



eDART September 2017 Release Enhancements

eDART Users Group Meeting
8/21/2017

- Production
 - Release of September enhancements scheduled for Wednesday, September 20th.
 - eDART will be unavailable from 19:00 to 02:00 on Thursday, September 21st.
- Sandbox release on *September 7th*
 - Coordinated Testing in Sandbox on **Friday, September 8th**.
 - SMEs available to perform PJM functions e.g. update tickets (lock, approve, activate, recall, etc.) as needed.
 - Members confirm all functionalities frequently used.

- September 2017 Enhancements
 - Generator Outage Opportunity Window
 - GO Survey Text File Upload
 - Company Ticket ID addition to TERM Report
- Other Discussion Topics
 - Reactive Reserve Check (RRC) Rewrite Updates
 - eDART Refresh Overview
 - Future Enhancements
- Question & Answer Resolution Session

- Outage Opportunity Window tool can be used to facilitate scheduling of generator outages to maintain reserves.
 - User will select unit, outage duration, outage reduction and a start and end window.
 - Tool will then provide availability between dates.



Generator Tickets Main Menu

Summer Peak Period Maintenance Margin Season	
Start: 06/12/2017 End: 09/08/2017	
Current Maintenance Margin	
Mid-Atlantic	0
Western-Southern	0

Buttons: Create New Ticket, Opportunity Window, View/Revise Ticket

Generator Outage Opportunity Window

Generator outage opportunity window shows potential available dates for outages. Proposed windows are based solely on current reserve projections and does not guarantee outage approval. Outages will be evaluated against current edart rules upon submittal.

Company: [Generation Co.](#) Unit: RBL-10; ICAP: 220

Reduction: Duration (in days): Interval Start: Interval End:

[Apply Filter](#) [Refresh](#) [Main Menu](#)

Reduction: Duration (in days): Interval Start: Interval End:

No Opportunity Window was found.

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Reduction: Duration (in days): Interval Start: Interval End:

Opportunity Window DURING: 08/21/2017 00:00 - 09/30/2017 00:00

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- On 6/26, new GO Survey download was implemented.
 - MS Excel friendly tab separated text file.

GO Survey									
Survey ID	Survey Name	Note	Start Date	End Date	Number of Units Total	Number of Units Answered	Files	Upload File	Download
501	GO Survey for Cold Weather Preparation Checklist	PJM Members should complete this survey to confirm that units have been prepared for	10/21/2016	12/31/2017	75	1		Upload File	Download XML Download TXT

- New functionality being implemented to allow GO to edit downloaded file and upload to eDART in response to survey.

- Company Ticket ID field added to TERM Reports filter.

View/Revise Reports Filter		
Company	Tickets/Notifications	Group Name
Electric Company	<input checked="" type="radio"/> Tickets <input type="radio"/> Notifications <input type="radio"/> Shared Tickets	<input type="text"/>
Ticket ID	Company Ticket ID	
<input type="text"/>	<input type="text"/>	
Type	Station Name	Voltage
<input type="text" value="v"/>	<input type="text" value="v"/>	<input type="text" value="v"/>

- New Instantaneous Reserve Check Monthly Statistics Report:
 - Available Capacity
 - Total Units
 - Total Reserves Acknowledged
 - Total Reserves Unacknowledged
 - Score (Total Reserves Acknowledged/Total Reserves x 100)

- Fixed Tickets Occurred During filter logic on Generation Owner Report filter.
 - Previously ignoring tickets starting on the 'From' date in the filter.
- Option to download IRC reports by date added to Downloads page.
 - Download result is a list of IDs for IRCs in the provided date range. User can request IRC Full report by desired ID.
- Issue with 'Save as File' option for web downloads fixed.

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- Phase 1a (9/28 release):
 - Availability of RRC Self-Check report.
- Phase 1b (Q4 2016):
 - Availability of RRC Self-Check data; updated every 5 minutes.
- Phase 2 – 2017 (7/26 release):
 - Ability for PJM to issue new RRC.
 - Functionality to retrieve/submit real time reserve values.
 - Parallel Operations* with current RRC; issued concurrently.

* Anticipated to remain in Parallel Ops until ICCP implementation, ~ Q4 2017.

- When New RRC is issued, the RRC Self Check button is replaced with Submit RRC button.
- User can acknowledge reserve values displayed.
 - Click Submit.
- User can enter reserve values and acknowledge submissions.



MVAR Reserve Check Company Data

Company: Request ID: 725
User Name:

Request Timestamp: 07/31/2017 12:05
Posted Timestamp:
Data Updated: 07/31/2017 12:05

Peak MVAR Reserve Totals

Company	Capacitors			Reactors			SVCs/Statcom			Units/Condensers	PJM Note	Company Response
	PJM Values	Company Adj. Values	Unackn.	PJM Values	Company Adj. Values	Unackn.	PJM Values	Company Adj. Values	Unackn.	PJM Values		
	426.85	426.85								1842.54		
	4	0 of 4	4 of 4							49		

Capacitors
 Reactors
 SVCs/Statcom
 Units/Condensers

All
 Unacknowledged Only
 Adjusted Values Only

Name:
 Min KV:
 Max KV:
 SE Status:

Discrepancies Only:
 Acknowledge Type:

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Capacitors (1-4 of 4)

1	2	3													
Company	Station/Equipment Name	Zone	KV	eDART Availability	SE Status	SE KV	SE MVAR	Rated MVAR			Lagging Reserve MVAR			Acknowledge Type	Override ICCP
								PJM	Company	Delta	PJM	Company	Delta		
			13	Y	Offline	13.70	0.00	5.40	<input type="text"/>		5.40				
			13	Y	In-Service	13.87	5.45	5.45	<input type="text"/>		0.00				
			115	Y	Offline	113.77	0.00	60.00	<input type="text"/>		60.00				
			230	Y	Offline	233.16	0.00	356.00	<input type="text"/>		356.00				

Capacitors (1-4 of 4)

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MVAR Reserve Check Company Data

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 Request ID: 725 Posted Timestamp: _____
 User Name: _____ Data Updated: 07/31/2017 12:05

Peak MVAR Reserve Totals

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Capacitors
 Reactors
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All
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Name:
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Capacitors (1-4 of 4)

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			230	Y	Offline	233.16	0.00	356.00	<input type="text"/>	Delta	356.00				

Equipment can be filtered by type, name, voltage and SE status.

- PJM can include notes to all and/or specific TOs.
- User can add note to PJM.

Enter reserve values as needed.

MVAR Reserve Check Company Data

Company: Request ID: 725 Request Timestamp: 07/31/2017 12:05
 User Name: Posted Timestamp: Data Updated: 07/31/2017 12:05

Peak MVAR Reserve Totals

Company	Capacitors			Reactors			SVCs/Statcom			Units/Condensers		PJM Note	Company Response
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		1 of 4	0 of 4							49			

Capacitors
 Reactors
 SVCs/Statcom
 Units/Condensers
 All
 Unacknowledged Only
 Adjusted Values Only

Name: Min KV: Max KV: SE Status: Both v
 Discrepancies Only: Acknowledge Type: All v

Capacitors (1-4 of 4)

Company	Station/Equipment Name	Zone	KV	eDART Availability	SE Status	SE KV	SE MVAR	Rated MVAR			Lagging Reserve MVAR			Acknowledge Type	Override ICCP
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Clicking Submit acknowledges reserve values: company entered or PJM values.

ICCP values retrieved when RRC issued. User can override ICCP values if needed.

- I → ICCP: reserve values from ICCP data.
- X → XML: RRCRevise upload.
- U → UI: web UI.

New Reactive Reserve Check

Submit RRC

RRC Report Search

RRC Report Search

Company: User Name:

Request Number:

From Date: To Date:
(MM/DD/YY) (MM/DD/YY)

Last 30 Days:

Apply Filter

Most Recent

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RRC Report

Company: User Name:

Report ID	Request Timestamp	Posted Timestamp
728	07/31/2017 18:09	
727	07/31/2017 16:10	07/31/2017 17:05
726	07/31/2017 14:09	07/31/2017 15:10
725	07/31/2017 12:05	07/31/2017 13:09
724	07/31/2017 10:05	07/31/2017 11:04
723	07/31/2017 08:04	07/31/2017 09:04

MVAR Reserve Check Company Data

Company: Request Timestamp: 07/31/2017 12:05
Request ID: 725 Posted Timestamp: 07/31/2017 17:05
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	426.85	426.45								1842.54				
	4	1 of 4	0 of 4							49				

Capacitors Reactors SVCs/Statcom Units/Condensers

All Unacknowledged Only Adjusted Values Only

Name: Min KV: Max KV: SE Status: Both

Discrepancies Only: Acknowledge Type: All

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Capacitors (1-4 of 4)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Company	Station/Equipment Name	Zone	KV	eDART Availability	SE Status	SE KV	SE MVAR	Rated MVAR			Lagging Reserve MVAR			Acknowledge Type	Override ICCP
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Capacitors (1-4 of 4)

Submit

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- TOs can submit New RRC data via ICCP for the following measurements:

Measurement
Capacitor Rated MVAR
Reactor Rated MVAR
SVC/STATCOM High MVAR Limit
SVC/STATCOM Low MVAR Limit

- If you are interested in submitting the data via ICCP, please ask your telemetry group to reach out to PJMTelemetrySupport@pjm.com

- TOs should provide the following to PJM Telemetry Support Group if they want to send RRC data via ICCP:
 - ICCP Object ID
 - Equipment Name
 - Measurement Description
- PJM can also provide the TO with a list of all Capacitors/Reactors, SVCs and STATCOMs modeled in PJM's EMS.

Questions? Contact RRCHelp@pjm.com

- User Experience Analysis for the eDART Refresh is ongoing this year starting with the Transmission Outage Tickets application.
- Users of eDART Transmission Tickets on the web UI interested in providing feedback should contact Chidi Ike-Egbonu.

- MVAR Test Tickets:
 - New field for telemetry verification dates per M14D, E.4.1.
 - Will be used to auto-populate Telemetry Verified Date section on Reactive Capability Testing Form.
- Blackstart Calculator



eDART Black Start Calculator

Ray Lee
Generation Department

- Enhance visibility/awareness of current and future Black Start and Critical Loads
- Enhance tracking and completion of required items prior to new units coming in service or retiring or terminating Black Start service
- eDART 2017 Q4 target release date

- PJM evaluates Black Start & Critical Load when
 1. PJM issues RTO Wide Black Start RFP every 5 years (M14D Section 10.1)
 2. As units retire, terminate Black Start service or when new units come in-service. May result in Incremental RFP (M14D Section 10.2.)

- Black Start and Critical Load Evaluation Includes
 - Ensure minimum black start requirements are met per TO zone (M36 Attachment A)
 - Ensure units meets & completes all requirements before providing Black Start Service (M12 Section 4.6)
 - Develop cranking paths with TOs for steady state & dynamic studies
 - Coordination of Restoration Plan updates

1. Enhance visibility and awareness of Black Start and Critical Loads
2. Enhance tracking and completion of all required processes prior to designating a unit as Black Start or Critical Load
3. Minimize rework by using the same baseline data across PJM/GO/TO
4. Reduce reliance on email as documentation between PJM/GO/TO

- PJM will request Generator information for Black Start and Critical Loads for restoration planning purposes.
- PJM will gather information such as but not limited to
 - Cranking MW/MVAR requirement
 - Minimum operating requirements
 - Duration unit can operate below minimum output
 - PLS Cost Schedule Hot Start Time to determine if a unit is critical load

1. Review eDART black start and critical loads to ensure TO restoration plans are aligned

2. Review impacts of unit retirements and new units coming in-service
 1. Development of new cranking paths
 2. Communicate/coordinate steady state & dynamic study request with PJM
 3. Ensure restoration plan updates are complete in accordance with EOP-005-2 R4 requirements

Send questions & suggestions to

Ray Lee

610-666-4608

Ray.Lee@pjm.com

- eDART Team planning to combine the eDART User Guide (<http://www.pjm.com/-/media/etools/edart/edart-user-guide.ashx?la=en>) and eDART Quick Reference Guide (<http://www.pjm.com/-/media/etools/edart/edart-quick-reference-guide.ashx?la=en>).
 - Improved maintenance of one document versus two.
 - To be decommissioned after eDART refresh.

- The 2017 PJM Member Satisfaction Survey will be open on Monday, September 11th and close on Friday, September 22nd.
- PJM values stakeholder feedback and makes changes and improvements as a result of the survey findings.
- Number of questions in the survey reduced to 25.
- Members of the eDART User Group email distribution list already included in survey.
 - Other interested participants should contact Chidi Ike-Egbuonu.

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