



## eDART Enhancements in May 24<sup>th</sup> Release

- Release scheduled for May 24<sup>th</sup>
- During release eDART to be unavailable from 1800 to 0600
- Sandbox to be updated May 8<sup>th</sup> and available by close of business
- Release outline document distributed May 8<sup>th</sup>
- **eDART Users Group Conference Call reviewing enhancements May 22<sup>nd</sup>**
  - Registration URL: <http://www.pjm.com/committees/form-edartug-attend.jsp>
  - Generation: 1030 – 1200
  - Transmission: 1430 – 1530

- **Generation (GO) & Transmission Owner (TO) Users**
  - New D-Curve Report Acknowledgement Process
- **Generation Owner Users**
  - IRC Enhancements
  - Generator Ticket
    - MVAR Adjustment Ticket Enhancements
    - New MVAR Test Ticket
    - MW Outage Ticket Daily Ticket Ramp Complete Date Bug Fix
- **Transmission Owner Users**
  - New Reactive Reserve Check (RRC) Application
  - Transmission Outage Ticket Enhancements
    - EMS Tripping Ticket Cause Type Updates
    - Cut-In Flag
  - Effect of Generator Ticket Changes to TO

- New automated process for coordination of twice annual D-Curve Review Process
  - Only notification and acknowledgement processed changed
- Process Changes
  - When GO or TO asked to review D-Curves, message alerting them to this will be in new section of login screen labeled “Appl. Message”
  - D-Curve button will become **RED** and remain so until user’s company completes review process
  - When user’s company completes review process someone from company must click “Acknowledge” at the bottom of the report
    - Report can’t be filtered until after Acknowledged

A red, rounded rectangular button with the text "D-Curve Report" in white, sans-serif font.

- PJM requests Generation Companies to review D-Curve information in eDART
  - D-Curve Report button on Generation Menu turns RED and notification message posted on login screen
  - Generation Companies perform MVAR **review**
  - Submit MVAR Adjustment Generator tickets where D-Curve needs to be updated
  - Once completed for all units click “Acknowledge” button in the D-Curve report and D-Curve Report button returns to Blue color

- PJM updates PJM EMS with new D-Curves
- PJM requests Transmission Companies Review updated D-Curve Report
  - D-Curve Report button on Transmission Menu turns RED and notification message posted on login screen
  - Transmission Companies update D-Curve information in their systems
  - Once completed for all units click “Acknowledge” button in the D-Curve report and D-Curve button returns to Blue color

- Total Spinning Reserve & East Spinning Reserve removed from submission form
- Normal Regulating Reserve, Spinning Regulating Reserve, Spinning Non-Regulating Reserve added
  - For those in the Mid-Atlantic ASM Eastern Normal Regulating Reserve, Eastern Spinning Regulating Reserve, Eastern Spinning Non-Regulating Reserve added
- Operating Reserve Validation now = ~~Normal Regulating Reserve +~~ Spinning Regulating Reserve + Spinning Non-Regulating Reserve + Quick Start + Secondary  $\pm 1$
- Total Spinning Reserve = Spinning Regulating Reserve + Spinning Non-Regulating Reserve + Spinning Demand Side Response (PJM Entry)
  - Value displayed in Pool Totals

**Important:** It is possible that the calculation for either the Normal Regulating Reserve, Spinning Reserve Regulating, or Spinning Reserve Non-Regulating can be less than zero. However, if this happens it means the data submitted to eMarket was incorrect. In this case just enter zero. Also this should signal an alert that the market values must be changed ASAP.

**IRC Company Data**

Company: XXXXXXXXXX  
 Request ID: 1699    Request Timestamp: 05/02/2006 18:08  
 User Name: SUPER5    Posted Timestamp:

Company Data						
	PJMCZ	Mid Atl	AP	Western	CE	NI
Operating Reserve	6450	6450	1689	1689	1397	1397
Normal Regulating Reserve	1613	1613	422	422	215	215
East Normal Regulating Reserve	1613	1613		0		0
Spinning Regulating Reserve	3225	3225	845	845	450	450
East Spinning Regulating Reserve	3225	3225		0		0
Spinning Non-Regulating Reserve	1612	1612	222	222	235	235
East Spinning Non-Regulating Reserve	1612	1612		0		0
<b>Quick Start</b>						
Hydro		0	200	200	300	300
Other		0		0	97	97
Secondary		0		0	100	100
Reserve > 30		0		0		0
Regulation		0		0		0

**Note:** The label Spinning Non-Regulating Reserve will be changed to Spinning Reserve Non-Regulating and the label East Spinning Non-Regulating Reserve to East Spinning Reserve Non-Regulating. The label Spinning Regulating Reserve to Spinning Reserve Regulating and the label East Spinning Regulating Reserve to East Spinning Reserve Regulating. The XML tags will **NOT** however be changed.

- MVAR Adjustment Ticket enhanced to allow changes to the MW Point
- Enhancements also allows user to update curve with more points default

### New Generator Outage Ticket

User ID: \_\_\_\_\_ Company: \_\_\_\_\_  
 Generation Type:  Unit Name:

Company Ticket ID:  Date (MM/DD/YY) \_\_\_\_\_ Hour (HH24:MI) \_\_\_\_\_  
 Description:  Est./Ramp Start:    
 Est. End:    
 End Date Unknown

#### MVAR Capability Changes

Emergency:  New Default:

Min \_\_\_\_\_ Max \_\_\_\_\_

Capability Adj. MVAR Adder:

	Initial			Adjusted		
	MW Points	MVAR Limit Min	Max	MW Points	MVAR Min	Max
1 GEN UNIT	10	-4	8	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT	35	-4	8	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT	36	-4	8	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT	37	-4	8	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT				<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT				<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT				<input type="text"/>	<input type="text"/>	<input type="text"/>
1 GEN UNIT				<input type="text"/>	<input type="text"/>	<input type="text"/>

**New Generator Outage Ticket**

User ID:  Company:   
 Generation Type:  Unit Name:   
 Company Ticket ID:  Date (MM/DD/YYYY):  Hour (HH:MM):   
 Description:  Est. Ramp Start:  Est. End:  End Date Unknown:   
 MW Volt. Reg. MVAR Governor MVAR Test

**Current eDART D-Curve**

EMS Equipment Name	Points	MVAR Limit	
		Min	Max
1 GEN UNIT	10	-4	8
1 GEN UNIT	35	-4	8
1 GEN UNIT	36	-4	8
1 GEN UNIT	37	-4	8

Clear Submit Form Main Menu

**Generator Outages Main Menu**

Weekly Peak Period Maintenance Margin	
Mid-Atlantic	N/A
Western-Southern	N/A

Create New Outage Ticket View/Revise Outage Ticket

	MW	Volt. Reg.	MVAR	Governor	MVAR Test
Submitted Tickets	0	0	0	0	3
Revised Tickets	0	0	0	0	0
Current Outages	0	0	0	0	0
Approved Tickets	1	0	0	0	0
Future Outages	0	0	0	0	2
Outages History					

Owners Report Peak Period Maint. Margin Log D-Curve Report Blackstart XLS Upload

- Used to notify PJM of Reactive Testing being performed
- Data to only be entered in general section of ticket
- Current default D-Curve displayed
- New Status Count column added to Generation Menu

- The cloned versions of the daily ticket retained the Est. Ramp Complete Date as entered for first ticket instead of using the delta factor to adjust date
- This bug fixed

- PJM request Transmission Companies gather RRC data for units in their Control Zone
- Transmission Companies gather data and report results in RRC Request form
- PJM summarizes and posts data

### Reactive Reserve Check

[Submit RRC Data](#) [RRC Report Search](#)

- Upload
- Download
- Trans. Tickets
- TERM
- Reactive Reserve**
- Instantaneous Reserve Check
- Minimum Gen. Report
- PJM Status Report
- NERC Data
- Logout

### RRC Company Data

Company: ██████████  
Request ID: 25      Request Timestamp: 05/02/2006 17:41  
User Name: money      Posted Timestamp:

CZ Name	Spinning	Quick Start	Capacitor / Reactor
AEP	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
AP	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
CE	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
DAY	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
DLCO	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
DOM	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
PJMCZ	<input type="text" value="11"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

[Submit Form](#) [Refresh](#) [Main Menu](#)

©2004  
PJM Interconnection L.L.C.

- EMS Tripping Tickets created automatically by eDART and given the default Cause Type as “Unknown”
- Ticket locked so company can't update Cause Type resulting in PJM not getting proper understanding of outage reason
- SOS-T requested functionality to allow TO to assign Cause Types to EMS Trip Tickets even after tickets ended
  - Also stated that most EMS Trip tickets are the result of Contingency Planning



# EMS Tripping Ticket Cause Type Update Functionality

- New form added to Transmission Outage Ticket to allow TO to assign Cause Type to all EMS Trip Tickets marked “Unknown”
- User either selects a Cause Type from drop down or checks “Contingency Planning”
- Button on Transmission Outage Ticket menu only visible if user’s company has EMS Trip Tickets marked “Unknown”
- **Note: The label Contingency Planning will be renamed Pre-Contingency Switching**

**EMS Trip Update**

Ticket Status: Submitted  Planned  Received  Approved  Revised  Active  Cancelled  Completed

[Apply Filter](#)

Ticket ID	Company Ticket ID	Ticket Status	Station	Voltage	Equipment	Start Date	End Date	Cause	Contingency Planning
<a href="#">127962</a>		Active	MONTMILL	230 KV	MNT-NEW	09/19/2005	10/19/2005	Unknown	<input checked="" type="checkbox"/>
<a href="#">128060</a>		Active	HUMMELST	230 KV	HUM-NHE	09/21/2005	10/23/2005	Repair/Replace Conductor	<input type="checkbox"/>
<a href="#">128065</a>		Active	GREYSTON	230 KV	GRE-WWH	09/21/2005	10/23/2005	Repair/Replace Insulator	<input type="checkbox"/>
<a href="#">129743</a>		Active	ATLANTIC	230 KV	3TRAN	10/14/2005	10/14/2005	Fire on Equipment, in Vicinity	<input type="checkbox"/>
<a href="#">129744</a>		Active	TMI	230 KV	1B TX 2	10/14/2005	10/14/2005	Unknown	<input checked="" type="checkbox"/>

[Submit Form](#) [Main Menu](#)

**Transmission Outage Main Menu**

[Create New Outage Ticket](#) [View/Revise Outage Ticket](#) [EMS Trip Update](#)

**Transmission Outage Main Menu**

[Create New Outage Ticket](#) [View/Revise Outage Ticket](#)

**New Transmission Ticket**

User: money Company: [redacted]

Company Ticket ID: [input field]

Ticket Start		Ticket End		Switch Date	
[input]	[input]	[input]	[input]	[input]	[input]
Date (mm/dd/yy)	Hour (hh24:mi)	Date (mm/dd/yy)	Hour (hh24:mi)	Date (mm/dd/yy)	Hour (hh24:mi)

Location/Description of Work (500 characters max) [input field]

- Information/Hotline Work
- For System Planning Only
- Emergency
- Uncertain
- Vegetation Trip
- Cut In**

Outage Type [dropdown] Availability [dropdown]

Type [dropdown] Station Name [dropdown] Voltage [dropdown] Equipment Name [dropdown]

Cause [dropdown list: Add SF-6 gas, C.B. Overhaul, C.B. Replacement, Cable Repair, Contingency Planning, Disconnect/Ground Sw. Maintenance]

Tier 1  Tier 2  Tier 3  Station Equip. Main Menu

Status	Include	Type	Station Name	Voltage	Equipment Name	Start Date	Start Hour	End Date	End Hour
--------	---------	------	--------------	---------	----------------	------------	------------	----------	----------

- New checkbox to be used when ticket will result in facilities being placed into service

- MVAR Adjustment Ticket enhanced to allow changes to the MW Point
- Enhancements also allows user to update curve with more points default
- **TO Benefit:** MVAR changes now to be displayed in Owners Report when MW Points added or changed instead of being lost in Description

### New Generator Outage Ticket

User ID:  Company:   
 Generation Type:  Unit Name:

Company Ticket ID:  Date (MM/DD/YYYY):  Hour (HH24.MI):   
 Description:  Est./Ramp Start:    
 Est. End:    
 End Date Unknown

#### MVAR Capability Changes

Emergency:  New Default:

Min Max

Capability Adj. MVAR Adder:

	Initial			Adjusted		
	MW Points	MVAR Limit Min	Max	MW Points	MVAR Min	Max
1 GEN UNIT	10	-4	8	10	-4	8
1 GEN UNIT	35	-4	8	35	-4	8
1 GEN UNIT	36	-4	8	36	-4	8
1 GEN UNIT	37	-4	8	37	-4	8
1 GEN UNIT						
1 GEN UNIT						
1 GEN UNIT						
1 GEN UNIT						

**New Generator Outage Ticket**

User ID:  Company:   
 Generation Type:  Unit Name:

Company Ticket ID:  Date (MM/DD/YYYY):  Hour (HH:MM):   
 Description:  Est. Ramp Start:  Est. End:  End Date Unknown:

MW Volt. Reg. MVAR Governor MVAR Test

**Current eDART D-Curve**

EMS Equipment Name	MW Points	Min	Max
1 GEN UNIT	10	-4	8
1 GEN UNIT	35	-4	8
1 GEN UNIT	36	-4	8
1 GEN UNIT	37	-4	8

Clear Submit Form Main Menu

**Generator Outages Main Menu**

Weekly Peak Period Maintenance Margin  
 Mid-Atlantic: N/A  
 Western-Southern: N/A

Create New Outage Ticket View/Revise Outage Ticket

	MW	Volt. Reg.	MVAR	Governor	MVAR Test
Submitted Tickets	0	0	0	0	3
Revised Tickets	0	0	0	0	0
Current Outages	0	0	0	0	0
Approved Tickets	1	0	0	0	0
Future Outages	0	0	0	0	2
Outages History					

Owners Report Peak Period Maint. Margin Log D-Curve Report Blackstart XLS Upload

- Used to notify PJM of Reactive Testing being performed
- Data to only be entered in general section of ticket
- Current default D-Curve displayed
- New Status Count column added to Generation Menu
- **TO Benefit:** Separate MVAR Testing Ticket type viewable/filterable in Owners Report instead of being lost in Description of MVAR Adjustment Tickets



## eDART Enhancements in May 24<sup>th</sup> Release