
- Requestor may ask ERCOT to delete the Actual Start.
- New Actual Start may also be edited for up to two hours.
- Enter Actual End
- Extend the outage by revising New Planned End
- Add notes
- Copy the outage
8.3.5 Revise a Planned Outage that has Ended

After a Planned Outage has ended, Requestor may:

- Revise the Actual End only within two hours of entering the first Actual End.
  - New Actual End must be earlier than original Actual End.
  - ERCOT can delete the Actual End. Once deleted, it can be submitted again, restarting the two hour editing window.

9 Maintenance Outages

Definition: An Outage initiated manually to remove equipment from service to perform work on components that could be postponed briefly but that is required to prevent a potential Forced Outage and that cannot be postponed until the next Planned Outage. Maintenance Outages are classified as follows:

- Maintenance Level 1: Equipment that must be removed from service within 24 hours to prevent forced outage.
- Maintenance Level 2: Equipment that must be removed from service within 7 days to prevent forced outage.
- Maintenance Level 3: Equipment that must be removed from service within 30 days to prevent forced outage.
9.1 Maintenance Outage Rules
See Maintenance Outage Rules in the Common Business Rules and Definitions section.

9.2 Submit Maintenance Outage Request
Refer to procedures for submitting Planned Outages with the following exceptions:

Click Maintenance 1 to create an outage that must be started within 24 hours to prevent a forced outage.

Planned Start date and time must be equal to within 24 hours from current date and time.

OR

Click Maintenance 2 to create an outage that must be started within 7 days to prevent a forced outage.

Planned Start date must be equal to within 7 days from current date. The Current time is not compared with the Planned Start time – only the Date is used.

OR

Click Maintenance 3 to create an outage that must be started within 30 days to prevent a forced outage.

Planned Start date must be equal to within 30 days from current date. The Current time is not compared with the Planned Start time – only the Date is used.
10 Forced Outages

**Definition:** An Outage initiated by protective relay, or manually in response to an observation by personnel that the condition of equipment could lead to an event, or potential event, that poses a threat to people, equipment, or public safety.

For a Generation Resource, an Outage that requires immediate removal, either through controlled or uncontrolled actions, of all or a portion of the capacity of the Resource from service through automated or manual means. This type of Outage usually results from immediate mechanical/electrical/hydraulic control system trips and operator-initiated actions in response to a Resource’s condition.

Forced Outages are submitted after the outage has occurred.
10.1 Forced Outage Rules
See Forced Outage Rules in the Common Business Rules and Definitions section.

10.2 Submit Forced Outage Request

Refer to procedures for submitting Planned Outages with the following exceptions:
Click **Forced**. The Create Outage Request screen displays.

- Submit the Actual Start, Planned End and Latest End

  Actual Start must be the time the Forced Outage actually occurred.
Add Requestor Notes, Remedial Action Special Protection System Schemes, and/or **Supporting Information** as needed. See [Enter and View Notes](#).

Supporting information is not required to create a Forced Outage request, but it is required before the outage can be completed.

When the Forced outage is successfully submitted, the system displays the outage detail screen with a message stating the outage request was successfully submitted. The system automatically assigns it a status of Accepted.
Your outage was successfully submitted.

**Forced Outage**
An outage initiated manually or by protective relay in response to an observation by personnel or the system operator that the condition of equipment could lead to an event, or potential event that poses a threat to people, equipment or public safety.

### General Information

- **Request Date**: May 05 2008 13:10
- **Outage ID**: 5774658
- **Requestor**: R. Hinkle
- **Last Updated**: May 05 2008 14:00
- **Requesting Company**: Acme Electric
- **Version ID**: 2
- **Primary Phone**: 512-248-1234
- **Secondary Phone**: 512-248-3459
- **Requestor Phone**: 512-248-9876

### Outage Data

- **Category**: Transmission
- **Request Type**: Forced
- **Outage Status**: Accepted
- **Actual Start**: May 05 2008 13:10
- **Actual End**: [ ]
- **Planned End**: May 10 2008 17:00
- **Latest End**: May 10 2008 17:00

### Emergency Restoration

- **24 hrs**

### Nature of Work

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
</tr>
</tbody>
</table>

### Project Name

- **54345**

### Operating Company

- **My Company**

### From Station

- **Station Name**

### Equipment Type

- **CB**

### Equipment

- **CB_3478**

### Normal State

- **Open**

### Outage State

- **Closed**

### Voltage

- **160**

### Notes

- **Requestor Notes**

- **Remedial Actions or Special Protection Systems**

- **Supporting Information**

* Supporting information is required before ending this outage.
11 Remedial Switching Action

Definition: A type of Forced Outage submitted for near real-time switching devices that will be opened to relieve or prevent an overload condition. The Outage must start within 3 days, have a maximum restoration time of 4 hours and cannot exceed 72 hours in duration.

11.1 Remedial Switching Action Rules
See Remedial Switching Action in the Common Business Rules and Definitions section.

11.2 Submit Remedial Switching Action Outage Request
Refer to procedures for submitting Planned Outages with the following exceptions:

From the Outage Summary screen, click Create New Outage. The Select Outage Type screen displays in a new window.

Click Remedial Switching Action. The Create Outage Request screen displays.
Using the calendar, select the **Planned Start, Earliest Start, Planned End** and **Latest End** dates.

- Planned Start must be later than or equal to the current date/time and not more than 3 days from today.
- Outage duration cannot exceed 72 hours.
- Enter hours needed for **Emergency Restoration**.
- Emergency Restoration cannot exceed 4 hours.

Add **Requestor Notes, Remedial Action Special Protection System Schemes, and/or Supporting Information** as needed. See [Enter and View Notes](#).
Supporting information is not required to create a Remedial Switching Action request, but it is required before the outage can be completed.

Click Submit.

When the Remedial Switching Action is successfully submitted, the system displays the outage detail screen with a message stating the outage request was successfully submitted.

<table>
<thead>
<tr>
<th>Outage Data</th>
<th>Transmission</th>
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</thead>
<tbody>
<tr>
<td>Request Type</td>
<td>Remedial Switching Action</td>
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<tr>
<td>Outage Status</td>
<td>Accepted</td>
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<td>Planned Start</td>
<td>May 5 2008 13:10</td>
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<tr>
<td>Planned End</td>
<td>May 5 2008 16:00</td>
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<tr>
<td>Earliest Start</td>
<td>May 5 2008 13:10</td>
</tr>
<tr>
<td>Latest End</td>
<td>May 5 2008 16:00</td>
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<tr>
<td>Emergency Restoration</td>
<td>24 hrs</td>
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<tr>
<td>Nature of Work</td>
<td>Description</td>
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<td>Project Name</td>
<td>54345</td>
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<tr>
<td>Operating Company</td>
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</tr>
<tr>
<td>From Station</td>
<td>Station Name</td>
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<td>Equipment Type</td>
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<tr>
<td>Normal State</td>
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</tr>
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<td>Outage State</td>
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</table>

<table>
<thead>
<tr>
<th>Notes</th>
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</tr>
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<td></td>
</tr>
<tr>
<td>* Supporting Information</td>
<td></td>
</tr>
</tbody>
</table>

* Supporting information is required before ending this outage.
12 Simple Outages

Definition: A Planned Outage or Maintenance Outage of any Transmission Element in the Network Operations Model such that when the Transmission Element is removed from its normal service, absent a Forced Outage of other Transmission Elements, the Outage does not cause a topology change in the LMP calculation and thus cannot cause any LMPs to change with or without the Transmission Element that is suffering the Outage.

12.1 Simple Outage Rules

Simple Outages must meet the following criteria:

- Must be submitted at least one day in advance
- Maximum Emergency Restoration of 1 hour
- Outage duration cannot exceed 12 hours

12.2 Submit Simple Outage Request

Refer to procedures for submitting Planned Outages with the following exceptions:

From the Transmission Create Outage request menu, click Simple.
Create Outage Request

- Planned
- Maintenance 1
- Maintenance 2
- Maintenance 3
- Forced
- Remedial Switching Action
- Simple
- Opportunity

**Outage Scheduler User Guide for Qualified Scheduling Entities and Transmission Service Providers**

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Using the calendar, select the **Planned Start**, **Earliest Start**, **Planned End** and **Latest End** dates.

- Planned Start must be later than or equal to the current date/time and not more than 1 day from today.
- Outage duration cannot exceed 12 hours.
- Enter hours needed for Emergency Restoration.
Emergency Restoration cannot be longer than one hour in duration.

When the Simple outage is successfully submitted, the system displays the outage detail screen with a message stating the outage request was successfully submitted.
13 Resource Opportunity Outage

**Definition:** Resource Opportunity Outages are a specific type of Planned Outage. Resource Opportunity outages allow a Requestor to join a forced outage with an existing planned outage. The planned outage must already exist and have a status of approved when the forced outage is submitted to qualify. The planned outage must have a start date within the next 8 days. HSL must be 0 for both outages.

13.1 Resource Opportunity Outage

A Resource Opportunity Outage request may be granted by ERCOT when

- A specific Resource experiences a Forced Outage and
- The Resource had been previously Approved or Accepted for a Planned Outage with a Planned Start during the next eight days.

The QSE Sequence of Events for a Resource Opportunity outage is:

- QSE has a previously Accepted or Approved Planned Outage on a Resource with a Start date of eight (8) calendar days or less.
- QSE enters a Forced Outage on the Resource.
Outage Scheduler application will issue a warning message to the QSE and ERCOT.

- QSE may access the original Planned Outage request and select:
  - "Yes" to take a Resource Opportunity Outage.
    - The Resource will stay off-line.
    - Opportunity Outage covers the time period between the start of Forced Outage and the start of the Planned Outage.
  - "No" to not take the Opportunity Outage.
    - QSE must submit a Forced Outage request
    - Resource comes back on-line
    - Original Planned Outage does not change.

13.2 View and Update a Resource Opportunity Outage

This warning will display on the Outage Detail screen the Forced Outage in the match.
When the status for an opportunity outage is “Received at ERCOT”, a Requestor may make the following changes:

- Modify Requestor Phone and Name
- **Add notes**
- **Copy the outage**
- Select Take Opportunity Yes or No

Selecting Yes will join the Forced and Planned outage creating the opportunity and Selecting No will keep the two outages as they were entered.

When the status for an opportunity outage is Study, Rejected or Withdrawn, a Requestor may not make updates to the outage. The outage may be copied, if desired.

- )
14 Transmission Opportunity Outages

Definition: An Opportunity Outage is a special category of Planned Outage. A Transmission Opportunity Outage (TOO) is a two-stage process. The first stage involves submitting the initial request for a TOO with its duration, set of designated Resources and the desired Transmission elements. The second stage involves the actual approval and implementation of a TOO when conditions have been met for the TOO.

14.1 Opportunity Outage Rules


The TSP Sequence of Events for a Transmission Opportunity outage is:

- TSP and QSE/Resource Entity attempt to schedule maintenance during a Resource Planned Outage.
- If no Resource outage is planned or scheduled, TSP may submit an Opportunity Outage request.
- If QSE submits a Planned, Forced or Maintenance outage request on the designated Resource:
  - Outage Scheduler issues a Warning Message to ERCOT & the TSP.
  - TSP must:
- Confirm that work can be completed during the Resource outage.
- Enter Planned Start and End dates into the Opportunity Outage request.

 ERCOT will evaluate the request and if no security violations occur, issue approval.

### 14.2 Submit Opportunity Outage Request

From the Outage Summary screen, click **Create New Outage**. The Create Outage Request screen displays in a new window.

| Planned Maintenance 1 Maintenance 2 Maintenance 3 Forced Remedial Switching Action Simple Opportunity |
|---------------------------------------------------------------|---------------------------------------------------------------|
| Any major or minor transmission or resource facility equipment outage (other than a defined Maintenance outage) that is planned and scheduled in advance. An Outage submitted for Equipment that must be removed from service within 24 hours to prevent a Forced Outage. An Outage submitted for Equipment that must be removed from service within 7 days to prevent a Forced Outage. An Outage submitted for Equipment that must be removed from service within 30 days to prevent a Forced Outage. An outage initiated manually or by protective relay in response to an observation by personnel or the system operator that the condition of equipment could lead to an event, or potential event that poses a threat to people, equipment or public safety. A type of Forced Outage submitted for near real-time switching devices that will be opened to relieve or prevent an overload condition. The Outage must start within three days, have a maximum restoration time of four hours and cannot exceed 72 hours in duration. An Outage for Transmission Equipment that can be removed from service without affecting LMP prices or causing congestion. The Outage request must be submitted at least 1 day in advance, have a maximum restoration time of 1 hour and cannot exceed 12 hours in duration. An Opportunity Outage is a special category of Planned Outage that always involves a set of designated Resources. A Transmission Opportunity Outage (TOO) is a two-stage process. The first stage involves submitting the initial request for a TOO with its duration, set of designated Resources, and planned start to occur within the next 90 days. The second stage involves the actual approval and implementation of a TOO when conditions have been met for the TOO. |

 ERCOT requires supporting information for Forced and Maintenance Outages. Removal of Resources from service under Maintenance Outages shall be coordinated with ERCOT. To minimize harmful impacts to the system in urgent situations, equipment may be removed from service immediately, provided notice is given immediately, by the QSE, to ERCOT of such action.

Click **Opportunity**. The Create Outage Request screen displays.
The General Information section displays **Request Date** (current date and time), **Requestor**, **Requesting Company**, **Primary Phone** and **Secondary Phone**. All are read-only.
Update Requestor Phone and Requestor Name, if required. Note: these are required fields and cannot be blank.

- Outage Data section Requirements

The Outage Data section displays Category (Transmission) and Request Type (Opportunity) as read-only.

Select desired Resource Operating Company from the drop-down list.

Select a Resource Station from the drop-down list.

Select the Resource Equipment Type from the drop-down list.

Select the Resource Equipment from the drop-down list.

Enter HSL of Zero(s) (0) to designate that the Resource must be off-line for the Opportunity Outage window.

Tip: Up to five resources may be designated in an Opportunity outage.

The Opportunity Window End date defaults to 90 days from the request date.

On the Opportunity End Date, the TOO is automatically removed from Received at ERCOT status and is removed from the Summary.

Tip: The opportunity window can only be a total of 90 days from today’s date. A Requestor can shorten the window to less than 90 days by moving the default date inward.

Select the Outage Duration Days (dd) and Hours (HH) from the drop-down lists.

Enter hours needed for Emergency Restoration.

Emergency Restoration cannot exceed duration of the outage.

Select Nature of Work.

Enter a Project Name, if required.

Select Operating Company. This defaults to the company name in the digital certificate.
Select a **Station** from the drop-down list.

Select the **Equipment Type** from the drop-down list.

Select the **Equipment** from the drop-down list.

When selecting a breaker or switch, verify the **Outage State** for the equipment.

Add **Requestor Notes**, **Remedial Action Special Protection System Schemes**, and/or **Supporting Information** as needed. See [Enter and View Notes](#).

Tip: A Requestor may add additional equipment and create a [Grouped Outage](#).

Click **Submit**.

Tip: This completes Stage One of the opportunity outage. The opportunity outage will now be waiting for a matching resource outage within the date window.

### 14.3 View and Update a Opportunity Outage

#### 14.3.1 When Status is 'Received at ERCOT' and no matching resource outage

When the status for an opportunity outage is Received at ERCOT, a Requestor may make the following changes:

- Change the Requestor Phone number or name
- [Cancel the outage](#)
14.3.2 When Status is ‘Received at ERCOT” with a matching resource outage

When the status for an Opportunity Outage is “Received at ERCOT”, a Requestor may make the following changes:

- A Warning displays at the top of the page to confirm the match between the opportunity outage and the resource outage.

  - Change the Requestor Phone number or name
  - Cancel the outage
Tip: The Resource section of the page displays the outage in the match highlighted in maze. When there is more than one resource displayed only the matching resource will be highlighted in maze.

Using the calendar, select the Planned Start, Earliest Start, Planned End and Latest End dates.

Planned Start and Planned End must fall between the DR Planned Start and the DR Planned End as displayed in the Resource section of the page.

The Planned Start must be current date/time or greater than the current date/time.

The Planned End can be greater than the end date of the Opportunity Window End.

Add notes

Copy the outage

Click Submit.

Tip: The opportunity outage waits at this stage for first the approval of the resource outage and then the opportunity outage. Once both outages have approvals the opportunity outage updates to the status of Received at ERCOT.

14.3.3 When Status is 'Received at ERCOT' and there is a matching resource outage

When the status for an Opportunity Outage is Received at ERCOT, a Requestor may make the following changes:

- Add notes
- Copy the outage
- Change the Requestor Phone number or name
- Cancel the outage
- Change Planned Start, Planned End, Earliest Start and latest end within the date rules for Entered Not Yet Submitted section 12.2.2.

14.3.4 When Status is 'Approved' and Outage is Not Active

When status for an Opportunity Outage is ‘Approved’ but the outage is not active, a Requestor may make the following changes:

- Enter the Actual Start
- Shorten outage duration by revising Planned Start and/or Planned End
- Add notes
- Copy the outage
- Change the Requestor Phone number or name.
- Cancel the outage
14.3.5 When Status is ‘Approved’ and Outage is Active

When status for an Opportunity Outage is ‘Approved’ and the outage is active, a requestor may make the following changes to a planned outage:

- Enter Actual End
- Enter New Planned End – the outage must be within 3 days of the Planned End
- Shorten outage duration by revising Planned End
- Add notes
- Copy the outage
- Change the Requestor Phone number or name.

15 Retrieve Outage History

An Outage History is available for all submitted outages and completed outages. The outage history will provide the date and time and Requestor name of every action related to when an outage is:

- Created
- Submitted
- Received at ERCOT/Studied
- Approved/Accepted or Rejected
- Modified
- Extended
- Cancelled or Withdrawn
- Completed (Actual End Submitted)

All Requestor Notes and related-ERCOT Reviewer Notes will be included.

To retrieve an outage’s history record:

- Access is available only through the Outage Scheduler User interface.
  - TSPs may access all Transmission and Resource outage history records
  - Qses may only access the Transmission and Resource outage history records for the facilities which they operate
- Requestors must use the Custom Filter to find the desired Detailed Outage request.
  - If the selected outage is part of a Grouped Outage, all of the outages in the group will be included in the History. If an outage has been removed from a group, its history after having been removed must be retrieved separately.
- Select History at the bottom of the Detailed Outage request screen.
- Open the dialog box to Open or Save the file in .xlsx format
16 Printing Summary Information

Every standard browser has a print function that will produce hardcopy output of the on-screen display. In addition, Outage Scheduler allows the current Outage Summary list to be printed in a more detailed report format.

Use the Custom Filter feature to control the content and number of Total Records before Printing!
Click Print Summary Information.

The Print View opens in a new window. The print view displays the same columns as the default columns in the Summary screen, except it does not have the Warnings column.

The print view always uses the default columns. Show/Hide Columns/Rows does not affect print view.

The print view displays the first set of Requestor Notes only.

The print view displays the results that are displayed on the Summary screen when the user clicks the Print Summary Information link. If the result set is more than one page, the print view prints all rows.

Use the File/Print command to print as normal.

17 Exporting Outage Data to a File

Outage Scheduler allows the current Outage Summary list to be exported to either .xml or .csv formats.

Use the Custom Filter feature to control the content and the number of Total Records before exporting!

17.1 Export as .xml format

Click Export .xml.

The File Download dialogue box displays.
Click Open to open the .xml file.

The .xml file (EXtensible Markup Language) opens in the default text editor. The .xml view displays the same columns as the default columns in the Summary screen.

The .xml file will only contain the outages in the Summary at the time of the download.

Tip: a requestor may select Save to save the file for later use.

```
<ns1:Outage>
  - <ns1:OutageInfo>
    - <ns1:OutageType>PL</ns1:OutageType>
    - <ns1:participant>TONCOR</ns1:participant>
    - <ns1:versionId>1</ns1:versionId>
    - <ns1:state>Recvd</ns1:state>
    - <ns1:status>RafF</ns1:status>
    - <ns1:lastModified>2010-05-27T18:32:00-05:00</ns1:lastModified>
    - <ns1:lastModifiedBy>user1</ns1:lastModifiedBy>
    - <ns1:warningFlag>false</ns1:warningFlag>
  - <ns1:Requestor>
    - <ns1:name>user1</ns1:name>
    - <ns1:primaryContact>214-812-2037</ns1:primaryContact>
    - <ns1:secondaryContact>214-812-2037</ns1:secondaryContact>
    - <ns1:tertiaryContact>214-812-2037</ns1:tertiaryContact>
  - <ns1:requestDate>2010-05-27T18:32:00-05:00</ns1:requestDate>
</ns1:OutageInfo>
  - <ns1:TransmissionOutage>
    - <ns1:operatingCompany>TONCOR</ns1:operatingCompany>
    - <ns1:equipmentName>MAS 1</ns1:equipmentName>
    - <ns1:transmissionType>PL</ns1:transmissionType>
    - <ns1:fromStation>AMCAS</ns1:fromStation>
    - <ns1:toStation/>
    - <ns1:normalState>C</ns1:normalState>
    - <ns1:outageState>O</ns1:outageState>
    - <ns1:voltage>1382</ns1:voltage>
    - <ns1:emergencyRestorationTime>1</ns1:emergencyRestorationTime>
    - <ns1:RID>TONCOR.OTG.PL.Transmission.ONC00009930</ns1:RID>
    - <ns1:natureOfWork>LN</ns1:natureOfWork>
</ns1:TransmissionOutage>
  - <ns1:Schedule>
    - <ns1:plannedStart>2010-06-07T10:32:00-05:00</ns1:plannedStart>
    - <ns1:plannedEnd>2010-06-07T20:32:00-05:00</ns1:plannedEnd>
    - <ns1:latestStart>2010-06-07T10:32:00-05:00</ns1:latestStart>
    - <ns1:latestEnd>2010-06-07T20:32:00-05:00</ns1:latestEnd>
</ns1:Schedule>
  - <ns1:OGNotes>
    - <ns1:ReviewerNotes/>
    - <ns1:SupportingNotes/>
    - <ns1:RASPNotes/>
</ns1:OGNotes>
```
16.2 Export as .csv format

Click Export .csv

The File Download dialogue box displays.

Click Open to open the .csv file.

The .csv file will only contain the outages in the Summary at the time of the download.

All Requestor and ERCOT Reviewer notes may not be included in the .csv format. Use Outage History to retrieve all data related to an outage.

Tip: a requestor may select Save to save the file for later use.

The .csv file opens in the default spreadsheet software. The .csv view displays the same columns as the default columns in the Summary screen.