



eDART March 2016 Release Enhancements

eDART Users Group Meeting
2/23/2016

- Production
 - Release of March enhancements scheduled for Wednesday, March 30th.
- Sandbox
 - Release of March enhancements scheduled for week of March 7th.

- March 2016 Enhancements:
 - Network Model Enhancements
 - TERM Enhancements
 - Other Enhancements
- Other Discussion Topics
- Question & Answer Resolution Session



Network Model Enhancements

- New functionality for PJM and TOs to link Network Model Requests and Transmission Outage Tickets.
 - Facilitate conversations between modelers, outage schedulers & dispatch staff.
 - Primarily for Cut-In tickets, however, any Transmission Outage Ticket may be linked as well.
 - Linkage will be set up on eDART web UI only.
 - Linked modeling request information added to transmission ticket.

- Setting up a link via the Network Model View:

Network Model Main Menu

Create New Change Request View/Revise Change Request Current One Line Diagrams

Future Facilities **Cut-In Ticket Link** Lat/Long Update

Filter for desired Network Model Request

Network Model Request/Cut-In Ticket Report

Network Model View Transmission Ticket View

Company: Electric Company

Build Date Range: From: 08/19/2015 To: 08/19/2016 Station: [v] Exclude Completed Exclude Cancelled Missing Trans. Ticket

Apply Filter Clear Filter Main Menu

Req ID	Company	RTEP#	Title	Status	Stations	Target Build	Actual Build	Transmission Outage Ticket(s)
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Submit Export to CSV Main Menu

Network Model Link button will be added to the Trans. Tickets Main Menu

Network Model and Cut-In Transmission Ticket Linkage

Network Model Request/Cut-In Ticket Report

Network Model View Transmission Ticket View

Company: **Electric Company** Build Date Range: From: To: Station:

Exclude Completed Exclude Cancelled Missing Trans. Ticket

Req ID	Company	RTEP#	Title	Status	Stations	Target Build	Actual Build	Transmission Outage Ticket(s)
4307	Electric Company		Test NM Request	Submitted	APPLE	Winter 2015/16		<input type="button" value="Add"/>

Enter comma separated list to link multiple tickets at one time

Add Transmission Outage Tickets

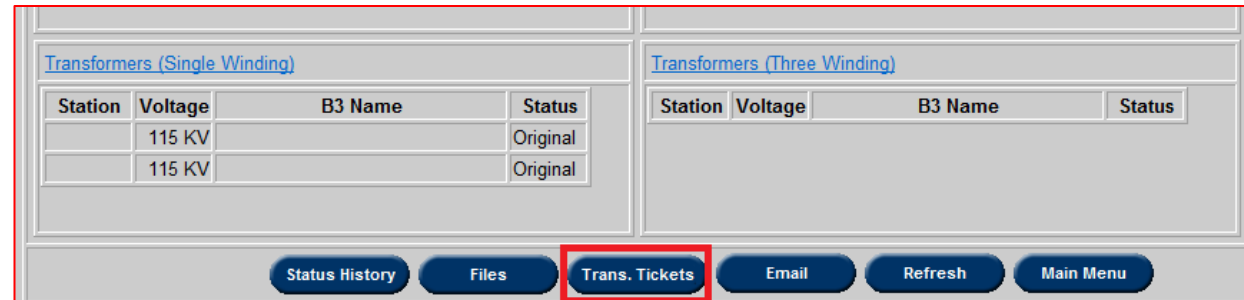
Ticket ID:

Exports current data on screen since last Submit.

Req ID	Company	RTEP#	Title	Status	Stations	Target Build	Actual Build	Transmission Outage Ticket(s)						
4307	Electric Company		Test NM Request	Submitted	APPLE	Winter 2015/16		<table border="1"> <tr> <th>Remove</th> <th>Ticket</th> <th>RTEP#</th> </tr> <tr> <td><input type="checkbox"/></td> <td>66689</td> <td></td> </tr> </table> <input type="button" value="Add"/>	Remove	Ticket	RTEP#	<input type="checkbox"/>	66689	
Remove	Ticket	RTEP#												
<input type="checkbox"/>	66689													

Click to open Print Version of ticket

- Linked transmission outage ticket information added to model change request.

A screenshot of a web application interface. It features two side-by-side data tables. The left table is titled 'Transformers (Single Winding)' and contains two rows of data. The right table is titled 'Transformers (Three Winding)' and is currently empty. Below the tables is a horizontal row of six blue buttons: 'Status History', 'Files', 'Trans. Tickets', 'Email', 'Refresh', and 'Main Menu'. The 'Trans. Tickets' button is highlighted with a red rectangular border.

Transformers (Single Winding)			
Station	Voltage	B3 Name	Status
	115 KV		Original
	115 KV		Original

Transformers (Three Winding)			
Station	Voltage	B3 Name	Status

Buttons: Status History, Files, **Trans. Tickets**, Email, Refresh, Main Menu

- Setting up a link via the Transmission Ticket View:

Filter for desired Transmission Ticket

Network Model Request/Cut-In Ticket Report

Network Model View **Transmission Ticket View**

Company
Electric Company

Occuring During
 From: To:
(MM/DD/YYYY) (MM/DD/YYYY)

Cut-In Tickets Only
 Missing Network Model Request

Ticket Status: Submitted Received Denied Approved Cancelled by Company Cancelled by PJM Revised Active Completed

Ticket ID	Ticket Status	Company	RTEP#	Station	Voltage	Equipment	Start Date	End Date	Latest Update	Network Model Request(s)
66507	Submitted	Electric Company	234B	APPLE	138 KV	APL-BNA	04/28/2016 00:00	05/13/2016 00:00	04/21/2015 12:11	No Request Needed: <input type="checkbox"/> <input type="button" value="Add"/>
66508	Submitted	Electric Company		ORANGE	138 KV, 345 KV	DUMT1,T-1	04/28/2016 00:00	05/13/2016 00:00	04/21/2015 12:16	No Request Needed: <input type="checkbox"/> <input type="button" value="Add"/>

- The ‘Add Network Model Request’ form displays requests for model builds within one year before outage ticket start date and one year past the ticket end date that include any of the stations in the outage tickets.
 - User can manually add other model requests by ID.
 - Enter comma separated list to link multiple requests at one time

Add Network Model Request

Include	RTEP#	Request #	Build	Title	Company
<input type="checkbox"/>		3925	M	Test Model x	Electric Company

Request #:

Add
Back

Click to open Print Version of ticket

Network Model Request/Cut-In Ticket Report

Network Model View
 Transmission Ticket View

Company: **Electric Company**
 Occuring During: From: To:
 Cut-In Tickets Only
 Missing Network Model Request

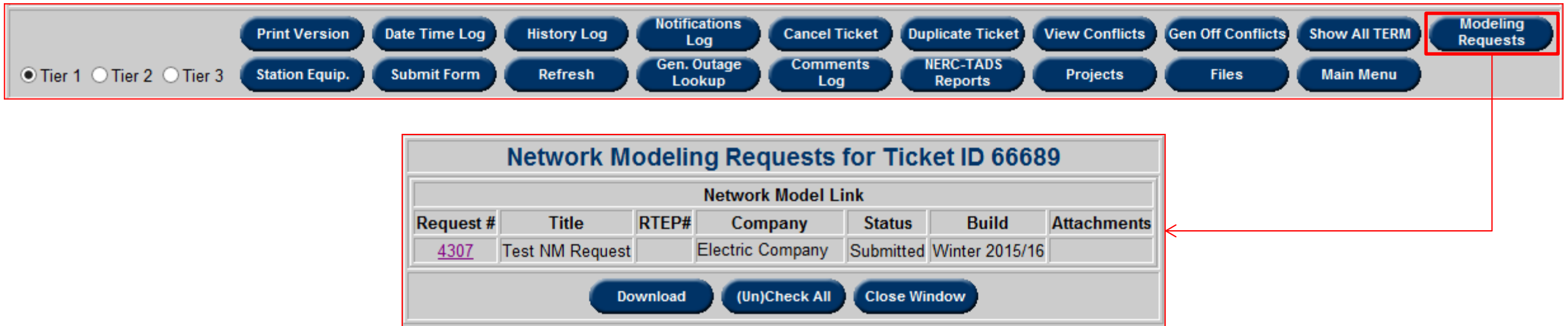
Ticket Status: Submitted Received Denied Approved Cancelled by Company Cancelled by PJM Revised Active Completed

Ticket ID	Ticket Status	Company	RTEP#	Station	Voltage	Equipment	Start Date	End Date	Latest Update	Network Model Request(s)									
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No Request Needed: <input type="checkbox"/>																			
<input type="button" value="Add"/>																			

Indicate if cut-in does not require model change

In the case of multiple stations, voltage levels and equipment, all displayed, comma separated

- Linked modeling request information added to transmission ticket.



The screenshot shows a toolbar with buttons for 'Print Version', 'Date Time Log', 'History Log', 'Notifications Log', 'Cancel Ticket', 'Duplicate Ticket', 'View Conflicts', 'Gen Off Conflicts', 'Show All TERM', 'Modeling Requests', 'Station Equip.', 'Submit Form', 'Refresh', 'Gen. Outage Lookup', 'Comments Log', 'NERC-TADS Reports', 'Projects', 'Files', and 'Main Menu'. There are also radio buttons for 'Tier 1', 'Tier 2', and 'Tier 3'. A red box highlights the 'Modeling Requests' button, and a red arrow points from it to a pop-up window.

The pop-up window is titled 'Network Modeling Requests for Ticket ID 66689' and contains a table with the following data:

Network Model Link						
Request #	Title	RTEP#	Company	Status	Build	Attachments
4307	Test NM Request		Electric Company	Submitted	Winter 2015/16	

Below the table are buttons for 'Download', '(Un)Check All', and 'Close Window'.

- Cut-In outage tickets cannot be Approved or Activated if no model request linked or ticket not identified as not needing one.

- Joint DMS/eDART User Group – Transmission meeting being set up to discuss Network Model/Cut-In Transmission Ticket process details:
 - Wednesday, March 16th
 - 10:00 to 12:00 EST
 - WebEx/Conference Call
- Meeting registration details to be sent out soon.

- New functionality to track progress of model change requests.
 - PJM will assign Model Coordinators (MC) and Modelers (MM).
 - TO will be able to see assignees on change request and report.
- Count of requests added to Network Model Main Menu.

Network Model Main Menu

Requests	
	Total
Submitted	#
Received	#
Revised	#
Approved	#
Modeled	#
Implemented	#

Network Model Change Request

Request ID: **4266** Company: **Electric Company**
 Modeling Coordinator: John Doe Modeler: Jane Doe

Title:

Company Project ID: Type:

RTEP/Gen Queue: Status: Submitted

Network Model Change Request

Request ID: **4266** Company: **Electric Company**
 Modeling Coordinator: John Doe Modeler: Jane Doe
 Title:
 Company Project ID: Type:
 RTEP/Gen Queue: Status: Submitted
 Generator:
 Description: PJM Comments: Stations:
 Target Model Build: Actual Model Build:
 Submit On-Time: On-Time Submit Evaluation Date: 02/12/2016
 Data Source:
 Primary Voltage: (KV) Secondary Voltage: (KV)

Check if request includes generator(s)

Description no longer mandatory

Data Source: TO or PJM

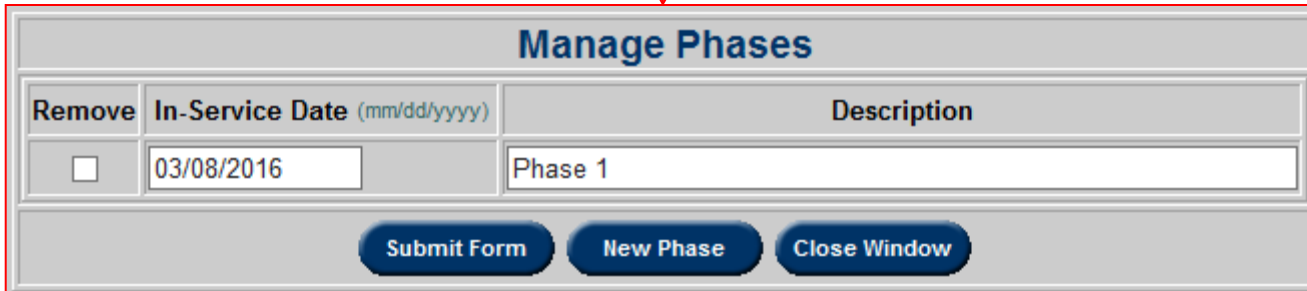
New Fields

- Removed Fields:
- In Progress Checkbox
 - Entry Date
 - Planning ID



For Phased Projects, add or remove phases as needed. Each phase requires an In-Service Date & Description.

New PDF button to export a PDF version of the request.



Manage Phases

Remove	In-Service Date (mm/dd/yyyy)	Description
<input type="checkbox"/>	03/08/2016	Phase 1

Submit Form New Phase Close Window

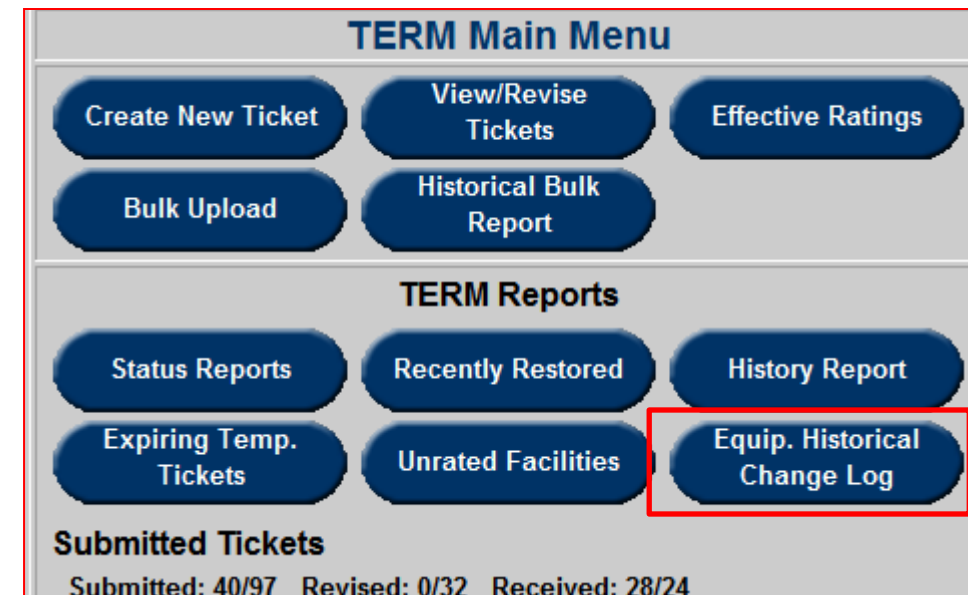
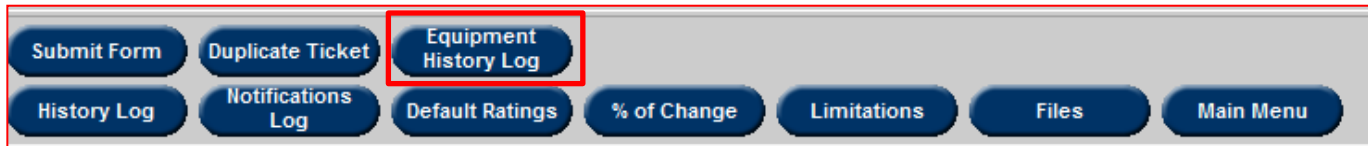
- A 230 kV line was cut-in without ratings in December.
 - Cut-in was moved to start earlier but not communicated to impacted parties.
 - TO and PJM did not realize the issue until a couple of hours after energization.
 - Recommendations:
 - Improve communications, review/update processes.
 - Create a cut-in checklist/operating memo.
 - Update eDART, explore eDART enhancements.

- Prior to energizing any new equipment, the following action items must be completed by PJM and TO:

TO ACTION	PJM ACTION
Submit Ratings	Update ratings
Submit Impedance Information	Update impedance
Ensure Real Time Telemetry is available	Verify Real Time Telemetry is available/implemented
	Update SE override flags
	Update EMS monitor priority
	Update revised contingency

TERM Enhancements

- Equipment Historical Change Log will be added to TERM menu.
 - Log will also be accessible from each TERM Ticket menu.
 - Log to display history of all tickets on a facility.
 - Equipment field will be auto-populated if accessed from TERM ticket.



Equipment Historical Change Log

Type:	Station Name:	Voltage:
<input type="text"/>	<input type="text"/>	<input type="text"/>
Equipment Name:	End:	Ticket Status:
<input type="text"/>	<input type="text"/>	<input type="text" value="Approved"/> <input type="text" value="Cancelled by Company"/> <input type="text" value="Cancelled by PJM"/>
Include Dynamic Tickets:	Tickets Occurring:	
<input type="checkbox"/>	From: <input type="text"/> To: <input type="text"/> <small>(mm/dd/yyyy) (mm/dd/yyyy)</small>	

Equipment Historical Change Log Report

Number of rows in report is limited to 1000 rows.

Type: LINE Station Name: FOU Voltage: 138 KV
 Equipment Name: LINE End: END A

Ticket: 659218 Start Date: 01/26/2016 End Date: 02/12/2016 Ticket Status: Submitted Impedance R: 0.0009 X: 0.004 Charging B: 0.1249	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="2">Normal</th> <th colspan="2">Long Term</th> <th colspan="2">Short Term</th> <th colspan="2">Load Dump</th> </tr> <tr> <th>Temp</th> <th>Day</th> <th>Night</th> <th>Day</th> <th>Night</th> <th>Day</th> <th>Night</th> <th>Day</th> <th>Night</th> </tr> </thead> <tbody> <tr><td>95</td><td>213</td><td>213</td><td>342</td><td>342</td><td>342</td><td>342</td><td>573</td><td>573</td></tr> <tr><td>86</td><td>213</td><td>213</td><td>342</td><td>342</td><td>342</td><td>342</td><td>589</td><td>589</td></tr> <tr><td>77</td><td>213</td><td>213</td><td>342</td><td>342</td><td>342</td><td>342</td><td>604</td><td>604</td></tr> <tr><td>68</td><td>213</td><td>213</td><td>342</td><td>342</td><td>342</td><td>342</td><td>619</td><td>619</td></tr> <tr><td>59</td><td>239</td><td>239</td><td>369</td><td>369</td><td>369</td><td>369</td><td>634</td><td>634</td></tr> <tr><td>50</td><td>239</td><td>239</td><td>369</td><td>369</td><td>369</td><td>369</td><td>648</td><td>648</td></tr> <tr><td>41</td><td>239</td><td>239</td><td>369</td><td>369</td><td>369</td><td>369</td><td>662</td><td>662</td></tr> <tr><td>32</td><td>239</td><td>239</td><td>369</td><td>369</td><td>369</td><td>369</td><td>675</td><td>675</td></tr> </tbody> </table>		Normal		Long Term		Short Term		Load Dump		Temp	Day	Night	Day	Night	Day	Night	Day	Night	95	213	213	342	342	342	342	573	573	86	213	213	342	342	342	342	589	589	77	213	213	342	342	342	342	604	604	68	213	213	342	342	342	342	619	619	59	239	239	369	369	369	369	634	634	50	239	239	369	369	369	369	648	648	41	239	239	369	369	369	369	662	662	32	239	239	369	369	369	369	675	675
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- Removal of auto-generated “PROC_BRIDGE” tickets created on ENDB of non-tie lines from following reports:
 - Expiring Temporary Tickets
 - Unrated Facilities
 - Recently Restored
- Tickets can still be viewed via the View/Revise report.

- Automated emails will be sent to notify opposite end owners when a tie-line rating change is submitted.
 - For example, if the ticket is for End A, an email will be sent to the End B owner.
 - Emails will be sent to addresses maintained in eDART for each TO.
 - From: termtickets@pjm.com
 - Subject: *[COMPANY]* Tie-Line Rating Verification on *[EQUIPMENT NAME]*

- New download of TERM facilities owned by TO and for which TO has notification rights.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
- <termequipment:equipments xsi:schemaLocation="http://www.pjm.com/soa/schemas/edart/termequipment/v1" xmlns:termequipment="http://www.pjm.com/soa/schemas/edart/termequipment/v1"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <equipment>
  <equipment_id>1</equipment_id>
  <station>AMTRAK</station>
  <voltage>69 KV</voltage>
  <equipment_name>AMTRAK-STATION-1</equipment_name>
  <end>END A</end>
</equipment>
- <equipment>
  <equipment_id>2</equipment_id>
  <station>AMTRAK</station>
  <voltage>69 KV</voltage>
  <equipment_name>AMTRAK-STATION-2</equipment_name>
  <end>END A</end>
</equipment>
```


Other Enhancements

- On the IRC Pool Totals report, Adjusted Primary Reserve and Adjusted Synchronized Reserve will be removed.
 - Identified as no longer needed.
 - Also to be removed from report download.

IRC Company Data				
Company:	Electric Company	Request Timestamp:	02/22/2016 18:33	
Request ID:	4266	Date Updated:	02/22/2016 18:33	
User Name:		Posted Timestamp:	02/22/2016 18:58	
PJM RTO & Reserve Pool Totals				
Reserve Category	RTO	RTO Req.	MAD	MAD Req.
Operating Reserve	* 14844		* 7496	
PRIMARY Reserve	* 3816	3195	* 2352	2076
SYNCHRONIZED Reserve	* 2917	2130	* 1530	* 0
Additional Reserve Info				
	RTO	RTO Req.	MAD	MAD Req.
Largest Contingency	* 2130		1384	
Adjusted Primary Reserve	* 3027		* 1047	
Adjusted Synchronized Reserve(ASR)	* 2303		* 1189	

[Download](#)
[Apply Sort](#)
[Refresh](#)
[Back](#)

- Users will be able to edit the Company Ticket ID on Transmission Tickets after initial submission.
 - Company ticket ID must be unique.

Review/Revise Transmission Ticket

User: Company: **Electric Company** Status: **Submitted** Ticket ID: **66689**

Company Ticket ID: RTEP Queue #:

Ticket Start		Ticket End		Switch Date	
<input type="text" value="07/06/2015"/>	<input type="text" value="00:00"/>	<input type="text" value="07/20/2015"/>	<input type="text" value="00:08"/>	<input type="text" value="07/06/2015"/>	<input type="text" value="00:00"/>
<small>Date (mm/dd/yyyy)</small>	<small>Hour (hh24:mi)</small>	<small>Date (mm/dd/yyyy)</small>	<small>Hour (hh24:mi)</small>	<small>Date (mm/dd/yyyy)</small>	<small>Hour (hh24:mi)</small>

- Currently when 'No Update Needed' is selected for a ticket in the Restoration Plan Review queue, the status is changed to 'No Update Pending Approval'.
 - Status will now be changed to Approved.
- Email notification is currently sent out when a ticket is flagged as a Cut-In ticket indicating that a restoration plan review has been requested by the user who flagged the ticket.
 - Email text is being revised to include the transmission ticket ID, reason for the request (NERC Standard EOP-005-2) and required actions.

- MW Outage Ticket Revision ID bug fix.
 - Resolved issue with manual approval of revisions to tickets.
- RXB Adjustment tickets in 'Awaiting Build' status to be moved to 'Implemented' status when adjusted values match PJM EMS values.

- March 2016 Enhancements:
 - Network Model Enhancements
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 - Other Enhancements
- Other Discussion Topics
- Question & Answer Resolution Session

- Reactive Reserve Check is used to gather and summarize reactive reserve data within the PJM RTO.
 - Rewrite will be similar to Instantaneous Reserve Check Rewrite of 2015.
 - Browserless interface functionality to be added.
 - RRC data submission upload on equipment basis (capacitors, reactors and other reactive devices).
 - RRC Selfcheck and report downloads.
 - Similar timeline: Initial Release in Q2 → Parallel Operations Q3 → Cutover on 9/1/2016.

- Dormant accounts are accounts which have not been logged into for the last 12 months.
- Timeline:
 - 03/14 – Send list of dormant accounts to Company Account Managers (CAMs)
 - 04/18 – Send reminder to CAMs
 - 05/16 – Send reminder to CAMs
 - 06/13 – Lock dormant accounts; send notice to CAMs

- Account Types & Application Access table added to the page to provide additional guidance on access request.

eDART Registration Form

To register users for eDART, complete this form then select [online help](#).

[Account Types & Application Access](#)

	Generic	Generation			Transmission			
Application	Generic Read Only	Gen Read/Write	Gen Read Only	Gen &Trans Read/Write	Trans Read/Write	Trans Read only	Restoration Read/Write	Transmission Planning
Generator Tickets		Complete functionality	No update or insert	Complete functionality				
Transmission Outage Tickets	Read Current and Future and Historical Reports	Read Current and Future and Historical Reports	Read Current and Future and Historical Reports	Complete functionality	Complete functionality	No update or insert.	Read Current and Future and Historical Reports	New Default MVAR Tickets and D-Curve Reports
TERM				Complete functionality	Complete functionality	No update or insert.		
Black Start		Generator Data	Generator Data	Complete functionality	Complete functionality	No update or insert.		

- Coming 03/08:
 - Emphasis on Company Account Manager (CAM) Submission of Form
 - User Email Address Field

- March 2016 Enhancements:
 - Network Model Enhancements
 - TERM Enhancements
 - Other Enhancements
- Other Discussion Topics
- Question & Answer Resolution Session

- edarthelp@pjm.com
- Chidi Ike-Egbuonu: chidi.ike@pjm.com
- Michael Zhang: michael.zhang@pjm.com