eDART November 2014 Release Enhancements

eDART Users Group Meeting
11/17/2014
• **Production**
  – Release of enhancements scheduled for Wednesday, November 19th.

• **Sandbox**
  – Enhancements released on Thursday, November 13th.
Password Security Enhancements

November 2014 Enhancements
   - Identification of BES Facilities
   - Gen Tickets Auto-Acknowledgement
   - Other November 2014 Enhancements

Flow Breaker Update

Future Enhancements

Question & Answer Resolution Session
New password security algorithm implemented on August 21\textsuperscript{st}.
  - Changes transparent to users.

Users are being asked to log in/connect to eDART by the end of 2014.
  - Production and Sandbox environments.

Users still on old algorithm to be notified early 2015.
  - Accounts to be revoked 30 days after notification if no action taken.
Password Security Enhancements

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Future Enhancements

Question & Answer Resolution Session
Effective July 1, 2014, PJM Manual 03A Appendix C defines Bulk Electric System (BES) facilities as:

- ‘equipment rated 100 kV or higher’.
- ‘equipment rated below 100 kV which may impact through transmission components of the electric system’.
- Transmission Owners (TO) are responsible for defining their BES elements, exclusions or inclusions.
- [http://www.pjm.com/~/media/committees-groups/subcommittees/rscs/20140411/20140411-cb014-revised-bes-definition.ashx](http://www.pjm.com/~/media/committees-groups/subcommittees/rscs/20140411/20140411-cb014-revised-bes-definition.ashx)
With this release, when new equipment is added to eDART:

- PJM Model Management Department (MMD) will review and set Tariff information including BES status.
- TO will be able to view BES information and request changes as needed.
- MMD will review update requests and approve/deny/implement changes as appropriate.
- Same process as currently done for Tariff Monitored Status.
• ‘Adj. Monitored Status’ button label changed to ‘Adj. Tariff Data’.

• ‘Monitored Status Update Form’ changed to ‘Tariff Facilities Update Form’.

• New columns:
  – Current BES: read only field to display BES status.
  – Adjusted BES: drop down field to change BES status.

• Number of editable rows changed from 500 to 300.
- New functionality on Tariff Facilities Update Form confirmation page to display multiple requests being made for the same facility.
• Current BES & Adjusted BES columns added to report.

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Tariff Type</th>
<th>Type</th>
<th>EMS Station Name</th>
<th>Voltage</th>
<th>Equipment Name</th>
<th>Current Tariff Monitored Status</th>
<th>Adjusted Tariff Monitored Status</th>
<th>Current BES</th>
<th>Adjusted BES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrot Pear 115 kV Equipment</td>
<td>Other</td>
<td>Line</td>
<td>CARROT</td>
<td>115 KV</td>
<td>BOLD-APPLES 1053-2</td>
<td>Not monitored, no status</td>
<td>Not monitored, no status</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Bold - Apples 115 kV ckt 1-2</td>
<td></td>
<td></td>
<td>BOLD</td>
<td>115 KV</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Latest Update: 11/12/2014 14:56

Cancel

History Log

View

Submit Form

Main Menu

Submit Form

Main Menu
Transmission Facilities lists on PJM.com to be updated to display BES status of facilities.


- Last Updated timestamp also to be added.
Password Security Enhancements

- November 2014 Enhancements
  - Identification of BES Facilities
  - Gen Tickets Auto-Acknowledgement
  - Other November 2014 Enhancements

- Flow Breaker Update
- Future Enhancements
- Question & Answer Resolution Session
In eDART March 2013 release, functionality implemented to allow TO to Bulk Acknowledge MW Gen Tickets with reduction in pre-determined range.

Amount of tickets to be manually acknowledged still large.

Proposed solution: set parameters, per TO, for which to automatically acknowledge MW Gen Tickets.
• Users with eDART admin access can set auto-acknowledgement parameters:
  – Minimum Reduction (must be negative)
  – Maximum Reduction
  – Percentage of ICAP
• If parameter is not set, default parameters will be used:
  – Minimum Reduction = -10MW
  – Maximum Reduction = 5MW
  – Percentage of ICAP = 0%
### Generation Notifications Requiring Acknowledgement

#### Auto-Acknowledgement Parameters

<table>
<thead>
<tr>
<th>Min. Reduction (MW)</th>
<th>Max. Reduction (MW)</th>
<th>Percentage of ICAP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Auto-Acknowledgement Parameters History

<table>
<thead>
<tr>
<th>Min. Reduction (MW)</th>
<th>Max. Reduction (MW)</th>
<th>Percentage of ICAP</th>
<th>User ID</th>
<th>Timestamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>-1</td>
<td>1</td>
<td>user1234</td>
<td>2014/10/23 16:36:20</td>
</tr>
<tr>
<td>-100</td>
<td>-5</td>
<td></td>
<td>user1234</td>
<td>2014/10/23 16:35:01</td>
</tr>
<tr>
<td>-2</td>
<td>11</td>
<td>3</td>
<td>user1234</td>
<td>2014/10/22 16:29:04</td>
</tr>
</tbody>
</table>

#### Ticket Details

<table>
<thead>
<tr>
<th>Ticket ID</th>
<th>Ticket Type</th>
<th>Ticket Status</th>
<th>Company</th>
<th>Unit Name</th>
<th>Reduction</th>
<th>Est. Start</th>
<th>Est. End</th>
</tr>
</thead>
<tbody>
<tr>
<td>297653</td>
<td>MW</td>
<td>Approved</td>
<td>Gas Company</td>
<td>UNIT A</td>
<td>100</td>
<td>08/06/2012 00:00</td>
<td>08/15/2012 00:00</td>
</tr>
<tr>
<td>297853</td>
<td>MVAR Test</td>
<td>Approved</td>
<td>Energy Company</td>
<td>ADAMS SVC #2</td>
<td>08/28/2014 00:00</td>
<td>09/06/2014 00:00</td>
<td></td>
</tr>
<tr>
<td>298056</td>
<td>MW</td>
<td>Canceled by Company</td>
<td>Electric Company</td>
<td>FLINSTONES 1</td>
<td>10/11/2012 12:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>298056</td>
<td>MW</td>
<td>Canceled by Company</td>
<td>Electric Company</td>
<td>FLINSTONES 1</td>
<td>10/11/2012 12:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>298106</td>
<td>MW</td>
<td>Approved</td>
<td>Energy Company</td>
<td>PAPPLE ST #1</td>
<td>10/24/2012 00:00</td>
<td>10/27/2012 00:00</td>
<td></td>
</tr>
</tbody>
</table>
• Users without eDART admin access cannot set auto-acknowledgement parameters.
  – Users can view current parameters.
• Once an hour, eDART job will run:
  – Auto-acknowledge all MW Gen Tickets where Reduction > Min. parameter and Reduction < Max. parameter.
  – Auto-acknowledge all MW Gen Tickets where Reduction < (ICAP * Percentage of ICAP).
  – Auto-acknowledge all MW Gen Tickets where status is Complete with Actual End Date ≥ 30 days in the past.
  – Auto-acknowledge all MW Gen Tickets where status is Cancelled with Estimated End Date ≥ 30 days in the past.
• Example:

|---------------------------------|-------------------------|-------------------------|-----------------------|

- Ticket for wind unit (ICAP = 70) where Reduction = 5MW will be automatically acknowledged.
- Ticket for nuclear unit (ICAP = 1000) where Reduction = 25MW will be automatically acknowledged.

• Auto-acknowledged tickets still available for review in Owners Report.
  - Auto-acknowledge userid will be ‘EDART System’.
Agenda

- Password Security Enhancements
  - November 2014 Enhancements
    - Identification of BES Facilities
    - Gen Tickets Auto-Acknowledgement
    - Other November 2014 Enhancements
  - Flow Breaker Update
  - Future Enhancements
  - Question & Answer Resolution Session
• New functionality for PJM outage study engineers to flag tickets at risk of being denied.
  – Outages flagged during long term studies (6-month out, 1-month out).
• At Risk flag added to transmission outage tickets, report filters and reports.
• Number of At Risk tickets displayed on Main Menu.
Identification of At Risk Transmission Outage Tickets

Transmission Outage Main Menu
- Create New Outage Ticket
- View/Revise Outage Ticket
- EMS Trip Update
- Gen Outage Lookup
- Future Facilities
- Current One Line Diagrams
- RTEP Queue # Update

Transmission Reports
- Status Report
- Trans. Outage Tickets Report
- Tickets Active Tomorrow

Submitted: 566 / 4  Revised: 18 / 6  Received: 55 / 7  Approved: 319 / 23  Active: 33 / 6  Incomplete: 166  At Risk: 1

Ticket Selection Form

<table>
<thead>
<tr>
<th>Company</th>
<th>Tickets / Notifications</th>
<th>Submit on Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Company</td>
<td>Tickets Only / Notifications Only</td>
<td>Yes / No / Both</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ticket ID</th>
<th>Company</th>
<th>Ticket ID</th>
<th>Emergency / Informational / Cut-in / Potentially Incomplete / At Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>☐ Emergency Only / ☐ Info Only / ☐ Cut-in Only / ☐ At Risk Only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outage Type</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Immediate</td>
</tr>
<tr>
<td>Continuous</td>
<td>30 min.</td>
</tr>
<tr>
<td>Continuous</td>
<td>1 hr.</td>
</tr>
<tr>
<td>No Weekends</td>
<td>2 hr.</td>
</tr>
<tr>
<td>Daily</td>
<td>4 hr.</td>
</tr>
<tr>
<td>Including</td>
<td>8 hr.</td>
</tr>
<tr>
<td>Weekends</td>
<td>Duration</td>
</tr>
<tr>
<td>Daily</td>
<td>Only</td>
</tr>
<tr>
<td>No Weekends</td>
<td>Only</td>
</tr>
<tr>
<td>EMS Trip</td>
<td>Only</td>
</tr>
</tbody>
</table>
Identification of At Risk Transmission Outage Tickets

![Review/Revise Transmission Ticket](image)

**User:** UserA  
**Company:** Electric Company  
**Status:** Submitted  
**Ticket ID:** 65506

**Company Ticket ID:** test sir 2  
**RTEP Queue #:**

<table>
<thead>
<tr>
<th>Ticket Start</th>
<th>Ticket End</th>
<th>Switch Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/25/2015</td>
<td>02/27/2015</td>
<td>02/25/2015</td>
</tr>
<tr>
<td>00:00</td>
<td>00:00</td>
<td>00:00</td>
</tr>
</tbody>
</table>

**Location/Description of Work (4000 char. max):**
Test

**Information/Hotline Work:**
- Emergency
- Vegetation Trip
- Cut In  
- Direct Billing
- Direct Billing Decline

**Cause:**
- Add SF-6 Gas
- C.B. Replacement
- CB Maintenance
- Cable Repair
- Contingency Planning
- Cut-in
- Disconnect/Ground Sw. Maintenance
- Doble Test
- Emergency
- Excludable Outage
- External
- Fire on Equipment/in Vicinity
- Gas/Oil Testing/Replacement

**Potentially Incomplete:** No  
**At Risk:** Yes  
**Congestion Expected:** No
• Currently the Potentially Incomplete logic flags a transmission outage ticket as Potentially Incomplete if it has only breakers.

• Update to logic: do not flag tickets as Potentially Incomplete if:
  – ticket has only one CB
  – CB voltage $\geq 230$ kV
  – cause is ‘CB Maintenance’
New Generation report to display gen tickets for units in TO’s zone with the status of Active and occurring tomorrow.

– Similar function to Transmission Reports – Tickets Active Tomorrow.
• Gen Tickets displayed only for units that TO is approved to view.

• Submitted, Received and Approved tickets displayed if Est. Start Date is <= tomorrow and Est. End Date is past tomorrow.

• Active tickets displayed if Actual Start Date <= current time and Est. End Date is >= current time - 2 hours.
SSR – Summary Data

- Row & Column headers repeated on SSR – Summary Data report for better user interaction.
• Links on the PJM BlackStart Service Upload page will be updated:
Password Security Enhancements

November 2014 Enhancements
- Identification of BES Facilities
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Flow Breaker Update

Future Enhancements

Question & Answer Resolution Session
• New functionality implemented in September for the addition of flow breakers and their ratings to the TERM application.
  – Users will be able to create TERM tickets for breakers identified as Flow Breakers in eDART.

• **Update:** dummy equipment will be replaced with flow breakers and made available in TERM.
  – More information to be provided at DMS meeting on Thursday, November 20th.
Password Security Enhancements

November 2014 Enhancements
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Flow Breaker Update

Future Enhancements

Question & Answer Resolution Session
• Tools Refresh of Emergency Procedures:
  – Users will have the option to request accounts for access to EP or continue to use the Guest login.
  – Users will have to use the new Command Line Interface instead of the current legacy browserless client.
  – XML file format will change from the current version.
  – Demos and parallel operations being planned.

• Removal of Emergency Procedures messages in eDART SSR reports.
Future Enhancements

• Updates to Unit Types and Generator Outage Cause Types.
  – Timeline is January 2015.
  – More information will be provided to user group.

• Instantaneous Reserve Check
  – Update to pre-fill IRC fields before IRC is issued.
  – GO will then review, update and/or validate data as necessary.
• Grouping Transmission Outage Tickets into Projects.
  – Ability to add tickets to projects on ticket creation.
  – Ability to create projects and add tickets to projects.
  – Ability to move all or cancel all tickets per project.

• Conflict Analyzer Phase 3a:
  – Identification and creation of conflict scenarios including external/neighboring outages.

• Requirement for LD rating to be $\geq 103\%$ of LTE.
  – STE = LTE unless otherwise documented.
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Flow Breaker Update

Future Enhancements

Question & Answer Resolution Session
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