**Definitions:**

* **High Impact Outage**: a Planned Outage that has had a significant economic impact in the past.
* **Potential High Impact Outage**: an Outage that is identified through the Historical High Impact Outage List, 90 Day Outage Screening Criteria or identified via the Outage Coordination/Economic Evaluation process past the 90 day timeline to have an economic impact.
* **Historical High Impact Outage List**: ERCOT produced list of outages known to have an economic impact that will be reviewed monthly/quarterly by *a potential working group*
* **Potential High Impact Outage List**: List of outages that will be posted if they are submitted after the 90 day timeline and are found to have an economic impact and are not coordinated by the submitter to mitigate the economic impact.
* **90 Day Outage Screening Criteria**: Criteria defined by ERCOT and reviewed by *a potential working group* that defines what kind of outages may be identified as Potential high Impact Outages. Criteria may include characteristics such as Weather Zone/Load Zone, Equipment Type, Voltage Level, Outage Length
* **LODF**: Line Outage Distribution Factor

**Purpose & Scope**

The purpose of the OCITF is

* to evaluate whether ERCOT should consider the economic impact of outages on the market when determining whether specific outages should be approved,
* to determine the applicability and criteria that would be used for any such consideration,
* to develop guidance on range of mitigation processes that should be used to minimize the impacts from high economic impact outages while maintaining reliability,
* to evaluate whether ERCOT should increase the visibility of potential high impact outages, and
* to recommend Protocol changes necessary to implement these findings.

The OCITF’s scope of work should include consideration of the following issues:

1. What are ERCOT’s current activities and procedures regarding outages that are perceived to have a high economic impact?

* High Cost Outages are subjectively determined by the amount of generation that needs to be changed from the historical generation pattern used for the analysis in order to resolve reliability violations.
* Once a High Cost Outage is identified, a Market Impact Notice is sent to the scheduling TSP with the following questions:
  + A statement of why the work is required.
  + Is there a switching solution to reduce market impact?
  + A statement of what has been done to reduce the length of Outage.
  + Are you working extended hours? If not, can you submit it daily?
  + Is this outage scheduled during a reduced load season? If not, please explain the reason.
  + Can the outage be scheduled during a resource outage that would reduce market impact?
* TSPs, in coordination with ERCOT, answer these questions and identify any opportunities for modifying the outage to minimize the market impact of the outage.
* TSPs, at their discretion, may modify the outage to mitigate any market impact.

1. How should the outage coordination process be enhanced to better encourage submission of outages with potential high economic impact far enough in advance to allow consideration in CRR model?

* Preliminary concern (collected from the 4/10/15 meeting)
  + static LODF (possibility of recognizing trapped generation),
  + base line loading (“pre-loading”) in the LODF analysis,
  + expansive tentative scheduling taking too much time in a season,
  + bilateral coordination by TSPs (ERCOT cannot referee but could inform),
  + full study at 100+ days rather than automated response (ERCOT FTE impact),
  + accounting for new facilities not yet in the model, need for “wiggle room” in final outages,
  + auto-rejects likely to occur for projects most needed (possibility of ERCOT manual override), maybe retain place in line for rejected Tentative Outages
  + minimum timeline of 100+ days for Tentative Outage
  + certainty of clearance/restore criteria (line out/segmented/hot construction methodology)
  + label 90+ day outages (“long-term outage”) and permit ERCOT and TSP to agree to move them within a calendar month (rather than cancel/withdraw approval, which leaves no footprint)(may be used for TDSP and Resource as an alternative to NPRR 685)
  + linked/related outage treatment (if one outage moves, it affects others in the chain)
* Tentative Outages *(new idea that may need to be discussed at a later date)*
  + A new class of Transmission outages called “Tentative” would be available for submission.
    - Tentative Outages would be accepted after an automated screening process that uses static outage sensitivity factors. Tentative Outage submitters would receive conditional approval or rejection at the time of the submission.
    - Tentative outages would have to be submitted with more than 100 days’ notice.
    - Tentative Outages would be eligible for conversion by the submitter to a Planned Outage at least 90 days before the Planned Start
      * Tentative Outages not converted by the submitter would be removed from the system.
    - The original submission date of the Tentative Outage would carry over to the Planned Outage.
    - The new Planned Outage Planned Start and Planned End would be required to be within the Planned Start and Planned End of the Tentative Outage.
    - New Tentative Outage report will be included in the MIS but not included in any long-term CRR auctions.
    - Tentative Outages will not receive formal approval until they are converted into a Planned Outage. After which they will be evaluated in the normal timeline.
    - Tentative Outages will not be considered for CRR models unless they are converted to a Planned Outage and approved before the Auction model is built.
  + Planned Outages will still be able to be submitted with more than 90 days’ notice, but will not be subject to the automated screening process planned for Tentative Outages.
* Any planned transmission outage that is submitted > 90 days will be evaluated using the existing Outage Coordination process and if approved will be scheduled and given priority relative to planned resource outages that are submitted < 90 days in advance and transmission planned outages that are submitted with less notice.
  + Priority in coordination will be given to outages with the most notice.
  + If there is a reliability concern, ERCOT may reject, withdraw approval, or ask for any outage to be rescheduled at any time.
* Planned Resource outages submitted > 90 days in advance are still automatically approved.
* Planned Resource outages submitted < 90 days in advance would be subject to rejection if they conflict with transmission outages submitted > 90 days in advance.
* Any planned outage of a facility that satisfies any of the following must be submitted > 90 days from the planned start date of the outage.
  + Historic High Impact Outage List, and
  + 90 Day Outage Screening Criteria (to be determined by OCITF)
    1. Weather Zone/Load Zone
    2. Equipment Type
    3. Voltage Level
    4. Outage Length
       - Opportunity Outages of facilities that meet the above criterion. *(The expanded usage of Opportunity Outages may need to be discussed further)*
  + This criteria set will be posted publicly on the MIS for MP review.
    1. ERCOT may make changes to the OS so that planned outages that meet this criteria will be flagged to the TSP during the planning process, or
    2. ERCOT may make changes to the OS so that any outage that meets the “Significant Outage” criteria will automatically be rejected if submitted < 90 days from its planned start date.
  + This criteria set will be determined by ERCOT on a monthly/quarterly basis and subject to review by *some working group.*
* Any planned outage that is submitted < 90 days will be subject to the existing ERCOT reliability-based process, as well as an economic evaluation process.
  + If ERCOT finds that the outage may have a significant economic impact, it will coordinate with the MP to minimize the economic impact. ERCOT proposes the adoption of one of the following three options:
    1. If ERCOT identifies a Potential High Impact Outage, and the MP is not able to coordinate the outage to minimize economic impact or move it outside the 90 day window, ERCOT will test for reliability and then post the outage to the MIS on a “Potential High Impact Outage List” if it can be taken with no reliability problems.
    2. If ERCOT identifies a Potential High Impact Outage, and the MP is not able to coordinate the outage to minimize economic impact or move it outside the 90 day window, ERCOT will test for reliability and then estimate the cost of the outage. If the outage exceeds the economic criteria, ERCOT will post the outage to the MIS on a “Potential High Impact Outage List” if it can be taken with no reliability problems.
    3. If ERCOT identifies a Potential High Impact Outage, and the MP is not able to coordinate the outage to minimize economic impact or move it outside the 90 day window, ERCOT will estimate the cost of the outage. If the outage exceeds the economic criteria, ERCOT will reject the outage. Outages below the economic threshold will be evaluated using only the reliability criteria.
    4. If ERCOT identifies a Potential High Impact Outage, and the MP is not able to coordinate the outage to minimize economic impact or move it outside the 90 day window, ERCOT will evaluate the outage against the 90-Day Outage Screening Criteria. If the outage meets the criteria, ERCOT will reject the outage. Outages below the economic threshold will be evaluated using only the reliability criteria.
  + ERCOT will not reject any MP submitted planned outage for an economic reason under Options 1 or 2.
  + Any planned outage that conflicts with an outage submitted outside the 90 day timeline may be rejected if coordination efforts fail.
* Any resource outage that is submitted > 90 days is automatically accepted 5 days after the submittal. This will give ERCOT enough time to coordinate the outage to mitigate any reliability concerns (no change).

1. What process should ERCOT use for the economic assessment of an outage?

* See discussion under question 2

1. Should the (economic) process include all Planned Outages, or only those that occur on a previously defined set of Transmission Elements?
   * The economic evaluation process may include any planned outage for analysis purposes under Options 2 and 3. Option 1 would use a previously defined set of factors, such as whether a TOAP is needed to meet reliability during the outage or whether the outage is dependent on specific generators being operational.
   1. What criteria should be used for this economic assessment? (production cost, congestion cost, consumer impact)
   * In Options 2 and 3, ERCOT will use Congestion Rent as the criteria for economic evaluation.
     1. Should the criteria specify a threshold?

* ERCOT will develop threshold using total Congestion Rent.
  + Low millions per day. (i.e. $2,000,000/day)
  1. What factors should be considered in this assessment (dispatch costs, rescheduling costs incurred by those scheduling outages, risk of future delays, coordination of generation and transmission outages)?
  + Only the Congestion Rent attributed to the outage will be used in Options 2 and 3. However, the threshold should be set high enough to exceed costs of moving/deferring outages. Difficulties in rescheduling and other coordination complexities will be qualitatively factored into the decision.
  1. What Planned Outages should be included in this process?
     1. Should this include both transmission and generation outages?
     + Yes, all outages will be included in the analysis. Only Transmission outages will be subject to posting or rejection for economic reasons.
     1. Assuming that only a subset of all outages in the categories defined above can be or need to be evaluated for their economic impact, what criteria should be used to screen outages in these categories for the full economic assessment?
     + This assumption would utilize the approach outlined in Option 1. ERCOT will work with the OCITF to determine the criteria used.
     1. Should the evaluation include all Planned Outages, or only those that are submitted with fewer than a set number days’ notice (e.g. 90 days)?
     + All outages are included in the evaluation. Only planned transmission outages that are submitted < 90 days will be subject the analysis discussed in Options 1-3.

1. When ERCOT identifies an outage that may have a high economic impact, what steps should ERCOT take to mitigate the impact?

* With all the possible options, ERCOT will first attempt to coordinate with the MP to mitigate the economic impact of the outage. This effort may include suggesting changes to the outage, suggesting a new time to take the outage, or additional mitigation options.
  1. How much discretion should ERCOT have to require a Planned Outage to be modified or rescheduled?
  + ERCOT will have the same level discretion it has today when reliability is concerned.
  + If the outage is submitted with >90 days’ notice, ERCOT will coordinate to minimize congestion and reliability risks.
  + If the outage is submitted < 90 days, ERCOT will use one of the suggested options.
  + What mitigation steps are acceptable for reducing/minimizing the impacts of high economic impact outages, recognizing that the work requiring the outage has to be done at some point?
    1. If the outage is submitted >90 days, ERCOT will coordinate to minimize congestion and reliability risks. Rejection of an outage will only be for reliability reasons.
    2. If the outage is submitted < 90 days, ERCOT will coordinate with the MP to mitigate the economic impact of the outage according to one of the three options. This could potentially include rejection of the outage for economic reasons in Option 3.
  1. Can constraint management plans be utilized for predicted congestion?
  + Yes. This will be one of the criteria to determine whether or not an outage is a High Impact Outage.

1. Once scheduled, what measures should be put in place to protect the integrity of the outage dates for high impact outages?

* If the outage is submitted > 90 days, then the outage will be subject to the existing Outage Coordination process and, if approved, scheduled and protected from any outages submitted after it.

1. What process should ERCOT employ for outages that have been rejected or for which approval has been withdrawn?

* No change.

1. Are there changes to the CRR model creation process that would allow fuller hedging of high economic impact outages?

* No.

1. What systems and staff are needed by ERCOT and Market Participants to accomplish the processes and analyses identified in the Task Force report?

* Once the final rules are determined ERCOT will perform an IA.

1. What reporting metrics need to be put in place to measure the effectiveness of any recommended changes or improvements?

* Historical High Impact Outage List
* 90 Day Outage Screening Criteria (to be determined by OCITF)
* Outage Related Congestion Report
* Potential High Impact Outage List

1. Can the 12-month rolling outage requirement be implemented more effectively?

* Yes, by providing incentives for MPs to provide a long term outage schedule.

The OCITF should prepare a report of its findings and recommended Protocol and Guide changes for ROS. The report shall recommend whether the OCITF should be continued as an on-going Working Group to draft Market rule revisions or to be discontinued. The OCITF should report its progress to ROS as required and to report to WMS as requested.