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| NPRR Number | [1108](https://www.ercot.com/mktrules/issues/NPRR1108) | NPRR Title | ERCOT Shall Approve or Deny All Resource Outage Requests |
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| Date | April 12, 2022 |
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| Submitter’s Information |
| Name | Bill Barnes |
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| Company | Reliant Energy Retail Services LLC (Reliant) |
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| Market Segment | Independent Retail Electric Provider (IREP) |

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| Comments |

Reliant submits these comments on top of the 3/31/2022 ERCOT comments to offer modifications to the methodology that limits Resource Planned Outages. It is crucial for Resource owners to have predictable and sufficient availability of Outage windows in the spring and fall to complete the work necessary to maximize Resource availability during the higher Load periods of summer and winter. In order to accomplish this important objective, Reliant proposes to floor the Maximum Daily Resource Planned Outage Capacity at 15,000MW for the spring and 10,000MW for the fall. These Outage amounts ensure sufficient availability of scheduling windows in future years and are well below amounts that have caused tight grid conditions in the past. It is important to remember that Qualified Scheduling Entities (QSEs) will optimize scheduled outages around these limits and the Outage Schedule Adjustment (OSA) process can still be utilized.

Reliant proposes to exempt nuclear Resources from any Planned Outage restrictions. The effort, expense, and importance of conducting Planned Outages and refueling at nuclear facilities are significant and should take priority.

For Planned Outages submitted beyond 45 days, the process to evaluate the aggregate amount compared to the maximum should be straightforward so ERCOT can provide feedback to Resource owners within three Business Days. Timely feedback to Resource owners regarding approval or rejection of submitted Planned Outages is important for rescheduling purposes, if necessary.

During an OSA, QSEs are making concessions and incurring additional costs to move Outages to help alleviate Emergency Conditions. ERCOT should be required to accept the schedule change rather than include discretion which causes uncertainty and potentially additional cost for the QSEs accommodating the situation.

Finally, Reliant proposes to include detailed formulas for the calculation of Maximum Daily Resource Planned Outage Capacity to ensure transparency and common understanding of the methodology.

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| Revised Cover Page Language |

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| NPRR Number | [1108](https://www.ercot.com/mktrules/issues/NPRR1108) | NPRR Title | ERCOT Shall Approve or Deny All Resource Planned Outage Requests |
| Nodal Protocol Sections Requiring Revision  | 2.1, Definitions3.1.1, Role of ERCOT3.1.2, Planned Outage, Maintenance Outage, or Rescheduled Outage Data Reporting3.1.3.2, Resources3.1.6, Outages of Resources Other than Reliability Resources3.1.6.1, Receipt of Resource Requests by ERCOT3.1.6.2, Resources Outage Plan3.1.6.4, Approval of Changes to a Resource Outage Plan3.1.6.6, Timelines for Response by ERCOT for Resource Outages3.1.6.7, Delay3.1.6.8, Resource Outage Rejection Notice3.1.6.9, Withdrawal of Approval or Acceptance and Rescheduling of Approved or Accepted Planned Outages of Resource Facilities3.1.6.10, Opportunity Outage3.1.6.13, Maximum Daily Resource Planned Outage Capacity (new)3.1.7, Reliability Resource Outages3.1.7.1, Timelines for Response by ERCOT on Reliability Resource Outages |
| Revision Description | This Nodal Protocol Revision Request (NPRR) defines a process by which ERCOT will review, coordinate, and approve or deny all Resource Planned Outages, including those that are submitted more than 45 days prior to the planned start of the Outage. In conjunction with existing Protocol provisions, the addition of this process will allow ERCOT to meet the requirements of SB 3 related to approval of all Planned Outages of electric generation.Specifically, the revisions:* Define a process for calculating a maximum MW of Resource Planned Outages that would be allowed for each day of the next rolling 60 months based on a capacity assessment;
* Require that a non-nuclear Resource Planned Outage, or change to an approved Outage, submitted more than 45 days in advance of the planned start time of the Outage would no longer be “accepted” but would be approved on a first-come, first-served basis if the resulting aggregate Resource Planned Outages are below the Maximum Daily Resource Planned Outage Capacity for each day of the proposed Outage’s duration;
* Provide certainty for Resource owners that sufficient Planned Outage windows will be available by setting a floor on the Maximum Daily Resource Planned Outage Capacity of 15,000 MW for the Spring and 10,000 MW for the Fall.
* Require that a Planned Outage, or change to an approved Outage, submitted less than 45 days in advance of the planned start time of the Outage would be evaluated against the Maximum Daily Resource Planned Outage Capacity and for impacts on transmission reliability, taking into account previously approved Outages;
* Provide transparency into the calculation of Maximum Daily Resource Planned Outage Capacity by including detailed formulas;
* Describe that the determination of the Maximum Daily Resource Planned Outage Capacity for the next seven days uses same criteria as planning assessment for Outage Adjustment Evaluation (OAE); and
* Make other minor changes and language clarifications (e.g. the inconsistent use of the terms “Outage plans” and “Outage schedules”).
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| Revised Proposed Protocol Language |

## 2.1 DEFINITIONS

Maximum Daily Resource Planned Outage Capacity

The aggregate maximum MW of Resource Planned Outages that will be approved by ERCOT for any time period within a given day, calculated pursuant to Section 3.1.6.13, Maximum Daily Resource Planned Outage Capacity.

3.1.1 Role of ERCOT

(1) ERCOT shall coordinate and use reasonable efforts, consistent with Good Utility Practice, to accept, approve or reject all requested Outage plans for maintenance, repair, and construction of both Transmission Facilities and Resources within the ERCOT System. ERCOT may reject an Outage plan under certain circumstances, as set forth in these Protocols.

(2) ERCOT’s responsibilities with respect to Outage Coordination include:

(a) Approving or rejecting requests for Planned Outages and Maintenance Outages of Transmission Facilities for Transmission Service Providers (TSPs) in coordination with and based on information regarding all Entities’ Planned Outages and Maintenance Outages;

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| ***[NPRR857: Replace paragraph (a) above with the following upon system implementation:]***(a) Approving or rejecting requests for Planned Outages and Maintenance Outages of Transmission Facilities for Transmission Service Providers (TSPs) and Direct Current Tie Operators (DCTOs) in coordination with and based on information regarding all Entities’ Planned Outages and Maintenance Outages; |

(b) Assessing the adequacy of available Resources, based on planned and known Resource Outages, relative to forecasts of Load, Ancillary Service requirements, and reserve requirements;

(c) Coordinating all Planned Outage and Maintenance Outage plans and approving or rejecting Outage plans for Planned Outages of Resources;

(d) Coordinating and approving or rejecting Outage plans for Planned Outages of Reliability Must-Run (RMR) Units under the terms of the applicable RMR Agreements;

(e) Coordinating and approving or rejecting Outage plans associated with Black Start Resources under the applicable Black Start Unit Agreements;

(f) Coordinating and approving or rejecting Outage plans affecting Subsynchronous Resonance (SSR) vulnerable Generation Resources that do not have SSR Mitigation in the event of five or six concurrent transmission Outages;

(g) Coordinating and approving or rejecting changes to existing Resource Outage plans;

(h) Monitoring how Planned Outage schedules compare with actual Outages;

(i) Posting all proposed and approved schedules for Planned Outages, Maintenance Outages, and Rescheduled Outages of Transmission Facilities on the Market Information System (MIS) Secure Area under Section 3.1.5.13, Transmission Report;

(j) Creating and posting aggregated MW of Planned Outages for Resources on the MIS Secure Area under Section 3.2.3, Short-Term System Adequacy Reports;

(k) Monitoring Transmission Facilities and Resource Forced Outages and Maintenance Outages of immediate nature and implementing responses to those Outages as provided in these Protocols;

(l) Establishing and implementing communication procedures:

(i) For a TSP to request approval of Transmission Facilities Planned Outage and Maintenance Outage plans; and

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| ***[NPRR857: Replace item (i) above with the following upon system implementation:]***(i) For a TSP or a DCTO to request approval of Transmission Facilities Planned Outage and Maintenance Outage schedules; and |

(ii) For a Resource Entity’s designated Single Point of Contact to submit Outage plans and to coordinate Resource Outages;

(m) Establishing and implementing record-keeping procedures for retaining all requested Planned Outages, Maintenance Outages, Rescheduled Outages, and Forced Outages; and

(n) Planning and analyzing Transmission Facilities Outages.

3.1.2 Planned Outage, Maintenance Outage, or Rescheduled Outage Data Reporting

(1) Each Resource Entity shall use reasonable efforts, consistent with Good Utility Practice, to continually update its Outage plans for all Outages. All information submitted about Planned Outages, Maintenance Outages, or Rescheduled Outages must be submitted by the Resource Entity or the TSP under this Section. If an Outage plan for a Resource is also applicable to the Current Operating Plan (COP), the Qualified Scheduling Entity (QSE) responsible for the Resource shall also update the COP to provide the same information describing the Outage. Each TSP shall use reasonable efforts, consistent with Good Utility Practice, to continually update its Outage plan, including, but not limited to, submitting the actual start and end date and time for Planned Outages of Transmission Facilities in the Outage Scheduler by hour ending 0800 of the current Operating Day for all scheduled work completed prior to hour ending 0600 of the current Operating Day.

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| ***[NPRR857: Replace paragraph (1) above with the following upon system implementation:]***(1) Each Resource Entity shall use reasonable efforts, consistent with Good Utility Practice, to continually update its Outage plans for all Outages. All information submitted about Planned Outages, Maintenance Outages, or Rescheduled Outages must be submitted by the Resource Entity, TSP, or DCTO under this Section. If an Outage plan for a Resource is also applicable to the Current Operating Plan (COP), the Qualified Scheduling Entity (QSE) responsible for the Resource shall also update the COP to provide the same information describing the Outage. Each TSP and DCTO shall use reasonable efforts, consistent with Good Utility Practice, to continually update its Outage plan, including, but not limited to, submitting the actual start and end date and time for Planned Outages of Transmission Facilities in the Outage Scheduler by hour ending 0800 of the current Operating Day for all scheduled work completed prior to hour ending 0600 of the current Operating Day.  |

3.1.3.2 Resources

(1) Each Resource Entity shall provide to ERCOT a Planned Outage and Maintenance Outage plan for Generation Resources in an ERCOT-provided format for at least the next 12 months updated monthly. Planned Outage and Maintenance Outage plans must be updated as soon as practicable following any change. Updates, through an electronic interface as specified by ERCOT, must identify any changes to previously proposed Planned Outages or Maintenance Outages and any additional Planned Outages or Maintenance Outages.

(2) ERCOT shall report statistics monthly on how Resource Planned Outages compare with actual Resource Outages, and post those statistics to the MIS Secure Area.

3.1.6 Outages of Resources Other than Reliability Resources

(1) Resource Entities should submit a request for a Resource Planned Outage as far in advance of the planned start of the Outage as is practicable but no more than 60 months in advance.

(2) ERCOT shall approve or reject all requested Outage plans for a Resource other than a Reliability Resource submitted to ERCOT more than 45 days before the proposed start date of the Outage.

(a) ERCOT shall approve a requested Outage plan for a Resource other than a Reliability Resource if :

(i) The proposed approval would not cause the aggregate MW of Resource Outages to exceed the Maximum Daily Resource Planned Outage Capacity at any point during the duration of the proposed Resource Outage, taking into consideration all previously approved Resource Outages.(b) Notwithstanding any other provision of this Section, ERCOT shall approve a requested Outage plan for a nuclear Generation Resource.

(3) If a Resource Entity plans to start a Planned or Maintenance Outage within 45 days, and the Resource Entity has not previously submitted a Resource Outage plan for the Outage, then the Resource Entity must immediately notify ERCOT and include in its notice whether the Outage is a Maintenance (Level I, II, or III) Outage or Planned Outage. ERCOT’s response to this notification must comply with these requirements:

(a) ERCOT shall accept Levels I, II, and III Maintenance Outage plans, and ERCOT shall coordinate the Outages within the time frames specified in these Protocols.

(b) ERCOT shall approve Planned Outage plans, except that:

(i) ERCOT shall reject an Outage plan if the proposed Outage would cause the aggregate MW of Resource Outages to exceed the Maximum Daily Resource Planned Outage Capacity at any point during the duration of the proposed Outage; and

(ii) ERCOT shall reject an Outage plan if it will impair ERCOT’s ability to meet applicable reliability standards, taking into consideration all previously approved and accepted Outages, and other solutions cannot be exercised.

(c) ERCOT shall accept Maintenance Outage plans from a Qualifying Facility (QF) that result from the outage of the QF’s thermal host facility.

(4) The Resource Entity shall not begin a Planned Outage unless it has received approval of its proposed Outage plan.

(5) ERCOT shall accept Forced Outage plans.

3.1.6.1 Receipt of Resource Requests by ERCOT

(1) ERCOT shall acknowledge each request for approval of a Resource Planned Outage plan within two Business Hours of the receipt of the request. ERCOT may request additional information or seek clarification from the Resource Entity regarding the information submitted for a proposed Planned Outage or Maintenance Outage for Resource Facilities.

3.1.6.2 Resource Outage Plan

(1) Resource Outage plans shall include the following information:

(a) The primary and alternate phone number of the Resource Entity’s Single Point of Contact for Outage Coordination;

(b) The Resource identified by the name in the Network Operations Model;

(c) The net megawatts of capacity the Resource Entity anticipates will be available during the Outage (if any);

(d) The estimated start and finish dates for each Planned and Maintenance Outage;

(e) An estimate of the acceptable deviation in the Outage schedule (i.e., the earliest start date and the latest finish date for the Outage); and

(f) The nature of work to be performed during the Outage.

(2) When ERCOT accepts a Maintenance Outage, ERCOT shall coordinate the timing of the appropriate course of action within the Resource-specified timeframe. The QSE shall notify ERCOT of the Outage and coordinate the time.

3.1.6.4 Approval of Changes to a Resource Outage Plan

(1) A Resource Entity should request approval as soon as practicable from ERCOT for all changes to a previously approved Resource Outage plan.

(2) A Resource Entity must request approval from ERCOT for all changes to a previously approved Resource Planned Outage .

(a) ERCOT shall approve requests for changes to Resource Planned Outages and Maintenance Outages , except that:

(i) ERCOT shall reject a Resource Outage plan change request if the proposed approval would cause the aggregate MW of Resource Outages to exceed the Maximum Daily Resource Planned Outage Capacity at any point during the duration of the proposed Resource Outage; and

(ii) ERCOT shall reject a Resource Outage plan change request if the proposed approval will impair ERCOT’s ability to meet applicable reliability standards, taking into consideration all previously approved and accepted Outages.

(3) Following approval, where ERCOT determines that the Resource Outage plan is expected to result in a violation of an ERCOT reliability criterion or that may result in a cancellation of a Transmission Facilities Planned Outage, ERCOT may discuss such concerns with the Resource Entity or QSE in an attempt to reach a mutually agreeable resolution, including rescheduling the Outage in a manner agreeable to the Resource Entity.

(4) When the scheduled work is complete, any Resource may return from a Planned Outage in accordance with Section 3.1.6.11, Outage Returning Early. ERCOT shall accept this change and, in the event that a Transmission Facilities Outage was scheduled concurrently with the affected Resource(s) Outage, ERCOT shall coordinate between the TSP and the Resource Entity to schedule a time mutually agreeable to both parties for the Resource to be On-Line. If mutual agreement cannot be reached, then ERCOT shall decide, considering expected impact on ERCOT System security, future Outage plans, and participants.

3.1.6.6 Timelines for Response by ERCOT for Resource Planned Outages

(1) ERCOT shall approve or reject each request in accordance with the following table:

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| Amount of time between a request for approval of a Planned Outage and the scheduled start of the proposed Outage: | Maximum duration of a Planned Outage that may be approved with this lead time: | ERCOT shall approve or reject no later than:  |
| Three days | Seven days | ERCOT shall approve or reject by 1800 hours, two days before the start of the proposed Outage |
| Between four and eight days | Seven days | ERCOT shall approve or reject by 1800 hours, three days prior to the start of the proposed Outage |
| Between nine and 15 days | 15 days | ERCOT shall approve or reject four days before the start of the requested Outage |
| Between 16 and 45 days | 180 days | ERCOT shall approve or reject within five Business Days after submission.  |
| Greater than 45 days but less than 60 months | 180 days | ERCOT shall approve or reject within three Business Days after submission |
| Greater than 60 months | 180 days | ERCOT shall approve or reject within three Business Days once the Outage start dates are within the 60 month window |

(2) If circumstances prevent adherence to these timetables, ERCOT shall discuss the request status and reason for the delay of decision with the QSE and make reasonable attempts to mitigate the effect of the delay.

(3) The maximum duration of Planned Outages does not apply for Resource Outages under a Notification of Suspension of Operations pursuant to Section 3.14.1.1, Notification of Suspension of Operations.

3.1.6.7 Delay

(1) ERCOT may delay its approval or rejection of a proposed Planned Outage plan if the requesting Resource Entity has not submitted sufficient or complete information within the time frames set forth in this Section 3.1.6, Outages of Resources Other Than Reliability Resources. Review periods for Planned Outage consideration do not commence until sufficient and complete information is submitted to ERCOT as described in Section 3.1.6.2, Resource Outage Plan.

**3.1.6.8 Resource Outage Rejection Notice**

(1) If ERCOT rejects a request for a Planned Outage, ERCOT shall provide the QSE a written or electronic rejection notice that includes:

(a) Specific reasons causing the rejection; or

(b) Possible remedies or Resource schedule revisions, if any, that might mitigate the basis for rejection.

(2) ERCOT may reject a Planned Outage of Resource facilities only:

(a) To protect the reliability or security of the ERCOT System;

(b) Due to insufficient information regarding the Outage;

(c) Due to failure to comply with submittal process requirements, as specified in these Protocols;

(d) To stay within the Maximum Daily Resource Planned Outage Capacity; or

(e) As specified elsewhere in these Protocols.

(3) When multiple proposed Planned Outages or Maintenance Outages cause a known capacity conflict, ERCOT shall:

(a) Communicate with each QSE to see if the QSE will adjust its proposed Planned Outage schedule;

(b) Determine if each QSE will agree to an alternative Outage schedule; or

(c) Reject, in ERCOT’s sole discretion, one or more proposed Outages, considering order of receipt and impact to the ERCOT System.

**3.1.6.9 Withdrawal of Approval and Rescheduling of Approved Planned Outages of Resource Facilities**

(1) If ERCOT believes it cannot meet applicable reliability standards and has exercised all other reasonable options, and the delayed initiation of, or early termination of, one or more approved Resource Outages not addressed by Section 3.1.4.6, Outage Coordination of Potential Transmission Emergency Conditions, could resolve the situation, then ERCOT shall issue an Advance Action Notice (AAN) pursuant to Section 6.5.9.3.1.1, Advance Action Notice.

(a) The AAN shall describe the reliability problem, the date and time that the possible Emergency Condition would begin, the date and time that the possible Emergency Condition would end, and a summary of the actions ERCOT believes it might take, including, if applicable, the amount of capacity it would seek from an Outage Adjustment Evaluation (OAE) and OSAs. The AAN must state the time at which ERCOT will execute an OAE, if an OAE is deemed necessary.

(b) ERCOT shall issue the AAN a minimum of 24 hours prior to performing an OAE. Additionally, unless impracticable pursuant to paragraph (3)(f) below, the OAE should not be performed until eight Business Hours have elapsed following issuance of the AAN. ERCOT shall not issue an OSA under this Section unless it has first completed an OAE.

(c) Following the AAN, ERCOT may communicate with Market Participants about the reliability problem, however, ERCOT may not provide information about market conditions to a subset of Market Participants that is not generally available to all Market Participants.

(d) As conditions change, ERCOT shall, to the extent practicable, update the AAN in order to provide simultaneous notice to Market Participants.

(e) This section does not limit Transmission and/or Distribution Service Provider (TDSP) access to ERCOT data and communications.

(2) QSEs shall update their Resource COPs and the Outage Scheduler to the best of their ability before the time stated in the AAN when ERCOT will execute the OAE, to reflect any decisions to voluntarily delay or cancel any Outage prior to the OAE so as to remove the Outage from OAE and OSA consideration.

(3) If, after the planned OAE execution time has passed as noted in paragraph (1)(b) above, ERCOT continues to forecast an inability to meet applicable reliability standards after the updates to the Resource COPs and Outage Schedules, ERCOT may conduct an OAE and issue one or more OSAs.

(a) ERCOT may contact QSEs representing Resources to be included in the OAE for more information prior to conducting an OAE or issuing an OSA.

(b) ERCOT may not consider nuclear-powered Generation Resources for an OSA.

(c) Prior to the execution of an OAE, a QSE may notify ERCOT that a specific Resource cannot be considered in the OAE, for all or part of the period covered by the AAN, due to Resource reliability, compliance with contractual warranty obligations, or other reasons beyond the QSE’s control. ERCOT will not consider this Resource in the OAE.

(d) In order to determine which Outages to delay, ERCOT shall first consider the Outage duration, dividing the Outages in categories of zero to two days, two to four days, four to seven days, or more than seven days, then withdraw approval on a last in, first out basis within that duration category, so that shorter Outages are delayed first, and the timing of Outage submissions is considered within that category.

(e) ERCOT may only issue an OSA to the QSE for a Resource that has a COP Resource Status of OUT within the forecasted Emergency Condition described above in this section.

(f) If the Resource Outage for which the OSA would be issued is scheduled to begin before eight Business Hours have elapsed following issuance of the AAN, ERCOT may issue the OSA prior to the beginning of the Resource Outage after the end of the 24-hour notice period.

(g) Following the receipt of an OSA, during the OSA Period:

(i) The QSE for the Resource may choose to show the Resource as OFF in the COP or may elect to leave the Resource On-Line due to equipment or reliability concerns or if the Resource Category is coal or lignite. If the Resource remains On-Line, it must utilize a status of ONRUC.

(ii) If the Resource remains On-Line pursuant to paragraph (i) above, it must remain at Low Sustained Limit (LSL) unless deployed above LSL by Security-Constrained Economic Dispatch (SCED). In addition, the QSE must update the Resource’s Energy Offer Curve to $4,500 for all MWs above LSL.

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| ***[NPRR930: Replace paragraph (ii) above with the following upon system implementation:]***(ii) If the Resource remains On-Line pursuant to paragraph (i) above, it must remain at Low Sustained Limit (LSL) unless deployed above LSL by Security-Constrained Economic Dispatch (SCED).  |

(iii) If the Resource chooses to show the Resource as OFF in the COP, the Resource may not be self-committed during the OSA Period and shall only be available for commitment by Reliability Unit Commitment.

(4) ERCOT shall work in good faith with the QSEs to reschedule any delayed or canceled Outages resulting from an AAN under paragraph (1) above, regardless of whether the Resource took voluntary actions or received an OSA. The Outage must be rescheduled so that it is completed within 120 days of the end of the OSA Period.

(a) If ERCOT issues an OSA, the QSE may submit a new request for approval of the Planned Outage schedule, however the new Outage may not begin prior to the end time of the OSA Period. ERCOT must approve the Outage even if it would cause the aggregate MW of all previously approved Outages to exceed the Maximum Daily Resource Planned Outage Capacity.

(b) If a transmission Outage was scheduled in coordination with a Resource Outage that is delayed, ERCOT shall also delay that transmission Outage when necessary.

(5) If insufficient capacity to meet the need described in the AAN is made available through the processes described in paragraphs (2) and (3) above, ERCOT may contact QSEs having Resources with a Resource Status of OUT in the most recently submitted COP to determine if it is feasible for the Outage of those Resources to be ended by the time of the possible Emergency Condition described in the AAN. ERCOT may issue an OSA to the QSE for any Resource that the QSE agrees can feasibly be returned to service during the period of the possible Emergency Condition described in the AAN.

(6) If system conditions change such that the need described in the AAN increases, ERCOT shall update the AAN and may repeat the process described in this section. For any subsequent iterations of this process, ERCOT shall issue the updated AAN with as much lead time as is practical prior to starting any subsequent OAE, but with a minimum of two hours’ notice.

(7) ERCOT must perform a planning assessment to determine whether to issue an AAN or OSA. The planning assessment may not assume total renewable production lower than the sum of the selected Wind-powered Generation Resource Production Potential (WGRPP) and PhotoVoltaic Generation Resource Production Potential (PVGRPP) forecasts for each hour less any reasonably expected severe weather impacts. The available capacity in ERCOT’s planning assessment must include targeted reserve levels and include forecasted capacity available through DC Tie imports or curtailment of DC Tie exports, forecasted capacity provided from Settlement Only Distributed Generators (SODGs) and Settlement Only Transmission Generators (SOTGs), and forecasted capacity from price-responsive Demand based on information reported to ERCOT in accordance with Section 3.10.7.2.1, Reporting of Demand Response. ERCOT must post the following inputs of the planning assessment to the ERCOT website within an hour of issuing an AAN, including but not limited to:

(a) The Load forecast;

(b) Load forecast vendor selection;

(c) Wind forecast;

(d) Wind forecast vendor selection;

(e) Solar forecast;

(f) Solar forecast vendor selection;

(g) Expected severe weather impacts forecast;

(h) Targeted reserve levels;

(i) DC Tie import forecast;

(j) DC Tie export curtailment forecast;

(k) SODG and SOTG forecasts;

(l) The forecast of capacity provided by price-responsive Demand;

(m) Any aggregate derating of Resource(s) and/or Forced Outage assumptions in total MWs; and

(n) Any aggregate fuel derating assumptions in total MWs.

(8) Notwithstanding anything in this Section, ERCOT need not comply with any other requirement in this Section if the occurrence of an unforeseen Real-Time condition requires that ERCOT withdraw approval of one or more Resource Outages in order to meet applicable reliability standards. The unforeseen Real-Time condition cannot be the result of changes that Ancillary Services are procured to address. In exercising its discretion under this paragraph, ERCOT is not required to issue an AAN or OAE before issuing an OSA, but shall:

(a) Issue the OSA to the QSE of the Resource for the purpose of make whole compensation; and

(b) Present the justification for the out of market action to the Technical Advisory Committee (TAC) at its next meeting that is at least 14 Business Days after the OSA.

3.1.6.10 Opportunity Outage

(1) Opportunity Outages for Resources are a special category of Planned Outages that may be approved by ERCOT when a specific Resource has been forced Off-Line due to a Forced Outage and the Resource has been previously approved for a Planned Outage during the next two days.

(2) When a Forced Outage occurs on a Resource that has an approved Outage scheduled within the following two days, the Resource may remain Off-Line and start the approved Outage earlier than scheduled. The QSE must give as much notice as practicable to ERCOT.

(3) Opportunity Outages of Transmission Facilities may be approved by ERCOT when a specific Resource is Off-Line due to a Forced, Planned or Maintenance Outage. A TSP may request an Opportunity Outage at any time.

(4) When an Outage occurs on a Resource that has an approved Transmission Facilities Opportunity Outage request on file, the TSP may start the approved Outage as soon as practical after receiving authorization to proceed by ERCOT. ERCOT must give as much notice as practicable to the TSP.

3.1.6.13 Maximum Daily Resource Planned Outage Capacity

(1) ERCOT shall calculate a maximum capacity of Resource Planned Outages that should be allowed on each day of the next 60 months.

(a) For days more than seven days ahead of the Operating Day, the calculation of this Maximum Daily Resource Planned Outage Capacity will be based on seasonal assumptions, planned Resource interconnections consistent with Section 3.2.6.2.2, Total Capacity Estimate, Planned Outages of nuclear Generation Resources, and the long-term Load forecast. ERCOT shall update the calculation of the Maximum Daily Resource Planned Outage Capacity for the next 60 months at least twice per month.

(i) The Maximum Daily Resource Planned Outage Capacity shall be determined based on the following equation:

 **MDRPOC *d ,m, s, i*  = TOTCAP *s*, *i + LO*WINDADJ *d, m, s, r* + LOSOLARADJ *d, m, s* – FOMOADJ *d, m, s* – NUCOUT *d, m, s, i* – EXPASREQ *d, m, s, i* – FIRMPKLD *d, m, s, i***

The above variables are defined as follows:

| Variable | Unit | Definition |
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| MDRPOC *d, m, s, i* | MW | *Maximum Daily Resource Planned Outage Capacity*—ERCOT’s calculated maximum daily Planned Outage allowance for Operating Day *d* in month *m* of Peak Load Season *s* for year *i*. |
| TOTCAP *s, i* | MW | *Total Capacity*—Estimated total capacity available during Peak Load Season *s* for the year *i*, as calculated consistent with the methodology in Section 3.2.6.2.2 for Peak Load Seasons *s.* |
| LOWINDADJ *d, m, s* | MW | *Low Wind Output Adjustment*—The difference between the average WGR capacity calculated consistent with the methodology in Section 3.2.6.2.2 for Peak Load Season *s* for each Operating Day *d* in a given month *m* to account for the lowest average capacity observed from WGRs during the 20 highest system-wide net peak Load hours for a given Season *s* and month *m*.  |
| LOSOLARADJ *d, m, s* | MW | *Low Solar Output Adjustment*—The difference between the average Solar capacity calculated consistent with the methodology in Section 3.2.6.2.2 for Peak Load Season *s* for each Operating Day *d* in a given month *m* to account for the lowest average capacity observed from solar Resources during the 20 highest system-wide net peak Load hours for a given Season *s* and month *m*. |
| FOMOADJ *d, m, s* | MW | *Forced Outage and Maintenance Outage Adjustment*—The average unplanned Outages for generating capacity other than Private Use Networks and Intermittent Renewable Resources (IRRs) in Peak Load Season *s* for each Operating Day *d* in a given month *m*, reflecting the average of the most recent 3 years of available data for month *m*.  |
| NUCOUT *d, m, s, i* | MW | *Planned Nuclear Outages*—Nuclear Planned Outages for Operating Day *d* in month *m* of Season *s* for year *i*. |
| EXPASREQ *d, m, s, i* | MW | *Expected Ancillary Service Requirement*—ERCOT’s projected daily Ancillary Service capacity needs for Operating Day *d* in month *m* of Peak Load Season *s* for year *i*. |
| FIRMPKLD *d, m, s, i* | MW | *Firm Peak Load Estimate*—ERCOT’s Firm Peak Load Estimate for the Operating Day *d* in month *m* of Peak Load Season *s* for the year *i*, calculated consistent with the methodology in Section 3.2.6.2.1*.* |
| *i* | None | Year. |
| *s* | None | Peak Load Season. |
| *m* | None | Month. |
| *d* | None | The Operating Day. |

(b) For days that are seven days or less prior to the Operating Day, the calculation of this Maximum Daily Resource Planned Outage Capacity will be based on the inputs used for the planning assessment for an Outage Adjustment Evaluation described in Section 3.1.6.9, Withdrawal of Approval and Rescheduling of Approved Planned Outages of Resource Facilities. ERCOT shall update the calculation of the Maximum Daily Resource Planned Outage Capacity for each hour of the next seven days on a rolling daily basis.

(i) The Maximum Daily Resource Planned Outage Capacity shall be determined based on the following equation:

 **MDRPOC *d , s*  = TOTCAP *s +* LOWINDADJ *d, s* + LOSOLARADJ *d, s* + DCTIEADJ *d* - FOMOADJ *d* - POADJ *d* - EXPASREQ *d* – FIRMPKLD *d***

The above variables are defined as follows:

| Variable | Unit | Definition |
| --- | --- | --- |
| MDRPOC *d, s* | MW | *Maximum Daily Resource Planned Outage Capacity*—ERCOT’s calculated maximum daily Planned Outage allowance for each Operating Day *d* of the next seven days for the current Peak Load Season *s*. |
| TOTCAP *s* | MW | *Total Capacity*—Estimated total capacity available during the current Peak Load Season *s*, as calculated consistent with the methodology in Section 3.2.6.2.2*.* |
| LOWINDADJ *d, s* | MW | *Low Wind Output Adjustment*—The difference between the average WGR capacity calculated consistent with the methodology in Section 3.2.6.2.2 for the current Season *s* and ERCOT’s lowest wind forecast for each Operating Day *d* in the next seven days.  |
| LOSOLARADJ *d, s* | MW | *Low Solar Output Adjustment*—The difference between the average Solar capacity calculated consistent with the methodology in Section 3.2.6.2.2 for the current Seasons *s* and ERCOT’s lowest solar forecast for each Operating Day *d* in the next seven days. |
| DCTIEADJ *d, s* | MW | *DC Tie Adjustment*—The difference between the DC Tie capacity calculated consistent with the methodology in Section 3.2.6.2.2 for the current Seasons *s* and ERCOT’s current DC Tie schedule for each Operating Day *d* in the next seven days. |
| FOMOADJ *d* | MW | *Forced Outage and Maintenance Outage Adjustment*—The unplanned outages for generating capacity other than PUNs and IRRs reflected in the Outage Scheduler for each Operating Day *d* in the next seven days.  |
| POADJ *d* | MW | *Planned Outages*—Planned Outages, excluding those for Private Use Networks for IRRs, for each Operating Day *d* in the next seven days. |
| EXPASREQ *d* | MW | *Expected Ancillary Service Requirement*—ERCOT’s projected daily Ancillary Service capacity needs for each Operating Day *d* in the next seven days. |
| FIRMPKLD *d* | MW | *Firm Peak Load Estimate*—ERCOT’s Firm Peak Load Estimate for each Operating Day *d* in the next seven days, calculated consistent with the methodology in Section 3.2.6.2.1*.* |
| *s* | None | Peak Load Season. |
| *d* | None | The Operating Day. |

(c) ERCOT shall post the Maximum Daily Resource Planned Outage Capacity and aggregate MW of approved Resource Planned Outages at least twice per day on the ERCOT website for each day of the next 60 months.

(d) ERCOT shall post the Maximum Daily Resource Planned Outage Capacity and aggregate MW of approved Resource Planned Outages hourly on the ERCOT website for each hour of the next seven days.

(e) For the period of March 1st through May 15th, the Maximum Daily Resource Planned Outage Capacity cannot be below 15,000 MW. For the period of October 1st through November 30th, the Maximum Daily Resource Planned Outage Capacity cannot be below 10,000 MW.

|  |
| --- |
|  |

 (2) Except as limited in paragraph (1)(e) above, ERCOT may adjust the Maximum Daily Resource Planned Outage Capacity if, at any point in time, the actual aggregate Forced Outages and Maintenance Outages exceed the amount that is used in the assessment of the Maximum Daily Resource Planned Outage Capacity.

(3) ERCOT shall calculate and publish monthly totals of Maximum Daily Resource Planned Outage Capacity and aggregate MW of approved Resource Planned Outages on the ERCOT website.

3.1.7 Reliability Resource Outages

(1) ERCOT shall evaluate requests for approval of an Outage of a Reliability Resource to determine if any one or a combination of proposed Outages may cause ERCOT to violate applicable reliability standards or exceed the Maximum Daily Resource Planned Outage Capacity. ERCOT’s evaluations shall take into consideration factors including the following:

(a) Load forecast;

(b) All other known Outages; and

(c) Potential for the proposed Outages to cause irresolvable transmission overloads or voltage supply concerns based on the indications from contingency analysis software.

3.1.7.1 Timelines for Response by ERCOT on Reliability Resource Outages

(1) ERCOT shall approve requests for Planned Outages of Reliability Resources unless, in ERCOT’s determination, the requested Planned Outage would cause ERCOT to violate applicable reliability standards or exceed the Maximum Daily Resource Planned Outage Capacity. ERCOT shall approve or reject each request in accordance with the following table:

|  |  |
| --- | --- |
| Amount of time between a Request for approval of a proposed Planned Outage and the scheduled start date of the proposed Outage: | ERCOT shall approve or reject no later than: |
| No less than 30 days | 15 days before the start of the proposed Outage |
| Greater than 45 days | 30 days before the start of the proposed Outage |

(2) ERCOT shall approve requests for Outages, other than Forced Outages or Level I Maintenance Outages, of Reliability Resources unless, in ERCOT’s determination, the requested Outage would cause ERCOT to violate applicable reliability standards or exceed the Maximum Daily Resource Planned Outage Capacity. ERCOT shall approve or reject Maintenance Outages on Reliability Resources as follows:

|  |  |
| --- | --- |
| Amount of time between a Request for approval of a proposed Outage and the scheduled start date of the proposed Outage: | ERCOT shall approve or reject no later than: |
| Between three and eight days | 0000 hours, two days before the start of the proposed Outage |
| Between nine and 30 days  | Four days before the start of the proposed Outage |

(3) ERCOT shall not be deemed to have approved the Outage request associated with the Planned Outage until ERCOT notifies the Single Point of Contact of its approval. ERCOT shall transmit approvals electronically.

(4) ERCOT, at its sole discretion, may relax the submission timing requirements in this section.