

Dart Browserless User Guide

PJM Interconnection LLC
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Purpose

Please see the PJM CLI documentation [here](#) for more information about using the PJM CLI including the setEnv.cmd command which allows users to store common credentials in a single file. The Dart browserless uses the PJM-CLI to interface with the eDART application.

The purpose of this document is to provide details of the Dart Browserless interface, which uses the PJM CLI to access the eDART system. The command line interface (CLI) is a Java based interface for transferring formatted files to and from PJM participant facing applications. Because the interface is “browser-less”, it can be used by an end user or a custom automation program written by the participant.

PJM provides this specification to aid PJM customers in building an external interface to PJM applications. PJM will provide assistance to customers seeking to understand or clarify details in this specification. However, due to the customizable nature of this external interface and the varied environments in which PJM customers will implement it, PJM is unable to provide application support for these customer-built external interfaces.

Differences between PJM-CLI and Filetransfer

The current filetransfer method used for eDART Browserless is being replaced with PJM-CLI. This transition offers members more consistent behavior and better state of the art security technology. It also offers easier to use technology for behind the scenes programming.

PJM-CLI vs. filetransfer

PJM-CLI Setup

- .bat files are used for filetransfer whereas .cmd files are used for PJM-CLI functionality
- PJM-CLI is executed from the command line, filetransfer is executed by double-clicking on the file in the folder
- <https://www.pjm.com/~media/etools/dr-hub/cli-user-guide.ashx>
- <https://www.pjm.com/markets-and-operations/etools/etools-info.ashx>
- By default, PJM-CLI output file name is unique and includes download reference and time-date stamp, but the output file name can be defined by the user instead of using the default
- Default filetransfer name is result.xml (see grey parameter below), but the output file name can be defined by the user instead of using the default

3 examples of PJM-CLI (new approach) vs. filetransfer (old approach)

The parameter “-q dart=true” will be used during the parallel testing period and can be removed once eDART filetransfer is retired.

Download with no parameters - TRANSMISSION ZONES

Dart PJM-CLI	eDART filetransfer
<pre>java -jar pjm-cli.jar -d ./download/ -a download/com.pjm.xml.download.edart.EDartXmlDownload -- httpType POST -q dart=true -q downloadtype=zones -u %USER% -p %PSWD% -s %SERVICEURL% -o "zones.xml"</pre>	<pre>java -jar filetransfer.jar app=edart action=download type=zones username=%USER% password=%PSWD% result="zones.xml"</pre>

Download with parameters - IRC BY DATE

Dart PJM-CLI	eDART filetransfer
<pre>java -jar pjm-cli.jar -d ./download/ -a download/com.pjm.xml.download.edart.EDartXmlDownload --httpType POST -q dart=true -q downloadtype=ircbydate -u %USER% -p %PSWD% -s %SERVICEURL% -q start=07/01/2019 -q stop=06/01/2020</pre>	<pre>java -jar filetransfer.jar app=edart action=download type=ircbydate username=%USER% password=%PSWD% start=07/01/2019 stop=06/01/2020</pre>

Upload - VOLTAGE SCHEDULE CREATE

Dart PJM-CLI	eDART filetransfer
<pre>java -jar pjm-cli.jar -d ./output/ -a upload/com.pjm.xml.upload.edart.EDartXMLUpload --httpType POST -q dart=true -u %USER% -p %PSWD% -s %SERVICEURL% -f {filename.xml} -o {filename2.xml}</pre>	<pre>java -jar filetransfer.jar app=edart action=upload username=%USER% password=%PSWD% source={filename.xml} result={filename2.xml}</pre>

PJM CLI Overview

Mandatory Parameters

All PJM CLI examples below use parameters which are explained here.

Argument	Description	Required/Optional
-a,--action	Specifies the action to perform. Will be a partial URL that is appended to the service URL. This parameter is specific to the endpoint. Refer to specific endpoints for actual values.	Required
-d, --directory	Specifies the directory location where results files are downloaded. Our examples generally use './' which indicates the current directory, but any path will work.	Required
-f, -file	File location of upload file (required if this is an upload)	Required for uploads
--HTTP Type	Specifies the purpose of the request POST is used for all endpoints, uploads and downloads	Required
-o,--output	Specifies an override filename for the output result file or downloaded file. The default filename is passed from the application, for example "company-names_2018-07-30-153057.xml".	Optional
-p, --password	Specifies the password credential to pass to the system. The -p parameter is followed by your password. Note: If your password is encrypted with the PJM CLI, the entire encrypted string, including the ENC(), must be included.	Required
-q, -query	Query parameters that are unique to each download, if the download has input parameters at all	Optional
-s,--serviceUrl	Specifies the services URL to access, either the Training or Production system. Train -s https://edarttrain.pjm.com Production -s https://edart.pjm.com	Required
-sso	Indicates if PJM CLI should authenticate with the PJM Single Sign-On (SSO) system. Dart is not configured to work with the PJM SSO. This parameter should always be false.	Not Required
-u,--username	Specifies the username credential to pass to the system. The -u parameter is followed by your username.	Required

Other Parameters

There are other parameters that are available as options. Please see the PJM CLI documentation for more information.

Security

All Dart endpoints are secured with BASIC authentication. If you are using the PJM CLI, this is already taken care of for you. However, if you are making REST calls through other means, be sure to include the appropriate Authorization header on your requests. Refer to the PJM CLI documentation [here](#) for more information about using an application program interface (API) or single user multiple account (SUMA) to access the PJM CLI.

General Endpoints

These downloads are available to Generic, Generation and Transmission users regardless of your role. The main XML for the general endpoints is located [here](#).

Company Names Download

Functional Overview

The Company Name provides a list of all active Transmission Companies. It includes the Company Long Name and Company Short Name.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=companynames
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="companynames.xsd">
  - <companyNames>
    - <company>
      - <company>
        - <shortName> C1 </shortName>
        - <longName> Company 1 </longName>
      </company>
    - <company>
      - <shortName> C2 </shortName>
      - <longName> Company 2 </longName>
    </company>
    - <company>
      - <shortName> C3 </shortName>
      - <longName> Company 3 </longName>
    </company>
  </companyNames>
</edart>
```

Control Zones Download

Functional Overview

The Control Zone report provides a translation between active Control Areas and their associated active Control Zones. All external users can run this report and the output is the same for all users.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=controlzones
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/controlzones/v1 controlzones.xsd">
  <controlZoneList>
    <controlArea name=" Area 1 ">
      <controlZone>pjmcz</controlZone>
    </controlArea>
    <controlArea name=" Area 2 ">
      <controlZone>dlco</controlZone>
      <controlZone>ap</controlZone>
    </controlArea>
    <controlArea name="Area 3">
      <controlZone>dom</controlZone>
    </controlArea>
    <controlArea name=" Area 4 ">
      <controlZone>ce</controlZone>
      <controlZone>atsi</controlZone>
      <controlZone>aep</controlZone>
      <controlZone>day</controlZone>
      <controlZone>deok</controlZone>
      <controlZone>ekpc</controlZone>
    </controlArea>
  </controlZoneList>
</edart>
```

Download Types

Functional Overview

The Download Type report provides a listing of all acceptable file types that can be uploaded and attached to a ticket. This includes Transmission, Generation, TERM and Voltage Schedule tickets.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=downloadtype
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart>
  - <downloadtype>
    <file_type extension="xls" description="Spreadsheet" id="1"/>
    <file_type extension="doc" description="Word document" id="2"/>
    <file_type extension="svg" description="Single Line Diagram" id="3"/>
    <file_type extension="jpg" description="Picture" id="4"/>
    <file_type extension="pdf" description="Adobe PDF" id="5"/>
    <file_type extension="ppt" description="PowerPoint" id="6"/>
    <file_type extension="vsd" description="Visio" id="7"/>
    <file_type extension="dwg" description="Autocad" id="8"/>
    <file_type extension="txt" description="Text" id="9"/>
    <file_type extension="csv" description="Comma Delimited" id="10"/>
    <file_type extension="xml" description="XML" id="11"/>
    <file_type extension="zip" description="Zipped" id="12"/>
    <file_type extension="gif" description="Picture" id="13"/>
    <file_type extension="html" description="HTML" id="14"/>
    <file_type extension="xlsx" description="Spreadsheet" id="17"/>
    <file_type extension="pptx" description="PowerPoint" id="18"/>
    <file_type extension="docx" description="Word document" id="19"/>
    <file_type extension="msg" description="eMail" id="20"/>
  </downloadtype>
</edart>
```

Transmission Endpoints

The main schema for the transmission endpoints, transmission.xsd, is located [here](#).

NDA Upload

Root Element: ndaAcceptance

Functional Overview

This upload allows Transmission users to update their Model Sharing NDA (Non-Disclosure Agreement) signoff as required to maintain access to eDART and Dart. The NDA is only required for Transmission users. Each user must sign the NDA, it is not done at the company level.

Input File

Name	CLI Argument Type	Value/Result	Required
ndaAcceptance	root		Yes
ndaAcceptance/name	String	The full name of the user accepting the NDA.	Yes
ndaAcceptance/email	String	The email address of the user accepting the NDA in a valid format (i.e. user@mycompany.com)	Yes
ndaAcceptance/accepted	Boolean	Must be set to 'true' in order to accept the NDA.	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input

```
<?xml version="1.0" encoding="UTF-8"?>
- <nda:ndaAcceptance xsi:schemaLocation="http://www.pjm.com/soa/schemas/edart/nda/v1 nda.xsd"
  xmlns:nda="http://www.pjm.com/soa/schemas/edart/nda/v1" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  <name>John Doe</name>
  <email>john.doe@example.com</email>
  <accepted>true</accepted>
</nda:ndaAcceptance>
```

Example Response File

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns="http://www.pjm.com/external/schemas/edart/response">
  <response>Non-disclosure agreement accepted successfully on 2021-01-27.</response>
</edart>
```

Transmission Companies Download

Functional Overview

This download provides a list of all active Transmission Companies. It includes the Company Long Name and Company ID. The Company ID is needed when creating new transmission tickets.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transcomp
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/transcomprestplan/v1 transcomprestplan.xsd">
  - <transcomp>
    <company name=" Company Name 1      " id="1"/>
    <company name=" Company Name 2      " id="2"/>
    <company name=" Company Name 3      " id="3"/>
    <company name=" Company Name 4      " id="4"/>
    <company name=" Company Name 5      " id="6"/>
    <company name=" Company Name 6      " id="10"/>
```

Transmission Zones Download

Functional Overview

The Transmission Zones download provides members with transmission zones grouped by their corresponding transmission company. The list contains the company name and transmission zone

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=zones
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/zones/v1_zones.xsd">
  <companyControlZone>
    - <company name="Company 1">
      <zone>APS</zone>
      <zone>APSS</zone>
    </company>
    - <company name=". Company 2">
      <zone>FECL</zone>
    </company>
    - <company name="Company 3">
      <zone>RECO</zone>
    </company>
    - <company name="Company 4">
      <zone>UGI</zone>
    </company>
  </companyControlZone>
</edart>
```

Transmission Causes Download

Functional Overview

This download returns transmission outage causes in the system. By default, only active transmission outage causes are returned. The list contains the Transmission Outage Cause ID, Description, Cause Name, and optionally, the retired status.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
showretiredtransmissioncausetypes	Query	Value: true, false Result: If true, includes retired causes in the result. The default value is false. Any value other than true is interpreted as false.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transmissioncauses
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q showretiredtransmissioncausetypes=false
```

Example Output

With parameter set to true, the element “cause retired” and retired causes are displayed.

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart>
  <causeList>
    <cause retired="false" causeDescription="Automatic Outage caused by unknown causes." id="-2" description="Unknown"/>
    <cause retired="false" causeDescription="Outage for reasons not included in the list." id="-1" description="Other"/>
    <cause retired="true" causeDescription="Planned Outage associated with a full or partial overhaul of a circuit breaker, including testing of facilities in support." id="1" description="(Retired) Overhaul: CB"/>
    <cause retired="true" causeDescription="Planned Outage associated with a replacement of a circuit breaker (CB), including testing of facilities in support." id="2" description="(Retired) Repair/Replace: CB"/>
    <cause retired="true" causeDescription="null" id="3" description="(Retired) Relay Maintenance"/>
    <cause retired="true" causeDescription="null" id="4" description="(Retired) Relay Replacement"/>
    <cause retired="false" causeDescription="Outage for the purpose of repairing or replacing transmission support structures (pole-type and lattice/tower-type), including testing of facilities in support." id="53" description="Repair/Replace: Pole/Tower"/>
    <cause retired="false" causeDescription="Planned Outage associated with painting of transmission support structures (pole-type and lattice/tower-type) and/or substation equipment for the purpose of maintenance." id="54" description="Safety: Painting Equipment"/>
  </causeList>
</edart>
```

With parameter set to false, the element “cause retired” does not display.

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart>
  <causeList>
    <cause causeDescription="Automatic Outage caused by unknown causes." id="-2" description="Unknown"/>
    <cause causeDescription="Outage for reasons not included in the list." id="-1" description="Other"/>
    <cause causeDescription="Outage associated with manual or automatic substation equipment utilized in electrical grounding and the protection of other substation equipment, typically Disconnects and Ground Switches." id="5" description="Maintenance: Disc/Ground Srv"/>
    <cause causeDescription="Outage for the purpose of repairing or replacing transmission insulators, including testing of facilities in support of repair/replacement." id="7" description="Repair/Replace: Insulator"/>
    <cause causeDescription="Planned Outage associated with antenna construction." id="9" description="Construction: Antenna"/>
    <cause causeDescription="Outage associated with the repair or replacement of a transformer, including testing of facilities in support." id="52" description="Repair/Replace: Transformer"/>
    <cause causeDescription="Outage for the purpose of repairing or replacing transmission support structures (pole-type and lattice/tower-type), including testing of facilities in support." id="53" description="Repair/Replace: Pole/Tower"/>
    <cause causeDescription="Planned Outage associated with painting of transmission support structures (pole-type and lattice/tower-type) and/or substation equipment for the purpose of maintenance." id="54" description="Safety: Painting Equipment"/>
  </causeList>
</edart>
```

Transmission Equipment List Download

Functional Overview

By default, this download provides a list of active transmission equipment owned by the user's company. Additional parameters may be specified to include retired equipment, or equipment for which the company has notification rights.

For generator equipment type, only generators identified as SVCs are included in the download.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
includeretired	Query	<p>Value: true, false</p> <p>Result: If true, includes retired equipment in the result. The default value is false. Any value other than true is interpreted as false. terminate_date is not empty for retired equipment.</p>	No
shownotify	Query	<p>Value: true, false</p> <p>Result: If true, the owner_name element is displayed which indicates equipment that the user's company has notification rights to in the result. The default value is false. Any value other than true is interpreted as false.</p>	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=equipment
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q includeretired=false
-q shownotify=false
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/equipment/v1 equipment.xsd">
  - <equipment_list>
    - <equipment>
      <ta_id>1761841</ta_id>
      <type>BRKR</type>
      <station>[REDACTED]</station>
      <voltage>138 KV</voltage>
      <short_name>13470</short_name>
      <long_name>[REDACTED]</long_name>
    </equipment>
    - <equipment>
      <ta_id>1761840</ta_id>
      <type>BRKR</type>
      <station>[REDACTED]</station>
      <voltage>138 KV</voltage>
      <short_name>13471</short_name>
      <long_name>[REDACTED]</long_name>
    </equipment>
    - <equipment>
      <ta_id>1720944</ta_id>
      <type>BRKR</type>
      <station>[REDACTED]</station>
      <voltage>138 KV</voltage>
      <short_name>A13472</short_name>
      <long_name>[REDACTED]</long_name>
    </equipment>
```

Generator List for Transmission Owners Download

Functional Overview

This download provides the transmission company information for all active generators that the transmission company is approved to see or where the generator is in their zone.

PJM CLI Example

```
java -jar pjm-cli.jar  
-d ./download/  
-a download/com.pjm.xml.download.edart.EDartXmlDownload  
--httpType POST  
-q dart=true  
-q downloadtype=generators4trans  
-u %USER%  
-p %PSWD%  
-s %SERVICEURL%
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.pjm.com/external/schemas/generators/v1_generators.xsd">
  - <generators>
    - <generator_list>
      - <gen_unit>
        <generator_id>7677</generator_id>
        <generator_name>████████</generator_name>
        <generator_type>Diesel</generator_type>
        <capacity>0</capacity>
        <company_name>████████████████</company_name>
        <mvar_ratings/>
        <meteredMVARValue>TBD</meteredMVARValue>
        <pss>true</pss>
      </gen_unit>
    </generator_list>
    - <generator_list>
      - <gen_unit>
        <generator_id>15134</generator_id>
        <generator_name>████</generator_name>
        <generator_type>Wind</generator_type>
        <capacity>3</capacity>
        <company_name>████████████████</company_name>
        <mvar_ratings/>
        <meteredMVARValue>TBD</meteredMVARValue>
      </gen_unit>
    </generator_list>
  </generators>
</edart>
```

Transmission PSSE Download

Functional Overview

The Transmission PSSE (Power System Simulator Engineering) download maps PJM equipment ids to the IDC (Interchange Distribution Calculator) model (Station A, Station B, Station ID). This includes both Active and Retired equipment owned by the Company. Not every piece of equipment will exist in the IDC model.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transmissionpsse
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.pjm.com/external/schemas/transpsse/v1_transpsse.xsd">
  - <transmission_psse>
    - <equipment>
      <ta_id>1659341</ta_id>
      <station_id>1</station_id>
      <station_i>████████████████</station_i>
      <station_j>████████████████</station_j>
      <station_k>████████████████</station_k>
    </equipment>
    - <equipment>
      <ta_id>1659342</ta_id>
      <station_id>1</station_id>
      <station_i>████████████████</station_i>
      <station_j>████████████████</station_j>
      <station_k>████████████████</station_k>
    </equipment>
    - <equipment>
      <ta_id>1659698</ta_id>
      <station_id>1</station_id>
      <station_i>████████████████</station_i>
      <station_j>████████████████</station_j>
      <station_k>████████████████</station_k>
    </equipment>
  </transmission_psse>
</edart>
```

Conflict Group Scenarios Download

Functional Overview

The Transmission Conflict Group Scenario provides groups of transmission equipment, and how many of the group may be out at the same time without causing a conflict. This data is identified and set up by PJM.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id	Query	Value: integer Result: The conflict group identified will be reported	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=conflictgroupscenario
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=12345
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.pjm.com/external/schemas/group_conflict/v1 group_conflict.xsd">
  - <group_conflicts>
    - <conflict active="true">
      <category>Thermal</category>
      <scenario_id>21</scenario_id>
      <title>Testing Group Scenario</title>
      <allowed_out>1</allowed_out>
      <comments>These are comments</comments>
      <review_comments>Review requested due to retired facility(ies) on NA Build. Here are new Review comments just added
       11/21/2019.</review_comments>
      - <equipment>
        <ta_id>1752774</ta_id>
        <ta_id>1752770</ta_id>
        <ta_id>1752765</ta_id>
        <ta_id>1753971</ta_id>
      </equipment>
    </conflict>
    - <conflict active="true">
      <category>Stability</category>
      <scenario_id>62</scenario_id>
      <title>dennis 2</title>
      <allowed_out>2</allowed_out>
      <comments/>
      <review_comments>Review requested due to retired facility(ies) on NA Build</review_comments>
      - <equipment>
        <ta_id>1752748</ta_id>
        <ta_id>1752752</ta_id>
        <ta_id>1665575</ta_id>
      </equipment>
    </conflict>
  </group_conflicts>
</edart>
```

Conflict Primary Facilities Download

Functional Overview

The Transmission Conflict Facility report provides conflict scenarios that have been identified and set up by PJM, for primary equipment and related secondary equipment, for a company. Primary and secondary equipment being out at the same time is identified as a conflict.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id	Query	Value: integer Result: The conflict group identified will be reported	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=conflictfacilityscenario
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=12345
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart>
  - <primary_facility_conflicts>
    - <conflict active="true">
      <category>Stability</category>
      <scenario_id>241</scenario_id>
      <title>Wendy's Testing</title>
      <primary_equipment>
        <ta_id>1756760</ta_id>
        <ta_id>1752780</ta_id>
      </primary_equipment>
      <comments/>
      <review_comments>Review requested due to retired facility(ies) on NA Build</review_comments>
      - <equipment>
        <ta_id>1752779</ta_id>
        <ta_id>1752778</ta_id>
      </equipment>
    </conflict>
  </primary_facility_conflicts>
</edart>
```

Conflict Generator Offline Scenarios Download

Functional Overview

The Transmission Conflict Genoff (Generator Offline) Scenario provides conflict scenarios where transmission outages result in need for generators to be offline. These conflicts are created by PJM and can be viewable by TOs.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id	Query	Value: integer Result: The conflict group identified will be reported	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=conflictgenoffscenario
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=12345
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/genoff_scenario/v1_genoff_scenario.xsd">
  - <genoff_scenarios>
    - <scenario active="false">
      <category>Stability</category>
      <scenario_id>2149</scenario_id>
      <title>[REDACTED]</title>
      <allowed_out>1</allowed_out>
      <comments>One or more Ids cannot be displayed. Contact PJM for more information </comments>
      <review_comments>add comments here</review_comments>
      - <equipment>
        <ta_id>1752917</ta_id>
        <ta_id>1727088</ta_id>
      </equipment>
      - <generators>
        <generator_id>1412</generator_id>
      </generators>
    </scenario>
    - <scenario active="true">
      <category>Stability</category>
      <scenario_id>2174</scenario_id>
      <title>[REDACTED]</title>
      <allowed_out>2</allowed_out>
      <comments>One or more Ids cannot be displayed. Contact PJM for more information [REDACTED] is bottled when [REDACTED]
[REDACTED] is O.O.S</comments>
      <review_comments>Review requested due to retired facility(ies) on NA Build</review_comments>
      - <equipment>
        <ta_id>1755846</ta_id>
      </equipment>
      - <generators>
        <generator_id>53912801</generator_id>
      </generators>
    </scenario>
```

Tier Report Download

Functional Overview

The Tier download provides tier relationship between transmission equipment in the system. The report lists the main equipment, and children, and identifies tier value (1,2,3) for equipment that the company owns or has notification rights to. The Tier level corresponds to each zone of protection around a piece of equipment as defined in the PJM EMS model.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=tier
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/tier/v1 tier.xsd">
  - <tier_report>
    - <tier_link>
      <parent_ta_id>1662109</parent_ta_id>
      <tier_value>1</tier_value>
      <child_ta_id>1673284</child_ta_id>
    </tier_link>
    - <tier_link>
      <parent_ta_id>1662109</parent_ta_id>
      <tier_value>2</tier_value>
      <child_ta_id>1673284</child_ta_id>
    </tier_link>
    - <tier_link>
      <parent_ta_id>1662109</parent_ta_id>
      <tier_value>2</tier_value>
      <child_ta_id>1673279</child_ta_id>
    </tier_link>
```

NERC Load Forecast

Functional Overview

The NERC Load Forecast (NERCLFBYDATE) is generally for new transmission companies integrating in to PJM. Until they are official PJM members, PJM may ask Transmission Owners to manually provide load information to be included in the PJM load forecast. This is generally only used for a limited time such as after market interactions or

other special circumstances. The NERC Load Forecast returns all load types greater than or equal to the type specified. For example, if the Load Type “Weekly” is entered, values for “Weekly” and “Monthly” will be returned, but not “Daily” nor “Hourly”.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
nerclf	Query	Value: text - Hourly, Daily, Weekly, Monthly Result: The data returned will be of that time interval and all intervals greater than it. (i.e. if Weekly is selected, Weekly and Monthly will report)	Yes
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with a forecast date on or after the entered date will be reported	No
stop	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with a forecast date on or before the entered date will be reported	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=nerclfbydate
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
-q loadtype=Hourly
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <nerclf:LoadForecast xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:nerclf="http://www.pjm.com/external/schemas/nerclf" xsi:schemaLocation="http://www.pjm.com/external/schemas/nerclf
  nercf.xsd">
  - <Submission>
    <LoadType>Hourly</LoadType>
    <ForecastDate>2021-01-27</ForecastDate>
    <HourEnding>0</HourEnding>
    <PeakMW>10</PeakMW>
    <NetInterchange>5</NetInterchange>
    <OperatingReserve>15</OperatingReserve>
  </Submission>
  - <Submission>
    <LoadType>Hourly</LoadType>
    <ForecastDate>2021-01-27</ForecastDate>
    <HourEnding>1</HourEnding>
    <PeakMW>10</PeakMW>
    <NetInterchange>5</NetInterchange>
    <OperatingReserve>15</OperatingReserve>
  </Submission>
  - <Submission>
    <LoadType>Hourly</LoadType>
    <ForecastDate>2021-01-27</ForecastDate>
    <HourEnding>2</HourEnding>
    <PeakMW>11</PeakMW>
    <NetInterchange>7</NetInterchange>
    <OperatingReserve>20</OperatingReserve>
  </Submission>
  - <Submission>
    <LoadType>Hourly</LoadType>
    <ForecastDate>2021-01-27</ForecastDate>
    <HourEnding>3</HourEnding>
    <PeakMW>10</PeakMW>
    <NetInterchange>22</NetInterchange>
    <OperatingReserve>15</OperatingReserve>
  </Submission>
  - <Submission>
    <LoadType>Daily</LoadType>
    <ForecastDate>2021-01-27</ForecastDate>
    <PeakMW>10</PeakMW>
    <NetInterchange>5</NetInterchange>
    <OperatingReserve>15</OperatingReserve>
  </Submission>
</LoadForecast>
```

NERC TADS Report Codes

Functional Overview

The NERC TADS Report Codes download provides a list of TADS (Transmission Availability Data System) report codes which map the Code ID to the Code Description, and is used when uploading to the Web TADS system.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=nerctadsreportcodes
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<TADSCodes xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/nerctadsreportcodes/v1 nerctadsreportcodes.xsd">
  <faultType>
    <code description="N/A" id="0"/>
    <code description="No fault" id="1"/>
    <code description="P-P fault" id="2"/>
    <code description="Single P-G fault" id="3"/>
    <code description="P-P-G, 3P or 3P-G fault" id="4"/>
    <code description="Unknown fault type" id="5"/>
  </faultType>
  <outageInitCode>
    <code description="N/A" id="0"/>
    <code description="Element-Initiated" id="1"/>
    <code description="Other Element-Initiated" id="2"/>
    <code description="AC Substation-Initiated" id="3"/>
    <code description="AC/DC Terminal-Initiated" id="4"/>
    <code description="Other Facility-Initiated" id="5"/>
    <code description="Protection System-Initiated" id="6"/>
  </outageInitCode>
  <initCauseCode>
    <code description="N/A" id="0"/>
    <code description="Weather, excluding lightning" id="1"/>
    <code description="Lightning" id="2"/>
    <code description="Environmental" id="3"/>
    <code description="Contamination" id="4"/>
    <code description="Foreign Interference" id="5"/>
    <code description="Fire" id="6"/>
    <code description="Vandalism, Terrorism, or Malicious Acts" id="7"/>
    <code description="Failed AC Substation Equipment" id="8"/>
    <code description="Failed AC/DC Terminal Equipment" id="9"/>
    <code description="Failed Protection System Equipment" id="10"/>
    <code description="Failed AC Circuit Equipment" id="11"/>
    <code description="Failed DC Circuit Equipment" id="12"/>
    <code description="Human Error" id="13"/>
    <code description="Vegetation" id="14"/>
    <code description="Power System Condition" id="15"/>
    <code description="Unknown" id="16"/>
    <code description="Other" id="17"/>
  </initCauseCode>
```

Transmission Ticket Review, Revise Download

Functional Overview

This endpoint allows the user to download one or more transmission tickets for their equipment and equipment they have notification rights to. Either id or start and stop parameter must be provided. Multiple parameters can be used in combination. If the **start and stop** parameters are provided, the id parameter is ignored.

There is a maximum number of records that can be displayed. If the query returns more than the maximum number of tickets allowed, a warning message is returned in the download file, along with all the data allowed. In that case, the query should be refined, using the parameters to narrow the search window.

For both review and revise, the downloadtype is transmission. The transtype is the parameter that determines if the report will be the review version or the revise version. The review version displays more information, but the revise version can be used to upload revisions to transmission tickets and will display information that can be revised.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id	Query	Values: A single id or multiple ids in a comma separated list without spaces Result: returns transmission tickets that match the provided identifiers	No
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with a schedule date on or after the entered date will be reported	No
stop	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with a schedule date before the entered date will be reported	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No

Name	CLI Argument Type	Value/Result	Required
ticketstatus	Query	<p>Values: Single or multiple status index values in a comma separated list without spaces. Valid values are: 1=Submitted, 2=Received, 3=Denied, 4=Approved, 5=Cancelled by Company, 6=PJM Admin Closure, 7=Revised, 8=Active, 9=Completed</p> <p>Result: Only tickets with the requested status will be reported.</p> <p>Used with start and stop parameters.</p>	No
restplanreview	Query	<p>Values: true, false</p> <p>Result: If true the output includes only tickets with restoration plan review required. Default is to ignore the restoration plan review.</p> <p>Used with start and stop parameters.</p>	No
transtype	Query	<p>Value: revise, review</p> <p>Result: If the intent is to update the selected record, the download type will be "Revise". If the intent is to see all relevant information on the selected record, the download type will be "Review". More data elements are included in the Review download. Default is Review</p>	No
includesysimp	Query	<p>Values: true, false</p> <p>Result: If true and downloadType = Review, System Impacts are displayed if they exist on the selected tickets. Default is false.</p>	No
incdates	Query	<p>Values: true, false</p> <p>Result: If true and downloadType = Review, Date Logs are displayed if they exist on the selected tickets. Default is false.</p>	No
showtype	Query	<p>Values: true, false</p> <p>Result: If true the equipment type is included on the transmission ticket. Default is false.</p>	No

Name	CLI Argument Type	Value/Result	Required
gettransticattachments	Query	Values: true, false Result: If true and downloadType = Review, all file attachments are downloaded in both zip and hex file formats. Default is false.	No
transticattachments	Query	Values: true, false Result: If true and downloadType = Review, a list of file attachments are displayed if they exist on the selected tickets. Default is false.	No

PJM CLI Example to return a single Ticket ID

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transmission
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=12345
-q transtype=revise
```

PJM CLI Example to return multiple Ticket ID

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transmission
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=12345, 23456, 34567
-q transtype=revise
```

PJM CLI Example with start and stop

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype= transmission
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=01/01/2019
-q stop=12/31/2019
-q transtype=review
```

Example Output

transticreview

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/transticreview/v1 transticreview.xsd">
  - <transticreview>
    <pjm_ticket_id>212545</pjm_ticket_id>
    <company_ticket_id>test string</company_ticket_id>
    <description>NERC TADS autoreclose update</description>
    <at_risk>false</at_risk>
    <availability>Immediate</availability>
    <lock_status>free</lock_status>
    - <ticket_status>
      <status>Submitted</status>
      <submittime>2012-02-03 07:10:16</submittime>
      <submituser>DANTAJ</submituser>
      <activetime>2012-02-03 07:10:16</activetime>
      <activeuser>DANTAJ</activeuser>
      <completedtime>2012-02-03 07:10:16</completedtime>
      <completeduser>DANTAJ</completeduser>
    </ticket_status>
    - <interval_definition>
      - <interval_start>
        <date>2018-09-19</date>
        <time>00:00:00</time>
      </interval_start>
      - <interval_end>
        <date>2018-09-19</date>
        <time>00:05:00</time>
      </interval_end>
    </interval_definition>
    <outage_type>EMSTripped</outage_type>
    <ticket_type auto_reclose="true" emergency="true" info="false"/>
    - <equipment primaryEquipFlag="false" status="O">
      <ta_id>1665537</ta_id>
      - <interval_definition>
        - <interval_start>
          <date>2018-09-19</date>
          <time>00:00:00</time>
        </interval_start>
        - <interval_end>
          <date>2018-09-19</date>
          <time>00:05:00</time>
        </interval_end>
      </interval_definition>
    </equipment>
```

```

- <switch>
  - <interval_definition>
    - <interval_start>
      <date>2018-09-19</date>
      <time>00:00:00</time>
    </interval_start>
  </interval_definition>
</switch>
<congestionExpected>false</congestionExpected>
<submittedOnTime>false</submittedOnTime>
<submitOnTimeComments>Ticket was Submitted at 09/17/2018 10:32. In order to be On-Time this ticket needs to be submitted by 08/01/2018 00:00.</submitOnTimeComments>
<vegetationFlag>false</vegetationFlag>
<cause description="Operational: Emergency">32</cause>
<cause description="Cut-In">65</cause>
<totalSystemImpacts>1</totalSystemImpacts>
<unmitigatedSystemImpacts>1</unmitigatedSystemImpacts>
<cutInFlag>true</cutInFlag>
- <cutInInfo>
  <cutInTitle>Unreviewed</cutInTitle>
  <cutInStatus>Unreviewed</cutInStatus>
</cutInInfo>
- <nerctads>
  - <autoReclose>
    <faultType>1</faultType>
    <outageInitCode>1</outageInitCode>
    <initCauseCode>1</initCauseCode>
    <sustainedCauseCode>1</sustainedCauseCode>
    <outageModeCode>1</outageModeCode>
  </autoReclose>
</nerctads>
<rtepQueueNumber>This text is fifty characters long</rtepQueueNumber>
<totalConflicts>0</totalConflicts>
<unmitigatedConflicts>0</unmitigatedConflicts>
- <restplan>
  <restplanreview>591 - Update Required</restplanreview>
</restplan>
</transticreview>
</edart>

```

transticrevise

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/transticrevise/v1 transticrevise.xsd">
  - <transticrevise>
    <pjm_ticket_id>212545</pjm_ticket_id>
    <company_ticket_id>test string</company_ticket_id>
    <description>NERC TADS autoreclose update</description>
    <availability>Immediate</availability>
    - <interval_definition>
      - <interval_start>
        <date>2018-09-19</date>
        <time>00:00:00</time>
      </interval_start>
      - <interval_end>
        <date>2018-09-19</date>
        <time>00:05:00</time>
      </interval_end>
    </interval_definition>
    <outage_type>EMSTripped</outage_type>
    <ticket_type auto_reclose="true" emergency="true" info="false"/>
    - <equipment primaryEquipFlag="false" status="0">
      <ta_id>1665537</ta_id>
      - <interval_definition>
        - <interval_start>
          <date>2018-09-19</date>
          <time>00:00:00</time>
        </interval_start>
        - <interval_end>
          <date>2018-09-19</date>
          <time>00:05:00</time>
        </interval_end>
      </interval_definition>
    </equipment>
  </transticrevise>
</edart>

```

```

- <switch>
  - <interval_definition>
    - <interval_start>
      <date>2018-09-19</date>
      <time>00:00:00</time>
    </interval_start>
  </interval_definition>
</switch>
<vegetationFlag>false</vegetationFlag>
<cause>32</cause>
<cause>65</cause>
<cutInFlag>true</cutInFlag>
- <cutInInfo>
  <cutInTitle>Unreviewed</cutInTitle>
  <cutInStatus>Unreviewed</cutInStatus>
</cutInInfo>
- <nerctads>
  - <autoReclose>
    <faultType>1</faultType>
    <outageInitCode>1</outageInitCode>
    <initCauseCode>1</initCauseCode>
    <sustainedCauseCode>1</sustainedCauseCode>
    <outageModeCode>1</outageModeCode>
  </autoReclose>
</nerctads>
<rtepQueueNumber>Thistextisfiftycharacterslong</rtepQueueNumber>
</transicrevise>
</edart>

```

Transmission Ticket Review by Modify Date

Functional Overview

This endpoint allows the user to download one or more transmission tickets for their equipment and equipment they have notifications to based on the Modification Date of the ticket(s). At least one query parameter must be provided. Multiple parameters can be used in combination.

There is a maximum number of records that can be displayed, this number differs based on the environment you are in. If the query returns more than the maximum number of tickets allowed, a warning message is returned in the download file, along with all the data allowed. In that case, the query should be refined, using parameters to narrow the search window.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with a status change, submission revision, or an update to the Facility Outage Report (TOIMWG) report after the date provided.	Yes

Name	CLI Argument Type	Value/Result	Required
starttime	Query	Values: Time in the form hh:mm Results: Specify time to be used with start parameter, to return tickets modified after the starttime.	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transticchanges
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=01/01/2019
-q starttime=08:00
-q transtype=revise
```

Example Output

[transticreview](#)

Transmission Cut-In Report

Functional Overview

This endpoint allows the user to have access to see the task status for Transmission Cut-In tickets.

At least one query parameter must be provided. Multiple parameters can be used in combination. If the ***id*** query parameter is provided, it takes precedence and other parameters are ignored. If more than 1,000 tickets match the provided filters, a warning message returned in the download file, along with data for the first 1,000 matching tickets.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date on or after the entered date will be reported Default is today's date	No
stop	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date before the entered date will be reported	No
ready	Query	Value: true/false Result: Only tickets with an effective date before the entered date will be reported Default is false.	No
notready	Query	Value: true/false Result: Only tickets with an effective date before the entered date will be reported Default is true.	No
includenotify	Query	Values: true/false Result: If "true", returns tickets created by the user's company AND tickets that the user's company is notified. If "false", returns only tickets that are owned by the user's company Default value is false	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=cutinreport
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q notready=true
```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <cutinreport:cutInReport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:cutinreport="http://www.pjm.com/soa/schemas/edart/cutinreport/v1"
  xsi:schemaLocation="http://www.pjm.com/soa/schemas/edart/cutinreport/v1 cutinreport.xsd">
  - <cutInInfo>
    <ticketId>188565</ticketId>
    <cutInTitle>Unreviewed</cutInTitle>
    <cutInStatus>Unreviewed</cutInStatus>
  </cutInInfo>
  - <cutInInfo>
    <ticketId>208558</ticketId>
    <cutInTitle>Unreviewed</cutInTitle>
    <cutInStatus>Unreviewed</cutInStatus>
  </cutInInfo>
  - <cutInInfo>
    <ticketId>209571</ticketId>
    <cutInTitle>Unreviewed</cutInTitle>
    <cutInStatus>Unreviewed</cutInStatus>
  </cutInInfo>
</cutinreport:cutInReport>

```

Transmission Ticket Upload (create, revise, cancel)

Create Root Element: newtranstic

Revise or Cancel Root Element: transticrevise

Functional Overview

This endpoint provides a mechanism for members to upload a file to create, revise or cancel a transmission outage ticket.

For new tickets, the PJM Ticket ID will not be populated but all other fields pertinent to the ticket will be populated.
For revise or cancel, the PJM Ticket ID will be present.

When revising tickets, the user must specify an identifier: either PJM Ticket Id or Company Ticket Id. All other elements are optional. Any element not provided by the user will be unchanged.

This endpoint also provides a mechanism for members to upload a file to cancel existing transmission outage tickets for their company using either the PJM Ticket ID or the Company Ticket ID.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
-f, -file	File	Value: Fullpath filename Result: specifies the file that contains the XML data to create the transmission outage ticket.	Yes

Name	CLI Argument Type	Value/Result	Required
-o, -output	File	Value: Fullpath filename Result: specifies the response file that details how the Transmission outage ticket was processed – success, warnings or errors	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input

Create - newtranstic

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2020 sp1 (x64) (http://www.altova.com)-->
- <edart xsi:noNamespaceSchemaLocation="transcreate.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <newtranstic>
    <!--<company>4096</company>-->
    <company_ticket_id>Baltiteststep2</company_ticket_id>
    <!-- <productName>String</productName>-->
    - <interval_definition>
      - <interval_start>
        <date>2020-11-24</date>
        <time>22:00:00</time>
      </interval_start>
      - <interval_end>
        <date>2021-08-24</date>
        <time>22:00:00</time>
      </interval_end>
    </interval_definition>
    <outage_type>Continuous</outage_type>
    <!--<ticket_type info="false" emergency="false"/>-->
    <description>Transmission Create Upload Valid Scenario Test step2</description>
    <availability>72hr</availability>
    - <equipment status="O" primaryEquipFlag="true">
      <ta_id>1662501</ta_id>
      - <interval_definition>
        - <interval_start>
          <date>2020-11-24</date>
          <time>22:00:00</time>
        </interval_start>
        - <interval_end>
          <date>2021-08-24</date>
          <time>22:00:00</time>
        </interval_end>
      </interval_definition>
    </equipment>
    - <switch>
      - <interval_definition>
        - <interval_start>
          <date>2020-11-29</date>
          <time>22:00:00</time>
        </interval_start>
      </interval_definition>
    </switch>
    <!--<vegetationFlag>true</vegetationFlag>-->
    <cause>26</cause>
    <!--<cutInFlag>true</cutInFlag>-->
  </newtranstic>
</edart>
```

Revision Elements - *transticrevise*

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="transticrevise.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <transticrevise>
    <pjm_ticket_id>214540</pjm_ticket_id>
    <company_ticket_id>Baltiteststep2</company_ticket_id>
    <projectName>TRANS TICKETS FOR DART INTERIM PROJECT TESTING</projectName>
    <description>Transmission Ticket REVISE Valid Scenario step2 to update projectName, Description, and Ticket Start and End Dates and time</description>
    <project_ids/>
    <availability/>
    - <interval_definition>
      - <interval_start>
        <date>2020-07-24</date>
        <time>19:20:00</time>
      </interval_start>
      - <interval_end>
        <date>2021-12-12</date>
        <time>10:00:00</time>
      </interval_end>
    </interval_definition>
    <outage_type>Continuous</outage_type>
    <ticket_type emergency="false" info="false"/>
    - <equipment primaryEquipFlag="true" status="O">
      <ta_id>1662501</ta_id>
      - <interval_definition>
        - <interval_start>
          <date>2020-07-24</date>
          <time>19:20:00</time>
        </interval_start>
        - <interval_end>
          <date>2021-08-24</date>
          <time>22:00:00</time>
        </interval_end>
      </interval_definition>
    </equipment>
    - <switch>
      - <interval_definition>
        - <interval_start>
          <date>2020-07-24</date>
          <time>22:00:00</time>
        </interval_start>
      </interval_definition>
    </switch>
    <vegetationFlag>false</vegetationFlag>
    <cause>26</cause>
    <cutinFlag>false</cutInFlag>
    <equipment_default/>
  </transticrevise>
</edart>
```

Cancel Elements - *transticrevise*

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="transticrevise.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <transticrevise>
    <pjm_ticket_id>214534</pjm_ticket_id>
    <!--<company_ticket_id>TransticValidScenario7</company_ticket_id>-->
    <ticket_status>cancel</ticket_status>
  </transticrevise>
</edart>
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2016 rel. 2 sp1 (x64) (http://www.altova.com)-->
<trans:transmissionTicketsResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:trans="http://www.pjm.com/etools/dart/schemas/transmission" xsi:schemaLocation="http://www.pjm.com/etools/dart/schemas/transmission
  transmission.xsd">
  <trans:transmissionTicketResponse>
    <trans:pjmTicketId>0</trans:pjmTicketId>
    <trans:companyTicketId>String</trans:companyTicketId>
    <trans:message>String</trans:message>
    <trans:executionTimestamp>2001-12-17T09:30:47Z</trans:executionTimestamp>
  </trans:transmissionTicketResponse>
</trans:transmissionTicketsResponse>
```

Transmission Facility Outage Report (TOIMWG) Download

Functional Overview

This download provides non-market sensitive transmission outage information and is known as TOIMWG (Transmission Outage Impact Mitigation Working Group). The report contains current or historical ticket data, based on the endpoint invocation used. Current data is refreshed every 5 minutes. Historical data is generated at the end of the day.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id, ids	Query	Values: not case sensitive <ul style="list-style-type: none"> • All • Valid control zone Result: If All is provided, returns tickets for all control zones. If a valid zone is provided, returns tickets for that control zone.	Yes
transtype	Query	Values: not case sensitive <ul style="list-style-type: none"> • Current • Historical Result: the value of this parameter will determine if the output contains current or historical data.	Yes
start	Query	Values: Date in form MM/DD/YYYY. Must be used with stop Result: If included, returns only tickets with start date greater than this date	No
stop	Query	Values: Date in form MM/DD/YYYY. Must be used with start Result: If included, returns only tickets with stop date less than this date Note: the start and stop dates cannot span more than 1 year	No

Name	CLI Argument Type	Value/Result	Required
effective_during	Query	<p>Values: true, false; used with start and stop parameters</p> <p>Result:</p> <ul style="list-style-type: none"> • If true, returns tickets that are active during the time span. That is, ticket start <= end date and ticket end >= start date. • If false, returns tickets that start and end within the time span. That is, ticket start >= start date and ticket end <= end date. • The default value is false. Any value other than true is interpreted as false. 	No
recent	Query	<p>Values: Integer value must be 365 or less</p> <p>Result: For historical data report only. If included, returns tickets that were completed this many days in the past. Takes precedence over start and stop date parameters.</p>	No

PJM CLI Example

Historical: requires a date parameter, either recent or start and stop date

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=toimwg
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=ALL
-q transtype=Historical
-q recent=180
```

Current:

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=toimwg
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=ALL
-q transtype=Current
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
<toimwg xsi:noNamespaceSchemaLocation="toimwg.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <ticket_info>
    - <ticket>
      <pjmTicketId>208218</pjmTicketId>
      - <intervalDefinition>
        - <intervalStart>
          <date>2015-11-06</date>
          <time>00:00:00</time>
        </intervalStart>
        - <intervalEnd>
          <date>2010-11-30</date>
          <time>07:00:00</time>
        </intervalEnd>
      </intervalDefinition>
      <status>Completed</status>
      <lastRevisedDate>06/03/2014 14:46</lastRevisedDate>
      <outageType>EMSTripped</outageType>
      <companyName>[REDACTED] Company</companyName>
      <availability>2 hr.</availability>
      <approval_risk/>
      <rtcpQueueNumber/>
      <previous_status>Active</previous_status>
      - <equipment status="Open">
        <type>BRKR</type>
        <b1Name>[REDACTED]</b1Name>
        <b2Name>500 KV</b2Name>
        <b3Text>[REDACTED]</b3Text>
        <zone>BC</zone>
        - <intervalDefinition>
          - <intervalStart>
            <date>2015-11-06</date>
            <time>00:00:00</time>
          </intervalStart>
          - <intervalEnd>
            <date>2020-11-30</date>
            <time>07:00:00</time>
          </intervalEnd>
        </intervalDefinition>
      </equipment>
      <cause description="Maintenance: Disc/Ground Sw">5</cause>
      - <dateLogs>
        - <datelog>
          - <intervalDefinition>
            - <intervalStart>
              <date>2012-03-04</date>
              <time>00:00:00</time>
            </intervalStart>
            - <intervalEnd>
              <date>2012-04-16</date>
              <time>00:00:00</time>
            </intervalEnd>
          </intervalDefinition>
          <timestamp>03/19/2012 13:32</timestamp>
        </datelog>
        - <datelog>
          - <intervalDefinition>
            - <intervalStart>
              <date>2010-03-04</date>
              <time>00:00:00</time>
            </intervalStart>
            - <intervalEnd>
              <date>2010-04-16</date>
              <time>00:00:00</time>
            </intervalEnd>
          </intervalDefinition>
          <timestamp>12/04/2009 09:59</timestamp>
        </datelog>
      </dateLogs>
      - <statusLogs>
        - <statusLog>
          <status>Completed</status>
          <statusTime>11/19/2014 12:12</statusTime>
        </statusLog>
      </statusLogs>
    </ticket>
  </ticket_info>
</toimwg>
```

EMS Outages Download

Functional Overview

The EMS Outage download provides a list of equipment currently listed as out in PJM EMS. This information should be updated every 5 minutes and should sync up with the Current Facility Outages section of <https://edart.pjm.com/reports/linesout.txt>.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=emsoutage
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.pjm.com/external/schemas/emsoutage/v1 emsoutage.xsd">
  - <ticket>
    <pjmTicketId>0</pjmTicketId>
    <type>CAP</type>
    <b1Name>[REDACTED]</b1Name>
    <b2Name>765 KV</b2Name>
    <b3Text>[REDACTED]</b3Text>
  </ticket>
  - <ticket>
    <pjmTicketId>0</pjmTicketId>
    <type>BRKR</type>
    <b1Name>[REDACTED]</b1Name>
    <b2Name>765 KV</b2Name>
    <b3Text>[REDACTED]</b3Text>
  </ticket>
</edart>
```

EMS Tripped Ticket

Functional Overview

EMS Tripped Ticket download provides users with a listing of transmission outage tickets that are classified as EMS Tripped.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id	Query	Values: A single id or multiple ids in a comma separated list without spaces Result: returns transmission tickets that match the provided identifiers	Yes
transtype	Query	Value: Revise, Review Result: If the intent is to update the selected record, the download type will be "Revise". If the intent is to see all relevant information on the selected record, the download type will be "Review". More data elements are included in the Review download. Default is Review	No
includesysimp	Query	Value: true, false Result: If true and downloadtype = Review, System Impact information will be displayed if it exists on the selected tickets. Default is false.	No
incdates	Query	Value: true, false Result: If true and downloadtype = Review, Date Log information will be displayed if it exists on the selected tickets. Default is false.	No
gettransticattachments	Query	Values: true, false Result: If true and downloadType = Review, all file attachments are downloaded in both zip and hex file formats. Default is false.	No
transticattachments	Query	Values: true, false Result: If true and downloadType = Review, a list of file attachments are displayed if they exist on the selected tickets. Default is false.	No

PJM CLI Example

```
java -jar pjm-cli.jar  
-d ./download/  
-a download/com.pjm.xml.download.edart.EDartXmlDownload  
--httpType POST  
-q dart=true  
-q downloadtype=emstripped  
-u %USER%  
-p %PSWD%  
-s %SERVICEURL%  
-q id=12345  
-o "outputfile.xml"
```

Example Output

See [transticreview](#)

EMS Tripped Ticket by Date

Functional Overview

EMS Tripped Ticket by Date report provides transmission outage ticket information for those tickets classified as EMS Tripped. This endpoint allows the user to input a date range to return those outage tickets occurring within the date range specified.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date on or after the entered date will be reported	Yes
stop	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date before the entered date will be reported	Yes
transtype	Query	Value: revise, review Result: If the intent is to update the selected record, the download type will be "Revise". If the intent is to see all relevant information on the selected record, the download type will be "Review". More data elements are included in the Review download. Default is Review	No

Name	CLI Argument Type	Value/Result	Required
includesysimp	Query	Value: true, false Result: If true and downloadtype = Review, System Impact information will be displayed if it exists on the selected tickets. Default is false.	No
incdates	Query	Value: true, false Result: If true and downloadtype = Review, Date Log information will be displayed if it exists on the selected tickets. Default is false.	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=emstrippedbydate
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=07/01/2019
-q end=08/31/2019
-q transtype=review
-q includehistorical=false
```

Example Output

See [transticreview](#)

Tariff Download

Functional Overview

This endpoint is a download of equipment tariff information by transmission company, effective date and termination date based on input parameters.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
company	Query	Values: ALL or the specific Company's name Result: If true, includes old tickets, i.e., transtic.notified_of_outage.current_flag=0. The default value is false. Any value other than true is interpreted as false.	No
tariff_start_comp	Query	Values: >=, <=, =, >, < Result: If start is used, tariff_start_comp, the computational operator for the equation must be used This parameter must be double quoted (i.e. ">=") Default is >=	No
start	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Result: If included, returns only tickets based on the tariff_start_comp selected or the default setting	No
tariff_stop_comp	Query	Values: >=, <=, =, >, < Result: If end is used, tariff_stop_comp, the computational operator for the equation must be used This parameter must be double quoted (i.e. ">=") Default is <=	No
stop	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Result: If included, returns only tickets based on the tariff_stop_comp selected or the default setting	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=tariff
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q tariff_stop_comp=<
-q stop=12/31/2020
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/tariff/v1 tariff.xsd">
- <tariff>
- <company name="████████████████████████████████">
- <facility>
<tariff_type>Other</tariff_type>
<bes_flag>false</bes_flag>
<pjm_oat_facility_status>Yes</pjm_oat_facility_status>
<included_in_ems_model>No</included_in_ems_model>
<reportable_trans_facility>No</reportable_trans_facility>
<pjm_monitored_status>Not monitored, no status</pjm_monitored_status>
<effective_date>1999-01-01 00:00:00</effective_date>
</facility>
- <facility>
<tariff_type>Line</tariff_type>
<bes_flag>false</bes_flag>
<pjm_oat_facility_status>Yes</pjm_oat_facility_status>
<included_in_ems_model>No</included_in_ems_model>
<reportable_trans_facility>No</reportable_trans_facility>
<pjm_monitored_status>Not monitored, no status</pjm_monitored_status>
<effective_date>1999-01-01 00:00:00</effective_date>
</facility>
- <facility>
<tariff_type>Voltage Combination</tariff_type>
<station>████████</station>
<bes_flag>false</bes_flag>
<voltage>230 KV</voltage>
<pjm_oat_facility_status>Yes</pjm_oat_facility_status>
<included_in_ems_model>Yes</included_in_ems_model>
<reportable_trans_facility>Yes</reportable_trans_facility>
<pjm_monitored_status>Future</pjm_monitored_status>
<effective_date>1999-01-01 00:00:00</effective_date>
</facility>
```

Transmission Notification Report Download

Functional Overview

This download provides transmission tickets that the user's company is notified of, and has not acknowledged. This endpoint does not acknowledge the tickets in the database.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
includehistorical	Query	<p>Values: true, false</p> <p>Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false.</p> <p>Used with start and stop parameters.</p>	No
start	Query	<p>Values: Date in form MM/DD/YYYY HH:MI:SS</p> <p>Result: If included, returns only tickets with start date greater than this date/time</p>	No
stop	Query	<p>Values: Date in form MM/DD/YYYY HH:MI:SS</p> <p>Result: If included, returns only tickets with end date less than this date/time</p>	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transwithnotify
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q includehistorical=false
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="transticnotifyreview.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <transticnotifyreview>
    <company_name>[REDACTED]</company_name>
    <pjm_ticket_id>15126</pjm_ticket_id>
    <description>SERVICE AND WINTERIZE KEYSTONE-ALBURTIS TIE CB @ JUNIATA</description>
    <project_ids/>
    <at_risk>false</at_risk>
    <availability>1hr</availability>
    <lock_status>free</lock_status>
    - <ticket_status>
      <status>Completed</status>
    </ticket_status>
    <modeling_requests/>
    - <interval_definition>
      - <interval_start>
        <date>1999-10-19</date>
        <time>08:00:00</time>
      </interval_start>
      - <interval_end>
        <date>1999-10-19</date>
        <time>14:30:00</time>
      </interval_end>
    </interval_definition>
    <outage_type>DailyNoWeekends</outage_type>
    <ticket_type emergency="false" info="false"/>
    - <equipment primaryEquipFlag="true" status="O">
      <ta_id>18995</ta_id>
      <warning>Retired equipment</warning>
      - <facility_information>
        <type>BRKR</type>
        <station>[REDACTED]</station>
        <voltage>500 KV</voltage>
        <short_name>KEYSALBU</short_name>
        <long_name>[REDACTED]</long_name>
      </facility_information>
      - <interval_definition>
        - <interval_start>
          <date>1999-10-19</date>
          <time>08:00:00</time>
        </interval_start>
        - <interval_end>
          <date>1999-10-19</date>
          <time>14:30:00</time>
        </interval_end>
      </interval_definition>
    </equipment>
```

```
- <active_dates>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:10:00</time>
    </interval_start>
    - <interval_end>
      <date>1999-10-19</date>
      <time>14:58:00</time>
    </interval_end>
  </interval_definition>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:00:00</time>
    </interval_start>
    - <interval_end>
      <date>1999-10-19</date>
      <time>14:30:00</time>
    </interval_end>
  </interval_definition>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:00:00</time>
    </interval_start>
    - <interval_end>
      <date>1999-10-19</date>
      <time>14:30:00</time>
    </interval_end>
  </interval_definition>
</active_dates>
- <switch>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:00:00</time>
    </interval_start>
  </interval_definition>
</switch>
<congestionExpected>false</congestionExpected>
<submittedOnTime>false</submittedOnTime>
<submitOnTimeComments/>
<vegetationFlag>false</vegetationFlag>
<cause description="Unknown">-2</cause>
<totalSystemImpacts>0</totalSystemImpacts>
<unmitigatedSystemImpacts>0</unmitigatedSystemImpacts>
<cutInFlag>false</cutInFlag>
<totalConflicts>0</totalConflicts>
<unmitigatedConflicts>0</unmitigatedConflicts>
```

```

- <company_actuals>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:10:00</time>
    </interval_start>
    - <interval_end>
      <date>1999-10-19</date>
      <time>14:58:00</time>
    </interval_end>
  </interval_definition>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:00:00</time>
    </interval_start>
    - <interval_end>
      <date>1999-10-19</date>
      <time>14:30:00</time>
    </interval_end>
  </interval_definition>
  - <interval_definition>
    - <interval_start>
      <date>1999-10-19</date>
      <time>08:00:00</time>
    </interval_start>
    - <interval_end>
      <date>1999-10-19</date>
      <time>14:30:00</time>
    </interval_end>
  </interval_definition>
</company_actuals>
<equipment_default/>
<takeout_restore/>
<restplan/>
</transticnotifyreview>

```

Transmission Acknowledge Notifications Download

Functional Overview

This download provides transmission tickets that the user's company is notified of, and acknowledges them in the database.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No
start	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Result: If included, returns only tickets with start date greater than this date/time	No

Name	CLI Argument Type	Value/Result	Required
stop	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Result: If included, returns only tickets with end date less than this date/time	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=transwithnotifywithacknowledge
-u %USER%
-p %PSWD%
-s %SERVICEURL%
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
<edart xsi:noNamespaceSchemaLocation="transticnotifyreview.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <transticnotifyreview>
    <company_name>[REDACTED]</company_name>
    <pjm_ticket_id>374325</pjm_ticket_id>
    <company_ticket_id>16680</company_ticket_id>
    <description>Deans 500kv - Installation of a new 500-kV breaker in bus section 7 creating bus section 8 and new 7-8 breaker. (3-7 breaker is really the 7-8 breaker)</description>
    <project_ids/>
    <pjm_comments>Contingency overloads on Kilmer-Sayreville I/o Smithburg-EastWindsor E-2005 230kV without Red Oak or South River generation.DF(2/2)</pjm_comments>
    <at_risk>false</at_risk>
    <availability>Duration</availability>
    <lock_status>free</lock_status>
    <ticket_status>
      <status>Revised</status>
      <revisedtime>2010-09-27 11:14:20</revisedtime>
      <reviseduser>esocplant</reviseduser>
      <completedtime>2010-02-16 20:40:04</completedtime>
      <completeduser>MCBEG</completeduser>
      <activetime>2010-02-03 20:48:48</activetime>
      <activeuser>LIBERJ</activeuser>
      <approvedtime>2010-02-01 11:08:57</approvedtime>
      <approveduser>HUANGN</approveduser>
      <revisedtime>2009-12-21 10:04:16</revisedtime>
      <reviseduser>djinj456t</reviseduser>
      <receivedtime>2009-05-05 07:55:52</receivedtime>
      <receiveduser>DIAZP</receiveduser>
      <submittime>2009-05-05 07:43:48</submittime>
      <submituser>cmragone</submituser>
    </ticket_status>
    <modeling_requests/>
    <interval_definition>
      <interval_start>
        <date>2020-07-23</date>
        <time>20:00:00</time>
      </interval_start>
      <interval_end>
        <date>2020-07-24</date>
        <time>22:00:00</time>
      </interval_end>
    </interval_definition>
    <outage_type>Continuous</outage_type>
    <ticket_type emergency="false" info="false"/>
    <equipment primaryEquipFlag="false" status="0">
      <ta_id>9287</ta_id>
      <facility_information>
        <type>XFMR</type>
        <station>[REDACTED]</station>
        <voltage>500 KV</voltage>
        <short_name>500-3</short_name>
        <long_name>[REDACTED]</long_name>
      </facility_information>
    </equipment>
  </transticnotifyreview>
</edart>
```

```

- <interval_definition>
  - <interval_start>
    <date>2020-07-23</date>
    <time>20:00:00</time>
  </interval_start>
  - <interval_end>
    <date>2020-07-24</date>
    <time>22:00:00</time>
  </interval_end>
</interval_definition>
</equipment>
- <equipment primaryEquipFlag="false" status="R">
  <ta_id>15791</ta_id>
  - <facility_information>
    <type>BRKR</type>
    <station>████████</station>
    <voltage>230 KV</voltage>
    <short_name>SECT9-10</short_name>
    <long_name>████████████████████████</long_name>
  </facility_information>
  - <interval_definition>
    - <interval_start>
      <date>2020-07-23</date>
      <time>20:00:00</time>
    </interval_start>
    - <interval_end>
      <date>2020-07-24</date>
      <time>22:00:00</time>
    </interval_end>
  </interval_definition>
</equipment>
- <equipment primaryEquipFlag="false" status="T">
  <ta_id>15792</ta_id>
  - <facility_information>
    <type>BRKR</type>
    <station>████████</station>
    <voltage>230 KV</voltage>
    <short_name>SECT2-10</short_name>
    <long_name>████████████████████████</long_name>
  </facility_information>
  - <interval_definition>
    - <interval_start>
      <date>2020-07-23</date>
      <time>20:00:00</time>
    </interval_start>
    - <interval_end>
      <date>2020-07-24</date>
      <time>22:00:00</time>
    </interval_end>
  </interval_definition>
</equipment>

- <active_dates>
  - <interval_definition>
    - <interval_start>
      <date>2010-02-03</date>
      <time>20:48:00</time>
    </interval_start>
    - <interval_end>
      <date>2010-02-16</date>
      <time>20:23:00</time>
    </interval_end>
  </interval_definition>
</active_dates>
- <switch>
  - <interval_definition>
    - <interval_start>
      <date>2020-07-23</date>
      <time>20:00:00</time>
    </interval_start>
  </interval_definition>
</switch>
<congestionExpected>true</congestionExpected>
<submittedOnTime>false</submittedOnTime>
<submitOnTimeComments>Ticket was Revised at 07/22/2020 10:42. In order to be On-Time changes need to be submitted by 06/01/2020 00:00.</submitOnTimeComments>
<vegetationFlag>false</vegetationFlag>
<cause description="Construction: New Equipment">21</cause>
<cause description="Cut-In">65</cause>
<totalSystemImpacts>1</totalSystemImpacts>
<unmitigatedSystemImpacts>1</unmitigatedSystemImpacts>
<cutInFlag>true</cutInFlag>
- <cutInInfo>
  <cutInTitle>Unreviewed</cutInTitle>
  <cutInStatus>Unreviewed</cutInStatus>
</cutInInfo>
- <nerctads>
  <planned>Maintenance and Construction</planned>
</nerctads>
<totalConflicts>0</totalConflicts>
<unmitigatedConflicts>0</unmitigatedConflicts>
- <company_actuals>
  - <interval_definition>
    - <interval_start>
      <date>2010-02-03</date>
      <time>20:48:00</time>
    </interval_start>
    - <interval_end>
      <date>2010-02-16</date>
      <time>20:23:00</time>
    </interval_end>
  </interval_definition>
</company_actuals>
</equipment_default>

```

```
- <takeout_restore>
  - <equipment ta_id="15792">
    <status>T</status>
  </equipment>
  - <equipment ta_id="15791">
    <status>R</status>
  </equipment>
  - <equipment ta_id="15807">
    <status>TR</status>
  </equipment>
</takeout_restore>
<restplan>
  <restplanreview>1413 - Update Required</restplanreview>
</restplan>
</transticnotifyreview>
```

Reactive Reserve Check (RRC) Endpoints

XML information for the RRC uploads and downloads are available to both Generation and Transmission users regardless of your role. The main XML for the RRC endpoints is located [here](#).

The Reactive Reserve Check (RRC) is a PJM Procedure that ensures accuracy of PJM information with respect to Reactive Power (MVAR) support on the system, particularly during extreme peak or light loads. PJM provides its derived reserves as determined by the PJM Energy Management System (EMS). When requested, Transmission Owners (TOs) provide their calculated and/or telemetered reactive reserves to PJM. PJM Dispatch compares the TO values with PJM values and, where discrepancies exist, PJM Dispatch works with the TOs to resolve the differences.

Equipment Type of GEN includes RRC Equipment Types of SVCs/Statcom and Units/Condensers. Equipment Type of CAP includes RRC Equipment Types of Capacitors and Reactors.

RRC Self Check Download

Functional Overview

This download provides a snapshot view of PJM's status and estimated reserves of a member's reactive devices. The RRC Self Check download can be run at any time regardless of if there is an open RRC or not. It is updated every 5 minutes.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=rrcselfcheck
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <rrcv2:rrcSelfCheckDownload xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:rrcv2="http://www.pjm.com/external/schemas/rrc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2 rrc.xsd">
  <last_updated_timestamp>2019-06-05T13:34:34.000-04:00</last_updated_timestamp>
  <current_timestamp>2021-01-27T14:45:41.524-05:00</current_timestamp>
- <equipment>
  - <unit unit_id="0" ta_id="1661560">
    <edart_availability>false</edart_availability>
    <avr_auto>Y</avr_auto>
    <unit_status>Offline</unit_status>
    <avr_status>Auto</avr_status>
    <se_mw>0</se_mw>
    <se_mvar>0</se_mvar>
    <max_mvar>15</max_mvar>
    <lagging_mvar_peak>0</lagging_mvar_peak>
  </unit>
  - <unit unit_id="0" ta_id="1661561">
    <edart_availability>false</edart_availability>
    <avr_auto>Y</avr_auto>
    <unit_status>Offline</unit_status>
    <avr_status>Manual</avr_status>
    <se_mw>0</se_mw>
    <se_mvar>0</se_mvar>
    <max_mvar>0</max_mvar>
    <lagging_mvar_peak>0</lagging_mvar_peak>
  </unit>
  - <unit unit_id="0" ta_id="1661562">
    <edart_availability>false</edart_availability>
    <avr_auto>Y</avr_auto>
    <unit_status>Offline</unit_status>
    <avr_status>Auto</avr_status>
    <se_mw>0</se_mw>
    <se_mvar>0</se_mvar>
    <max_mvar>10</max_mvar>
    <lagging_mvar_peak>0</lagging_mvar_peak>
  </unit>
</equipment>

```

RRC Equipment List Download

Functional Overview

This download provides a list of all the equipment included in the RRC: Capacitors, Reactors, SVCs owned by the TO and Units in the TO's zone. It provides the member company with information about each piece of equipment including TA_ID which is used in the RRC upload to identify a piece of equipment, and in the RRC Self Check and RRC Full downloads to show the RRC values for that equipment.

PJM CLI Example

```

java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=rrcequipmentlist
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"

```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<rrcv2:rrcEquipmentList xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:rrcv2="http://www.pjm.com/external/schemas/rrc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2 rrc.xsd">
  - <rrcEquipment type="Capacitor">
    <ta_id>1757543</ta_id>
    <equipmentType>CAP</equipmentType>
    <station>[REDACTED]</station>
    <voltage>115 KV</voltage>
    <short_name>3</short_name>
    <long_name>[REDACTED] 3</long_name>
  </rrcEquipment>
  - <rrcEquipment type="Capacitor">
    <ta_id>1669312</ta_id>
    <equipmentType>CAP</equipmentType>
    <station>[REDACTED]</station>
    <voltage>13 KV</voltage>
    <short_name>7843 CAP</short_name>
    <long_name>[REDACTED] 7843 CAP</long_name>
  </rrcEquipment>
  - <rrcEquipment type="Capacitor">
    <ta_id>1769417</ta_id>
    <equipmentType>CAP</equipmentType>
    <station>[REDACTED]</station>
    <voltage>34.5 KV</voltage>
    <short_name>CAP2</short_name>
    <long_name>[REDACTED] CAP2</long_name>
  </rrcEquipment>
</rrcEquipmentList>

```

RRC by Date

Functional Overview

This download provides the finalized information on the RRC by Date download. The RRC by Date download allows members to see a list of RRC request IDs for a date range. The RRC request IDs will then be used when downloading other RRC endpoints.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Values: Date in form MM/DD/YYYY Result: Returns RRC request report IDs generated after this date, inclusive	Yes
stop	Query	Values: Date in form MM/DD/YYYY Result: Returns RRC request report IDs generated before this date, inclusive	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=rrcbydate
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=07/01/2019
-q stop=06/01/2020
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<rrcv2:rrcByDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:rrcv2="http://www.pjm.com/external/schemas/rrc/v2"
xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2 rrc.xsd">
  <rrcIds endDate="2021-01-01T00:00:00.000-05:00" startDate="2020-01-01T00:00:00.000-05:00">
    - <rrcId>
      <id>1471</id>
      <requestTimestamp>2020-07-07T16:20:17.000-04:00</requestTimestamp>
    </rrcId>
    - <rrcId>
      <id>1451</id>
      <requestTimestamp>2020-07-02T15:57:11.000-04:00</requestTimestamp>
    </rrcId>
    - <rrcId>
      <id>1431</id>
      <requestTimestamp>2020-01-13T15:55:53.000-05:00</requestTimestamp>
    </rrcId>
  </rrcIds>
</rrcv2:rrcByDate>
```

RRC Full Download

Functional Overview

This download provides the complete information about an RRC. It includes the RRC comments and a list of all equipment in the RRC with values for all attributes. When executed, the download will return values from the current RRC in progress (if there is one) or the most recent posted RRC if there is none in progress.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
rrcid	Query	Values: Number Result: Returns RRC information associated with the RRC ID is displayed. If no ID is entered, the latest RRC is displayed.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=rrcfull
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q rrcid=1234
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<rrcv2:rrcFull xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:rrcv2="http://www.pjm.com/external/schemas/rrc/v2"
xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2_rrc.xsd">
<reportRequestId>1491</reportRequestId>
<rrcType>Peak</rrcType>
<requestTimeStamp>2021-01-21T12:21:43.000-05:00</requestTimeStamp>
<currentTimeStamp>2021-01-27T14:54:02.000-05:00</currentTimeStamp>
<description>create for Dart UI upload testing RRC Data is not available or is outdated. Initiating RRC with stale data.</description>
<to_generic_note>company note: Dart UI upload testing</to_generic_note>
- <to_notes>
  <to_note to_name="#">
  </to_notes>
- <to_responses>
  <to_response to_name="#">
  </to_responses>
- <equipment>
  - <Capacitor ta_id="1769417">
    <eDART_availability>true</eDART_availability>
    <se_Status>Offline</se_Status>
    <se_Kv>34.13</se_Kv>
    <se_Mvar>0</se_Mvar>
    <rated_Mvar_PJM>5.4</rated_Mvar_PJM>
    <mVar_Reserve>5.4</mVar_Reserve>
  </Capacitor>
  - <Capacitor ta_id="1669295">
    <eDART_availability>true</eDART_availability>
    <se_Status>Offline</se_Status>
    <se_Kv>13.78</se_Kv>
    <se_Mvar>0</se_Mvar>
    <rated_Mvar_PJM>5.4</rated_Mvar_PJM>
    <mVar_Reserve>5.4</mVar_Reserve>
  </Capacitor>
</equipment>
```

RRC Revise Upload

Root Element: rrcRevise

Functional Overview

This upload provides a way to respond to the open RRC by either acknowledging the PJM EMS (Energy Management System) values or submitting changes to the reactive values. When responding to an open RRC, the “Acknowledge All” strings can be set as true even when values are modified. In this case, the upload is acknowledging the modified values. There are 5 fields that can be updated:

rrcRevise/note

rrcRevise/capacitor/ratedMVAR

rrcRevise/reactor/ratedMVAR

rrcRevise/svc/maxMVAR

rrcRevise/svc/minMVAR

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input – To acknowledge all equipment without modification

```
<?xml version="1.0" encoding="UTF-8"?>
- <rrc:rrcRevise xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2 rrc.xsd"
  xmlns:rrc="http://www.pjm.com/external/schemas/rrc/v2" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  <reportRequestId>1491</reportRequestId>
  - <to_responses>
    <to_response to_name="JC">UI upload test-set all acks to true</to_response>
  </to_responses>
  <acknowledgeAllCapacitors>true</acknowledgeAllCapacitors>
  <acknowledgeAllReactors>true</acknowledgeAllReactors>
  <acknowledgeAllSVC>true</acknowledgeAllSVC>
</rrc:rrcRevise>
```

Example Input – To acknowledge all equipment with modification

```
<?xml version="1.0" encoding="UTF-8"?>
- <rrc:rrcRevise xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2 rrc.xsd"
  xmlns:rrc="http://www.pjm.com/external/schemas/rrc/v2"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <reportRequestId>1471</reportRequestId>
  - <to_responses>
    <to_response to_name="PE">Submitting an RRC Upload to acknowledge an SVC</to_response>
  </to_responses>
  <acknowledgeAllCapacitors>false</acknowledgeAllCapacitors>
  <acknowledgeAllReactors>false</acknowledgeAllReactors>
  <acknowledgeAllSVC>false</acknowledgeAllSVC>
  - <svc ta_id="1660779">
    <maxMVAR>10</maxMVAR>
    <minMVAR>20</minMVAR>
  </svc>
</rrc:rrcRevise>
```

Example Output – Response file

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<rrcv2:rrcReviseResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:rrcv2="http://www.pjm.com/external/schemas/rrc/v2"
xsi:schemaLocation="http://www.pjm.com/external/schemas/rrc/v2 rrc.xsd">
- <status ta_id="1668498">
  <message>OK</message>
</status>
- <status ta_id="1668499">
  <message>OK</message>
</status>
- <status ta_id="1668500">
  <message>OK</message>
</status>
- <status ta_id="1668501">
  <message>OK</message>
</status>
- <status ta_id="1668502">
  <message>OK</message>
</status>
</rrcv2:rrcReviseResponse>
```

Instantaneous Reserve Check (IRC) Endpoints

XML information for the IRC uploads and downloads are available to both Generation and Transmission users regardless of your role. The main XML for the IRC endpoints is located [here](#).

Instantaneous Reserve Check (IRC) is used to verify that enough reserve generation is available at a given moment in time. All generator owners must report their reserve information to PJM when requested. PJM initiates IRCs and Generation Owners are expected to respond in a timely fashion. IRCs can be performed twice per day and more frequently as conditions require. The results are used to initiate some Emergency Procedures as needed.

IRC Self Check Download

Functional Overview

This download provides a snapshot view of unit reserve information from PJM's Energy Management System (EMS). The IRC Self Check download can be run any time there is not an open IRC. It is updated every 5 minutes.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=ircselfcheck
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircSelfCheckDownload xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  <lastUpdatedTimestamp>2015-05-19T17:07:05.000-04:00</lastUpdatedTimestamp>
  <currentTimestamp>2021-01-27T15:02:32.558-05:00</currentTimestamp>
  - <Generator id="1409">
    <acap>642</acap>
    <generatorType>Steam/Fossil</generatorType>
    <zone>■■■</zone>
    <ecoMax>0</ecoMax>
    <realTimeMW>617</realTimeMW>
    <regulating>0</regulating>
    <synchronizedReserves>5</synchronizedReserves>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <beyondSecondary>0</beyondSecondary>
    <readOnly>false</readOnly>
  </Generator>
  - <Generator id="1410">
    <acap>409</acap>
    <generatorType>Steam/Fossil</generatorType>
    <zone>■■■</zone>
    <ecoMax>0</ecoMax>
    <realTimeMW>0</realTimeMW>
    <regulating>0</regulating>
    <synchronizedReserves>0</synchronizedReserves>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <beyondSecondary>0</beyondSecondary>
    <readOnly>true</readOnly>
  </Generator>
</ircSelfCheckDownload>
```

IRC Pool Totals Download

Functional Overview

This download provides information on the Pool or Reserve Area data. The data returned will be from the current IRC if there is one in progress or from the most recent IRC if none is currently open. The report displays current values by 2 Pool/Reserve Areas: RTO (Total IRC values for all companies) and MAD (IRC values for all companies in the Mid-Atlantic region only). The values are the same for all companies.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=ircpooltotals
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircPoolTotalsDownload xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  <reportRequestId>4039</reportRequestId>
  <reportPostedTimestamp>2021-01-21T16:05:33.000-05:00</reportPostedTimestamp>
  <requestTimestamp>2021-01-21T11:51:11.000-05:00</requestTimestamp>
  <currentTimestamp>2021-01-27T15:05:14.891-05:00</currentTimestamp>
- <ircPoolTotals>
  - <ReserveArea name="RTO">
    <totalSynchronizedReserve>2322</totalSynchronizedReserve>
    <primaryReserve>3406</primaryReserve>
    <operatingReserve>9355</operatingReserve>
    <requiredSynchronizedReserve>1350</requiredSynchronizedReserve>
    <requiredPrimaryReserve>2025</requiredPrimaryReserve>
    <largestContingency>1350</largestContingency>
  </ReserveArea>
  - <ReserveArea name="MAD">
    <totalSynchronizedReserve>1066</totalSynchronizedReserve>
    <primaryReserve>1722</primaryReserve>
    <operatingReserve>3868</operatingReserve>
    <requiredSynchronizedReserve>1282</requiredSynchronizedReserve>
    <requiredPrimaryReserve>1923</requiredPrimaryReserve>
    <largestContingency>1282</largestContingency>
  </ReserveArea>
</ircPoolTotals>
</ircv2:ircPoolTotalsDownload>

```

IRC by Date Download

Functional Overview

This download allows members to see a list of IRC request IDs and the issue date for each for a given date range. The IRC request IDs can then be used when downloading other IRC endpoints. The values are the same for all companies.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Values: Date in form MM/DD/YYYY Result: Returns IRC request report IDs with request dates after this date, inclusive	Yes
stop	Query	Values: Date in form MM/DD/YYYY Result: Returns IRC request report IDs with request dates after this date, inclusive	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=ircbydate
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=07/01/2019
-q stop=06/01/2019
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircByDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2"
xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  - <ids endDate="2021-01-01-05:00" startDate="2020-01-01-05:00">
    <id>4019</id>
    <id>3999</id>
    <id>3979</id>
    <id>3959</id>
    <id>3939</id>
    <id>3919</id>
    <id>3900</id>
    <id>3899</id>
  </ids>
</ircv2:ircByDate>
```

IRC Full Download

Functional Overview

This download provides information on the most recent IRC report. It includes the IRC comments, pool totals and a list of all generators in the IRC with values for all their attributes. In the "Pool Totals" section, the RTO (Regional Transmission Owners) values reflect all companies and the MAD (Mid-Atlantic Dominion) values reflect all Mid-Atlantic companies. The values in this section are not company specific. The values in the "Generator Data" section are company specific and contain both the PJM values and the company submitted values so that discrepancies can be easily identified.

When a full download is executed, the download will return the current IRC in progress (if there is one) or the most recent posted IRC if there is none in progress. If a value for ID is entered, the values associated with that IRC will be published; otherwise it will be the most recent IRC report.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
ircid	Query	Values: Number Result: Returns IRC information associated with the IRC ID entered. Default is the most recent IRC.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=ircfull
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q ircid=1234
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircFullDownload xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  <reportRequestId>4039</reportRequestId>
  <reportPostedTimestamp>2021-01-21T16:05:33.000-05:00</reportPostedTimestamp>
  <requestTimestamp>2021-01-21T11:51:11.000-05:00</requestTimestamp>
  <currentTimestamp>2021-01-27T15:07:33.054-05:00</currentTimestamp>
  <acknowledgeAll>false</acknowledgeAll>
  - <ircPoolTotals>
    - <ReserveArea name="RTO">
      <totalSynchronizedReserve>2322</totalSynchronizedReserve>
      <primaryReserve>3406</primaryReserve>
      <operatingReserve>9355</operatingReserve>
      <requiredSynchronizedReserve>1350</requiredSynchronizedReserve>
      <requiredPrimaryReserve>2025</requiredPrimaryReserve>
      <largestContingency>1350</largestContingency>
    </ReserveArea>
    - <ReserveArea name="MAD">
      <totalSynchronizedReserve>1066</totalSynchronizedReserve>
      <primaryReserve>1722</primaryReserve>
      <operatingReserve>3868</operatingReserve>
      <requiredSynchronizedReserve>1282</requiredSynchronizedReserve>
      <requiredPrimaryReserve>1923</requiredPrimaryReserve>
      <largestContingency>1282</largestContingency>
    </ReserveArea>
  </ircPoolTotals>
  - <GeneratorData>
    - <Generator id="1409">
      <acap>642</acap>
      <generatorType>Steam/Fossil</generatorType>
      <zone>■</zone>
      <ecoMax>0</ecoMax>
      <realTimeMW>617</realTimeMW>
      <regulating>0</regulating>
      <synchronizedReserves xsi:nil="true"/>
      <synchronizedReservesPjm>5</synchronizedReservesPjm>
      <quickStart xsi:nil="true"/>
      <quickStartPjm>0</quickStartPjm>
      <secondary xsi:nil="true"/>
      <secondaryPjm>0</secondaryPjm>
      <beyondSecondary xsi:nil="true"/>
      <beyondSecondaryPjm>0</beyondSecondaryPjm>
      <acknowledged>false</acknowledged>
      <readOnly>false</readOnly>
    </Generator>
```

IRC Revise Download

Functional Overview

This download provides members with the specific values that can be updated and acknowledged. The download data is grouped by generator id. The member can verify the information on this download, and then acknowledge and update it as needed in the upload endpoint IRC Revise (Upload).

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=ircrevise
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircReviseDownload xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  <reportRequestId>3999</reportRequestId>
  <reportPostedTimestamp xsi:nil="true"/>
  <requestTimestamp>2020-06-03T11:45:50.000-04:00</requestTimestamp>
  <currentTimestamp>2020-06-03T13:42:39.823-04:00</currentTimestamp>
  <comments/>
  <acknowledgeAll>false</acknowledgeAll>
  - <Generator id="1409">
    <acknowledged>false</acknowledged>
    <beyondSecondary>0</beyondSecondary>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <synchronizedReserves>5</synchronizedReserves>
  </Generator>
  - <Generator id="1411">
    <acknowledged>false</acknowledged>
    <beyondSecondary>0</beyondSecondary>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <synchronizedReserves>0</synchronizedReserves>
  </Generator>
  - <Generator id="1412">
    <acknowledged>false</acknowledged>
    <beyondSecondary>0</beyondSecondary>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <synchronizedReserves>0</synchronizedReserves>
  </Generator>
</ircv2:ircReviseDownload>
```

IRC Revise Upload

Root Element: ircReviseDownload

Functional Overview

This upload provides a method to respond to an open IRC by either acknowledging the PJM EMS (Energy Management System) values or submitting changes to the IRC values by generator id. The file generated in the IRC Revise (download) can be modified with the updated values and then uploaded. If acknowledging all PJM's EMS reserve values, generator data is not required.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Request Upload Input

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircReviseDownload xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance"
  xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  <reportRequestId>3979</reportRequestId>
  <reportPostedTimestamp xsi:nil="true"/>
  <requestTimestamp>2020-05-15T10:01:22.000-04:00</requestTimestamp>
  <currentTimestamp>2020-05-15T10:18:36.210-04:00</currentTimestamp>
  <!--<comments></comments>-->
  <comments>Comment for step 15- ACK each gen</comments>
  <acknowledgeAll>false</acknowledgeAll>
  - <Generator id="1409">
    <acknowledged>true</acknowledged>
    <beyondSecondary>11</beyondSecondary>
    <quickStart>22</quickStart>
    <secondary>33</secondary>
    <synchronizedReserves>44</synchronizedReserves>
  </Generator>
  - <Generator id="1411">
    <acknowledged>true</acknowledged>
    <beyondSecondary>0</beyondSecondary>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <synchronizedReserves>0</synchronizedReserves>
  </Generator>
  - <Generator id="1412">
    <acknowledged>true</acknowledged>
    <beyondSecondary>0</beyondSecondary>
    <quickStart>0</quickStart>
    <secondary>0</secondary>
    <synchronizedReserves>0</synchronizedReserves>
  </Generator>
</ircv2:ircReviseDownload>
```

Example Response Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <ircv2:ircUploadResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ircv2="http://www.pjm.com/external/schemas/irc/v2" xsi:schemaLocation="http://www.pjm.com/external/schemas/irc/v2 irc.xsd">
  - <Generator id="1409">
    <status>GEN_ID: 1409 - OK</status>
  </Generator>
  - <Generator id="1411">
    <status>GEN_ID: 1411 - OK</status>
  </Generator>
  - <Generator id="1412">
    <status>GEN_ID: 1412 - OK</status>
  </Generator>
</ircv2:ircUploadResponse>
```

Voltage Schedule Endpoints

XML information for the Voltage Schedule uploads and downloads are available to both Generation and Transmission users regardless of your role. The main XML for these endpoints is located [here](#).

Voltage Schedule endpoints aid compliance monitoring of Voltage Schedule communication between PJM, Transmission Owners and Generation Owners. Voltage Schedule tickets can be revised until it is in the status "PJM Reviewed" or "GO Acknowledged", when the ticket is in those statuses, the member must create another ticket.

Voltage Schedule Upload

Root Element: voltageschedule

Functional Overview

This upload will provide a process to acknowledge the Voltage Schedule tickets they own or are notified of. Adding a comment when acknowledging the ticket is allowable but not required.

If the owner does not want to acknowledge the ticket, but instead, only add a comment without acknowledgement, this upload will also be used.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input – New ticket creation by Transmission Owner

```

<?xml version="1.0"?>
- <vs:voltageSchedules class=" cd-browser-extension" xsi:schemaLocation="http://www.pjm.com/external/schemas/voltageschedule/v1 voltageschedule.xsd"
  xmlns:vs="http://www.pjm.com/external/schemas/voltageschedule/v1" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  <!-- New Voltage Schedule Ticket (for TO) -->
  - <voltageSchedule>
    <unitNumber>{unit}</unitNumber>
    <scheduleType>{Voltage/PowerFactor/Reactive/TO Exempt}</scheduleType>
    <effectiveDate>yyyy-mm-dd</effectiveDate>
    <status>{Submitted/Saved}</status>
    <busName>{unit business name}</busName>
    <toComments>{TO comments}</toComments>
    - <normalValues>
      <target>integer</target>
      <pType>{Lead/Lag/Unity}</pType>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerBound>decimal</lowerBound>
      <lowerValue>integer</lowerValue>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerPType>{Lead/Lag/Unity}</lowerPType>
      <!-- use for scheduleType=PowerFactor only-->
      <upperBound>decimal</upperBound>
      <upperValue>integer</upperValue>
      <!-- use for scheduleType=PowerFactor only-->
      <upperPType>{Lead/Lag/Unity}</upperPType>
      <!-- use for scheduleType=PowerFactor only-->
    </normalValues>
    - <lightValues>
      <target>integer</target>
      <pType>{Lead/Lag/Unity}</pType>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerBound>decimal</lowerBound>
      <lowerValue>integer</lowerValue>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerPType>{Lead/Lag/Unity}</lowerPType>
      <!-- use for scheduleType=PowerFactor only-->
      <upperBound>decimal</upperBound>
      <upperValue>integer</upperValue>
      <!-- use for scheduleType=PowerFactor only-->
      <upperPType>{Lead/Lag/Unity}</upperPType>
      <!-- use for scheduleType=PowerFactor only-->
    </lightValues>
    - <heavyValues>
      <target>integer</target>
      <pType>{Lead/Lag/Unity}</pType>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerBound>decimal</lowerBound>
      <lowerValue>integer</lowerValue>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerPType>{Lead/Lag/Unity}</lowerPType>
      <!-- use for scheduleType=PowerFactor only-->
      <upperBound>decimal</upperBound>
      <upperValue>integer</upperValue>
      <!-- use for scheduleType=PowerFactor only-->
      <upperPType>{Lead/Lag/Unity}</upperPType>
      <!-- use for scheduleType=PowerFactor only-->
    </heavyValues>
  </voltageSchedule>
</vs:voltageSchedules>

```

Example Input – Ticket revision by Transmission Owner

```
<?xml version="1.0"?>
<vs:voltageSchedules class=" cd-browser-extension" xsi:schemaLocation="http://www.pjm.com/external/schemas/voltageschedule/v1 voltageschedule.xsd"
xmlns:vs="http://www.pjm.com/external/schemas/voltageschedule/v1" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  <!-- Revise Voltage Schedule Ticket for TO -->
  - <voltageSchedule>
    <ticketId>{ticketid}</ticketId>
    <unitNumber>{unit}</unitNumber>
    <scheduleType>{Voltage/PowerFactor/Reactive/TO Exempt}</scheduleType>
    <effectiveDate>yyyy-mm-dd</effectiveDate>
    <status>{Submitted/Saved}</status>
    <busName>{unit business name}</busName>
    <toComments>{TO comments}</toComments>
    - <normalValues>
      <target>integer</target>
      <pType>{Lead/Lag/Unity}</pType>
      <!-- scheduleType=PowerFactor only-->
      <lowerBound>decimal</lowerBound>
      <lowerValue>integer</lowerValue>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerPType>{Lead/Lag/Unity}</lowerPType>
      <!-- scheduleType=PowerFactor only-->
      <upperBound>decimal</upperBound>
      <upperValue>integer</upperValue>
      <!-- use for scheduleType=PowerFactor only-->
      <upperPType>{Lead/Lag/Unity}</upperPType>
      <!-- scheduleType=PowerFactor only-->
    </normalValues>
    - <lightValues>
      <target>integer</target>
      <pType>{Lead/Lag/Unity}</pType>
      <!-- scheduleType=PowerFactor only-->
      <lowerBound>decimal</lowerBound>
      <lowerValue>integer</lowerValue>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerPType>{Lead/Lag/Unity}</lowerPType>
      <!-- scheduleType=PowerFactor only-->
      <upperBound>decimal</upperBound>
      <upperValue>integer</upperValue>
      <!-- use for scheduleType=PowerFactor only-->
      <upperPType>{Lead/Lag/Unity}</upperPType>
      <!-- scheduleType=PowerFactor only-->
    </lightValues>
    - <heavyValues>
      <target>integer</target>
      <pType>{Lead/Lag/Unity}</pType>
      <!-- scheduleType=PowerFactor only-->
      <lowerBound>decimal</lowerBound>
      <lowerValue>integer</lowerValue>
      <!-- use for scheduleType=PowerFactor only-->
      <lowerPType>{Lead/Lag/Unity}</lowerPType>
      <!-- scheduleType=PowerFactor only-->
      <upperBound>decimal</upperBound>
      <upperValue>integer</upperValue>
      <!-- use for scheduleType=PowerFactor only-->
      <upperPType>{Lead/Lag/Unity}</upperPType>
      <!-- scheduleType=PowerFactor only-->
    </heavyValues>
  </voltageSchedule>
</vs:voltageSchedules>
```

Example Input – Ticket Acknowledgement by Generation Owner

```
<?xml version="1.0"?>
<vs:voltageSchedules class=" cd-browser-extension" xsi:schemaLocation="http://www.pjm.com/external/schemas/voltageschedule/v1 voltageschedule.xsd"
xmlns:vs="http://www.pjm.com/external/schemas/voltageschedule/v1" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  <!-- Acknowledge Voltage Schedule Ticket for GO -->
  - <voltageSchedule>
    <ticketId>{ticketid}</ticketId>
    <status>GO Acknowledged</status>
    <goComments>{GO comments}</goComments>
  </voltageSchedule>
</vs:voltageSchedules>
```

Example Output – ResponseFile

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <vs:voltageScheduleResponses xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:vs="http://www.pjm.com/external/schemas/voltageschedule/v1 voltageschedule.xsd"
  xsi:schemaLocation="http://www.pjm.com/external/schemas/voltageschedule/v1">
  - <voltageScheduleResponse>
    <uploadStatusMessage>New Ticket# 1360 created.</uploadStatusMessage>
    <ticketId>1360</ticketId>
    <ticketStatus>Saved</ticketStatus>
    <unitNumber>1466</unitNumber>
    <effectiveDate>2021-04-03T20:00:00.000-04:00</effectiveDate>
  </voltageScheduleResponse>
</vs:voltageScheduleResponses>

```

Voltage Schedule Download

Functional Overview

This upload will provide Voltage Schedule ticket information that can be viewed or used to revise an existing Voltage Schedule ticket. One or several tickets can be viewed in the same report depending on the input parameters selected.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
includecurrent	Query	Values: true, false Result: If “true”, returns tickets in the status of “Active” and “Needs Schedule”. If “false”, returns all tickets Default value is false	No
inprogress	Query	Values: true, false Result: If “true”, returns tickets in the status of “Submitted”, “Saved”, “PJM Reviewed” and “TO Review”. If “false”, returns all tickets Default value is false	No
inqueue	Query	Values: true, false Result: If “true”: For TO – returns tickets in the status of “Needs Schedule”, “Saved”, “Submitted” and “TO Review Needed”. For GO – returns tickets in the status of “PJM Reviewed”. If “false”, returns all tickets Default value is true	No

Name	CLI Argument Type	Value/Result	Required
includefuture	Query	<p>Values: true, false</p> <p>Result: If “true”, returns tickets with effective date in the future where the status is not the final status. Default value is false</p>	No
includehistorical	Query	<p>Values: true, false</p> <p>Result: If “true”, returns historical and current tickets. When using this parameter, both the start and stop must be populated. This applies to searcheffectivedate, toackndate and goackndate</p> <p>Default value is false</p>	No
start	Query	<p>Values: Date format, time is not needed</p> <p>Result: If this parameter is populated, only tickets on or after the startDate are returned</p>	No
stop	Query	<p>Values: Date format, time is not needed</p> <p>Result: If this parameter is populated, only tickets on or before the endDate are returned</p>	No
searcheffectivedate	Query	<p>Values: true, false</p> <p>Result: If “true”, the entered start and stop are compared to the searcheffectivedate to determine if the ticket is returned or not.</p> <p>Default value is true</p>	No
toackndate	Query	<p>Values: true, false</p> <p>Result: If “true”, the entered startDate and endDate are compared to the toAcknowledgeDate to determine if the ticket is returned or not. This date is based on the date of the yearly review of this ticket by the TO.</p> <p>Default value is true</p>	No
goackndate	Query	<p>Values: true, false</p> <p>Result: If “true”, the entered startDate and endDate are compared to the goAcknowledgeDate to determine if the ticket is returned or not. This date is based on the date of the yearly review of this ticket by the GO.</p> <p>Default value is true</p>	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=voltageschedule
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=07/01/2019
-q stop=06/01/2019
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<vs:voltageSchedules xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:vs="http://www.pjm.com/external/schemas/voltageschedule/v1"
xsi:schemaLocation="http://www.pjm.com/external/schemas/voltageschedule/v1 voltageschedule.xsd">
  - <voltageSchedule>
    <ticketId>1121</ticketId>
    <goCompany>[REDACTED] Company, LLC [REDACTED]</goCompany>
    <unitNumber>1253</unitNumber>
    <scheduleType>Reactive</scheduleType>
    <effectiveDate>2020-07-29T00:00:00.000-04:00</effectiveDate>
    <status>Active</status>
    <busName>Chester Bus</busName>
    <toComments>Ticket submitted</toComments>
    - <normalValues>
      <target>100</target>
      <lowerBound>67</lowerBound>
      <lowerValue>33</lowerValue>
      <upperBound>110</upperBound>
      <upperValue>210</upperValue>
    </normalValues>
    - <lightValues>
      <target>120</target>
      <lowerBound>110</lowerBound>
      <lowerValue>10</lowerValue>
      <upperBound>115</upperBound>
      <upperValue>235</upperValue>
    </lightValues>
    - <heavyValues>
      <target>125</target>
      <lowerBound>222</lowerBound>
      <lowerValue>-97</lowerValue>
      <upperBound>222</upperBound>
      <upperValue>347</upperValue>
    </heavyValues>
  </voltageSchedule>
  - <voltageSchedule>
    <goCompany>[REDACTED] Company, LLC [REDACTED]</goCompany>
    <unitNumber>20142704</unitNumber>
    <status>Needs Schedule</status>
  </voltageSchedule>
  - <voltageSchedule>
    <ticketId>1122</ticketId>
    <goCompany>[REDACTED] Company, LLC [REDACTED]</goCompany>
    <unitNumber>20142704</unitNumber>
    <scheduleType>TO Exempt</scheduleType>
    <effectiveDate>2020-12-29T00:00:00.000-05:00</effectiveDate>
    <status>Saved</status>
    <busName>N/A</busName>
  </voltageSchedule>
```

Generation Endpoints

XML information for the RRC uploads and downloads are available to both Generation and Transmission users regardless of your role. The main XML for the general endpoints is located [here](#).

Generation endpoints provide a means of communication between PJM and Generation operators regarding outage requests, updates to reactive capacity curves and voltage regulator statuses among other generation and functionalities.

Generation Cause Download

Functional Overview

This download returns the generation outage cause and the generation unit type each is applicable to. This information is used to link the cause ID to the Name, Description and Unit Type.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype= generationcause
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/generationcause/v1 generationcause.xsd">
  - <generation>
    - <cause_list>
      - <cause_type>
        <cause_id>1</cause_id>
        <cause_text>Air Heater</cause_text>
        - <unit_type_list>
          <unit_type>Steam/Fossil</unit_type>
          <unit_type>Nug</unit_type>
          <unit_type>Combined Cycle Steam</unit_type>
          <unit_type>CC Virtual Steam</unit_type>
        </unit_type_list>
      </cause_type>
    - <cause_type>
      <cause_id>2</cause_id>
      <cause_text>Annual Inspections</cause_text>
      <cause_description>Planned Outage associated with inspection and maintenance of gen unit.</cause_description>
      - <unit_type_list>
        <unit_type>Combustion Turbine</unit_type>
        <unit_type>Steam/Fossil</unit_type>
        <unit_type>Hydro- Pumped Storage</unit_type>
        <unit_type>Nuclear</unit_type>
        <unit_type>Nug</unit_type>
        <unit_type>Hydro - Run of River</unit_type>
        <unit_type>Wind</unit_type>
        <unit_type>Geothermal</unit_type>
        <unit_type>Combined Cycle CT</unit_type>
        <unit_type>Diesel</unit_type>
        <unit_type>Battery</unit_type>
        <unit_type>Pressurized Water Reactor</unit_type>
        <unit_type>Combined Cycle Steam</unit_type>
        <unit_type>CC Virtual Steam</unit_type>
        <unit_type>CC Virtual CT</unit_type>
        <unit_type>Flywheel</unit_type>
      </unit_type_list>
    </cause_type>
  - <cause_type>
    <cause_id>3</cause_id>
    <cause_text>Annual Inspections/Refuel</cause_text>
    - <unit_type_list>
      <unit_type>Nuclear</unit_type>
      <unit_type>Pressurized Water Reactor</unit_type>
    </unit_type_list>
  </cause_type>
```

Generation Cause List by Generator Name Download

Functional Overview

This download returns the outage cause type associated with a generator type. For each generator type, only valid outage causes will be displayed.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=genbynamecause
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/genbynamecause/v1 genbynamecause.xsd">
  - <causeListByGenerator>
    - <generator id="1409" name="BRANDON SHORES 1">
      <cause id="1" name="Air Heater"/>
      <cause id="2" name="Annual Inspections"/>
      <cause id="4" name="Boiler Feed Pumps"/>
      <cause id="5" name="Boiler Work"/>
      <cause id="6" name="Breaker Problems"/>
      <cause id="7" name="Breaker Work (Maintenance)"/>
      <cause id="8" name="Chemistry Problem"/>
      <cause id="9" name="Clean Intakes"/>
      <cause id="10" name="Coal Feeder"/>
      <cause id="11" name="Condenser System"/>
      <cause id="13" name="Electrical"/>
      <cause id="14" name="Emissions"/>
      <cause id="17" name="Environmental"/>
      <cause id="18" name="Fan Problem"/>
      <cause id="19" name="Fan Work"/>
      <cause id="20" name="Feed Pump"/>
```

Generator List Download

Functional Overview

This download provides the generation company information of all active generators that are owned by the company or where the company has been granted access to view by the unit owner. The download includes generator unit data for Transmission Owners when notification rights have been given.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=generators
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pjm.com/external/schemas/generators/v1 generators.xsd">
  - <generators>
    - <generator_list>
      - <gen_unit>
        <generator_id>7677</generator_id>
        <generator_name>[REDACTED]</generator_name>
        <generator_type>Diesel</generator_type>
        <capacity>0</capacity>
        <company_name>[REDACTED] </company_name>
        <mvar_ratings/>
        <meteredMVARValue>TBD</meteredMVARValue>
        <pss>true</pss>
      </gen_unit>
    </generator_list>
    - <generator_list>
      - <gen_unit>
        <generator_id>15134</generator_id>
        <generator_name>[REDACTED]</generator_name>
        <generator_type>Wind</generator_type>
        <capacity>3</capacity>
        <company_name>[REDACTED] </company_name>
        <mvar_ratings/>
        <meteredMVARValue>TBD</meteredMVARValue>
      </gen_unit>
    </generator_list>
    - <generator_list>
      - <gen_unit>
        <generator_id>4567895</generator_id>
        <generator_name>[REDACTED]</generator_name>
        <generator_type>Combustion Turbine</generator_type>
        <capacity>1000</capacity>
        <company_name>[REDACTED] </company_name>
        <mvar_ratings/>
        <meteredMVARValue>TBD</meteredMVARValue>
      </gen_unit>
    </generator_list>
  </generators>
</edart>
```

Generator PSSE Download

Functional Overview

This download displays the PSSE (Power System Simulator Engineering) model mapping for generation equipment owned by a specific member. This information helps members to map their equipment to the same equipment in OATI (Open Access Technology International, Inc.).

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=generatorpsse
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genpsse.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <generator_psse>
    - <generator>
      <generator_id>6215</generator_id>
      <station_a>██████████</station_a>
      <station_id>1</station_id>
    </generator>
    - <generator>
      <generator_id>6214</generator_id>
      <station_a>██████████</station_a>
      <station_id>2</station_id>
    </generator>
    - <generator>
      <generator_id>6213</generator_id>
      <station_a>██████████</station_a>
      <station_id>3</station_id>
    </generator>
    - <generator>
      <generator_id>6216</generator_id>
      <station_a>██████████</station_a>
      <station_id>4</station_id>
    </generator>
```

Generation Ticket Upload

Create Root Element: newgentic

Revise Root Element: genticrevise

Functional Overview

This endpoint allows the user to create, revise and cancel generation outage tickets. The same upload endpoint will be used for all types of generation equipment, the required and revisable elements will vary depending on the equipment type.

When creating a generation ticket, the PJM Ticket ID will not be part of the file. When revising or canceling the ticket, it will be.

NewCompanyTicketId is used to revise the User's company ticket Id currently associated with the ticket. This field is only available when revising an existing generation ticket.

When creating a generation ticket, the top container is named "newgentic" and will also include the ticket_type where the element values are 1-MW, 2-Volt. Reg., 3-MVAR, 4-Governor, 5-MVAR Test, 6-PSS

PJM CLI Example

```
java -jar filetransfer.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input - Create MW ticket

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newgentic>
    <!-- MW Type -->
    <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
    <unitnumber>9999</unitnumber>
    <ticket_type>1</ticket_type>
      <!-- Designates ticket is of MW type -->
    - <interval_definition>
      - <interval_start>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      - <interval_end>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_end>
    </interval_definition>
    <unknown_end>false</unknown_end>
    <description>Description less than 4000 characters</description>
      <!-- cause, reduction, outage type are used for MW Ticket -->
    <cause>xx</cause>
    <reduction>xx</reduction>
    <outage_type>forecasted planned</outage_type>
      <!--valid values: forecasted planned, maintenance, unplanned-->
    - <ramp_down_time>
      - <interval_definition>
        - <interval_start>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_start>
      </interval_definition>
    </ramp_down_time>
    - <switch>
      - <interval_definition>
        - <interval_start>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_start>
        - <interval_end>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_end>
      </interval_definition>
    </switch>
    <info_flag>false</info_flag>
    <est_early_return_time>yyyy-mm-ddThh:mm:ss</est_early_return_time>
      <!--valid for outage_type=forecasted planned-->
  </newgentic>
</edart>

```

Example Input – Create Voltage Regulator ticket

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newgentic>
    <!-- Voltage Regulator Type -->
    <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
    <unitnumber>9999</unitnumber>
    <ticket_type>2</ticket_type>
      <!-- Designates ticket is of Voltage Regulator type -->
    - <interval_definition>
      - <interval_start>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      <!--<interval_end> <date>yyyy-mm-dd</date> <time>hh:mm:ss</time> </interval_end>-->
    </interval_definition>
    <unknown_end>true</unknown_end>
    <description>Description less than 4000 characters</description>
      <!-- service_out, emergency are used for Voltage Regulator Ticket -->
    <service_out>true</service_out>
    <emergency>false</emergency>
  </newgentic>
</edart>

```

Example Input – Create MVAR ticket

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newgentic>
    - <!-- MVAR Type -->
      <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
      <unitnumber>9999</unitnumber>
      <ticket_type>3</ticket_type>
        <!-- Designates ticket is of MVAR type -->
    - <interval_definition>
      - <interval_start>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      <!--<interval_end> <date>yyyy-mm-dd</date> <time>22:00:00</time> </interval_end>-->
    </interval_definition>
    <unknown_end>true</unknown_end>
      <!--interval_end not used if unknown_end is true-->
    <description>Description less than 4000 characters</description>
      <!-- emergency, new default are used for MVAR Ticket -->
    <emergency>true</emergency>
    <new_default>false</new_default>
  - <mvar_adjustments>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>100</mw_point>
      <mvar_min>-2551</mvar_min>
      <mvar_max>4501</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>300</mw_point>
      <mvar_min>-201</mvar_min>
      <mvar_max>201</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>400</mw_point>
      <mvar_min>-101</mvar_min>
      <mvar_max>301</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>50</mw_point>
      <mvar_min>-251</mvar_min>
      <mvar_max>451</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>500</mw_point>
      <mvar_min>-151</mvar_min>
      <mvar_max>351</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>575</mw_point>
      <mvar_min>-101</mvar_min>
      <mvar_max>301</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>680</mw_point>
      <mvar_min>-51</mvar_min>
      <mvar_max>251</mvar_max>
    </adj_rating>
    - <adj_rating>
      <ta_id>191919</ta_id>
      <mw_point>700</mw_point>
      <mvar_min>-21</mvar_min>
      <mvar_max>201</mvar_max>
    </adj_rating>
  </mvar_adjustments>
</newgentic>
</edart>

```

Example Input – Create Governor ticket

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newgentic>
    <!-- Governor Type -->
    <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
    <unitnumber>9999</unitnumber>
    <ticket_type>4</ticket_type>
      <!-- Designates ticket is of Governor type -->
    - <interval_definition>
      - <interval_start>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      - <interval_end>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_end>
    </interval_definition>
    <unknown_end>false</unknown_end>
    <description>Description less than 4000 characters</description>
      <!-- service_out, emergency are used for Governor Ticket -->
    <service_out>false</service_out>
    <emergency>false</emergency>
  </newgentic>
</edart>

```

Example Input – Create MVAR Test ticket

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newgentic>
    <!-- MVAR Test Type -->
    <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
    <unitnumber>9999</unitnumber>
    <ticket_type>5</ticket_type>
      <!-- Designates ticket is of MVAR Test type -->
    <operational_data>true</operational_data>
    - <interval_definition>
      - <interval_start>
        <!-- if operational_data=false, interval_start must be > today -->
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      - <interval_end>
        <!-- interval_end always required for MVAR Test-->
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_end>
    </interval_definition>
    <description>Description less than 4000 characters</description>
  </newgentic>
</edart>

```

Example Input – Create PSS ticket

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newgentic>
    <!-- PSS Type -->
    <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
    <unitnumber>9999</unitnumber>
      <!-- unit with PSS=true, ICAP>0-->
    <ticket_type>6</ticket_type>
      <!-- Designates ticket is of PSS type -->
    - <interval_definition>
      - <interval_start>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      - <interval_end>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_end>
    </interval_definition>
    <unknown_end>false</unknown_end>
    <description>Description less than 4000 characters</description>
      <!-- service_out, emergency are used for PSS Ticket -->
    <service_out>true</service_out>
    <emergency>true</emergency>
  </newgentic>
</edart>
```

Example Input – Revise Generation ticket

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticrevise.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <genticrevise>
    - <pjm_ticket_id>xxxxxx</pjm_ticket_id>
    - <company_ticket_id>string</company_ticket_id>
    - <description_revision append="true">string less than 4000 characters</description_revision>
    - <revisiondate>
      - <interval_definition>
        - <interval_start>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_start>
        - <interval_end>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_end>
      </interval_definition>
    </revisiondate>
    - <mw_revision>
      - <!-- MW type only -->
      - <reduction>xx</reduction>
      - <effective_date>yyyy-mm-dd hh:mm:ss</effective_date>
    </mw_revision>
    -->
    - <ramp_down_time>
      - <!-- MW type only -->
      - <interval_definition>
        - <interval_start>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_start>
      </interval_definition>
    </ramp_down_time>
    - <switch>
      - <!-- MW type only -->
      - <interval_definition>
        - <interval_start>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_start>
        - <interval_end>
          <date>yyyy-mm-dd</date>
          <time>hh:mm:ss</time>
        </interval_end>
      </interval_definition>
    </switch>
    - <est_early_return_time>yyyy-mm-ddThh:mm:ss</est_early_return_time>
      - <!-- MW type only -->
  </genticrevise>
</edart>

```

Example Response

```

<?xml version="1.0" encoding="UTF-8"?>
- <edartreply>
  - <ticket_info>
    - <pjm_ticket_id>797850</pjm_ticket_id>
    - <company_ticket_id>SMOKE 14DEC2020-GOV</company_ticket_id>
    - <message>Generator ticket upload</message>
    - <message>success</message>
    - <executionTimestamp>2020-12-14 10:20:29</executionTimestamp>
  </ticket_info>
</edartreply>

```

Generation Ticket Download

Functional Overview

This download serves to provide members a method to receive information on a specified generation ticket, or a group of generation tickets based on the provided parameters.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
id	Query	Values: A single id or multiple ids in a comma separated list without spaces Result: Returns the specific ticket(s) requested	No, If ID or companyTicketId is entered, no other parameters will be evaluated
showhistory	Query	Values: true, false Results: If true, the history logs for the ticket are included. The default value is false.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=genticchanges
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q id=123456
```

Example Output

genticreview

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/genticreview/v1 genticreview.xsd">
  - <genticreview>
    - <pjm_ticket_id>31675</pjm_ticket_id>
    - <company_ticket_id>JP Gen Up Test 315013</company_ticket_id>
    - <unitnumber>1961</unitnumber>
    - <ticket_type>1</ticket_type>
    - <ticket_type_description>MW</ticket_type_description>
    - <interval_definition>
      - <interval_start>
        - <date>2013-03-15</date>
        - <time>00:01:00</time>
      - </interval_start>
      - <interval_end>
        - <date>2013-03-15</date>
        - <time>11:59:00</time>
      - </interval_end>
    - </interval_definition>
    <description>Testing MW Ticket upload</description>
    <cause>1</cause>
    <reduction>2</reduction>
    <outage_type>Unplanned</outage_type>
    <status>Approved</status>
    <timestamp>2013-03-15 12:59:53</timestamp>
    - <switch>
      - <interval_definition>
        - <interval_start>
          - <date>2013-03-15</date>
          - <time>00:01:00</time>
        - </interval_start>
      - </interval_definition>
    - </switch>
    <infoFlag>false</infoFlag>
  - <genticreview>
    - <pjm_ticket_id>37029</pjm_ticket_id>
    - <company_ticket_id>[REDACTED]</company_ticket_id>
    - <unitnumber>1507</unitnumber>
    - <ticket_type>2</ticket_type>
    - <ticket_type_description>Volt. Reg.</ticket_type_description>
    - <interval_definition>
      - <interval_start>
        - <date>2017-08-10</date>
        - <time>11:52:00</time>
      - </interval_start>
    - </interval_definition>
    <description>Sending switch end</description>
    <service_out>false</service_out>
    <emergency>true</emergency>
    <status>Active</status>
    <timestamp>2017-08-10 11:52:10</timestamp>
    <pjm_timestamp>2017-08-10 15:57:28</pjm_timestamp>
    - <actual_dates>
      - <interval_definition>
        - <interval_start>
          - <date>2017-08-10</date>
          - <time>15:40:00</time>
        - </interval_start>
      - <interval_definition>
    - </actual_dates>
    <infoFlag>false</infoFlag>
  - <genticreview>

```

```
- <genticreview>
  <pjm_ticket_id>41335</pjm_ticket_id>
  <company_ticket_id>newticket1</company_ticket_id>
  <unitnumber>1464</unitnumber>
  <ticket_type>3</ticket_type>
  <ticket_type_description>MVAR</ticket_type_description>
- <interval_definition>
  - <interval_start>
    <date>2019-12-12</date>
    <time>09:30:00</time>
  </interval_start>
  - <interval_end>
    <date>2019-12-17</date>
    <time>09:30:00</time>
  </interval_end>
</interval_definition>
<description>Creating MVAR ticket for Refactoring verification</description>
<new_default>false</new_default>
- <mvar_default>
  - <default_rating>
    <ta_id>1662283</ta_id>
    <ems_equip_name>[REDACTED]</ems_equip_name>
    <mv_point>75</mv_point>
    <mvar_min>25</mvar_min>
    <mvar_max>40</mvar_max>
  </default_rating>
  - <default_rating>
    <ta_id>1662283</ta_id>
    <ems_equip_name>[REDACTED]</ems_equip_name>
    <mv_point>140</mv_point>
    <mvar_min>25</mvar_min>
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    <mv_point>142</mv_point>
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    <mvar_max>40</mvar_max>
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- <mvar_adjustments>
  - <adj_rating>
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    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
  </adj_rating>
  - <adj_rating>
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    <mv_point>5</mv_point>
    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
  </adj_rating>
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    <ems_equip_name>1 [REDACTED] </ems_equip_name>
    <mv_point>5</mv_point>
    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
  </adj_rating>
  - <adj_rating>
    <ta_id>1662283</ta_id>
    <ems_equip_name>1 [REDACTED] </ems_equip_name>
    <mv_point>5</mv_point>
    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
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    <mv_point>5</mv_point>
    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
  </adj_rating>
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    <mv_point>5</mv_point>
    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
  </adj_rating>
  - <adj_rating>
    <ta_id>1662283</ta_id>
    <ems_equip_name>1 [REDACTED] </ems_equip_name>
    <mv_point>5</mv_point>
    <mvar_min>2</mvar_min>
    <mvar_max>6</mvar_max>
  </adj_rating>
</mvar_adjustments>
```

```

- <adj_rating>
  <ta_id>1662283</ta_id>
  <ems_equip_name>████████████████</ems_equip_name>
  <mv_point>5</mv_point>
  <mvar_min>2</mvar_min>
  <mvar_max>6</mvar_max>
</adj_rating>
</mvar_adjustments>
<status>Submitted</status>
<timestamp>2019-10-18 15:53:50</timestamp>
<infoFlag>false</infoFlag>
</genticreview>
- <genticreview>
  <pjm_ticket_id>42827</pjm_ticket_id>
  <company_ticket_id>Uitest20Jan2021-GOV</company_ticket_id>
  <unitnumber>1973</unitnumber>
  <ticket_type>4</ticket_type>
  <ticket_type_description>Governor</ticket_type_description>
- <interval_definition>
  - <interval_start>
    <date>2020-12-29</date>
    <time>20:00:00</time>
  </interval_start>
  - <interval_end>
    <date>2020-12-31</date>
    <time>22:00:00</time>
  </interval_end>
</interval_definition>
<description>REVISE: UI upload testing: Gov ticket; change dates</description>
<service_out>true</service_out>
<emergency>true</emergency>
<status>Submitted</status>
<timestamp>2021-01-20 10:34:00</timestamp>
- <revision>
  <revision_id>35894</revision_id>
  <status>Submitted</status>
  <timestamp>2021-01-20 10:50:41</timestamp>
- <revised_date>
  - <interval_definition>
    - <interval_start>
      <date>2021-02-11</date>
      <time>22:22:22</time>
    </interval_start>
    - <interval_end>
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      <time>11:11:11</time>
    </interval_end>
  </interval_definition>
</revised_date>
</revision>
<infoFlag>false</infoFlag>
</genticreview>
- <genticreview>
  <pjm_ticket_id>30631</pjm_ticket_id>
  <company_ticket_id>Vasil Test 7</company_ticket_id>
  <unitnumber>1471</unitnumber>
  <ticket_type>8</ticket_type>
  <operational_data>false</operational_data>
  <ticket_type_description>MVAR Test</ticket_type_description>
- <interval_definition>
  - <interval_start>
    <date>2014-03-30</date>
    <time>00:00:00</time>
  </interval_start>
  - <interval_end>
    <date>2014-03-31</date>
    <time>00:00:00</time>
  </interval_end>
</interval_definition>
<description>test test test</description>
<status>Submitted</status>
<timestamp>2012-08-29 08:38:46</timestamp>
- <revision>
  <revision_id>31743</revision_id>
  <status>Received</status>
  <timestamp>2014-03-25 11:15:05</timestamp>
- <revised_date>
  - <interval_definition>
    - <interval_start>
      <date>2014-03-30</date>
      <time>00:00:00</time>
    </interval_start>
    - <interval_end>
      <date>2014-03-31</date>
      <time>00:00:00</time>
    </interval_end>
  </interval_definition>
</revised_date>
</revision>
- <revision>
  <revision_id>31742</revision_id>
  <status>Canceled by Company</status>
  <timestamp>2014-03-25 09:06:38</timestamp>
- <revised_date>
  - <interval_definition>
    - <interval_start>
      <date>2012-10-10</date>
      <time>12:12:00</time>
    </interval_start>
    - <interval_end>
      <date>2012-12-12</date>
      <time>12:12:00</time>
    </interval_end>
  </interval_definition>
</revised_date>
</revision>

```

```

- <revision>
  <revision_id>31741</revision_id>
  <status>Submitted</status>
  <timestamp>2014-03-25 11:14:32</timestamp>
- <revised_date>
  - <interval_definition>
    - <interval_start>
      <date>2014-03-27</date>
      <time>00:00:00</time>
    </interval_start>
    - <interval_end>
      <date>2014-03-31</date>
      <time>00:00:00</time>
    </interval_end>
  </interval_definition>
</revised_date>
</revision>
<infoFlag>false</infoFlag>
</genticreview>
- <genticreview>
  <pjm_ticket_id>37028</pjm_ticket_id>
  <unitnumber>-34</unitnumber>
  <ticket_type>6</ticket_type>
  <ticket_type_description>PSS</ticket_type_description>
- <interval_definition>
  - <interval_start>
    <date>2017-08-10</date>
    <time>11:50:00</time>
  </interval_start>
  </interval_definition>
<description>Sending switch end</description>
<service_out>false</service_out>
<emergency>true</emergency>
<status>Active</status>
<timestamp>2017-08-10 11:51:03</timestamp>
<pjm_timestamp>2017-08-10 15:57:00</pjm_timestamp>
- <actual_dates>
  - <interval_definition>
    - <interval_start>
      <date>2017-08-10</date>
      <time>15:40:00</time>
    </interval_start>
    <interval_end/>
  </interval_definition>
</actual_dates>
<infoFlag>false</infoFlag>
</genticreview>
</edart>

```

Generation Ticket Recalled Download

Functional Overview

This download serves to display generation outage tickets that have been recalled by PJM and now have a Recalled Date on them.

Outage tickets that are not completed prior to the recall date will be treated as unplanned outages and marked with a "Forced Date". Recalled generation tickets apply only to Megawatt (MW) ticket types that have an outage type of "Maintenance" with a status of "Approved" or "Active".

PJM CLI Example

```

java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=genrecalled
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"

```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <genrecalled:tickets xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:genrecalled="http://www.pjm.com/soa/schemas/edart/genrecalled/v1"
  xsi:schemaLocation="http://www.pjm.com/soa/schemas/edart/genrecalled/v1 genrecalled.xsd">
  - <ticket>
    <pjm_ticket_id>39188</pjm_ticket_id>
    <recall_time>2019-04-25T00:00:00</recall_time>
    <forced_date>2019-04-25T00:03:36</forced_date>
  </ticket>
</genrecalled:tickets>
```

Generation Ticket for Transmission Owners by Date Download

Functional Overview

This download serves to provide the Transmission Owners with a history of generation tickets including all revisions made to the primary ticket. It can be run by date and/or generation type. The process is the same for all generation tickets types (MW, Volt Reg, MVAR, Governor, MVAR Test, PSS).

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Values: Date in form MM/DD/YYYY Results: Returns Generation Tickets for the date greater than or equal to the entered date that exists in the system	No
stop	Query	Values: Date in form MM/DD/YYYY Results: Returns Generation Tickets for the date less than the entered date that exists in the system	No
ticketstatus	Query	Values: Single or multiple status index values in a comma separated list without spaces. Valid values are: 1=Submitted, 2=Denied, 4=Approved, 5=Canceled by Company, 6=Canceled by PJM, 7=Active, 8=Complete, 9=Received, 10=Revised, 11=Pending Evaluation Results: Only tickets with the requested status will be reported. Default is all status values.	No

Name	CLI Argument Type	Value/Result	Required
gen-mw gen-volt gen-mvar gen-gov gen-pss gen-mvartest	Query	Values: Specify ticket types to include for Generator ticket download. For example: -q gen-mw=y Results: Tickets with the selected ticket type are returned Default is all ticket types.	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No
gen-critical-load	Query	Values: 0=exclude, 1=only Results: If exclude, tickets for units designated as Critical Load are not displayed. If only, only units designated as Critical Load are displayed. The default value is to not include this parameter which displays all units regardless of their Critical Load designation.	No
gen-blackstart	Query	Values: exclude, only Result: If exclude, tickets for units designated as Black Start are not displayed. If only, only units designated as Black Start are displayed. The default value is to not include this parameter which displays all units regardless of their Critical Load designation.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=gentix4transbydate
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q ticketstatus=ALL
```

Example Output

[see genticreview](#)

Generation Ticket by Date Download

Functional Overview

This download serves to select generation tickets by ticket date and/or generation type. Tickets that are owned by the user's company or where the user has notification rights to can be reported .The process is the same for all generation tickets types (MW, Volt Reg, MVAR, Governor, MVAR Test, PSS).

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Values: Date in form MM/DD/YYYY Results: Returns Generation Tickets for the date greater than or equal to the entered date that exists in the system	No
stop	Query	Values: Date in form MM/DD/YYYY Results: Returns Generation Tickets for the date less than the entered date that exists in the system	No
ticketstatus	Query	Values: Single or multiple status index values in a comma separated list without spaces. Valid values are: 1=Submitted, 2=Denied, 4=Approved, 5=Canceled by Company, 6=Canceled by PJM, 7=Active, 8=Complete, 9=Received, 10=Revised, 11=Pending Evaluation Results: Only tickets with the requested status will be reported. Default is all status values.	No
gen-mw gen-volt gen-mvar gen-gov gen-pss gen-mvartest	Query	Values: Specify ticket types to include for Generator ticket download. For example: <pre>-q gen-mw=y</pre> Results: Tickets with the selected ticket type are returned Default is all ticket types.	No

Name	CLI Argument Type	Value/Result	Required
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No
effective_during	Query	Values: true, false Result: If true, includes old tickets. The default value is false. Any value other than true is interpreted as false.	No
shownotification	Query	Values: true, false Result: If true, includes old tickets. The default value is false. Any value other than true is interpreted as false.	No
showhistory	Query	Values: true, false Result: If true, includes old tickets. The default value is false. Any value other than true is interpreted as false.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=generationbydate
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q ticketstatus=ALL
```

Example Output

[see genticreview](#)

Generation Ticket by Modify Date Download

Functional Overview

This download serves to select generation tickets by ticket modification start date and generation type. The process is the same for all generation tickets types (MW, Volt Reg, MVAR, Governor, MVAR Test, PSS).

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Values: Date in form MM/DD/YYYY Results: Returns Generation Tickets for the modify date greater than or equal to the entered date that exists in the system	Yes
starttime	Query	Values: Date in form hh:mi Results: Returns Generation Tickets for the modify time greater than or equal to the entered time that exists in the system	No
gen-mw gen-volt gen-mvar gen-gov gen-pss gen-mvartest	Query	Values: Specify ticket types to include for Generator ticket download. For example: -q gen-mw=y Results: Tickets with the selected ticket type are returned Default is all ticket types.	No
showhistory	Query	Values: true, false Result: If true, includes old tickets. The default value is false. Any value other than true is interpreted as false.	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false.	No

PJM CLI Example

```
java -jar pjm-cli.jar  
-d ./download/  
-a download/com.pjm.xml.download.edart.EDartXmlDownload  
--httpType POST  
-q dart=true  
-q downloadtype=genticchanges  
-u %USER%  
-p %PSWD%  
-s %SERVICEURL%  
-q ticketstatus=ALL
```

Example Output

[see genticreview](#)

Generation Ticket Notify Download

Functional Overview

This endpoint downloads all generation tickets the user's company is notified of and has not acknowledged. The download will only display a list of unacknowledged Generation Tickets where the company has notification rights; this endpoint will not acknowledge them, it will only display the tickets to be acknowledged. If there are no tickets to be acknowledged, no tickets will be displayed.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
ids	Query	Values: A single id or multiple ids in a comma separated list without spaces Result: Returns the specific ticket(s) requested	No, If ID or companyTicketId is entered, no other parameters will be evaluated
start	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Results: Returns Generation Tickets for the date greater than or equal to the entered date that exists in the system	No

Name	CLI Argument Type	Value/Result	Required
stop	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Results: Returns Generation Tickets for the date less than the entered date that exists in the system	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=genwithnotify
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q includehistorical=true
```

Example Output

genticnotifyreview

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="genticnotifyreview.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <genticnotify_review>
    <company_name>GenOn Energy Management, LLC (METMA)</company_name>
    <pjm_ticket_id>14005</pjm_ticket_id>
    <company_ticket_id/>
    <unitnumber>1567</unitnumber>
    - <facility_information>
      <commercial_name>PANDA</commercial_name>
      <type>Nug</type>
      <capacity>230</capacity>
    </facility_information>
    <ticket_type>1</ticket_type>
    <ticket_type_description>MW</ticket_type_description>
    - <interval_definition>
      - <interval_start>
        <date>2002-06-05</date>
        <time>12:42:00</time>
      </interval_start>
      - <interval_end>
        <date>2002-07-18</date>
        <time>06:00:00</time>
      </interval_end>
    </interval_definition>
    <description>#1 CT, cracked coupling.</description>
    <cause>47</cause>
    <reduction>115</reduction>
    <outage_type>Unplanned</outage_type>
    <status>Received</status>
    <timestamp>2002-07-15 11:37:40</timestamp>
    <pjm_timestamp>2002-07-15 11:37:40</pjm_timestamp>
    <pjm_comments/>
    - <actual_dates>
      - <interval_definition>
        - <interval_start>
          <date>2002-06-05</date>
          <time>12:42:00</time>
        </interval_start>
        - <interval_end>
          <date>2005-08-03</date>
          <time>15:57:40</time>
        </interval_end>
      </interval_definition>
    </actual_dates>
    - <revision>
      <revision_id>20759</revision_id>
      <status>Canceled by Company</status>
      <timestamp>2002-07-15 11:37:40</timestamp>
      - <revised_date>
        - <interval_definition>
          - <interval_end>
            <date>2002-07-16</date>
            <time>15:00:00</time>
          </interval_end>
        </interval_definition>
      </revised_date>
    </revision>
  </genticnotify_review>

```

Generation Ticket Notify and Acknowledge

Functional Overview

This endpoint downloads all generation tickets the user's company is notified of and has not acknowledged. The download will only display a list of unacknowledged Generation Tickets where the company has notification rights. The act of downloading this endpoint will update the acknowledgement information, no additional upload is required. If there are no tickets to be acknowledged, no tickets will be displayed.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
ids	Query	Values: A single id or multiple ids in a comma separated list without spaces Result: Returns the specific ticket(s) requested	No, If ID or companyTicketId is entered, no other parameters will be evaluated
start	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Results: Returns Generation Tickets for the date greater than or equal to the entered date that exists in the system	No
stop	Query	Values: Date in form MM/DD/YYYY HH:MI:SS Results: Returns Generation Tickets for the date less than the entered date that exists in the system	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=genwithnotifywithacknowledge
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q includehistorical=true
```

Example Output

[see genticnotifyreview](#)

Gen Checkout Endpoints

Gen Checkout endpoints provide information on the generator status in Dart compared to information in Markets Gateway.

Gen Checkout Download

Functional Overview

This download returns the gen checkout status as it currently exists on the system, and compares the unit schedule availability in Dart to the generator bid data in the Markets Gateway.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
reportdate	Query	Values: Date in form MM/DD/YYYY Result: Returns the gen checkout report for the date if it exists in the system	Yes
control_areas	Query	Values: Number that represents the Control Area ID of the Gen Checkout Control Area Result: Returns the gen checkout report for the Control Area selected. Default Control Area ID is 1	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=gencheckout
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q reportdate=07/01/2019
```

Example Output

```

<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="gencheckout.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <generatorCheckoutReport controlArea="Mid-Atlantic" date="02/06/20" id="34264">
    <periodTimes null="null" Day="12:00" Mid="07:00"/>
    <checkoutInfo companyAckUser="" companyAckDate="" ackEnd="02/20/19 13:41" ackStart="02/19/19 15:17" emergencyMax="No" lastSyncDate="02/19/19 11:02"/>
    - <genLevels>
      - <generator type="Combustion Turbine">
        <warnLevel>10</warnLevel>
        <ackLevel>15</ackLevel>
      </generator>
      - <generator type="Steam/Fossil">
        <warnLevel>15</warnLevel>
        <ackLevel>20</ackLevel>
      </generator>
      - <generator type="Hydro- Pumped Storage">
        <warnLevel>99</warnLevel>
        <ackLevel>200</ackLevel>
      </generator>
      - <generator type="Nuclear">
        <warnLevel>5</warnLevel>
        <ackLevel>10</ackLevel>
      </generator>
      - <generator type="Wind">
        <warnLevel>99</warnLevel>
        <ackLevel>200</ackLevel>
      </generator>
      - <generator type="Diesel">
        <warnLevel>20</warnLevel>
        <ackLevel>50</ackLevel>
      </generator>
      - <generator type="Behind the Meter">
        <warnLevel>99</warnLevel>
        <ackLevel>200</ackLevel>
      </generator>
    </genLevels>
    - <unit type="Combustion Turbine" sales="0" capFactor="4" icap="4" name="XXXXXXXXXX">
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Mid"/>
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Day"/>
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Eve"/>
    </unit>
    - <unit type="Combustion Turbine" sales="0" capFactor="4" icap="4" name="XXXXXXXXXX">
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Mid"/>
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Day"/>
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Eve"/>
    </unit>
    - <unit type="Combustion Turbine" sales="0" capFactor="4" icap="4" name="XXXXXXXXXX">
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Mid"/>
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Day"/>
      <data diffPercent="-1625" adjCap="4" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Eve"/>
    </unit>
    - <unit type="Combustion Turbine" sales="0" capFactor="6" icap="6" name="XXXXXXXXXX">
      <data diffPercent="-1050" adjCap="6" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Mid"/>
      <data diffPercent="-1050" adjCap="6" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Day"/>
      <data diffPercent="-1050" adjCap="6" emergMax="69" emktEconMax="69" ambAdj="0" eDARTReduction="0" period="Eve"/>
    </unit>
  </generatorCheckoutReport>

```

Gen Checkout Regions Download

Functional Overview

This download returns the generator control area information for generators owned by the user's company. This information is used to link the generator control area name to the generator control area id. The report does not include retired and future units, and excludes units that are specifically marked as excluded from gen checkout.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=gencheckoutcontrolareas
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q reportdate=07/01/2019
```

Example Output

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart>
  - <generationCheckoutControlAreas>
    <controlArea id="1" name="Mid-Atlantic" />
    <controlArea id="2" name="Western" />
  </generationCheckoutControlAreas>
</edart>
```

TERM Endpoints

XML information for the TERM uploads and downloads are available to both Generation and Transmission users regardless of your role. The main XML for TERM endpoints is located [here](#).

TERM (Transmission Equipment Ratings Monitor) endpoints provide information on TERM tickets including Impedance R, Impedance X and Charging B values, Ratings, Reasons and Limitations.

TERM Limitations Report Download

Functional Overview

The TERM Limitations report returns a list of limitation IDs and their meanings. This information is used when creating or revising TERM Tickets.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=termI
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/termlimitation/v1 termlimitation.xsd">
  <limitation_list>
    <limitation_type>
      <limitation_id>1</limitation_id>
      <limitation_text>T and D Cable or Wire</limitation_text>
    </limitation_type>
    <limitation_type>
      <limitation_id>2</limitation_id>
      <limitation_text>Transformer</limitation_text>
    </limitation_type>
    <limitation_type>
      <limitation_id>3</limitation_id>
      <limitation_text>Regulators</limitation_text>
    </limitation_type>
    <limitation_type>
      <limitation_id>4</limitation_id>
      <limitation_text>Circuit Breaker</limitation_text>
    </limitation_type>
    <limitation_type>
      <limitation_id>5</limitation_id>
      <limitation_text>Reactors</limitation_text>
    </limitation_type>
  </limitation_list>
</edart>
```

TERM Reason Report Download

Functional Overview

The TERM Reason report returns a list of Reason Codes and its meanings. This information is used as the “Reason for Change” when creating or revising TERM Tickets.

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=termr
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-o "outputfile.xml"
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/termreason/v1 termreason.xsd">
  <reason_list>
    <reason_type>
      <reason_id>5</reason_id>
      <reason_text>New equipment under Congestion Management</reason_text>
    </reason_type>
    <reason_type>
      <reason_id>6</reason_id>
      <reason_text>Special parallel line ratings</reason_text>
    </reason_type>
    <reason_type>
      <reason_id>7</reason_id>
      <reason_text>Reconductoring</reason_text>
    </reason_type>
    <reason_type>
      <reason_id>8</reason_id>
      <reason_text>Rebuild equipment</reason_text>
    </reason_type>
  </reason_list>
</edart>
```

TERM Equipment Report Download

Functional Overview

The TERM Equipment Report download serves to provide members a list of equipment and its ratings where the company is responsible for reporting rating adjustments including current impedance and congestion management data for equipment for reporting rating adjustments. Impedance R and X values will always be displayed for all equipment types, but the charging B value will only display if the equipment type id Line.

This endpoint includes when the member is the owner of the equipment as well as if they have notification rights to it based on parameter settings.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
showinfo	Query	Values: true, false Result: If “true”, equipment information - Station, Voltage, Equipment, Equipment Name – will display Default value is true	No
shownotify	Query	Values: true, false Result: If “true”, returns tickets created by the user’s company AND tickets that the user’s company is notified. If “false”, returns only tickets that are owned by the user’s company Default value is false	No
includehistorical	Query	Values: true, false Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false. Used with start and stop parameters.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=terme
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q shownotify=true
```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/termequipmentreport/v1
termequipmentreport.xsd">
  - <term_equipment_info>
    - <equipment_info>
      <equipment_id>73192</equipment_id>
      <ta_id>1664124</ta_id>
      <type>XFMR</type>
      <impedance_r>0.00091</impedance_r>
      <impedance_x>0.06875</impedance_x>
      <congestion_status>NOT MONITORED</congestion_status>
      <notification_type>OWNER</notification_type>
    </equipment_info>
    - <equipment_info>
      <equipment_id>73193</equipment_id>
      <ta_id>1664124</ta_id>
      <type>XFMR</type>
      <impedance_r>0.00091</impedance_r>
      <impedance_x>0.06875</impedance_x>
      <congestion_status>NOT MONITORED</congestion_status>
      <notification_type>OWNER</notification_type>
    </equipment_info>
    - <equipment_info>
      <equipment_id>73961</equipment_id>
      <ta_id>1659720</ta_id>
      <company_name>████████████████████████</company_name>
      - <equipment_information>
        <b1_name>████████</b1_name>
        <b2_name>11 KV</b2_name>
        <b3_name>132-1-T</b3_name>
        <b3_text>████████</b3_text>
        <end_id>LOW</end_id>
      </equipment_information>
      <type>XFMR</type>
      <impedance_r>0.006001</impedance_r>
      <impedance_x>0.2526</impedance_x>
      <congestion_status>NOT MONITORED</congestion_status>
      <notification_type>NOTIFICATION</notification_type>
    </equipment_info>
  </edart>

```

TERM Facilities Download

Functional Overview

The TERM Facilities download serves to provide members a list of equipment and its information where the company is responsible for or has notification rights to the equipment. The output of this report is large and is written to a file by default.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
shownotify	Query	Values: true, false Result: If “true”, returns tickets created by the user’s company AND tickets that the user’s company is notified. If “false”, returns only tickets that are owned by the user’s company Default value is false	No

Name	CLI Argument Type	Value/Result	Required
includehistorical	Query	<p>Values: true, false</p> <p>Result: If true, includes tickets that were completed or canceled more than 40 days ago. The default value is false. Any value other than true is interpreted as false.</p> <p>Used with start and stop parameters.</p>	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
-hhttpType POST
-q dart=true
-q downloadtype=termequipment
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q shownotify=true
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<termequipment:equipments xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:termequipment="http://www.pjm.com/external/schemas/termequipment/v1" xsi:schemaLocation="http://www.pjm.com/external/schemas/termequipment/v1 termequipment.xsd">
  - <equipment>
    <equipment_id>71178</equipment_id>
    <station>████████</station>
    <voltage>115 KV</voltage>
    <equipment_name>████████████████████████</equipment_name>
    <end>HIGH</end>
  </equipment>
  - <equipment>
    <equipment_id>71179</equipment_id>
    <station>████████</station>
    <voltage>115 KV</voltage>
    <equipment_name>████████████████████████</equipment_name>
    <end>LOW</end>
  </equipment>
  - <equipment>
    <equipment_id>71180</equipment_id>
    <station>████████</station>
    <voltage>115 KV</voltage>
    <equipment_name>████████████████████████</equipment_name>
    <end>HIGH</end>
  </equipment>
  - <equipment>
    <equipment_id>71181</equipment_id>
    <station>████████</station>
    <voltage>115 KV</voltage>
    <equipment_name>████████████████████████</equipment_name>
    <end>LOW</end>
  </equipment>
```

TERM Equipment Information Download

Functional Overview

The TERM Equipment Information download contains equipment information including rating information by temperature for equipment your company owns or has notification rights to. If the equipment is owned by another company, the company name will display when the notification_type is “Notification”.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
shownotify	Query	Values: true, false Result: If “true”, returns tickets created by the user’s company AND tickets that the user’s company is notified. If “false”, returns only tickets that are owned by the user’s company Default value is false	No
showinfo	Query	Values: true, false Result: If “true”, equipment information - Station, Voltage, Equipment, Equipment Name – will display Default value is true	No
includehistorical	Optional	Values: Boolean - true/false Result: If true, it will query all the equipment ratings that are in current AND historical partition. default is false	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=termi
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q shownotify=true
```

Example Output

```

<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/termequipmentinformation/v1 termequipmentinformation.xsd">
  <term_equipment_list>
    - <term_equipment_info>
      <equipment_id>71178</equipment_id>
      <ta_id>1662501</ta_id>
      <type>XFM&lt;/type>
      <end_id>HIGH</end_id>
      <notification_type>OWNER</notification_type>
      <equipment_information>
        <b1_name>[REDACTED]</b1_name>
        <b2_name>115 KV</b2_name>
        <b3_name>110-1</b3_name>
        <b3_text>[REDACTED]</b3_text>
      </equipment_information>
      <rating_list>
        <temperature>95</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>86</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>77</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>68</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>59</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>50</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>41</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
      <rating_list>
        <temperature>32</temperature>
        <normal_day>0</normal_day>
        <normal_night>0</normal_night>
        <long_term_day>0</long_term_day>
        <long_term_night>0</long_term_night>
        <short_term_day>0</short_term_day>
        <short_term_night>0</short_term_night>
        <load_dump_day>0</load_dump_day>
        <load_dump_night>0</load_dump_night>
      </rating_list>
    </term_equipment_info>
  </term_equipment_list>
</edart>

```

```

- <term_equipment_info>
  <equipment_id>71236</equipment_id>
  <ta_id>1659489</ta_id>
  <company_name>████████████████████</company_name>
  <type>XFMR</type>
  <end_id>HIGH</end_id>
  <notification_type>NOTIFICATION</notification_type>
- <equipment_information>
  <b1_name>████████████████</b1_name>
  <b2_name>138 KV</b2_name>
  <b3_name>SHER #2</b3_name>
  <b3_text>████████████████████</b3_text>
</equipment_information>
- <rating_list>
  <temperature>95</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>86</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>77</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>68</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>59</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>50</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>41</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
- <rating_list>
  <temperature>32</temperature>
  <normal_day>0</normal_day>
  <normal_night>0</normal_night>
  <long_term_day>0</long_term_day>
  <long_term_night>0</long_term_night>
  <short_term_day>0</short_term_day>
  <short_term_night>0</short_term_night>
  <load_dump_day>0</load_dump_day>
  <load_dump_night>0</load_dump_night>
</rating_list>
</term_equipment_info>

```

TERM Ticket Review

Functional Overview

The TERM Ticket Review download shows the user TERM Ticket information for all ticket ids listed in the parameter. If the parameter transtype “review” is selected, more data elements are displayed but the format is not correct for

uploading a change to an existing ticket. If the parameter transtype “revise” is selected, than the TERM Ticket Revise is selected, less data elements are displayed, but the file is in the correct format to amend and upload as needed.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date on or after the entered date will be reported Default is today's date	No
stop	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date before the entered date will be reported	No
transtype	Query	Values: review, revise Result: If “review”, returns the tickets in the review format. If “revise”, returns the ticket in a revision format. Default is review	No
shownotify	Query	Values: true, false Result: If “true”, returns tickets created by the user’s company AND tickets that the user’s company is notified. If “false”, returns only tickets that are owned by the user’s company Default is false	No
includehistorical	Query	Values: Boolean - true/false Result: If true, it will query all the equipment ratings that are current AND were completed or canceled more than 40 days ago. Default is false	No
gettermattachments	Query	Values: true, false Result: If true, all file attachments are downloaded in both zip and hex file formats. Default is false.	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=termtickets
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q ids=12345,23456,34567
-q transtype=review
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/termreview/v1_termreview.xsd">
  <reviewtermtic>
    <pjm_ticket_id>175950</pjm_ticket_id>
    <ticket_status>Submitted</ticket_status>
    <ticket_type implementation='planned' type='permanent'/>
    <reason_id>13</reason_id>
    <reason>Equipment failure</reason>
    <estimated_dates>
      <interval_definition>
        <interval_start>
          <date>2013-02-07</date>
          <time>00:00:00</time>
        </interval_start>
      </interval_definition>
    </estimated_dates>
    <comment>This is a TEST</comment>
    <equipment_id>0</equipment_id>
    <impedance_r>0.0006</impedance_r>
    <impedance_x>0.008</impedance_x>
    <congestion_status>Reliability & Markets</congestion_status>
    <charging_b>0.0022</charging_b>
    <dynamic_flag>false</dynamic_flag>
    <internal_tie>false</internal_tie>
    <external_tie>false</external_tie>
    <adjustment_list>
      <adjustment>
        <temperature>95</temperature>
        <category>normal</category>
        <day_night_flag>day</day_night_flag>
        <current_value>105</current_value>
        <default_value>0</default_value>
      </adjustment>
      <adjustment>
        <temperature>95</temperature>
        <category>normal</category>
        <day_night_flag>night</day_night_flag>
        <current_value>105</current_value>
        <default_value>0</default_value>
      </adjustment>
      <adjustment>
        <temperature>95</temperature>
        <category>longterm</category>
        <day_night_flag>day</day_night_flag>
        <current_value>105</current_value>
        <default_value>0</default_value>
      </adjustment>
    </adjustment_list>
    <limitations>
      <limit>
        <limitation_id>35</limitation_id>
        <temperature>95</temperature>
        <category>normal</category>
        <day_night_flag>day</day_night_flag>
      </limit>
    </limitations>
  </reviewtermtic>
</edart>
```

TERM Ticket Upload

Create Root Element: newtermtic

Revise Root Element: revisetermtic

Functional Overview

The TERM Ticket Upload is used to create a new ticket or to revise an existing ticket. When creating a new ticket, the TERM Ticket ID will not be included on the upload file. When revising an existing ticket, the TERM Ticket ID will be included on the upload file.

When creating a new ticket, all required elements and at least 1 limitation must be included. When modifying an existing ticket, only those fields that are changing need to be included, but the full ticket can be included.

Input Elements

Name	Type	Value/Result	Required
edart	root	1	
edart/newtermtic	container	1..*	
edart/newtermtic/company_ticket_id	String	1	
edart/newtermtic/ticket_status	String	1	
edart/newtermtic/ticket_type	element		
edart/newtermtic/ticket_type@implementation	attribute	planned, immediate Default is “planned”.	
edart/newtermtic/ticket_type@type	attribute	permanent, temporary Default is “permanent”	
edart/newtermtic/reason_id	number	1	
edart/newtermtic/reason	String	1	
edart/newtermtic/comment	string	1	
edart/newtermtic/pjm_comment	string	1	
edart/newtermtic/equipment_id	number	1	
edart/newtermtic/impedance_r	number	1	
edart/newtermtic/impedance_x	number	1	
edart/newtermtic/congestion_status	string	1	
edart/newtermtic/charging_b	number	This value will only be populated if the equipment type is Line.	
edart/newtermtic/dynamic_flag	boolean	1	

Name	Type	Value/Result	Required
edart/newtermic/external_tie	boolean		
edart/newtermic/internal_tie	boolean		
edart/newtermic/adjustment_list	container element	1..*	
edart/newtermic/adjustment	container	1	
edart/newtermic/temperature	number	1	
edart/newtermic/category	string	1	
edart/newtermic/day_night_flag	boolean	1	
edart/newtermic/current_value	number	1	
edart/newtermic/default_value	number	1	
edart/newtermic/fileList	container element	1	
edart/newtermic/fileList/file		1..*	
edart/newtermic/fileList/file/fileName	string	1	
edart/newtermic/fileList/file/fileTimestamp	datetime	1	

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input File - Create Ticket

```

<?xml version="1.0"?>
- <edart xsi:noNamespaceSchemaLocation="termcreate.xsd" xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
  - <newtermtic>
    - <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
      <ticket_type implementation="planned" type="permanent"/>
        <!--<ticket_type implementation="immediate" type="temporary"/>-->
      <reason_id>xx</reason_id>
    - <interval_definition>
      - <interval_start>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_start>
      - <interval_end>
        <date>yyyy-mm-dd</date>
        <time>hh:mm:ss</time>
      </interval_end>
    </interval_definition>
    <comment>comment text, less than 4000 characters</comment>
    <equipment_id>999999</equipment_id>
  - <adjustment_list>
    - <adjustment>
      <temperature>xx</temperature>
      <category>loaddump</category>
        <!--valid values: normal, longterm, shortterm, loaddump-->
      <day_night_flag>night</day_night_flag>
        <!--valid values: day, night-->
      <adjustment_value>xxx</adjustment_value>
    </adjustment>
  </adjustment_list>
  + <limitations>
  </newtermtic>
</edart>

```

Example Input File - Revise Ticket

```

<?xml version="1.0"?>
- <edart xsi:noNamespaceSchemaLocation="termrevise.xsd" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  - <revisetermtic>
    <pjm_ticket_id>xxxxxx</pjm_ticket_id>
    <company_ticket_id>unique comp ticket id, LE 50 char</company_ticket_id>
      <!-- use status cancel to cancel ticket and follow with </revisetermtic></edart> ONLY. -->
    <ticket_status>cancel</ticket_status>
    <ticket_type implementation="planned" type="permanent"/>
      <!--<ticket_type implementation="immediate" type="temporary"/>-->
    <reason_id>xx</reason_id>
  - <interval_definition>
    - <interval_start>
      <date>yyyy-mm-dd</date>
      <time>hh:mm:ss</time>
    </interval_start>
    - <interval_end>
      <date>yyyy-mm-dd</date>
      <time>hh:mm:ss</time>
    </interval_end>
  </interval_definition>
  <comment>{comment text}</comment>
  - <adjustment_list>
    - <adjustment>
      <temperature>xx</temperature>
      <category>loaddump</category>
        <!--valid values: normal, longterm, shortterm, loaddump-->
      <day_night_flag>night</day_night_flag>
        <!--valid values: day, night-->
      <adjustment_value>xxx</adjustment_value>
    </adjustment>
  </adjustment_list>
  - <limitations>
    - <limit>
      <limitation_id>xx</limitation_id>
      <temperature>xx</temperature>
      <category>loaddump</category>
        <!--valid values: normal, longterm, shortterm, loaddump-->
      <day_night_flag>night</day_night_flag>
        <!--valid values: day, night-->
    </limit>
  </limitations>
  </revisetermtic>
</edart>

```

TERM File Attachment Retrieval

Root Element: gettermattachments

Functional Overview

The TERM Ticket File Attachment Retrieval download provides the user with the actual attachments on the given TERM Ticket. The attachments are returned in both zip and hex file formats when downloaded.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
ids	Query	Values: integer, comma separated list of values Result: Returns the file attachments on the ticket id(s)	Yes

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=gettermattachments
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q ids=12345
```

RXB Adjustment Download

Functional Overview

The RXB Adjustment Download provides the user with impedance and charging values for Transmission TERM equipment.

Additional Parameters

Name	CLI Argument Type	Value/Result	Required
start	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date on or after the entered date will be reported Default is today's date	No
stop	Query	Value: date in the format mm/dd/yyyy Result: Only tickets with an effective date before the entered date will be reported	No

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./download/
-a download/com.pjm.xml.download.edart.EDartXmlDownload
--httpType POST
-q dart=true
-q downloadtype=termrxb
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-q start=07/01/2019
-q stop=08/31/2019
```

Example Output

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
<edart xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.pjm.com/external/schemas/termrxb/v1 termrxb.xsd">
  <facility>
    <company>[REDACTED]</company>
    <type>LINE</type>
    <station>[REDACTED]</station>
    <voltage>230 KV</voltage>
    <equipment>[REDACTED]</equipment>
    <adjustment>
      <r>
        <initial>0.00047</initial>
        <adjusted>0.00068</adjusted>
        <percentDifference>44.0</percentDifference>
      </r>
      <x>
        <initial>0.0051</initial>
        <adjusted>0.0072</adjusted>
        <percentDifference>41.0</percentDifference>
      </x>
      <b>
        <initial>0.0108</initial>
        <adjusted>0.0125</adjusted>
        <percentDifference>15.0</percentDifference>
      </b>
      <comment>comments on new rxb adjustment request Ticket replaced by RXB Ticket# 171</comment>
      <status>Cancelled by Company</status>
      <lastUpdated>2019-11-27 13:01:46</lastUpdated>
    </adjustment>
  </facility>
</edart>
```

RXB Adjustment Report Upload

Create Root Element: newtermrxbtic

Revise Root Element: revisetermxrbtic

Functional Overview

The RXB Adjustment Report allows members a process to create, revise, review and cancel RXB Adjustment Tickets, to adjust impedance and charging values. RXB Values are initially added through the Model Build process.

Input Elements

Name	Type	Value/Result	Required
dart	root	1	Yes
edart/facility	facility container	0...	No
edart/facility/company	string	owning company	Yes
edart/facility/type	string		Yes
edart/facility/station	string		Yes
edart/facility/voltage	string		Yes
edart/facility/equipment	string		Yes
edart/facility/adjustment	adjustment container		Yes
edart/facility/adjustment/r	r container		Yes
edart/facility/adjustment/r/initial	decimal		Yes
edart/facility/adjustment/r/adjusted	decimal		Yes
edart/facility/adjustment/r/percentDifference	decimal		Yes
edart/facility/adjustment/x	x container		Yes
edart/facility/adjustment/x/initial	decimal		Yes
edart/facility/adjustment/x/adjusted	decimal		Yes
edart/facility/adjustment/x/percentDifference	decimal		Yes
edart/facility/adjustment/b	b container	This will only appear for the equipment type of lines.	No
edart/facility/adjustment/b/initial	decimal		Yes
edart/facility/adjustment/b/adjusted	decimal		Yes
edart/facility/adjustment/b/percentDifference	decimal		Yes

Name	Type	Value/Result	Required
edart/facility/adjustment/comment	string		Yes
edart/facility/adjustment/status	string		Yes
edart/facility/adjustment/lastUpdated	datetime		Yes
edart/facility/adjustmentHistory	adjustment history container		No
edart/facility/adjustmentHistory/history	history container	There can be multiple history containers	Yes, if there is an Adjustment History container
edart/facility/adjustmentHistory/history/status	string		Yes, if there is a History container
edart/facility/adjustmentHistory/history/userId	string		Yes, if there is a History container
edart/facility/adjustmentHistory/timestamp	datetime		Yes, if there is a History container

PJM CLI Example

```
java -jar pjm-cli.jar
-d ./output/
-a upload/com.pjm.xml.upload.edart.EDartXmlUpload
--httpType POST
-q dart=true
-u %USER%
-p %PSWD%
-s %SERVICEURL%
-f {filename.xml}
-o {filename2.xml}
```

Example Input - Create

```
<?xml version="1.0" encoding="UTF-8"?>
- <edart xsi:noNamespaceSchemaLocation="newtermrxbs.xsd" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  - <newtermrxbtic>
    <ta_id>9999999</ta_id>
    <adjust_r>3.14159</adjust_r>
    <adjust_x>3.14159</adjust_x>
    <adjust_b>3.14159</adjust_b>
    <comment>comment text, up to 500 characters</comment>
  </newtermrxbtic>
</edart>
```

Example Input – Revise

```
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <edart xsi:noNamespaceSchemaLocation="revisetermxbs.xsd" xmlns:xsi="http://www.w3.org/2001/10/XMLSchema-instance">
  - <revisetermxbtic>
    <ta_id>9999999</ta_id>
    <adjust_r>3.14159</adjust_r>
    <adjust_x>3.14159</adjust_x>
    <adjust_b>3.14159</adjust_b>
    <adjust_comment>comment text, up to 500 characters</adjust_comment>
    <cancel/>
    <!-- IF CANCEL IS SUPPLIED, DO NOT INCLUDE adjust_comment tags -->
  </revisetermxbtic>
</edart>
```

Example Output – Response File

```
<?xml version="1.0" encoding="UTF-8"?>
- <edartreply>
  - <ticket>
    <message>success</message>
    <message>Success saving new TERM rxb ticket where ta_id=1664154 and adjusted r,x,b=0.0095,0.02777,N/A</message>
  </ticket>
</edartreply>
```

Appendix A – eDART to Dart Endpoint Mapping

This appendix provides a mapping of the eDART types to Dart Endpoint names. The Dart Endpoint Name is a link to the section for the endpoint. The eDART type information is from the Browserless File Transfer Spec (D762408).

eDART Type	eDART Description
companynames	List of all active transmission companies in eDART. Report consists of short name and long name.downloadtype
conflictfacilityscenario	List of conflict scenarios defined for primary and associated secondary equipment.
conflictgenoffscenario	List of conflict scenarios defined as requiring generators to be offline.
conflictgroupscenario	List of conflict scenarios defined for a group of equipment and the number of equipment allowed to be out at the same time.
controlzones	List of active control areas and associated control zones.
cutin report	Download showing task status for Transmission cut-in tickets.
downloadtype	Upload and download file types allowed in eDART.
emsoutage	List of equipment currently out of service in PJM's EMS(Energy Management System)
emstripped	Report of transmission outage tickets automatically generated by eDART due to equipment tripping
emstrippedbydate	Download of transmission outage tickets by date automatically generated by eDART due to equipment tripping
equipment	List of transmission equipment including those owned by the user's company and equipment for which user's company has notification rights

eDART Type	eDART Description
genbynamecause	List of units owned by the user's company and the outage cause types applicable to the units
gencheckout	Download of gencheckout reports
gencheckoutcontrolareas	List of control areas used in the gencheckout reports
generation	Download of units outage tickets for generation owners
generationbydate	Download of generation tickets by ticket date and/or generation type.
generationcause	List of outage cause types and unit types for which they are applicable for unit outage tickets
generatorpsse	Download of eDART to PSSE model mapping for units
generators	List of company's units including units ID, unit name, type, installed capacity, and MVAR Ratings
generators4trans	Download of active generators that the Transmission Owners are approved to see or where the generator is in their zone.
genticchanges	Download of specific generation tickets or a group of generation tickets based on parameters provided.
genrecalled	List of recalled generation tickets and includes recalled time and forced dates.
genticrevise	Upload of generation information to revise or cancel generation tickets.
gentix4transbydate	Download of units outage tickets for transmission owners
genwithnotify	Download of unacknowledged generation tickets for which user's company has notification rights
genwithnotifywithacknowledge	Downloads unacknowledged generation tickets for which user's company has notification rights, and acknowledges them.
gettermattachment	Download files that have been attached to a TERM ticket
ircbydate	Download list of IRC reports with dates

eDART Type	eDART Description
ircfull	Download of the most recent IRC report except when ID is provided.
ircpools totals	Download of the most recent IRC pool totals report
ircrevise	Download of user editable fields for the open IRC. User can edit file and upload to eDART.
ircReviseDownload	Upload of IRC data when initiated by PJM.
ircselfcheck	Download of IRC self-check report; updated every 5 minutes and available when there is no open IRC.
ndaAcceptance	Upload of the NDA (Non-Disclosure Agreement) acceptance required for Transmission Owners.
nerclfbypdate	Download of NERC load forecast data.
nerctadsreportcodes	Download of TADS report codes including ID, and description.
newgentic	Upload to create a new generation ticket
newtermrxbtic	Upload to create a new TERM RXB ticket
revisetermxbtic	Upload to revise an existing TERM RXB ticket
rrcbydate	Download list of RRC reports with dates
rrequipmentlist	List of equipment(capacitors, reactors, SVC/STATCOM, Unit/Condensers) included in the RRC
rrcfull	Download of the most recent RRC report except when ID is provided.
rrcRevise	Upload of RRC data when initiated by PJM.
rrcselfcheck	Download of RRC self-check report; updated every 5 minutes and available when there is no open RRC.

eDART Type	eDART Description
tariff	Download of equipment tariff information by transmission company, effective and termination date.
term	Download of TERM tickets by ID, and by dates
termattachments	Download a list of file attachments for a TERM ticket
terme	Download of TERM equipment information including IDs, type, impedance and congestion status
termequipment	Download TERM facilities report including Equipment ID, Station, Voltage, Equipment Name and End.
termi	Download of TERM equipment information including IDs, and ratings
termi	List of TERM limitations that can be used in TERM tickets
termr	List of Reasons for Change that can be used in TERM tickets.
termrxb	Download of TERM RXB Adjustment ticket information for review.
termticketrevise	Upload of TERM Ticket information for revision
termtickets	Download of TERM Tickets for revise or review
tier	Download of tier relationship between transmission equipment
toimwg	Report of non-market sensitive transmission outage tickets
transcomp	List of active transmission companies including the ID and long name.
transmission	Upload a file to create a transmission ticket Download outage tickets for transmission owners Upload to revise an existing transmission ticket
transmissioncauses	List of transmission outage cause types
transmissionpsse	Download of eDART to PSSE model mapping for transmission equipment
transticattachment	Upload and download file attachment for transmission ticket

eDART Type	eDART Description
transticchanges	Download of transmission tickets that have changed since supplied start date & time
transwithnotify	Download of unacknowledged transmission tickets for which user's company has notification rights
transwithnotifywithacknowledge	Downloads unacknowledged transmission tickets for which user's company has notification rights, and acknowledges them.
voltageschedule	Download voltage schedule for units for transmission owners
voltageschedule4gen	Download voltage schedule for units for generation owners
zones	List of Transmission companies and their associated control zones.