

Drill Date(s)	April 7 – April 8, 2021
Alternate Date(s)	April 14 – April 15, 2021
Key Pre-Drill Date(s)	April 6, 2021 (Pre-Drill Meeting WebEx & Communications Testing)
Drill Summary	<p><u>General Information:</u></p> <p>PJM will conduct a two day East Restoration Drill, commencing on Wednesday, April 7, 2021 at 0800 hours EPT. Drill activities will be suspended at 1400 hours EPT on April 7 and resume at 0800 hours EPT Thursday, April 8. The drill will finish at 1300 hours EPT on April 8.</p> <p>The East Restoration Drill provides an opportunity for all applicable entities to comply with the various NERC Standards and requirements.</p> <p>In this exercise, PJM will have experienced a large system disturbance and the vast majority of the footprint will be blacked out. This year’s drill will assume all facilities are available unless requested by the TOs to be unavailable as part of their injects.</p> <p>PJM will utilize its OTS during the drill. A full complement of PJM system operators will participate in the training exercise. Detailed documentation of the restoration procedures, as well as black start generating units performing intended functions, will be logged and archived.</p> <p><u>PJM Drill Responsibilities:</u></p> <ol style="list-style-type: none"> 1. Coordinate activities with all participating Transmission Owners. Generation Operators are required to participate if they have assets listed in the Transmission Owner’s Restoration Plan. PJM will collect system status information and provide restoration status updates to participating members. 2. Be proactive in identifying opportunities to assist the Transmission Owners in the restoration process. 3. Direct the restoration of ALL available 765 / 500kV transmission facilities that had been interrupted by the end of the drill, provided an appropriate amount of load and generation had also been restored. 4. Facilitate all interactions and schedules with outside pools / control areas. 5. Coordinate the restoration process with fuel-limited, unavailable generation and / or possibly damaged transmission equipment. 6. Assume frequency control when appropriate. 7. Calculate an ACE, and return to a centrally coordinated or normal operation when appropriate. <p><u>Transmission Owner Expectations:</u></p> <ol style="list-style-type: none"> 1. Each Transmission Owner is required to confirm with PJM that they will start the drill from a total blackout. 2. Transmission Owners may request injects that will be used as part of the drill scenario. These must be submitted to PJM by March 26, 2021.

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<p>Drill Summary Cont.</p>	<ol style="list-style-type: none"> 3. Correct and report any restoration plan deficiencies found during the simulated restoration exercise. If deviations to a restoration plan need to occur, please notify PJM. 4. Ensure that all nuclear units have been provided with off-site sources for safe shutdown power within 4 hours. Transmission Owners are required to notify the nuclear units within their transmission zone of expected arrival of safe shutdown power. 5. Utilize appropriate internal / external Communication Protocols. 6. Participants will be asked to evaluate drill activities, tools and processes via coordinated debriefs and during future PJM DTS (Dispatcher Training Subcommittee) meetings. <p><u>Generation Operator Expectations:</u></p> <ol style="list-style-type: none"> 1. Participate as needed with the Transmission Owner during the restoration drill in the zone where your units are located. 2. Provide requested information to the Transmission Owner regarding unit availability and/or unit start-up times. 3. Document and send updates to PJM as requested (per Manual 36) with unit data in the requested Transmission Owner zone. 4. During this year’s drill, all generation will be assumed available unless requested as unavailable as part of an inject.
<p>Pre-Drill Information & Communications Testing</p>	<p><u>East Pre-Drill Meeting: Tuesday April 6, 2021</u></p> <p>A special session of the DTS will be held on Tuesday, April 6 from 09:00-11:00 EPT. PJM will discuss drill logistics and planning as well as test communication systems. Please find the information for the special session/Pre-Drill Meeting in the Conference Call Information section below as well as posted on the DTS’s website at:</p> <p>https://pjm.com/committees-and-groups/subcommittees/dts.aspx</p> <p>During the Pre-Drill Meeting, the following information will be discussed:</p> <ul style="list-style-type: none"> • SOS Conference Calls • Drill WebEx information • Associated paperwork • PJM Roles • Member Company expectations <ul style="list-style-type: none"> ○ How to complete and submit reports ○ Items that need to be logged <p><u>Communications Testing:</u></p> <p>As part of the Pre-Drill Meeting on <u>Tuesday, April 6, 2021</u>, PJM will conduct a test of the communication systems. The test will begin with an SOS-style conference call following the discussion of the items mentioned previously. All participants will review their responsibilities and discuss any communication issues. All phone and email systems utilized during the drill will be tested at this time. The communications testing is expected to be completed by 11:00 hours EPT.</p>

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<p>Conference Call Information</p>	<p>Drill Related Conference Calls (and tests) will be held as outlined below and as part of the drill progression. Members are requested to dial into these calls as appropriate. All times listed are in Eastern Prevailing Time (EPT). *Note: The conference call schedule may adjust during the drill to have additional or less calls if necessary.</p> <p>Tuesday, April 6</p> <p>0900 Pre-Drill Conference Call & Communication Systems Test</p> <p>Wednesday April 7</p> <p>0730 Pre-Drill Conference Call (All Participants)</p> <p>1030 East Drill Check-In & System Status Conference Call (TOs)</p> <p>1400 Day 1 East Drill De-brief Conference Call (All Participants)</p> <p>Thursday April 8</p> <p>0730 Pre-Drill Conference Call (All Participants)</p> <p>1030 East Drill Check-In & System Status Conference Call (TOs)</p> <p>1300 Day 2 East Drill De-brief Conference Call (All Participants)</p> <p>*There will not be a scheduled break for lunch.</p> <p>The information for all PJM Drill Conference Calls is as follows:</p> <p>Conference Call Numbers:</p> <p>United States Toll Free: 1-844-992-4726 United States Toll:+ 1-408-418-9388</p> <p>Teleconference Access Codes:</p> <p>Tuesday – 129 531 8593 Wednesday – 129 225 4440 Thursday – 129 793 6078</p>	
<p>Drill CE Hours</p>	<p>Transmission Owner Participation: Up to 11 CEHs*</p> <p>Generation Operator Participation: Up to 11 CEHs*</p> <p><i>*CE hours earned will be based on the level of participation for each day - up to 6 hours for Day #1 and up to 5 hours for Day #2.</i></p>	<p>WebEx Information:</p> <p>Tuesday Link Passcode: 3msU6MsvJ9k Wednesday Link Passcode: afV27bCJ4vb Thursday Link Passcode: 8D3BmZr8Jrd</p> <p>NOTE: The WebEx and conference call will begin at the start of the drill and will remain on throughout the drill. Participants will also have the option to “Chat” questions during the drill via WebEx.</p>
<p>Forms</p>	<ul style="list-style-type: none"> • Drill Participation Form – https://www.pjm.com/-/media/training/member-training-liaison-forms/att-d-app-4.ashx 	

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	<p>This form must be completed by all entities participating in the drill in order to receive CE credit. Please email to: trainingsupport@pjm.com</p> <ul style="list-style-type: none"> • Drill Evaluation Form – http://www4.virtualtrainingassistant.com/PJMDrillEvaluationEast.html • Company Initial Restoration Report – This form (Exhibit 12, M-36) should be completed within the first hour of the drill. Please use Restoration SharePoint to submit this form. • Log Sheets – At the conclusion of the drill, participants should submit any log sheets such as the <i>Company Transmission Restoration Report</i> with all relevant documentation including the following: <ul style="list-style-type: none"> • Cranking paths used during restoration • Black start units used during restoration • Paths and times for shut-down power to nuclear plants <p>Please send to SystemRestorationDrillTeam@pjm.com</p> <ul style="list-style-type: none"> • Company Transmission Restoration Report - This report (Exhibit 15, M-36) needs to be submitted <u>every 10 lines restored or every 30 minutes</u>. NOTE: You do not have to submit a form if you did not restore any transmission lines in the past 30 minutes. Please use Restoration SharePoint to submit this form. • Company Hourly Generation Restoration Report – This report (Exhibit 14, M-36) needs to be submitted on an hourly basis or sooner if more than 100 MWs were brought online since the last report was submitted. <i>*Please call PJM as black start units are brought online.*</i> Please use Restoration SharePoint to submit this form.
<p>Online Training Information</p>	<ul style="list-style-type: none"> • System Restoration Online Drill Refresh - Notification will be sent to the Dispatcher Training Subcommittee when available
<p>Drill Contacts/ Questions</p>	<p>For questions pertaining to the Drill please contact:</p> <p style="text-align: center;">Email Member Relations or call (610) 666-8980</p> <p>For questions pertaining to the restoration refresh online training, CE hours, participation form or evaluation form please contact:</p> <p style="text-align: center;">Trainingsupport@pjm.com</p>