

A decorative graphic consisting of several thin, overlapping, wavy lines in shades of grey and white, positioned at the top of the slide.

Emergency Procedures Enhancements

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Operating Committee

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Product - Action Required	Deadline	Who May Be Affected
<p>Enhancements released to Train. No action is necessary</p>	<p>December, Date TBD</p>	<p>Up to 10 minute outage to UI for users.</p>
<p>Enhancements released to Production. No action is necessary</p>	<p>January 20, 2021</p>	<p>Up to 30 minute outage to UI for users.</p>



2020-2021 Roadmap

	2020									2021		
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
2020/2021 Enhancements									Train: TBD	Prod: Jan 20		

Legend

- Start Date
- End Date



- Allows for a more visual selection of messages
- Users can create multiple profiles
- Profile list allows users to easily edit a profile or add a new one
 - Users select a Profile that drives their dashboard view
- Profile selection also available on dashboard
- PJM Default profile sends emails for and displays all postings issued within the RTO
- Current profile selections will be migrated as initial user profiles
- Removal of unused Government Agency functionality

- Create new profiles to add custom messaging profiles
- Dashboard Default indicates which profile is selected for view upon login
- Profile Enabled indicates which profiles are set up to receive email notifications and are available for dashboard filtering

My Tools ▾
PJM (USER) | Profiles | Sign Out | Contact | Help

Emergency Procedures

Profile List

Profiles

The settings in the profiles below drive your Emergency Procedures Dashboard View, as well as allow you to Enable your custom Email profiles. The PJM Default Profile displays all postings in the dashboard and receives all email notifications.

[Create New Profile](#)

Dashboard Default	Profile Enabled	Profile Name	Description	Enabled Email Addresses	Total Email Addresses	Actions
<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	Profile A	State of Virginia	2	3	✎ 🗑
<input type="radio"/>	<input checked="" type="checkbox"/>	Profile B	State of Illinois	1	1	✎ 🗑
<input type="radio"/>	<input type="checkbox"/>	Profile C	Personal profile	1	1	✎ 🗑
<input type="radio"/>	<input type="checkbox"/>	PJM Default Profile	The PJM Default Profile displays all postings (including PJM Drills) for all Message Types and all Regions.	N/A	N/A	

[Save Changes](#)

- Within each profile, users can select which Message Types and Regions they'd like to receive emails for
- Special Notice is selected by default for all user profiles

Profile Settings

Profile name *

Description

Profile options:
 Profile Enabled
 Include PJM Drills

Regions * (0 of 24 total)

Message types *

Available message types (28)

- Emergency Energy Request
- Emergency Load Algmt Reduction Action
- Emergency Voluntary Energy Only Demand Response
- Gas Pipeline Contingencies
- Geomagnetic Disturbance Action
- Geomagnetic Disturbance Warning
- HEV Action
- HEV Warning
- High System Voltage
- Hot Weather Alert

Include PAI

Selected message types (1)
 Special Notice

Updated from multi-select drop down

Email Addresses (3)

New email address

Email Address	Enabled	Receive Full Text	Status	Actions
profileA@pjm.com	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Confirmed	<input type="button" value="Edit"/>
footers@gmail.com	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Confirmed	<input type="button" value="Edit"/>
pineapples@pjm.com	<input type="checkbox"/>	<input type="checkbox"/>	Enter confirmation code	<input type="button" value="Send"/> <input type="button" value="Cancel"/> <input type="button" value="Delete"/>

- New Region drop down organized by region hierarchy
- Users will receive all messages that apply for the specific region(s) selected
 - E.g. If you only select DUQ, you will still get messages issued to Western and PJM RTO

Select all Select by state

PJM-RTO

<input type="checkbox"/> Mid-Atlantic	<input type="checkbox"/> Western	<input type="checkbox"/> Southern
<input type="checkbox"/> AE	<input type="checkbox"/> AEP	<input type="checkbox"/> DOM
<input type="checkbox"/> BGE	<input type="checkbox"/> COMED	
<input type="checkbox"/> DPL	<input type="checkbox"/> DAY	
<input type="checkbox"/> FE-JC	<input type="checkbox"/> DEOK	
<input type="checkbox"/> FE-ME	<input type="checkbox"/> DUQ	
<input type="checkbox"/> FE-PN	<input type="checkbox"/> EKPC	
<input type="checkbox"/> PECO	<input type="checkbox"/> FE-AP	
<input type="checkbox"/> PEPCO	<input type="checkbox"/> FE-ATSI	
<input type="checkbox"/> SMECO	<input type="checkbox"/> CPP	
<input type="checkbox"/> PSEG	<input type="checkbox"/> ITCI	
<input type="checkbox"/> PPL	<input type="checkbox"/> OVEC	
<input type="checkbox"/> UGI		
<input type="checkbox"/> RECO		

Performance Assessment Interval (PAI) Enhancements

- Updates made to ensure PAI events are more easily understood
 - Dashboard banner will also include PAI start time

The screenshot shows the PJM Emergency Procedures Internal - Stage dashboard. At the top, there is a navigation bar with 'My Tools', 'Stage', and 'AD-EMERPROC-PJMReadOnly-STG'. A session expiration notice is also present. Below the navigation bar, a 'Postings' section features a yellow banner that reads: 'Performance Assessment Interval is in effect within the RTO. See PAI Active Guidance for further information.' A red box labeled 'Dashboard banner updated' points to this banner.

Below the banner is a filter section with tabs for 'Postings', 'Message Definitions', 'Message Priorities', 'PAI Guidance Matrix', 'PAI Active Guidance', 'Flowgates', 'Regions', and 'Emergency Bid Form'. The filter section includes 'Effective From' (10/17/2020), 'Effective To' (10/19/2020), 'Regions', 'Message Types', 'PJM Drill', 'Include', 'Active Only', 'PAI Only', and a 'Reset' button.

The main content area displays a table of messages. The table has columns for 'History', 'Msg ID', 'Priority', 'Message Type', 'Effective Start Time', 'Regions', 'Emergency Message', 'Effective End Time', and 'Actions'. Two rows of messages are visible:

History	Msg ID	Priority	Message Type	Effective Start Time	Regions	Emergency Message	Effective End Time	Actions
🔍	104154	Action	Pre-Emergency Load Mgmt Reduction Action	10.19.2020 16:52	AEP BGE PEPCO	See PAI Active Guidance tab A Pre-Emergency Load Mgmt Reduction Action has been issued. Load reduction start times can be found by clicking on the hyperlink(s) in the Regions column. Load reductions are mandatory based on the order of the regions until released by PJM. Reductions are mandatory based on the order of the regions until released by PJM. Reductions are mandatory based on the order of the regions until released by PJM. Reductions are mandatory based on the order of the regions until released by PJM. Product(s) dispatched: test		🔍
🔍	104153	Action	Curtailment of Non-Essential Buildings	10.19.2020 16:45	COMED PJM	See PAI Active Guidance tab		🔍

Annotations on the table include a red box labeled 'Icons removed' pointing to the 'History' column icons, and another red box labeled 'Hyperlinks in matching format' pointing to the hyperlinks in the 'Regions' column.

- Combination of PAI Guidance Matrix and Drill/PAI Active Guidance
- Active Guidance will be displayed by default.
- Drill Active Guidance will only be displayed if there is an active Drill PAI message.
 - Drills do not occur during when a real-time PAI is in effect
- Guidance History is a newly available report.

The screenshot shows the 'PAI Guidance' section of a software interface. At the top, the title 'PAI Guidance' is displayed in orange. Below it is a horizontal navigation bar with four tabs: 'Postings', 'Message Definitions', 'PAI Guidance' (which is highlighted in dark blue), and 'Flowgates'. Underneath this bar, the text 'PAI Active Guidance' is shown, followed by the timestamp 'As of 6.4.2019 13:50' and a checked 'Auto-refresh' checkbox. To the right, there is a 'View:' section with four buttons: 'Active Guidance' (highlighted in dark blue), 'Drill: Active Guidance' (highlighted in pink), 'Guidance History' (highlighted in light blue), and 'Guidance Matrix' (highlighted in light blue).

- Collapsible lists of guidance, ordered by severity
- Users can disable auto-refresh

PAI Guidance

Postings
Message Definitions
PAI Guidance
Regions
Emergency Bid Form

PAI Active Guidance

As of 6.4.2019 13:50 Auto-refresh

View: Active Guidance Guidance History Guidance Matrix

▼ **Level 3 Guidance (3)**

Zone	Applicable Time	Message Type	Msg ID	Issued Time
AMPT	2019-06-04 13:45	Load Shed Directive	104154	2019-06-04 13:45
PEPCO	2019-06-04 13:45	Load Shed Directive	104150	2019-06-04 13:45
UGI	2019-06-04 13:47	Load Shed Directive	104158	2019-06-04 13:47

Online Generator Online generators should follow PJM basepoints or manual dispatch instructions, if provided. Online generators that underperform may be assessed a Non-Performance Charge. NOTE: Online generators that produce MW above the PJM basepoint will not be eligible for Bonus Performance Credits. MW above the PJM basepoint may be assessed deviation charges.

Offline Generator PJM will directly call generators that are available to help mitigate the emergency. Generators that are not able to meet the PJM dispatch instructions may be assessed a Non-Performance Charge.

Pre-Emergency Load Management
Emergency Load Management PJM will directly call Load Management resource owners that are available to help mitigate the emergency. Load Management resources that are not able to meet the PJM dispatch instructions may be assessed a Non-Performance Charge.

▶ **Level 2 Guidance (6)**

▶ **Level 1 Guidance (15)**

No Active Guidance (3)

There is no active guidance for the following transmission zones.

DUQ
EKPC
PSEG

- Users can search previously issued PAI messages
- Drills are highlighted in pink
 - Not in default view

PAI Guidance

[Postings](#) | [Message Definitions](#) | **[PAI Guidance](#)** | [Regions](#) | [Emergency Bid Form](#)

Guidance History View: [Active Guidance](#) | **[Guidance History](#)** | [Guidance Matrix](#)

Effective From * Effective To * PJM Drill Include

Zone	Category	Applicable Time	End Time	Message Type	Msg ID	Issued Time
AEP	Level 2	2.13.2020 07:30	2.13.2020 12:30	Deploy All Resources Action	104154	2.13.2020 07:00
AEP	Level 3	2.13.2020 09:30	2.13.2020 11:30	Load Shed Directive	104150	2.13.2020 09:10
DEOK	Level 3	2.13.2020 09:30	2.13.2020 11:15	Load Shed Directive	104158	2.13.2020 09:10
DAY	Level 3	2.13.2020 09:32	2.13.2020 12:49	Load Shed Directive	104157	2.13.2020 09:12
AEP	Level 1	2.13.2020 10:45	2.13.2020 13:15	Primary Reserve Warning	104152	2.13.2020 10:45
DOM	Level 1	2.13.2020 11:55	2.13.2020 14:05	Maximum Generation Emergency Action	104160	2.13.2020 11:55
DPL	Level 1	2.13.2020 11:57	2.13.2020 14:16	Maximum Generation Emergency Action	104160	2.13.2020 11:57
DPL	Level 1	2.1.2020 11:57	2.3.2020 14:16	Maximum Generation Emergency Action	104160	2.1.2020 11:57

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- User Profile Enhancements
 - Ability for users to set up profiles and manage preferences for their dashboard view, summary view of profile selections and ability to manage email notifications per profile
- Zone/Region Hierarchy
 - Functionality to view and apply the hierarchy between EP regions
- PAI Enhancements
 - Enhancements to the PAI functionality and reports resulting from October 2019 PAI events feedback.
- Removal of unused Government Agency functionality

A decorative graphic of thin, overlapping wavy lines in a light gray color is positioned at the top of the slide, extending from the left side towards the center.

Product Details

The Emergency Procedures tool informs PJM members, PJM personnel and other interested parties about important and/or emergency events as they occur within the PJM Regional Transmission Organization (RTO). Examples of emergency events include hot weather alerts, transmission loading relief (TLR) procedures and minimum generation events.

Key Product Features

- Allows PJM dispatchers and reliability coordinators to post emergency procedures messages for all to see.
- User access, which permits email notification setup, to Emergency Procedures is available in Account Manager.
 - Guest access is also available via the Guest Sign In.

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