

Revisions noted below in red document the preferred path forward per the July 2015 OC survey

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7.5 Cold Weather Generation Resource Preparation

Welcome to the Cold Weather Generation Resource Preparation section of the PJM Manual for Generator Operational Requirements. In this section you will find the following information:

1. Description of the Generation Resource Operational Exercise.
2. Usage of the Generation Resource Cold Weather Checklist.

7.5.1 Generation Resource Operational Exercise

In preparation for winter operations, PJM will request that generation resource owners/operators (“resource owner”) exercise some of their generation resources to determine whether they are capable of reliably operating and responding to PJM’s dispatch instructions. This exercise will be conducted prior to the onset of cold weather to assist in identifying and correcting start-up, operational, and fuel switching (if applicable) problems. Alternatively, a generation resource owner may elect to self-schedule a resource to validate its cold weather operation.

Prior to November 1 of each year and on a two week rolling basis through mid-December as described below, PJM will compile a list of generation resources eligible to participate in the exercise. Generation resources will initially be eligible if they have not been operated by PJM or the resource owner on either the generation resource’s primary fuel, alternate fuel, or both for eight weeks or more prior to November 1. Eligibility will be reviewed and a revised list will be compiled every two weeks through mid-December. PJM will provide the list to the generation resource owner’s representative (PJM Operating Committee representative, PJM System Operations Subcommittee Representative or its designee) by November 10. By November 20 or the first business day thereafter of each year, the generation resource owner will provide PJM the list of generation resources that the owner wants to exercise, and the following information, in order to qualify to participate in the exercise:

1. The preferred and alternate dates and, times, and the fuel that the generation resource owner is willing to operate the generation resource on within the month of December; and,
2. The minimum MW and minimum run time to be used during the exercise. (Note: If the minimum MW or minimum run time submitted by the generation resource owner is different than the eMKT applicable parameter(s) the generation resource owner must include a justification for the difference.)

If a generation resource is initially determined to be eligible by PJM as of October 31, but subsequently operates between November 1 and the date the generation resource is scheduled to participate in the exercise, the generation resource will no longer be eligible to participate. PJM will review on a two week rolling basis the operation of generation resources and if a generation resource has not operated within the most recent eight week period PJM may add that generation resource to the eligibility list and inform the generation resource owner to determine if the generation resource should be included in the exercise. Generation resources such as nuclear powered, wind turbines, hydro powered, and large super critical steam generation resources would normally be excluded from this exercise since these types of generation resources are expected to be operating during the winter season prior to an extreme winter event, and normally would not be inactive after November 1.

PJM will only schedule generation resources if they will be operating on their cost-based schedules for the duration of the exercise. For that reason, generation resources that expect to operate economically in the month of December will be excluded from the list of resources that can participate in the exercise.

For multiple CT combined cycle units that are modeled as one unit in eMKT and intend to exercise one CT on the alternate fuel while operating the remaining CT(s) on the primary fuel, the cost based offer to be made available in eMKT should reflect the average cost of the primary and alternate fuels during the period of the exercise. When the exercise is complete, the generation resource owner should notify the PJM Dispatcher to enable the unit to return to the normal offer data.

Within the month of December, PJM will notify the generation resource owner in advance by 1000 EPT the day prior that a generation resource the owner has selected will be scheduled to operate for the next day. An informational eDART ticket should be submitted by the generation resource owner documenting that the generation resource has been scheduled to operate under the cold weather operational exercise.

If the projected temperature in the Transmission Zone in which the generation resource is located is above 35 degrees Fahrenheit on the day the generation resource is scheduled to exercise, PJM may elect to cancel the operation of the generation resource. In such case, the generation resource owner has the option to self-schedule the generation resource if desired.

PJM will track and analyze generation resource performance as a result of this exercise and compare it with historical GADS data to gauge the effectiveness of this exercise and make recommendations for any potential changes to the exercise.

On a day-ahead basis, PJM will post the total amount of generation scheduled hourly to operate under this exercise. The total MW of generation expected to be included daily in this exercise will not be greater than approximately 1000 MW.

PJM has established a special email address (mailto:coldweathergenprep@pjm.com) to correspond with the generation resource owner's designated representatives participating in this exercise.

Summary of Actions:

PJM Actions:

1. Prior to November 1 of each year, PJM will compile a list of generation resources eligible to participate in the exercise.
2. PJM will provide the list to the generation resource owner's representative (PJM Operating Committee representative, PJM System Operations Subcommittee Representative or its designee) by November 10.
3. PJM will review on a two week rolling basis through mid-December the operation of generation resources and if a generation resource has not operated within the most recent eight week period PJM may add that generation resource to the eligibility list and inform the generation resource owner to determine if the generation resource should be included in the exercise.
4. PJM will only schedule generation resources if they will be operating on their cost-based schedules for the duration of the exercise.
5. Within the month of December, PJM will notify the generation resource owner in advance by 1000 EPT the day prior that a generation resource the owner has selected will be scheduled to operate for the next day.

6. If the projected temperature in the Transmission Zone in which the generation resource is located is above 35 degrees Fahrenheit on the day the generation resource is scheduled to exercise, PJM may elect to cancel the operation of the generation resource.
7. PJM will track and analyze generation resource performance as a result of this exercise and compare it with historical GADS data to gauge the effectiveness of this exercise and make recommendations for any potential changes to the exercise.
8. On a day-ahead basis, PJM will post the total amount of generation scheduled hourly to operate under this exercise.
9. PJM will limit the daily amount of generation exercised to no more than 1,000 mw each day. PJM will prioritize the list based on factors such as last operation date; past winter performance; and fuel selection.

PJM Member Actions:

1. By November 20 or the first business day thereafter of each year, the generation resource owner will provide PJM the list of generation resources that the owner wants to exercise, and the following information, in order to qualify to participate in the exercise:
 - a. The preferred and alternate dates and times, and fuel that the generation resource owner is willing to operate the generation resource on within the month of December; and,
 - b. The minimum MW and minimum run time to be used during the exercise. (Note: If the minimum MW or minimum run time submitted by the generation resource owner is different than the eMKT applicable parameter(s) the generation resource owner must include a justification for the difference.)
2. An informational eDART ticket should be submitted by the generation resource owner documenting that the generation resource has been scheduled to operate under the cold weather operational exercise.
3. The generation resource owner has the option to self-schedule the generation resource if desired.
- ~~3.4.~~ Within five working days following the exercise, the generation resource owner shall report via a form provided by PJM, the results of the exercise and any problems encountered.

7.5.2 Generation Resource Cold Weather Checklist

Attachment N of Manual M14D contains the PJM generation resource Cold Weather Preparation Guideline and Checklist. This Checklist, or a similar one developed and maintained by the generation resource owner, should be used annually prior to the winter season to prepare its generation resources for extreme cold weather event operation. Prior to December 15th of each year, the generation resource owner's Operating Committee (OC)-representative or designee shall report-verify via eDART to the OC chair via email that the represented generation resources have completed the items on the checklist, or a

substantially equivalent one developed by the generation owner. ~~The OC representative or designee shall include a list of resources that are included in his or her representation and may also include a signed copy of the checklist used by the generation resource owner.~~