

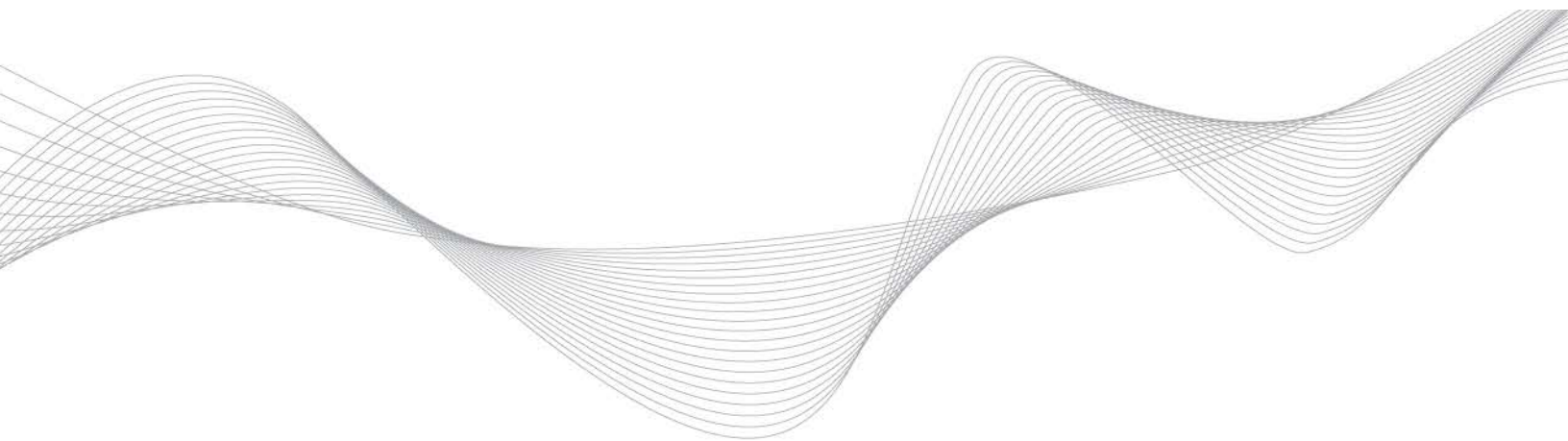


Capacity Exchange Quick Start Guide

Markets Applications
PJM Interconnection

Date: May 22, 2018

Version: Draft 0.3





Contents

I.	FAQ: What you need to know about the eRPM to Capacity Exchange transition	2
II.	Navigation Map: Where it was in eRPM and where it is now?	4
III.	Operations: Are there any changes to how I perform RPM related tasks, with the Capacity Exchange application?	6
IV.	Content Path Reorientation: Where can I find a complete list of changes to screen(s) navigation in Capacity Exchange?	6
V.	Historical data: Will there be any historical data that will no longer be available for viewing as a part of this refresh?	7
VI.	New Feature: How can I obtain more data for areas like PLC, NSPL etc.?:	7

I. FAQ: What you need to know about the eRPM to Capacity Exchange transition

1. How do I access Capacity Exchange in the Sandbox and Production?

The links to Capacity Exchange will be posted at a later date. Once posted, the application will be able to be accessed via PJM Tools or by following the Sign In or Register links on the PJM website at Markets & Operations > PJM Tools > Capacity Exchange.

1. Sandbox URL: TBD*
2. Sandbox Web Service URL : TBD*
3. Production URL: TBD*
4. Production Web Service URL : TBD*

2. Will users need to request additional access to Capacity Exchange in the Sandbox and Production or will those who already have access to eRPM in the Sandbox and Production be able to access Capacity Exchange in the Sandbox and Production?

Users that have eRPM Sandbox access will automatically have Capacity Exchange Sandbox access.

Users with existing production eRPM access will automatically have access to Capacity Exchange on the day the application goes live.

3. Did any business rules change in the implementation of Capacity Exchange?

No. No changes to the business rules were implemented with the development of Capacity Exchange.

4. Are there changes to browserless access?

While the core functionality has not changed, there is an additional authentication step that will be required to access browserless functionality in Capacity Exchange.

1. This browserless authentication method used for Markets Gateway and FTR Center is being implemented as part of the Capacity Exchange project to adhere to security standards at PJM that benefit the end users and provide an enhanced level of security.
2. Browserless requests need to be authenticated at least every 24 hours in order to use the Web services. *(failure to adhere to this standard will result in a failure of your request).
3. *Note - if a token remains unused for more than 30 minutes the token becomes inactive and a new one will need to be requested.
4. Detailed instructions on how to incorporate the new authentication method are available in the Java Browserless Authentication Guide: <http://www.pjm.com/~media/etools/pjm-browserless-authentication-guide.ashx> . This must be completed before you are able to call the Web service.

Once authenticated and a token received, you need to incorporate that token into the service calls. *(Example of the POST/Response below, Username/Password fields highlighted to add your own, Token field incorporation in the 2nd step of the process highlighted.)

1) Authenticate:

*(For Sandbox)

```
curl --request POST --header "X-OpenAM-Username:username" --header "X-OpenAM-Password:password"
--header "Content-Type:application/json" --data "{}" https://ssotrain.pjm.com/access/authenticate/
```

***(For Production)

```
curl --request POST --header "X-OpenAM-Username:username" --header "X-OpenAM-Password:password"
--header "Content-Type:application/json" --data "{}" https://sso.pjm.com/access/authenticate/
```

1b) Response:

*(Response format is same for Sandbox & Production)

```
{
  "tokenId": "(TOKEN)",
  "successUrl": "/openam/console"
}
```

2) Send XML Document to Capacity Exchange:

*(Note – Cookie parameter for Sandbox = pjmauthtrain, for production = pjmauth)

*(Note – url at the end of the query is the Sandbox url. For production replace “capacityexchangetrain” with “capacityexchange”)

```
curl -X POST -H "Content-Type: text/xml" -H "Cookie: pjmauthtrain= (TOKEN)" -d
<?xml version="1.0" encoding="UTF-8"?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
  <Body>
    <QueryRequest xmlns="http://erpm.pjm.com/rpm/xml">
      <QueryPeakLoadSummary Day="2018-03-10" CompanyName="EDC1"/>
    </QueryRequest>
  </Body>
</Envelope>
'https://capacityexchangetrain.pjm.com/capacityexchange/xml/query'
```

*Note – You will need to replace the “Day” and “CompanyName” with valid values in the above QueryRequest.

2b) Response:

```
<?xml version='1.0' encoding='UTF-8'?>
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
  <Body>
    <QueryResponse="http://erpm.pjm.com/rpm/xml">
      <QueryPeakLoadSummarySet/>
    </QueryResponse>
  </Body>
</Envelope>
```

```
</QueryResponse>
</Body>
</Envelope>
```

To minimize impacts to existing customer code, the namespace referenced in all XML calls has not changed.

The application should use the same erpm namespace (the xmlns part of the XML) for the query. In other words the erpmtrn.pjm.com designation should only be specified in the POST and HOST commands and not changed in the xmlns string within the XML itself.

5. What browsers does Capacity Exchange support?

Capacity Exchange supports

Internet Explorer 9 & forward

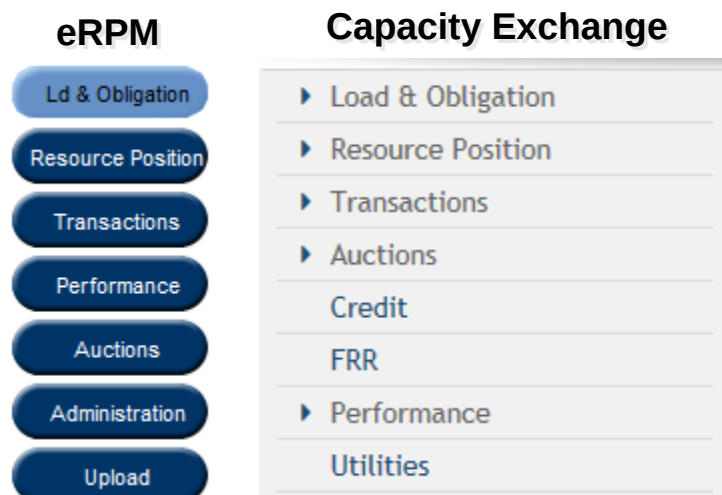
1. Current version of Chrome
2. Current version of Firefox
3. Current version of Safari

6. Who should I contact if problems arise?

Please start a new discussion on the [Tech Change Community](#) or contact Capacity Exchange Support (CapacityExchangeSupport@pjm.com) or the Member Support Hotline at 610-666-8980 or 866-400-8980 and they will transfer your question or issue to the appropriate organization and ensure you receive a reply.

II. Navigation Map: Where it was in eRPM and where it is now?

Capacity Exchange is organized into sections featuring primary and secondary level menus on a left side navigation bar. While the functionality of the seven major components utilized in eRPM (Ld & Obligation, Resource Position, Transactions, Performance, Auctions, Administration, and Upload) is inherent in Capacity Exchange, the new structure better groups functions together. Similar to eRPM, Capacity Exchange also uses tabs for each menu item.





FRR and Credit areas were moved to its own primary menu on left navigation panel.

Reports area was added to Capacity Exchange.

III. Operations: Are there any changes to how I perform RPM related tasks, with the Capacity Exchange application?

The following listed paths are content areas that have moved to different locations within the application. The information below has been categorized by some of the main activities performed within RPM application:

Activity	Capacity Exchange Path
View Daily Load and Obligation	Load and Obligation -> Load & Obligation -> Daily Load & Obligation
Upload / Query PLC and NSPL values	Utilities -> Submit XML Upload Utilities -> Query XML Upload
View EFOR Values	Resource Position -> Generation Resources -> EFOR Values
View Generation ICAP Ratings	Resource Position -> Generation Resources -> ICAP Ratings
Create Transactions	Transactions -> Capacity Transactions <i>Alternate Paths:</i> Resource Position -> LDA Summary Resource Position -> Generation Resources -> Position Details Resource Position -> Demand Resources Resource Position -> Energy Efficiency Resources Resource Position -> Aggregate Resources -> Position Details Resource Position -> Locational MW
Complete EE Setup	Auctions -> Energy Efficiency Setup <i>*Existing and Planned Setup combined into one screen</i>
Complete DR Setup	Auctions -> Demand Resource Setup <i>*Existing and Planned Setup combined into one screen</i>
View PRD Auction Results	Auctions -> Auction Results -> PRD Results
View auction Offer Cap detail	<i>*Mitigation screen removed and "Offer Cap" information from Mitigation screen moved to Auction Results -> Resource Offer Segments screen</i>
Submit / Query	Utilities -> Submit XML Upload Utilities -> Query XML Upload
View status of submittal	Utilities -> Transaction Log

IV. Content Path Reorientation: Where can I find a complete list of changes to screen(s) navigation in Capacity Exchange?

If you wish to review a full list of changes made to the screen(s) navigation in Capacity Exchange, then please visit this link: [Content Path Reorientation](#).

V. Historical data: Will there be any historical data that will no longer be available for viewing as a part of this refresh?

Some of the historical data will no longer be available for viewing after the Delivery Years 2020/2021 and later; examples of which are provided below:

1. LM Event Compliance data will no longer be available for Delivery Years prior to 2014/2015.
2. DR Setup data will no longer be available for Delivery Years prior to 2018/2019.
3. Energy Efficiency Set up will no longer be available for Delivery Years prior to 2018/2019.

VI. New Feature: How can I obtain more data for areas like PLC, NSPL etc.?:

Capacity Exchange introduces a new feature for the users to allow search and pull more data than what was available in eRPM screens. You will now be able go to “Reports” section in Capacity Exchange, wherein you have the capability to search and download more data for areas such as PLC, NSPL etc. in multiple formats.