

Joint eDART XML Forum / eDART Forum

June 6, 2022

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- eDART Refresh Update
- June 2022 Enhancements
- Future Enhancements
- Weak Encryption Remediation
- Question and Answer Resolution
- Appendix Dynamic Line Ratings Enhancements



eDART Refresh Update



Browserless Refresh

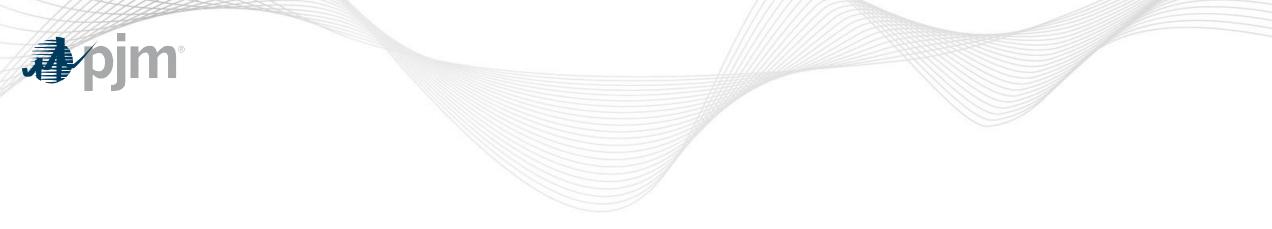
Retirement of eDART Browserless in Production

- Users still using the legacy interface are being notified
- eDART team available to help as needed
- Retirement date will be announced when available



With the eDART refresh, management of eDART user accounts will be migrated to Account Manager.

- Implementation Timeline: TBD
- Account Manager will be used for all new eDART account requests
- Plans currently underway to:
 - Review existing eDART accounts and update email addresses
 - Clean up dormant and invalid accounts
 - Work with eDART Company Account Managers (CAMs)
 - Review window: Q1/Q2, 2022
- See <u>Migration to Account Manager FAQ</u> on <u>eDART Forum</u> home page



June 2022 Enhancements



Release Schedule

Production release of April enhancements scheduled for Wednesday-Thursday, June 22-23, 2022

- eDART unavailability will be announced at least three business days prior
- Train release scheduled for Monday, June 6th



Enhancements to Company Distributed Workflow (CDW) Unit Groups functionality:

- CDW authorized users able to delete units from Unit Groups after unit retirement or transfer.
- Automatic removal of transferred units as part of daily CDW updates.



Voltage Schedules

- New business rules added for Power Factor Voltage Schedules:
 - Normal Tolerance value must be between 0 and 100%
 - Light Tolerance value must be between 0 and 100%
 - Heavy Tolerance value must be between 0 and 100%



User request to change format of ticket IDs in eDART to be more readable as IDs are growing (6-7 digits long)

- Pilot of the format change starting with TERM related tickets
- Current ticket ID format (as of 4/20): YYYYMM###### e.g. 202205000007
- New ticket ID format: YYMM### e.g. 2205107
 - ### = ID sequence that will restart each month & start at 100
 - YYMM = submission year and month



TERM Ticket Acknowledgment

Enhancements to TERM Ack. Required report to support cases where Transmission users have a large number of tickets to acknowledge.

- Ticket status filters added.
- Option to (Un)Check All for acknowledgment.
- Tickets removed from report 40 days after final status change



TERM Ticket Acknowledgment

	TERM Notifications Requiring Acknowledgement														
Status:	Status: 🖸 Retired 🗍 Submitted 🗍 Received 💭 Denied 💭 Approved 🖾 Cancelled by Company 🖾 Cancelled by PJM 💭 Revised 💭 Implemented 💭 Implemented w/o Approve 💭 Restored 🖾 Completed														
	Apply Filter														
Ackn.															
	<u>2849124</u>	Completed	PJM Interconnection	LINE	PERMIT	115 KV	PERPENSION (000711998)	END B	07/28/2021		07/28/2021 18:07				
	<u>2849493</u>	Completed	PJM Interconnection	LINE	REMOVED -	138 KV	SEMINOR CARMINGACH	END B	07/28/2021		07/28/2021 18:08				
	2856683	Completed	PJM Interconnection	LINE	BRANDONS	230 KV	BRANDOMS BABYS, PT 1544	END B	07/28/2021		07/28/2021 18:21				
	2858295	Completed	PJM Interconnection	LINE	PARTICULA	230 KV	BOULEPER-POVERSED 2044	END B	07/28/2021		07/28/2021 18:24				
	2872827	Completed	PJM Interconnection	XFMR	HIGHNER	230 KV	HOMOSO 230-5 TROO DRIESS	LOW	11/01/2021		11/01/2021 18:01				
	<u>2914392</u>	Completed	PJM Interconnection	LINE	FRANKS, PT	230 KV	BOLLENS HANKS / PT 2010-1	END B	12/01/2021		12/01/2021 08:08				
	<u>2914394</u>	Completed	PJM Interconnection	LINE	PROPERTY OF	230 KV	ROLLENS HANKS IT 2010	END B	12/01/2021		12/01/2021 08:08				
	<u>2914396</u>	Completed	PJM Interconnection	LINE	PROPERTY OF	230 KV	ROLLENG HUMAN (PT 2045-1	END B	12/01/2021		12/01/2021 08:08				
	<u>2914398</u>	Completed	PJM Interconnection	LINE	HAMES, FT	230 KV	ROLLENG MUNICIPALITY 2010-2	END B	12/01/2021		12/01/2021 08:08				
	<u>2914400</u>	Completed	PJM Interconnection	LINE	HARRENT	230 KV	\$011586-member212545-3	END B	12/01/2021		12/01/2021 08:08				
	(Un)Check All Acknowledge Main Menu														



Dynamic Line Ratings (DLR) Enhancements

- Phase 1 of DLR enhancements implemented May 2021.
 - Details available at https://pjm.com/-/media/committees-groups/forums/edart/edart/2021/20210511/20210511-edart-enhancements.ashx
- Phase 2 includes
 - Updates to files on Ratings Information page on <u>OASIS</u> and eDART Public Files
 - Dynamic equipment set up process
 - Forecasted and Real Time tickets for dynamic equipment



Updates to files on Ratings Information page on <u>OASIS</u> and eDART Public Files

- DLR:Y and DLR:N added to files below to identify if equipment is set up for dynamic ratings (Y) or not (N). Posted at 05-31-2022 12:09:25
 - Ratings file
 - Temporary Ratings file
 - NERC Alert Ratings file

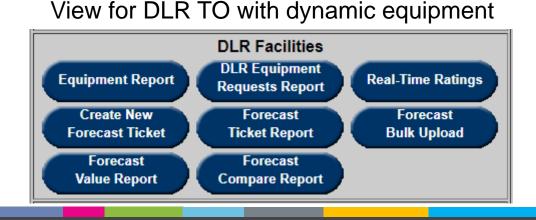
Posted at 05-31-2022 12:09:25											
Company: AE											
Substn: ABSECON kV: 69 KV Dev: SERIES1 End: END B Descr: ABSECON SERIES1 SER DEV DLR: N											
Degf Norm Long Shrt Dump Norm Long Shrt Dump											
95 77 94 94 108 77 94 94 108											

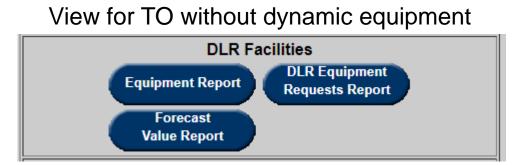
 Dynamic Ratings Forecast files combined into 1 per company. Currently, files are posted as uploaded by company and could be 1 or more files per equipment.



New DLR Facilities section added to TERM Main Menu for transmission users.

- Dynamic Ratings Forecast from Phase 1 repurposed as Forecast Bulk Upload
- Equipment List from Phase 1 repurposed as Equipment Report







Update to TERM Equipment download

- downloadtype = terme
- New tag added for ICCP Name
- New parameter available: dlr
 - Values = 1, 2, 3
 - 1 = DLR Only
 - 2 = Non-DLR Only
 - 3 = Both (default)

'Dynamic Tickets' filter and field removed from regular TERM tickets and reports.



- **Bug Fixes**
- IRC Pool totals download via the UI and CLI fixed to return the expected report instead of 'HTTP GET call' error.
- System error returned when user does not have access to IRCByDate download updated to return 'Error – Invalid User Qualification'.
- TERM Effective Ratings issue with Own vs. Notification Facilities filter fixed.
 - 'Both' filter removed
 - Company on Notification tickets fixed



Future Enhancements



Other Enhancements

- Enhancements to TERM application in eDART in response to FERC Order 881 as discussed during <u>3/10 OC Meeting</u>
- Browserless interface for Nuclear Voltage Limits tool in eDART
 - XML uploads and downloads for NGOs
 - XML downloads for applicable TOs

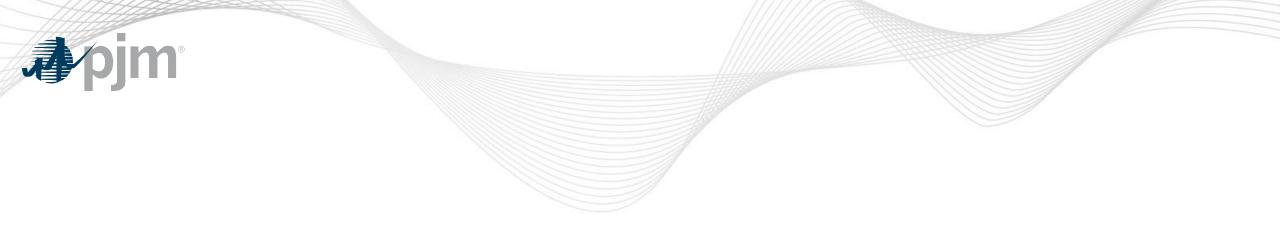


Weak Encryption Remediation



PJM working to retire TLS 1.0 and TLS 1.1 protocols, and certain insecure ciphers in internet-facing applications

- PJM will retire the obsolete TLS protocol configuration in eDART Production on September 26
- Impacts eDART users accessing eDART or eDART files on pjm.com via web browser using TLS 1.0 and/or TLS 1.1 protocols
- <u>Actions Required</u>: Review <u>Weak Encryption Remediation Guide</u> and make necessary changes
- eDART team will contact logged in users that access eDART via a web browser using TLS 1.0 and/or TLS 1.1 protocols (with exception of public files)
- Additional resource: Tech Change Forum <u>Special Session on Retiring</u> <u>Weak Encryption</u>



Appendix

Dynamic Line Ratings Enhancements



New DLR Facilities section added to TERM Main Menu for transmission users.

- Dynamic Ratings Forecast from Phase 1 repurposed as Forecast Bulk Upload
- Equipment List from Phase 1 repurposed as Equipment Report







Equipment Report

Dynamic equipment set up process:

- TO user submits a request via Equipment Report indicating equipment, dynamic status (Yes/No), ICCP Name and Proposed Eff. Date.
- PJM reviews and processes ticket.
- Requested changes are implemented when PJM completes ticket.

Equipment Report also used to identify equipment that are DLR or Not.

XML equivalent: dlrequipmentcreate upload.



Equipment Report

TERM DLR Equ	ipment List												
Company: PJM TEST Type: LINE V Station: Voltage	Own ONotifications OLR Only ONon DLR Only OBoth Active Only: ✓ ompany: PJM TEST Type: LINE ✓ Station: ✓ Voltage: 115 KV ✓ Equipment Name: ✓ Apply Filter Refresh Main Menu												
Company Type Station Voltage Equipment		ICCP Name Open Tickets											
PJM TEST LINE TROOP 115 KV FROM FATLODO 123	END A No 07/28/2004	New Ticket											
Refresh Main Menu													

New TERM DLR Equipment Change Ticket												
Company: PJM TEST Type: LINE Station: Voltage: 115 KV Equipment: Machine Company End: END A												
Dynamic: O Yes O No Proposed Eff. Date: ICCP Name:												
Comments:												
Submit Form Refresh Back to Report Main Menu												



DLR Equipment Requests Report

- Report of Equipment requests.
- Main Menu button is red if there are any tickets in 'Additional Info Needed' status.

	Download the report downloadtype=dlrequipmentreport Equipment was retired as part of the model build													ild
	TERM DLR Equipment Request Report													
Compar	Company: PJM TEST Own O Notifications O Both Include Historical: From Date: To Date:													
Status:	Status: Submitted 🗹 Additional Info Needed 🗹 Received 🗹 Approved 🗹 Completed 🗹 Denied 🗹 Cancelled by Company 🗹 Cancelled by PJM 🔽 Retired													
	Apply Filter XML Download Refresh Main Menu													
	Ticket ID Company Station Voltage Equipment End Current DLR Flag Eff. Date Status Ticket DLR Flag Last Status Change Date XML Download													
			of phones.		CLOROLMS		END A		05/26/2022	Submitted	Yes	05/25/2022 16:43	Download	
	2206149	PJM TEST	\$R0000*	115 KV	380001-84	TLENO (25A/16	END A	No	06/07/2022	Submitted	Yes	06/06/2022 09:25	Download	

Download per ticket downloadtype=dlrequipmentrevise



Real-Time Ratings

Real Time Ticket

- Created by eDART based on ratings information from PJM's EMS.
- eDART will complete previous real time ticket if another one is created for the same equipment.

	Real-Time Ratings Report												
Own ONotifications Company: ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■													
Incl. Identical: Incl. Completed: Incl. Historical: From Date: To Date:													
Apply Filter Refresh Main Menu													
Ticket ID Company	Station	Voltage	Equipment	End	Status	Start Date	End Date	Normal	Long Term	Short Term	Load Dump		
2206124 Mill. Filedala Station Carp. Stat Mill. Million. (J. S.	I MANORO	230 KV	HARMOND -SUBCUENTIARS SUB2	END A	Implemented	06/03/2022 06:58		844	1021	1021	1159		
2206120 PPL Decke Usines Coch die PPL ISRee 4.5	OUMB R.	230 KV	CEMB R, JUNEARA 2515	END A	Implemented	06/03/2022 06:58		640	742	742	854		
	19489/000	230 KV	HINDO ARQUINE	END A	Implemented	06/03/2022 06:58		856	1028	1028	1160		

Forecast Tickets



Forecast Ticket

- Hourly forecast ratings ticket that can be created for dynamic equipment only.
- Ticket start hour is next HE from current time. E.g. HE 11 if current time is 09:30.
- Min requirement: 48 hours
- 72 hours of forecast can be submitted.
- Tickets are automatically approved and then completed when time expires or another ticket is created.

XML equivalent: dlrForecastTicket upload



Create New Forecast Ticket

												997						100	1
								N	lew Forec	aste	d Ticket								
							npany			ation I			Equipment Na		nd				
						L CONTRACTO	in the PAU P	400 A A A A A A A A A A A A A A A A A A	LINE 🗸 🖾		✓ 230	KV 🗸 🖸 💷	R 200 (19)		• A •				
Comr	nents:																		
								4											
06/06/2022 06/07/2022										1		06/09/2022							
HE	Norma		Short Term	Load Dump	HE	Normal	Long Term		Load Dump	HE	Normal	06/08/2		Load Dump	HE	Normal			Load Dump
01					01					01					01				
02					02					02					02				
03					03					03					03				
04					04					04					04				
05					05					05					05				
06					06					06					06				
07					07					07					07				
08					80					08					08				
09					09					09					09				
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22					22	<u></u>				22					22				
23					23					23					23				
00					00					00					00				
	Submit Form Refresh Main Menu																		



Create New Forecast Ticket

Daylight Savings Forecast

- Spring: HE 03 not available
- Fall: Additional HE 02 available

HE	Normal	Long Term	Short Term	Load Dump
01	7	6	77	6
02	767	6	6	7
NA				
04	7	7	67	67
05	67	7	7	6

HE	Normal	Long Term	Short Term	Load Dump	HE	Normal	Long Term	Short Term	Load Dump
01					01				
02					02				
NA					02				
03					<mark>0</mark> 3				
04					04				



Forecast Ticket Report

	ownload the report ownloadtype=dlrforeca	astrepo	ort					ment wa rt of the r	s retired nodel bu	ild	
				Forecast Tick	et Re	port					
Company	Ph. Beckle Utilities Corp. star Ph. 199	6au (1.462) (Own	Notifications Type:	Station:	✓ Voltag	ge: 🗸 Equipm	ent Name: 🔽 I	End: 🗸 Include	Historical: 🗌	
Status:	Approved Completed Cancel only)	led by Compa	any (UI		Retired (I nly)		rom ate:	To Date:		Occurred During	O Submitted
				Apply Filter XML Download	Refres	ih M	lain Menu				
Ticket ID	Company	Station	Voltage	Equipment	End	Status	Start Date	End Date	Submitted Date	Last Status Change Date	XML Download
	PPL Rentric Million Corp. dia PPS Million				END		05/23/2022	05/25/2022	05/23/2022	05/23/2022	
<u>2205110</u>	(L-100))	BLOOMING	230 KV	OLDORANG-SHORMALL	A	Completed	15:00	16:00		14:53	Download

Download per ticket downloadtype=dlrforecast



Forecast Bulk Upload

Dynamic Ratings Forecast from Phase 1 repurposed as Forecast Bulk Upload

- 'Used in Posting' column removed no longer needed.
- Forecast tickets created from uploaded files.
- If tickets cannot be created but file passes other validations, file will still be uploaded but no tickets created.



Forecast Bulk Upload

	TERM DLR Ratings Forecast													
	Company: Image: Company:<													
	File to Upload: Choose File No file chosen File Example													
Download	· · · · · · · · · · · · · · · · · · ·													
	06/03/2022 13:51	FTLERCHEUBBRECOEL (Sei FTL CORI		06/05/2022 19:00	No	UI								
	06/03/2022 13:49	TTL DECISIONER COD (TH FTL (1981)		06/05/2022 19:00	Yes	UI	Invalid Equipment: 06/05/2022 23, Company of Company and Company and Company , END A,6,767,676,67,							
	06/03/2022 12:01	PPT, Ender: Index-Corp. dis PPT, E.MD		06/05/2022 19:00	No	UI								
	06/03/2022 12:00	PPS, Electric Unities: Corp. also PPS. (LINC)		06/05/2022 19:00	No	UI	New Forecasted Ticket(s) Errors.							
	Submit Form Download Refresh Main Menu													



Forecast Value Report

Report of current and future hourly forecasted ratings.

Download the re downloadtype=fe	•	stvalue											
					Fo	recast Value Re	port						
Company:		∽ Typ	pe:	∽ Stat	tion: 🗸	Voltage: 🔽 Equi Nam	pment 🖍	End: 🗸	From Date:		To Date:		Order Or
Include: All Facilities PJM	TST Faciliti	ies Only \bigcirc PJMTST Notif	fications	s Only O F	JMTST I	Facilities and Notificati	ons Only						
		•	Apply Filt	ter XMI	L Downloa	ad Download	Refresh	Mai	n Menu)			
	et ID	• •	Туре		Voltage				Normal	Long Term Sh	ort Term L	.oad Dump	
		hory Press Control Area							100	101	102	103	
		hany Flower Control Avea			L				100	101	102	103	
		hery Prest Control Area							100	101	102	103	
		hany Power Sontrol Area							100	101	102	103	
		hany Dowar Europai Area							100	101	102	103	
		terry Prove Classed Area							100	101	102	103	
220	6150	nony Press Control Area	LINE		345 KV	6-TAVON-AUNIPER	END A 06/0	06/2022 18	100	101	102	103	
	a colleur -				0.000				100	101	100	100	



Forecast Compare Report

Report to compare hourly ratings from forecasted ticket, regular TERM tickets and real time (if available).

						Forecas	t Com	pare Rep	ort					
ny: 🔛	L Dechie ISilies-O	orgi dha R	9. DOM	- 011 v	Type LINE	✓ Station:	1000	Vol	tage: 230 k	V 🗸 Equip	ment Nam	e: In DOLLA	(1.8.40es)	End:
ate: 05	j/25/2022 Hou	ır: 01 🗸	To Date	: 05/25/2022	2 Hour:	: 02 🗸 Ten	perature	: 95 🗸 💿	Day ONig	ht Day Ahea	ad Only:) (Previous d	day last recor	d before 10:1
				(Apply Filter	Down	oad	Refresh	Main I	Menu				
	Submit	Ticket ID	Hour End: 05/25/2022 01				MVA vs. Base				% vs. Base			
Base	Time		Normal	Short Term	Long Term	Load Dump	Normal	Short Term	Long Term	Load Dump	Normal	Short Term	Long Term	Load Dump
0	05/23/2022 13:55	2205110	56	56	56	56	-676711	-20	-20	49	-99.99%	-26.32%	-26.32%	700.00%
0	05/23/2022 14:53	2205111	56	56	56	56	-676711	-20	-20	49	-99.99%	-26.32%	-26.32%	700.00%
0	05/24/2022 15:26	2205205	676767	76	76	7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
0	05/24/2022 15:38	2205206	676767	76	76	7	0	0	0	0	0.00%	0.00%	0.00%	0.00%
0	TERM	1564779	647	801	801	896	-676120	725	725	889	-99.90%	953.95%	953.95%	12700.00%
	Min Forecasted		56	56	56	7	-676711	-20	-20	0	-99.99%	-26.32%	-26.32%	0.00%
	Max Forecasted		676767	76	76	56	0	0	0	49	0.00%	0.00%	0.00%	700.00%
	Submit		Hour End: 05/25/2022 02				MVA vs. Base				% vs. Base			
Base	Time	Ticket ID	Normal	Short Term	Long Term	Load Dump	Normal	Short Term	Long Term	Load Dump	Normal	Short Term	Long Term	Load Dump
0	05/23/2022 13:55	2205110	56	56	56	56	49	-11	-11	49	700.00%	-16.42%	-16.42%	700.00%
0	05/23/2022 14:53	2205111	56	56	56	56	49	-11	-11	49	700.00%	-16.42%	-16.42%	700.00%
0	05/24/2022 15:26	2205205	7	67	67	7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
0	05/24/2022 15:38	2205206	7	67	67	7	0	0	0	0	0.00%	0.00%	0.00%	0.00%
0	TERM	1564779	647	801	801	896	640	734	734	889	9142.86%	1095.52%	1095.52%	12700.00%
	Min Forecasted		7	56	56	7	0	-11	-11	0	0.00%	-16.42%	-16.42%	0.00%
	Max Forecasted		56	67	67	56	49	0	0	49	700.00%	0.00%	0.00%	700.00%





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