

# **Outage Types and Entering Tickets**



**Objectives** 

- Students will be able to:
- Describe the outage reporting process and requirements





- eDART stands for Dispatcher Applications and Reporting Tool
- The eDART application provides communications with PJM Generation Operators regarding:
  - Unit outage requests
  - Updates to reactive capability curves (D-curves)
- Voltage regulator statuses among other generation and transmission functionalities



**Business Rules** 

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- PJM Members can request outages via the Gen. Ticket eDART tool
  - All outage requests are analyzed together, and PJM only rejects outage requests when they affect the reliability of the PJM RTO
  - It is the responsibility of each PJM Member to determine its own best outage schedule
  - Outage requests are honored by PJM on a first-come first-serve basis



#### **Business Rules**

- Where a user is required to give PJM verbal notification, the following PJM personnel should be contacted:
- Master Coordinator
  - All Outages
  - Clearing of Outage Tickets
- Generation Dispatcher
  - Outages of units on-line or scheduled to come on-line
- Generation Outages fall into the following categories:
- Forecasted Planned/ Planned
- Maintenance
- Unplanned



- The initial Planned outage request has to be submitted to PJM no later than 30 days prior to the Operating Day.
- If the Planned outage start date is greater than 31 days in the future, it is classified as a "Forecasted Planned" outage.
- Revisions to Forecasted Planned outage start/end dates and reductions can be submitted via eDART without PJM support.
- Every evening the eDART system will automatically change the status of all *"Forecasted Planned"* outages due to start in less than 31 days to *"Planned"* outages.



- Revisions to Planned outage reductions can be submitted in eDART without PJM support. Revisions to start early or end later requires PJM support.
- The approval process involves checking for conditions such as violation of Black Start power failure solution and Reliability scenarios, availability of adequate reserves and whether the outage is scheduled during the Peak Period Maintenance season, which occurs from the 24<sup>th</sup> Wednesday of the calendar year through the 36<sup>th</sup> Wednesday of the same year.



# **Forecasted Planned/ Planned Outage**

- A Planned outage is in Black Start Scenario violation if a station already has an outage for a critical Black Start unit during the same period. Some transmission zones may have other specific outage requirements that will be verified to prevent Black Start Scenario violations.
- If the request is denied, members re-evaluate their Planned outage schedule and submit a new outage request. This process is repeated until the request submitted is acceptable.
- PJM may withdraw its approval for a Planned outage by notifying members at least 24 hours in advance in order to ensure the adequacy of reserves or the reliability of the PJM RTO.



Once a Planned Outage is active, it can be extended to complete the original scope of work. The M-10 rules allow GOs to request extensions via eDART if done greater than 48 hours before the original end date/time. Once within 48 hours of end, PJM assistance is required to extend the outage.



#### **Maintenance Outages**

- Maintenance outages may occur throughout the year, have flexible start dates, are much shorter than Planned outages, and have a predetermined duration established at the start of the outage.
- A Maintenance outage is an outage that may be deferred beyond the next weekend. In other words, it is an outage that can be postponed to the following Monday morning (0800 hrs).

\*Peak Period Maintenance (PPM) shall be defined as those weeks containing the 24th through the 36th Wednesdays of a calendar year. Each such week shall begin on a Monday and end on the following Sunday, except for the week containing the 36th Wednesday, which shall end on the following Friday.

## **Maintenance Outages**

- The duration of a Maintenance outage is generally unlimited except during the PJM Peak Period Maintenance \*(PPM) Season during which approved Maintenance outages will be limited to a maximum duration of 9 consecutive days, 5 weekdays plus the included weekends. The Weekend Period is defined from Friday at 2200 hrs to Monday at 0800 hrs.
- A Maintenance Outage Extension is an extension beyond the originally estimated completion date which can only be used in instances when the original scope of work requires more time to complete than originally scheduled and not when unexpected problems or delays are encountered. The request for a Maintenance outage Extension must be submitted before the original end date.



#### **Maintenance Outages**

- If a Maintenance outage is extended beyond 9 days in PPM season, it becomes an "Unplanned" outage.
- If a company requests a Maintenance outage during the Peak Period Maintenance Season, and PJM denies the outage, and the company decides to take the outage anyway, the company has the option to enter the outage as an "Unplanned outage".



- In case of an Unplanned Outage, members are expected to do the following:
  - Advise PJM of the Unplanned Outage suffered or anticipated as promptly as possible, provide a verbal notification to the PJM Generation Dispatcher
  - Provide PJM with the expected date and time that the resource will be made available
  - Make and submit to PJM a record of the events and circumstances giving rise to the Unplanned outage using eDART
  - Cannot be submitted longer then 72 hours in advance
- An unplanned outage will also affect the EFORd



**EFORD** Calculation

#### **Forced Outage Rate Calculation**

The Equivalent Demand Forced Outage Rate ("EFORD") shall be calculated as follows:

```
EFORD (%) = {(ff * FOH + fp * EFPOH) / (SH + ff * FOH)} * 100
```

#### Where

ff = full outage factor fp =

partial outage factor

FOH = full forced outage hours

EFPOH = equivalent forced partial outage hours SH =

service hours



# **Calculated Based on Unforced Capacity (UCAP)**



Unforced Capacity Value For Unit X = <u>96 MW</u>

\*EFORd = Equivalent Forced Outage Rate



# **Entering Tickets**

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## **Creating a Generation Ticket**

PJM Members can request outages via the Gen. Ticket eDART tool

- All outage requests are analyzed together, and PJM only rejects outage requests when they affect the reliability of the PJM RTO
- It is the responsibility of each PJM Member to determine its own best outage schedule
- Outage requests are honored by PJM on a first-come first-serve basis





# **Creating a Generation Ticket**

- Tickets can be created for 6 types of Generator outages:
  - Generator Megawatt (MW) Outages
  - Voltage Regulator Outages
  - MVAR Capability Changes
  - Governor Outages
  - MVAR Test
  - Power System Stabilizer (PSS)
    Outages





# **Creating a Generation Ticket**

New Generator Ticket					
User ID: PJMTest-GenRW Co	mpany: PJM TEST				
Generation Type: 🔍 🗸 Ur	it Name: 💌				
Company Ticket ID:	Date Hour				
Description:	(MM/DD/YYYY) (HH24:MI)				
	Est./Ramp Start:				
	Est. End:				
	End Date Unknown				
	Informational:				
Daily Job: 🔲 # Days:	Start Day Delta:				
MW Volt. Reg.	MVAR Governor MVAR Test PSS				
	MW Ticket Info				
Date H	our				
(MM/DD/YYYY) (HF	24:MI)				
	Ticket Reduction: 0 Inst. Cap: 0				
Company Switch Start:	Cause:				
Company Switch End:	Outage Type: Unplanned 🗸				
	Clear Main Menu				



- The User and Company Fields are system generated tags identifying the ticket's submitter and which company the user represents
- Generation Type: The generation type includes the options Combined Cycle, Diesel/CT, Diesel/CT (small unit), Geothermal, Hydro, Hydro – pumped storage, Nuclear, Nug, Solar, Battery, Fossil/Steam and Wind and refers to the method of generation the unit uses



**Ticket Fields** 

- Unit Name: Select unit from the drop-down menu based on the type already selected
- **Company Ticket ID:** Optional field for the company's internal application ticket number, the ticket's submitter should review their own company policy to see if they should utilize this field
- **Description:** Brief work description. In Unplanned outages and Emergency cases, this field should always provide information on the circumstance resulting in the outage

# **Ticket Fields**

- Est. /Ramp Start: Proposed ticket start date and time. All times should be entered in MM/DD/YY and HH24:MI (or 24 hour "military" style time). Ramp Start times are designed mainly for larger units, which could take hours to come off line
- Est. End: Proposed ticket end date and time. Mandatory for "Forecasted Planned" and "Maintenance" outages
- End Date Unknown: Can only be selected for "Unplanned" MW outages, or for MVAR "New Default" tickets



**Ticket Fields** 

#### **Informational:** Indicates that outage is "Info-only" (MW Reduction = 0)

Only valid for Maintenance outages

**Daily Job**: Check this box to designate whether a ticket will be a multiple day, multiple ticket outage

**# Days**: Enter the total number of days of labor require for the job

**Start Day Delta**: Enter the number of days separating each day of labor. If the job will occur on consecutive days, enter "1"



# **Outage Ticket Types**



# Creating a MW (Real Power) Ticket

New	Generator Ticket						
User ID: PJMTest-GenRW Comp	any: PJM TEST						
Generation Type: Viit Name: V							
Company Ticket ID:	Date Hour						
Description:	(MM/DD/YYYY) (HH24:MI)						
	Est./Ramp Start:						
	Est. End:						
	End Date Unknown						
	Informational:						
Daily Job: 🔲 # Days:	Start Day Delta:						
MW Volt. Reg. MVA	IR Governor MVAR Test PSS						
N	IW Ticket Info						
Date Hou	r						
(MM/DD/YYYY) (HH24:1							
	Ticket Reduction: 0 Inst. Cap: 0						
Company Switch Start:	Cause:						
Company Switch End:	Outage Type: Unplanned V						
Cle	ar Main Menu						



# **MW Ticket Fields**

- **Company Switch Start Date and Hour:** Actual outage start date and time. Cannot be before the Est./Ramp Start time or 1 hours later than the Est./Ramp Start time
- **Company Switch End Date and Hour:** Actual outage End date and time. Must be entered no later than 1 hours after the Est. End time
- Ticket Reduction: MW Reduction value. Cannot be zero for non-Informational tickets. Can be negative only if the "Cause" is Ambient Air and the "Outage Type" is Maintenance
- Inst. Cap.: Installed capacity for the unit selected on the ticket
- **Cause:** Reason for outage. Cannot be "Not Applicable." If cause is "Other," it is necessary to provide more information in the Description
- Outage Type: Unplanned, Maintenance or Forecasted Planned



**Cause Types** 

#### The following cause types are available for Generator MW tickets:

# Voltage Regulator, MVAR, Governor, MVAR Test, and PSS tickets do not have a corresponding cause type

Cause ID Description						
-1	N/A	22	Fuel System	46	Tube Leak	
1	Air Heater	23	General Maintenance	General Maintenance 47 Turbine Re		
2	Annual Inspections	24	Ground Problem	48	Turning Gear	
3	Annual Inspections/Refuel	25	Inspections	49	Unit Trip	
4	Boiler Feed Pumps	26	Mill Problem	50	Unknown	
5	Boiler Work	27	Mill Work	51	Vibrations	
6	Breaker Problems	28	No Fuel	52	Water Chemistry	
7	Breaker Work (Maintenance)	29	Opacity	53	Wicket Gate	
8	Chemistry Problem	30	Other	54	Ambient Air (Ambient Conditions)	
9	Clean Intakes	31	Precipitator	55	Brush Inspection	
10	Coal Feeder	32	Pump Work/Problem	56	Deslag	
11	Condenser System	33	Rampdown	60	Ambient Conditions (Auto App.)	
12	Diver Safety	34	Rod Pattern Adjustments	61	Turbine Deposits	
13	Electrical	35	Rod Swap	62	Intake Screens	
14	Emissions	36	SCRAM Test	63	High Pressure Heaters	
15	Engine Repair	37	Start Failure	64	Valve Test/Work	
16	Engine Work	38	Substation/Yard	65	Cranking Diesel	
17	Environmental	39	Testing	66	Black Start Auxiliary Equipment	
18	Fan Problem	41	Transformer Problems 67 Cold Weather Pre		Cold Weather Preparation Exercise	
19	Fan Work	42	Transformer Work 68 Black Start Testing		Black Start Testing	
20	Feed Pump	44	Transmission Line	69	Emissions-CEJA	
21	Fuel Problem	45	Transmission Problem			

#### 

# **Creating a Voltage Regulator Ticket**

	New Generator Ticket	
User ID: PJMTest-GenRW	Company: PJM TEST	
Generation Type:	Vnit Name: V	
Company Ticket ID:		
Description:		Date Hour
beschption		(MM/DD/YYYY) (HH24:MI)
	Est./Ramp	o Start:
	Est. End:	
	End Date	Unknown
MW Volt. Reg.	MVAR Governor	MVAR Test PSS
	Voltage Regulator Ticket Info	
	The Voltage Regulator should always be in service if available.	
	Out of Service: O Yes O No	
	Emergency: O Yes O No	
	Clear Main Menu	



**Voltage Regulator Ticket Fields** 

- Out of Service: Indicates if the Voltage Regulator is Out of Service
- **Emergency:** Indicates if it is an Emergency outage



# **Creating a MVAR (Reactive Power) Ticket**

New Generator Ticket							
User ID: PJMTest-GenRW			PJM T				
Generation Type: Diesel	_ Vnit I	Name:		0.01		~	
Company Ticket ID:							
Description:						Date (MM/DD/YYYY)	Hour (HH24:MI)
				Est./Ramp			(11)24.00)
				Est. End:	ľ		
				End Date	Unknown		
		11					
MW Volt. Reg.		AR		Governor	MVAR Test	PSS	
	MVAR	Сара	bility	Changes			
Emergency: 🗌 New Defa	ult: 🗌	-	-	-			
	Min			Max			
Capability Adj. MVAR Adde	er:				Apply Adj.		
		MVAF	Limit	A	dj. MVAR L	imit	
EMS Equipment Name	MW Points	Min	Max	MW Points	Min	Max	
GEN UNI	го	-3.1	3.1	0	-3.1	3.1	
ISSUE TO SHARE THE GEN UNIT	r 100	-3.1	3.1	100	-3.1	3.1	
GEN UNI	Г 200	-3.1	3.1	200	-3.1	3.1	
GEN UNI	г 9999	-3.1	3.1	9999	-3.1	3.1	
GEN UNI	Г 10000	-3.1	3.1	10000	-3.1	3.1	
GEN UNI	T 10001	-3.1	3.1	10001	-3.1	3.1	
fini santa li se GEN UNI	T 10002	-3.1	3.1	10002	-3.1	3.1	
GEN UNI	Г 10003	-3.1	3.1	10003	-3.1	3.1	
	Clear	Sub	mit Forn	Main Men	u		



# **MVAR Ticket Fields**

- Emergency: Indicates if it is an Emergency outage. Only applies if the change was unplanned
- New Default: Indicates that the change to the D-curve is permanent and will be used as the default going forward
- **Capability Adj. MVAR Adder:** Add or subtract a value from all entries at once rather than changing values individually to shift the entire D-curve
- Max: MVAR Max values should decrease or stay constant as MW Point value increases
- Min: MVAR Min values should increase or stay constant as MW Point value increases



**MVAR Ticket Fields** 

- Apply Adj.: Apply adder value to MVAR values
- MVAR Limit: The Min and Max columns under MVAR Limit display the existing minimum and maximum values respectively
- Adjusted MVAR Limit: The MW points and the Min and Max columns under the Adjusted MVAR Limit field display the new values after the adder is applied



# **Creating a Governor Ticket**

		New C	enerator *	Ficket		
User ID:	PJMTest-GenRW	Comp	any: PJM TES	т		
Generation Type:		Unit N	ame: 🔽			
Company Ticket	ID:					
Description:				J	Date	Hour
			7	Eat (Dama Start	(MM/DD/YYYY)	(HH24:MI)
				Est./Ramp Start:		
				Est. End:		
				End Date Unknow	n 🗌	
			4			
	MW Volt. Reg.	MVA	R Gov	ernor MVAR Tes	et PSS	
		Gov	ernor Ticket	Info		
		Out of S	Service: OYes	No		
		Emerge	ncy: OYes	s 🖲 No		
		Cle	ar Main	1 Menu		



**Governor Ticket Fields** 

• Out of Service: Use this field to indicate if the governor is Out of Service

• Emergency: Use this field to indicate if it is an Emergency outage



# **Creating a MVAR Test (Reactive Power Test) Ticket**

New Generator Ticket								
User ID: PJMTest-GenRW	Company:	PJM TEST						
Generation Type: Diesel V Unit Name:								
Company Ticket ID:								
Description:					Date	Hour		
					(MM/DD/YYYY)	(HH24:MI)		
			Est./Ra	amp Start	:			
			Est. Er	nd:				
MW Volt.	Reg. MVAR	Govern	or	MVAR T	est PSS			
	Current eD/	ART D-Cu	rve					
	Operational Data: 🗌							
			MVAR	Limit				
	EMS Equipment Name	MW Points	Min	Max				
	CHESTER UNIT 9	5	-9.3	12.4				
	CHESTER UNIT 9	6	-9.2	12.2				
	CHESTER UNIT 9	8	-9	11.7				
	CHESTER UNIT 9	10	-8.8	10.9				
	CHESTER UNIT 9	12	-8.3	10				
	CHESTER UNIT 9	13	-8	9				
	CHESTER UNIT 9	14	-7.7	8.1				
	CHESTER UNIT 9	18	0	0				
Clear Submit Form Main Menu								



## **MVAR Test Ticket Fields**

• **Current eDART D-curve:** This table displays the current D-Curve data for reference


#### **Creating a Power System Stabilizer (PSS) Ticket**

	New Generator Ticket									
User ID:	PJMTest-GenRW	Compa	any: PJM TES	ST						
Generation Type:	Diesel	✓ Unit N	ame:	1007.2	~					
Company Ticket	ID:			]						
Description:	· · · ·			,	Date	Hour				
· · · · · · · · · · · · · · · · · · ·			7	Est./Ramp Star	(MM/DD/YYYY)	(HH24:MI)				
				Est. End:						
				End Date Unkr	iown 🗌					
	MW Volt. Reg. MVAR Governor MVAR Test PSS									
Power System Stabilizer Ticket Info										
	0	ut of Service:	: O Ye	s 🔍 No						
	E	mergency:	⊖ Ye	s 🔍 No						
		Clear	Submit Form	Main Menu	Clear Submit Form Main Menu					



**PSS Ticket Fields** 

• Out of Service: Use this field to indicate if the PSS is Out of Service

• Emergency: Use this field to indicate if it is an Emergency outage



### **Revising Tickets and Ticket Status**



#### **View/Revise a Generation Ticket**

Create Tick	ummer Pe Sta () New (et MW	eak Period Main art: 06/10/20 E Current Mainter Mid-Atlantic Western-Southe Opport Wind	nance Margin N/A ern 0 unity View/Revise		Genera	tor Ticket Selection I	Form	
Create	Sta () New (et MW	Art: 06/10/20 E Current Mainter Mid-Atlantic Western-Southe Opporte Windo Volt. Reg. 1	and: 09/06/20 ance Margin N/A ern 0 unity View/Revise ow Ticket		Genera	tor Ticket Selection I	Form	
Tick	New tet MW	Current Mainter Mid-Atlantic Western-Southe Opporte Windo Volt. Reg. 1	nance Margin N/A ern 0 unity View/Revise ow Ticket		Genera	tor Ticket Selection I	Form	
Tick	New (et MW	Mid-Atlantic Western-Southe Opport Wind Volt. Reg. 1	ern 0 unity View/Revise ow Ticket		Genera	tor Ticket Selection I	Form	
Tick	New tet MW	Western-Southe Opporte Winde Volt. Reg. 1	ern 0 unity View/Revise ow Ticket		Genera	tor Ticket Selection I	Form	
Tick	ket MW	Windo Volt. Reg. 1	ow Ticket		Genera	tor Ticket Selection I	Form	
Submitted Tickets	1	2			Genera	tor Ticket Selection I	Form	
		-						
			Company: PJM TEST	Include Historic	cal: 🗌			
Revised Tickets	0	1	Ticket Type		Ticket ID		Comp. Ticket ID	
			~					
Current Tickets	20	0	Outage Type		Unit Type		Unit Name (Select / Search	a)
			N/A (Reactive Tickets)			~		~
Approved Tickets	1	1	Unplanned		Reduction		Installed Capacity	
			Maintenance Forecasted Planned		Equal to	▼	Equal to 🗸	0
Future Tickets	1	1	Cause		Ticket Status		Revision Status	
				~		~	<u> </u>	~
Approved No Star	0	0	Submission Date (mm/dd/yyyy)		Est. Start Date (mm/de	Иуууу)	Est. End Date (mm/dd/yyy	y)
	<		From: To:		From:	То:	From:	То:
Active Beyond End	20	0	Actual Start Date (mm/dd/yyyy)		Actual End Date (mm	dd/yyyy)	Occuring During (mm/dd	Иуууу)
			From: To:		From:	To:	From:	To:



#### View/Revise a Generation Ticket

	Generator Tickets							
	Apply Sorting Back to Filter							
Ticket ID	Comp.Ticket ID	Ticket Type	Outage Type	Submittal Date	Unit Name	MW Reduction	Status	
1								
<u>796935</u>	pjm_testing_796935	MW	Planned	12/02/20	TEST UNIT 2	129	Active	
<u>796939</u>	pjm_testing_796939	MW	Unplanned	12/02/20	TEST UNIT 6	6	Active	
<u>796942</u>	pjm_testing_796942	MW	Unplanned	12/02/20	TEST UNIT 9	227	Active	
<u>796943</u>	pjm_testing_796943	MW	Unplanned	12/02/20	TEST UNIT 10	267	Active	
<u>796944</u>	pjm_testing_796944	MW	Unplanned	12/02/20	TEST UNIT 11	44	Active	
<u>796946</u>	pjm_testing_796946	MW	Unplanned	12/02/20	TEST UNIT 13	132	Active	
<u>796951</u>	pjm_testing_796951	MW	Unplanned	12/02/20	TEST UNIT 18	141	Active	
<u>796957</u>	pjm_testing_796957	MW	Maintenance	12/02/20	TEST UNIT 24	200	Active	
<u>796959</u>	pjm_testing_796959	MW	Maintenance	12/02/20	TEST UNIT 26	175	Active	
<u>796967</u>	pjm_testing_796967	MW	Maintenance	12/02/20	TEST UNIT 28	59	Active	
<u>796972</u>	pjm_testing_796972	MW	Maintenance	12/02/20	TEST UNIT 27	30	Active	
			Back to Filter	Main Menu				

#### View/Revising a MW (Real Power) Ticket

Ge	Generator Ticket (Review/Revise)					
User ID: PJMTest-GenRW Ticket Number: 79	8370 Compa	ny: PJM TES	т			
Generation Type: Battery		Unit Name:	TEST UNIT 12	Est./Ramp Start: 09/03/202 08:00		
Ticket Status: Pending Evaluation		Timestamp:	03/01/20 13:57	Est. End: 09/09/20 12:00		
Company Ticket ID:						
				Actual Start:		
				Actual End:		
Description	PJM Comm	nents				
Test				A		
	MV	V Ticket Inf	o			
	Date	Time				
			Ticket Reduction Informational:	: 100 Installed Cap: 636 No		
Company Switch Start:			Cause:	Annual Inspections		
Company Switch End:			Outage Type:	Unplanned		
Cancel Ticket Add New Revision Submit	Add New Contract Comments					

New Revision					
	Date	Time			
Revised Start/Ramp Date/Time:					
Revised End Date/Time:					
MW Reduction: Eff. Date/Time:					
Update Clear Close Window					

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#### View/Revising a MW (Real Power) Ticket

	Generator Ticket (Review/Revise)						
User ID:	PJMTest-GenRW	Ticket Number:	798370 Compar	ny: PJM TES	iΤ		
1	Generation Type: Battery				TEST UNIT 12	Est./Ramp Start: 03/	11/20 08:00
Ticket S		g Evaluation		Timestamp	: 03/01/20 13:57	Est. End: 03/	19/20 12:00
Compan	Company Ticket ID:						
						Actual Start:	
						Actual End:	
Descript	ion		PJM Comm	ents			
Test							
MW Ticket Info							
	Date Time						
	Ticket Reduction: 100 Installed Cap: 636						36
	Compony	Switch Start:			Cause:	Annual Inspections	
	. ,	_					
	Company	Switch End:			Outage Type:	Unplanned	
Cancel Ticket Add New Submit Refresh Comments Log History Log Files Main Menu							
Revisions							
Rev. II	User ID	Rev. Start Date Time	Rev. End Date Time	MW Reduction	Eff. Date Time	Rev. Status	Timestamp
436800	BJMTest-GenRW	03/11/20 08:00	03/19/20 12:00	80	03/11/20 09:00		03/01/20 14:05
43680	PJMTest-GenRW	09/03/20 08:00	09/09/20 12:00			Canceled by Company	03/01/20 14:05



#### View/Revising a Voltage Regulator Ticket

Generator Ticket (Review/Revise)					
User ID: PJMTest-GenRW Ticket Number: 798369 Company: PJM TEST					
Generation Type: Battery	Unit Name: TEST UNIT 20 Est./Ramp Start: 03/10/20 08:00				
Ticket Status: Submitted	Timestamp: 03/01/20 13:30 Est. End: 03/12/20 12:00				
Company Ticket ID:					
	Actual Start:				
	Actual End:				
Description PJM Com	ments				
Test					
Voltage Regulator Ticket Info					
The Voltage Regulator s	hould always be in service if available.				
Out of Service: Yes Emergency: Yes					
Cancel Ticket Add New Submit Refres	sh Comments History Log Files Main Menu				



#### View/Revising a MVAR (Reactive Power) Ticket

Generator Ticket (Review/Revise)								
User ID: Ticket Number: 796643 Company: PJM TEST								
Generation Type: Diesel		Unit Na	ame:		Est./Ramp St	tart: 05/15/201 09:30		
Ticket Status: Received		Timest	amp: 05/2	7/20 12:17	Est. End:	05/15/20 23:59		
Company Ticket ID:								
		_			Actual Start:			
					Actual End:			
Description	PJM Co	mments						
Owners Report Test Ticket 3			st Ticke	t 1 (MVAR).	(PJM			
	Only C	omments)						
					/			
MVAR Capability Changes								
Emergency: Yes New Default: Yes								
	MVAR Limit Adj. MVAR Limit							
	EMS Equipment Name							
	UNIT 9	4	0 11	4	2 23			
	UNIT 9	16	0 11	16	2 23			
	UNIT 9	17	0 11		2 23			
	UNIT 9	18	0 11	18	2 23			
	UNIT 9	19	0 11	19	2 23			
	UNIT 9	20	0 11	20	2 23			
	UNIT 9	21	0 11	21	2 23			
	CHEETER UNIT 9	22	0 11	22	2 23			
Add New			Commont					
Cancel Ticket Revision	Submit Ref	fresh	Comment Log	* Histor	ry Log	Files Main Menu		



#### **View/Revising a Governor Ticket**

Generator Ticket (Review/Revise)					
User ID: Ticket Number: 796651 Company: PJM TEST					
Generation Type: Diesel	Unit Name: Est./Ramp Start: 05/15/20 13:00				
Ticket Status: Received	Timestamp: 05/27/20 12:23 Est. End: 05/15/20 23:00				
Company Ticket ID:					
	Actual Start:				
Actual End:					
Description PJM Comments					
Owners Report Test Ticket 3 (Governor). (PJM Only Comments)					
Governor Ticket Info					
Out of Service: Yes Emergency: No					
Cancel Ticket Add New Submit Refresh Comments History Log Files Main Menu					

### Dim View/Revising a MVAR Test (Reactive Power Test) Ticket

	Generator Ticket (Review/Revise)					
User ID: Ticke	User ID: Ticket Number: 796647 Company: PJM TEST					
Generation Type: Dies	sel Unit	Name:	Est./Ramp Start: 05/15/20 09:34			
Ticket Status: Rec	ceived Time	estamp: 05/27/20 ៅ 12:20	D Est. End: 05/15/20 11:20			
Company Ticket ID:						
			Actual Start:			
			Actual End:			
Description	PJM Comments					
Owners Report Test Ticket 3 (MVAR Test). (PJM Only Comments)						
Current eDART D-Curve						
Operational Data: No						
	MVAR Limit					
	EMS Equipment Name	e MW Points Min Max				
	UNIT 9	4 0 11				
	UNIT 9	16 0 11				
	C UNIT 9	17 0 11				
	UNIT 9 18 0 11					
	UNIT 9 19 0 11					
	UNIT 9	20 0 11				
	UNIT 9	21 0 11				
	UNIT 9	22 0 11				
	l New Submit Refresh	Comments Log Histo	ry Log Files Main Menu			



## View/Revising a Power System Stabilizer (PSS) Ticket

Generator Ticket (Review/Revise)					
User ID:	Ticket Number: 797387	Company: PJM	TEST		
Generation Type:	Diesel		Unit Name:	Est./Ramp Start: 08/05/20 15:00	
Ticket Status:	Submitted		Timestamp: 06/23/20 📰 10:32	Est. End: 08/08/20 10:00	
Company Ticket I	D: Maryna				
				Actual Start:	
				Actual End:	
Description	Description PJM Comments				
Test					
				<u>/</u>	
Power System Stabilizer Ticket Info					
	Out of Service: Yes Emergency: Yes				
Cancel Ticket	Add New Revision Subn	nit Refres	h Comments History	y Log Files Main Menu	



#### **eDART Ticket Status**

- Submitted: This is the original status of the ticket upon submittal
- Approved:
  - **MW Ticket** The ticket status is changed to Approved by PJM upon review and approval
- Reactive Ticket The ticket status is changed to Received by PJM upon receipt of this type of ticket by PJM PD. The status is displayed as Approved on the menu
- Active: The ticket status is changed to Active upon input of an actual outage "start" date by PJM
- Complete: The ticket status is changed to Complete upon input of an actual outage "end" date by PJM
- Initially Denied: does not mean outage is denied it means outage is under evaluation, in order to confirm reserve maintenance margins, and evaluate local reliability issues



#### **eDART Ticket Status**

#### • Denied:

- MW Ticket The ticket status is changed to Denied by PJM upon review and denial
- **Reactive Ticket** The ticket status cannot be changed to Denied
- Cancelled by Company: The ticket status is changed to Cancelled by Company if the company initiates cancellation of the ticket.

**Note:** A verbal notification to PJM is required if the change affects current or the next operating day

 Cancelled by PJM: The ticket status is changed to Cancelled by PJM if PJM initiates cancellation of the ticket. A verbal notification is given to the company

# **Questions?**

PJM Client Management & Services Telephone: (610) 666-8980 Toll Free Telephone: (866) 400-8980 Website: www.pjm.com



The Member Community is PJM's self-service portal for members to search for answers to their questions or to track and/or open cases with Client Management & Services