



eDART June 2018 Release Enhancements

eDART Users Group Meeting
05/30/2018

- Production release of June enhancements scheduled for Wednesday, June 27th.
 - eDART will be unavailable from 19:00 to 02:00 on Thursday, June 28th.
- Sandbox release scheduled for June 7th.

- General Discussion Topics
- Voltage Schedule
- Generation Related Enhancements
 - June 27th Release
 - Future Enhancements
- Transmission Related Enhancements
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- Question & Answer Resolution Session

- PJM issued the Generator Parameter Gathering survey via the eDART Black Start Calculator tool, **May 7, 2018 effective 16:00 EPT**, with a focus on generator parameter data for restoration planning purposes.
- PJM requires that generating resources and transmission owners complete the survey no later than **23:59 EPT on June 10, 2018**.
- A help file is available in the eDART Black Start Calculator tool.
- Review of the tool is available [here](#).
- Please contact Ray Lee (Ray.Lee@pjm.com) or Dan Bennett (Daniel.Bennett@pjm.com) with any questions related to the survey or tool.

- Currently there are 500 to 700 eDART user accounts that have not logged in at least since 2017.
- Account Clean Up Timeline (Q4 2018):
 - Accounts with last login more than 365 days in the past will be locked.
 - Accounts locked for more than 365 days will be revoked.
 - Emails with list of dormant users will be sent to Customer Account Managers (CAM).

- PJM member companies can request email notification of transmission outages.
- Information available at <http://www.pjm.com/markets-and-operations/etools/edart.aspx>

Requests to Add, Update or Remove Email Notifications

[Transmission Ticket for Generation Entities | Guide](#) PDF

[Impactful Transmission Outages \(RTO/ISO\)](#) PDF | [Help](#)

For Generation Owners →

← For Transmission Owners

- Restoration Data application retired.
 - Identified as no longer needed after review with System Operator Training team.
- Telemetry Coordination application retired.
 - Telemetry Support team sends weekly reports on new telemetry available and posts files on the DMS SharePoint site quarterly.
 - Contact PJMTelemetrySupport@pjm.com for more information.

- Recent activities
 - Review of new Transmission ticket with transmission users.
 - User Experience Analysis (ongoing)
- 2019:
 - Browserless refresh Go-Live
 - User account migration to Account Manager

Quick Search
[Create New](#)

Overview

History

Ticket ID *To be assigned*

Work Type Cut-in Hotline
 Emergency Veg Trip

* Outage Type

Status *To be assigned*

Company *Company*

* Cause

* Availability

RTEP Queue #

Company Ticket ID

Conditions

Project Name

Restoration Plan Review *To be determined*

DRAFT

[Attachments \(0\)](#)
[TERM Tickets \(0\)](#)
[Modeling Tickets \(0\)](#)

* Work Description

PJM Comments

* Time NERC-TADS

	Start Time	End Time	User
Scheduled	<input type="text"/>	<input type="text"/>	
Actual			

Equipment List

* Station * Type * Equipment [Add Selected](#)

[Generation Outages](#)
[Conflict Preview](#)
[Change Default Status \(0\)](#)

Status	Station	Voltage	Type	Equipment Name	Start Date	End Date	Primary

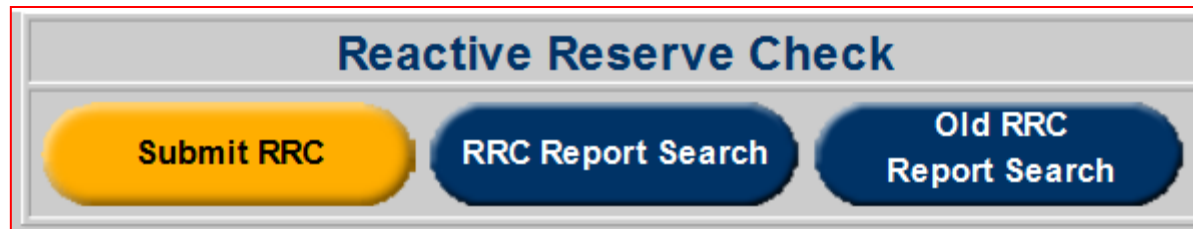
[Cancel Ticket](#)
[Duplicate Ticket](#)

[Cancel](#)
[Submit](#)

- New Voltage Control Philosophy option added for units.
 - Current options:
 - Voltage Schedule
 - Reactive Power Schedule
 - TBD
 - New option: Power Factor Schedule
- Visible on D-Curve report and Unit list downloads.
 - Tag name: voltageControlPhilosophy

- PJM will continue the RRC drills weekly depending on System conditions until September 10th.
 - After September 10th the RRC drill will then be put into the Sunday Emergency Procedure drill schedule, about once a month.
 - Users should review Self Check data **daily** and ahead of RRC issuance.
 - Issues and requests for updates should be sent to RRCHelp@pjm.com.
 - Training available at <http://www.pjm.com/-/media/etools/edart/reactive-reserve-check.ashx?la=en>

- Legacy RRC retired.
 - New Reactive Reserve Check button removed.
 - New RRC functions moved to Reactive Reserve Check menu with addition of search functionality for legacy RRC reports.
- When there's an active New RRC, Submit RRC button is displayed and highlighted (orange).



- Equipment row highlighted to indicate where TO has (red) or does not have (green) additional actions required.
- Unacknowledged count changed from X of Y (Y=total) to X.
- Future equipment highlighted in blue; only Retired equipment highlighted in yellow.

Company	Capacitors			Reactors			SVCs/Statcom			Units/Condensers
	PJM Values	Company Adj. Values	Unackn.	PJM Values	Company Adj. Values	Unackn.	PJM Values	Company Adj. Values	Unackn.	PJM Values
ABC	8771.50	8769.11		6482.33	6482.33					515.05
	396	2	196	88	0	88				380

Color Legend

eDART Unavailable and SE MVAR is not 0

Mismatch between eDART AVR and EMS AVR

Future Equipment

Retired Equipment

Regular

Close Window

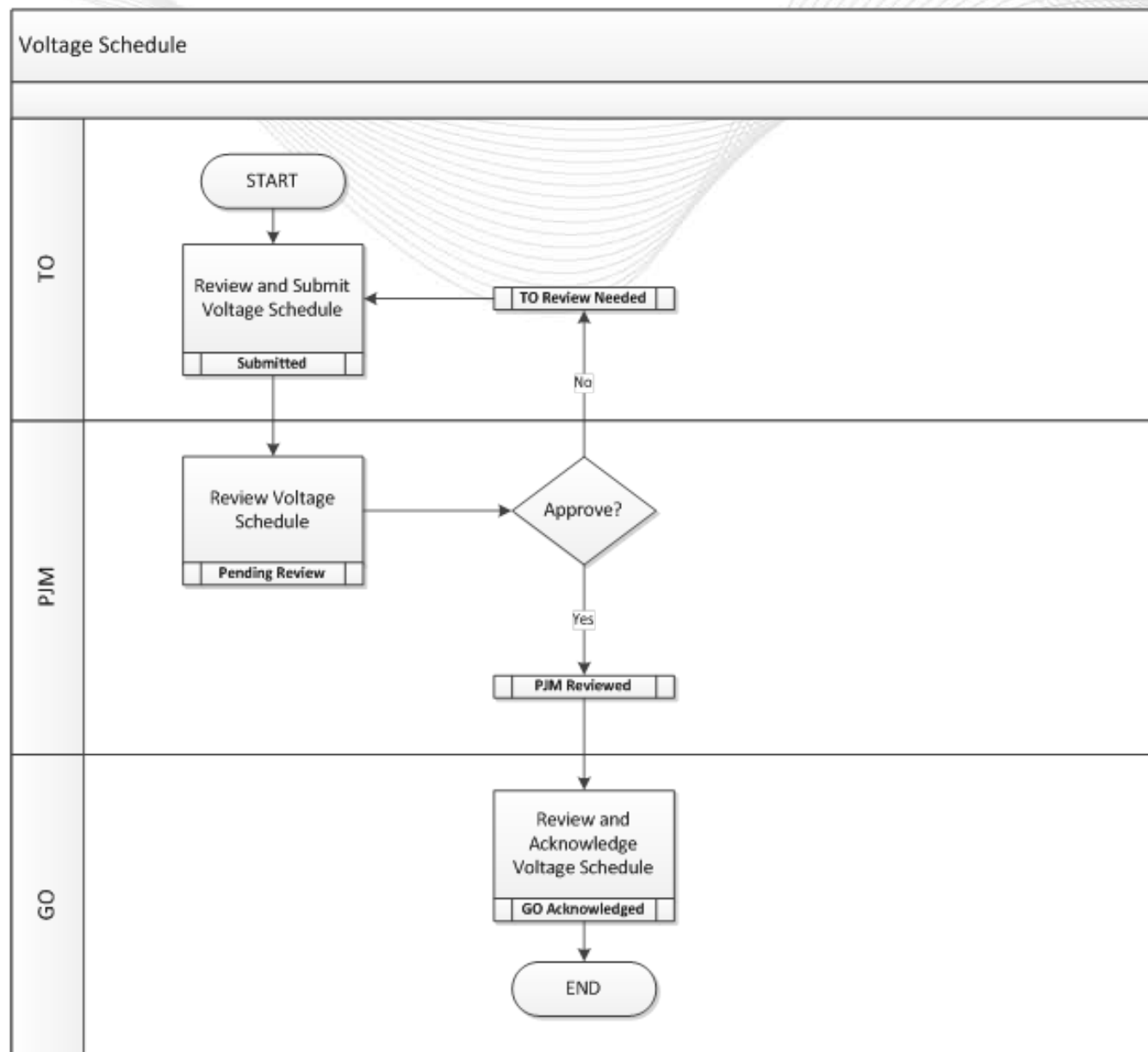
- Acknowledge Type spelled out on RRC form: U => UI, I => ICCP and X => XML.
- 'More' indicator added when there is more than one page for equipment list.

Refresh Main Menu Help Color Legend															
<<< More			Capacitors (101-183 of 183)												
1	2	3													
Company	Station/Equipment Name	Zone	KV	eDART Availability	SE Status	SE KV	SE MVAR	Rated or Active MVAR			Lagging Reserve MVAR			Acknowledge Type	Override ICCP
								PJM	Company	Delta	PJM	Company	Delta		
			13	Y	Offline	13.57	0.00	6.00	<input type="text"/>		6.00	<input type="text"/>			
			13	Y	Offline	13.67	0.00	6.00	<input type="text"/>		6.00	<input type="text"/>			
			13	Y	Offline	13.67	0.00	6.00	<input type="text"/>		6.00	<input type="text"/>			
			13	Y	Offline	13.67	0.00	6.00	<input type="text"/>		6.00	<input type="text"/>			

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- The Voltage Schedule tool is a new eDART web-based tool to aid compliance monitoring of Voltage Schedule communication between PJM, TOs and GOs.
- Includes new ticket (record) type, handling of exemptions, reporting, processing and seasonal verification.

- Features:
 - Report for PJM, TOs and GOs to see effective Voltage Schedules by date
 - PJM and TOs submit changes to Voltage Schedules
 - PJM approves changes to Voltage Schedules
 - GO acknowledges Voltage Schedules
 - PJM Exemption – Exemption based on PJM Criteria
 - TO Exemption - TO can request and PJM can approve exemption of units from Voltage Schedule



- PJM has default voltage schedules which are identified in PJM Manual 3 section 3.11. TOs should be able to specify either the PJM Default voltage schedule, or their own specific voltage schedule for each eligible generator.
- TOs (and PJM) will have the ability to specify four voltage schedule types:
 - Voltage (KV)
 - Power Factor (PF)
 - Reactive (MVAR)
 - TO Exempt (allows TOs to request exemptions for units that meet PJM's criteria)

- Voltage Schedule button will be available from the Generation Reports section of Transmission Main Menu.



Create/Revise Voltage Schedule

Ticket #	TR Zone	Unit	Voltage Schedule Type	Normal			Light			Heavy			Effective Date	Status	GO Company	TO Comments	PJM Comments	GO Comments
				Target	Lower	Upper	Target	Lower	Upper	Target	Lower	Upper						
	TR	EXUNIT 5 GEN UNIT	Voltage	230	5	225	8	238					06/12/2018			TO Comment		

Transmission Zone	<input type="text"/>	Ticket ID	<input type="text"/>	Status	Submitted
Generation Owner	<input type="text"/>	Effective Date			Pending Review
Unit Type	<input type="text"/>	From	<input type="text"/>		PJM Reviewed
Unit Name	<input type="text"/>	To	<input type="text"/>		TO Review Needed
					GO Acknowledged
					Active

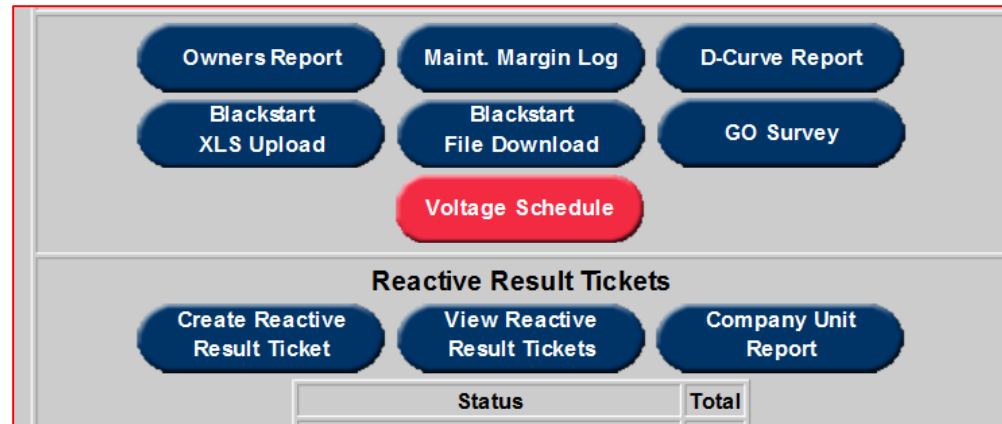
Voltage Schedules

	Ticket #	TR Zone	Unit	Voltage Schedule Type	Normal			Light			Heavy			Effective Date	Status	GO Company	TO Comments	PJM Comments	GO Comments			
					Target	Lower	Upper	Target	Lower	Upper	Target	Lower	Upper									
<input checked="" type="radio"/>	285	TR	EXUNIT 5 GEN UNIT	Voltage	300	20	280	30	330					04/30/2018	Active		TO Comment	PJM Comment	GO Comment			
<input type="radio"/>	473	TR	EX UNIT 2 EXAMPLE 2 GEN UNIT	Reactive	50	4	46	3	53	25	1	24	2	27			05/04/2018	Active		TO Comment	PJM Comment	

- Units within transmission zones associated with the TO will have editable voltage schedules.
- Units that are external to the TO's transmission zones will be read only.
- If the Voltage Schedule Type is changed, any values entered in the editable fields will be erased.
- Data will be entered as an absolute value, and once a value is entered in the Lower or Upper field, calculated value will appear next to the label. (e.g. Target = 230 KV, Lower = 5 KV [230 – 5 = 225 KV], Upper = 8 KV [230 + 8 = 238 KV]).

- The TO may upload and download information attached to each ticket.
- In order to submit the ticket, click Save Ticket.
- The TO can choose to cancel the ticket once it has been submitted.

- Voltage Schedule button will be available from the Generation Tickets menu.
- The Voltage Schedule button will be highlighted red when acknowledgement is needed.



Create/Revise Voltage Schedule

Ticket #	TR Zone	Unit	Voltage Schedule Type	Normal			Light			Heavy			Effective Date	Status	TO Comments	PJM Comments	GO Comments	
				Target	Lower	Upper	Target	Lower	Upper	Target	Lower	Upper						
285	TR	EXUNIT 5 GEN UNIT	Voltage	300	20	280	30	330						04/30/2018	PJM Reviewed	TO Comment	PJM Comment	

Transmission Zone

Ticket ID

Effective Date

Status
 PJM Reviewed
 GO Acknowledged
 Active
 Completed

Unit Type

From

Unit Name

To

Apply Filter

Save Ticket

Voltage Schedules

	Ticket #	TR Zone	Unit	Voltage Schedule Type	Normal			Light			Heavy			Effective Date	Status	TO Comments	PJM Comments	GO Comments		
					Target	Lower	Upper	Target	Lower	Upper	Target	Lower	Upper							
<input checked="" type="radio"/>	285	TR	EXUNIT 5 GEN UNIT	Voltage	300	20	280	30	330					04/30/2018	PJM Reviewed	TO Comment	PJM Comment			
<input type="radio"/>	473	TR	EXUNIT 2 EXAMPLE 2 GEN UNIT	Reactive	50	4	46	3	53	25	1	24	2	27		05/04/2018	PJM Reviewed	TO Comment	PJM Comment	

- The GO can acknowledge receipt of the voltage schedule by selecting a ticket and clicking Save Ticket.
 - GO can also add GO Comments comment before saving the ticket.
- The GO can upload or download information to the ticket.

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- Form will be made read only.
 - Minimal usage by members.
 - Primarily managed by PJM.
 - Any mapping issues should be reported to eDARTHelp@pjm.com.

Before

PSSE Identifier Generation

User: egbuoc Company: Company

Type: ▼

Apply Filter

		PSSE Identifier		
Type	Commercial Name	Station		ID
Solar	FALL SOLAR	123SOLAR 0.5000		1
Solar	SPRING SOLAR			

Submit Form
Main Menu

After

PSSE Identifier Generation

User: egbuoc Company: Company

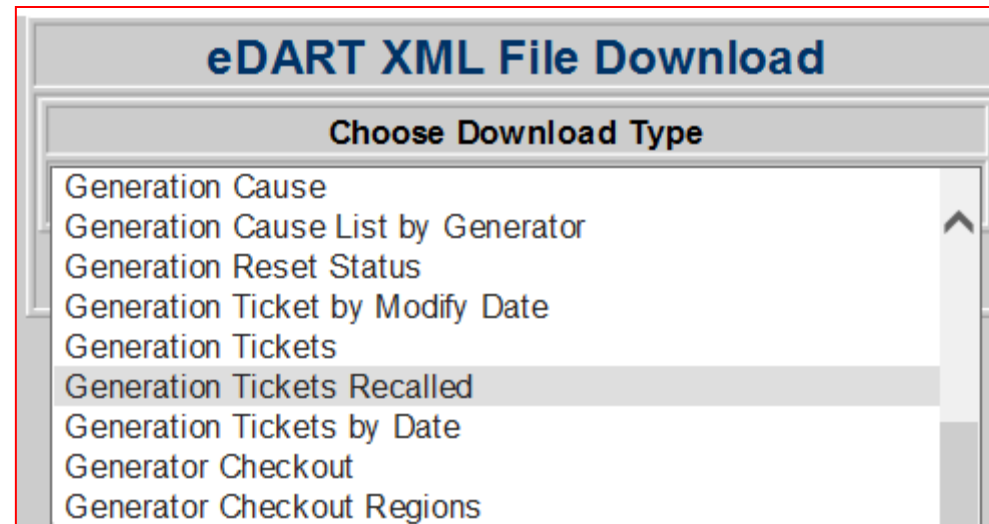
Type: ▼

Apply Filter

		PSSE Identifier		
Type	Commercial Name	Station		ID
Nug	FALL NUG	123FALL 1.50		1
Nug	SPRING NUG			1

Main Menu

- Report of Recalled Generation Tickets added to browser download list.
 - Will return same report as browserless download type=genrecalled.

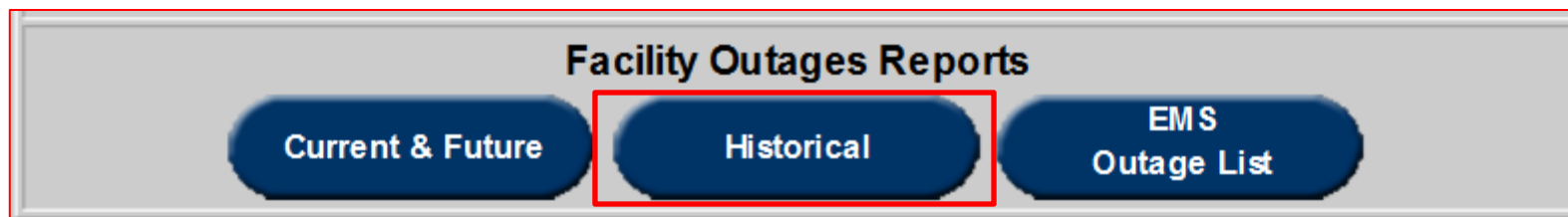


- New Include Historical filter:
 - By default, reports will return current tickets; user can use filter to specifically request historical information.
 - Will help reduce size of data returned and improve performance.
- Historical tickets: completed or cancelled more than 40 days in the past.
- Include Historical filter added for the following Generation Filters/Reports:
 - View/Revise Outage Ticket
 - Tickets History
 - Owners Report (also for transmission users)

- Include Historical filter added to the browser download page for the following:
 - Generation Tickets
 - Generation Tickets by Date
 - Generation Tickets by Modify Date

- Instantaneous Reserve Check (IRC) monthly statistical report.
 - Report comparing # of IRCs per month and Generation Owner's response to IRCs.

- User request to allow download of Historical Facility Outages Reports for all zones at the same time.
 - New functionality will be implemented to fulfill this request.
 - Outage information will not be displayed on web UI due to data size.
 - Outage information will be provided via a downloaded zip file.



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- Study Note to be added to transmission tickets to indicate PJM real-time study is not required when a TO calls for outage to non-reportable equipment.
- Per PJM Tariff, Non-reportable equipment defined as:
 - Modeled in EMS (optional)
 - No SA impact expected
 - No Congestion expected

- Study Note displayed when all the equipment in a ticket is Reportable = No,
 - AND Cong. Expected Flag = [FALSE],
 - AND Ticket has No Associated System Impact Notes,
 - AND Ticket has No Associated Conflicts,
 - AND ticket cause type is not Relay related

Ticket was Submitted at 05/21/2018 16:49. In order to be On-Time this ticket needs to be submitted by 04/01/2018 00:00.

Ticket consists entirely of Tariff Non-Reportable equipment: PJM Real-time Study NOT required.

Outage Type		Availability		NERC-TADS	
Continuous ▾		Immediate ▾		Planned: Maintenance and Construction ▾	
Type	Station Name	Voltage	Equipment Name	Operational: N/A ▾	
▾	▾	▾	▾		

- Three Winding Transformer information to be added to the form.
- Form will be made read only.
 - Minimal usage by members.
 - Primarily managed by PJM.
 - Any mapping issues should be reported to eDARTHelp@pjm.com.

Before

PSSE Identifier Transmission

User: **egbuoc** Company: **Company**

Type: Station Name:

Voltage: Equipment Name:

Equipment Modeled as of:

				PSSE Identifier		
Type	Station Name	Voltage	Equipment Name	Station A	Station B	ID
XFMR	BANANA	230 KV	BANANA 2 1GEN XF XFORMER	BANANA.S 230.00	BANANAS1 24.000	1

After

PSSE Identifier Transmission

User: **egbuoc** Company: **Company**

Type: Station Name:

Voltage: Equipment Name:

Equipment Modeled as of:

				PSSE Identifier			
Type	Station Name	Voltage	Equipment Name	Station A / I	Station B / J	K	ID
XFMR	BANANA	230 KV	BANANA 2 1GEN XF XFORMER	BANANA.S 230.00	BANANAS1 24.000		1
XFMR	BANANA	230 KV	BANANA 2 2GEN XF GSU XFORMER	BANANA.P 230.00	BANANAS2 24.000	BANANAS2.T 24.000	13

- New functionality to aggregate Boost and Buck components of SVCs.
 - 3 rows in RRC to be replaced with 1 row for the SVC
 - eDART Availability = N if N for any component
 - SE Status = Offline if Offline for any component
 - SE Mode = Manual if Manual for any component
 - Max MVAR = Max of Max MVAR of Boost and Buck
 - Min MVAR = Min of Min MVAR of Boost and Buck
- Contact RRCHelp@pjm.com if TO has any SVCs with Boost and Buck components to be aggregated.

- New Help button that will display the Voltage Color scheme used in one-line diagrams.
- New Metering Point test field to be added to Network Model Change Requests.
 - Required if Tie Line is checked.
- Street Address column to be added when creating a New Request.
 - User should enter street address for New Stations.
- RTEP/Gen Queue field to be expanded to accommodate up to 100 characters.
 - This is to allow multiple RTEP numbers to be entered.
- Addition of confirmation screen when user deletes a file attached to a Request.

- New form for TOs to indicate which units in their zone should be included in System Restoration Drills.
 - Black Start and Critical load units are automatically included (checked).
 - TOs can select (check) or deselect (uncheck) other units as needed.
 - PJM will use list of selected units during the drills.

- Users will no longer be able to submit overlapping RXB Adjustment Requests for the same piece of equipment.
- For Transmission tickets, '&' and '%' entered in RTEP Queue # field will be replaced with ','.
 - Special characters currently causing issues for users downloading the outage reports via XML.
- Equipment filters for TERM and Transmission tickets to be updated to display '(Retired)' at the end of the name of retired equipment.
 - To add clarity when current and retired equipment have the same name (especially in cases of equipment replacement).

- Global Include Historical flag:
 - By default, reports will return current information; user can use flag to specifically request historical information.
 - Will help reduce size of files transferred and improve performance.
 - Implemented for Transmission outage downloads in Q1 2018.
 - Currently being implemented for Generation outage downloads.
 - Will be implemented for TERM ticket downloads in Q3.
- Study Note implementation for tickets with Low Priority Reportable equipment.
 - Pending review and update of PJM Manual 3.

- Voltage Limits
 - new tool for transmission users to view and submit voltage limits information, replacing M-03 as the historian.
- Transformer Tap Changer
 - new tool for transmission users to submit adjustments to transformer tap settings (default, min., max. and step size).

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