

# Contracts and Communication

**PJM State & Member Training Dept.**

# Disclaimer:

PJM has made all efforts possible to accurately document all information in this presentation. The information seen here does not supersede the PJM Operating Agreement or the PJM Tariff both of which can be found by accessing:  
<http://www.pjm.com/documents/agreements/pjm-agreements.aspx>

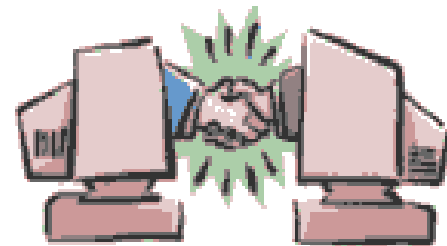
For additional detailed information on any of the topics discussed, please refer to the appropriate PJM manual which can be found by accessing:  
<http://www.pjm.com/documents/manuals.aspx>

# Contracts

# Contracts

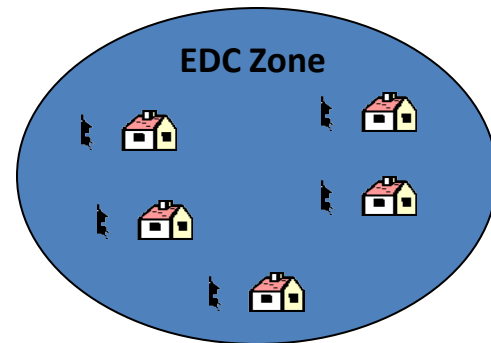
- Contract Information

- Pricing
  - Day-ahead – automatically carries over to Real-time
  - Real-time
- Contract Name
- Start/Stop date
- Seller, Buyer
  - Both must be PJM Members
- Source, Sink Pricing Points
  - Seller – looks like load priced at Source (Charge)
  - Buyer – looks like generation priced at Sink (Credit)
  - Buyer pays LMP difference between Source and Sink (congestion and losses)
  - Source/Sink for RLR, WLR and GEN types should be the same
    - See next slides

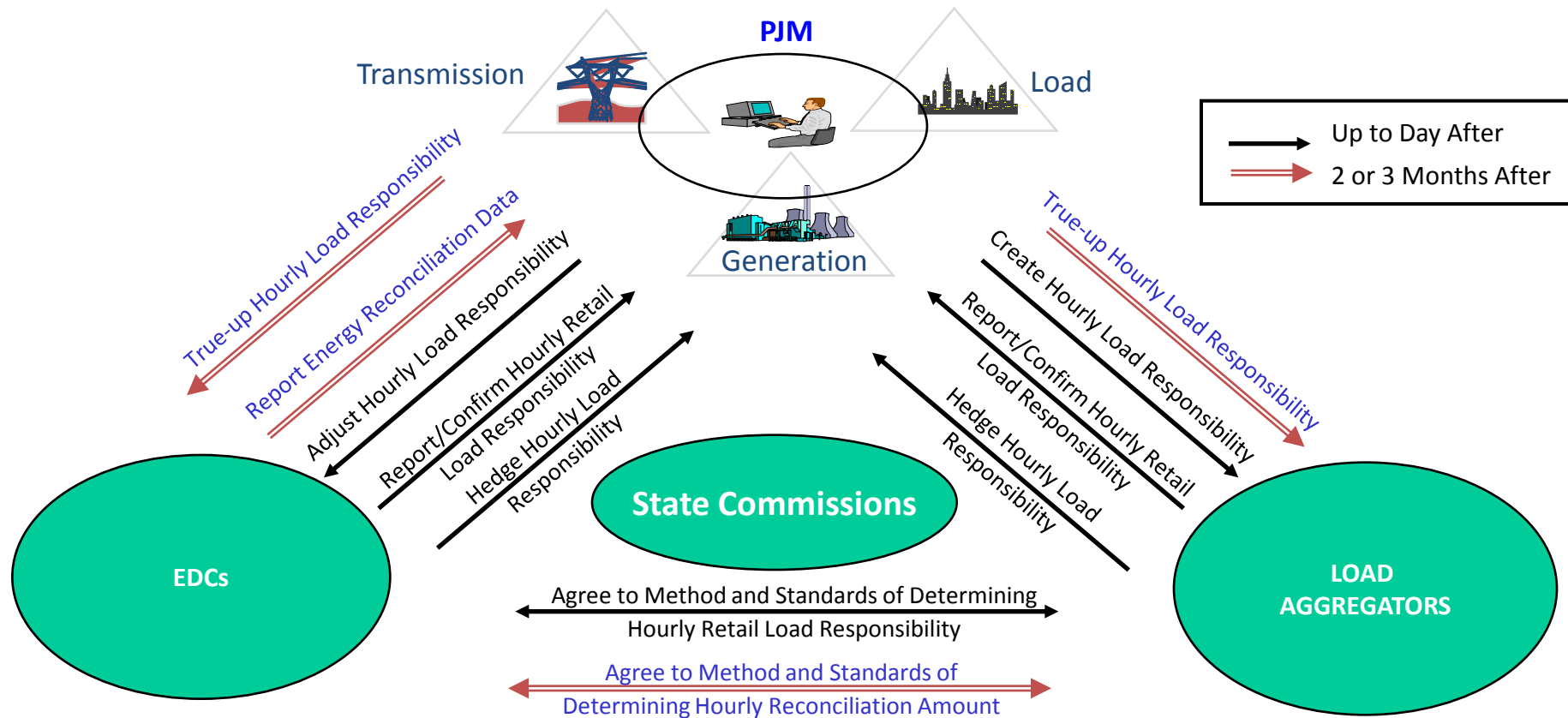


# Contracts

- Contract Information – Service Types
  - **RLR – Retail Load Responsibility**
    - Surrogate for Metered Interchange
    - Seller is Retail Load Aggregator, Buyer is EDC
    - Typically entered by EDC (other arrangements)
    - Applied to Balancing Market
    - Typically priced at zonal LMP or Aggregate
    - Source and Sink are the same
    - Used to calculate loads and Load Ratio Shares (“carves” out LSE load from zone)
    - If nothing else done (i.e. IBT, Day ahead, import, generation), LSE charged Energy MW
      - \* Source RT LMP

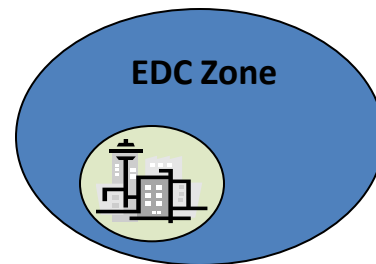


# PJM Retail Access Energy Model



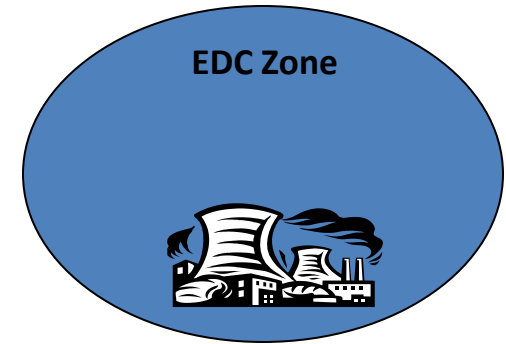
# Contracts

- Contract Information – Service Types
  - WLR – Wholesale Load Responsibility
    - Surrogate for Metered Interchange
    - Seller is Muni, Co-op (Wholesale customer); Buyer is EDC
    - Generally entered by EDC
    - Applied to Balancing Market
    - Typically priced at Aggregate (must be fully in zone)
    - Source and Sink are the same
    - Used to calculate load and Load Ratio Shares for wholesale entities not fully metered to PJM
    - If nothing else done (i.e. IBT, Day ahead, import, generation), Seller charged Energy  $\text{MW} * \text{Source RT LMP}$
    - Must coordinate with PJM Market Settlements



# Gen Contracts in Power Meter

- Contract Information – Service Types
  - GEN – Merchant Generation
  - Entered in Power Meter
    - Surrogate for metered interchange
    - Seller is EDC, Buyer is Generator
    - Generally entered by EDC
    - Applied to Balancing Market
    - Priced at Generator bus
    - Source and Sink are the same
    - Designate merchant generation supply schedules for generators billed directly by PJM



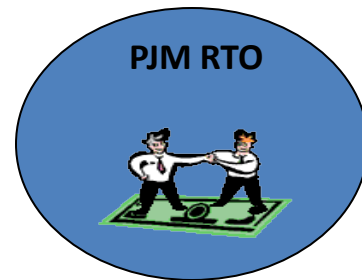


# Contracts

- Contract Information – Service Types

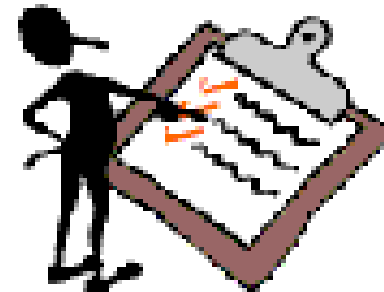
- **IBT – Internal Bilateral Transaction**

- Used for all internal bilateral energy transactions including supply for parties serving retail load
      - Financial change of MW ownership
      - Does not affect scheduling
    - May be specified as Day-ahead or Balancing
      - Day-ahead automatically copies to Balancing as well
    - Entered by either of the parties
    - Source and Sink can be the same or different
      - Must be agreed to by both parties
    - Adjusts a participants spot market interchange for PJM
      - Prices for energy settled outside PJM Market Settlements
      - Buyer gets paid sink LMP for energy
      - Buyer pays (sink-source) LMP explicit congestion and losses
      - Seller is charged source LMP

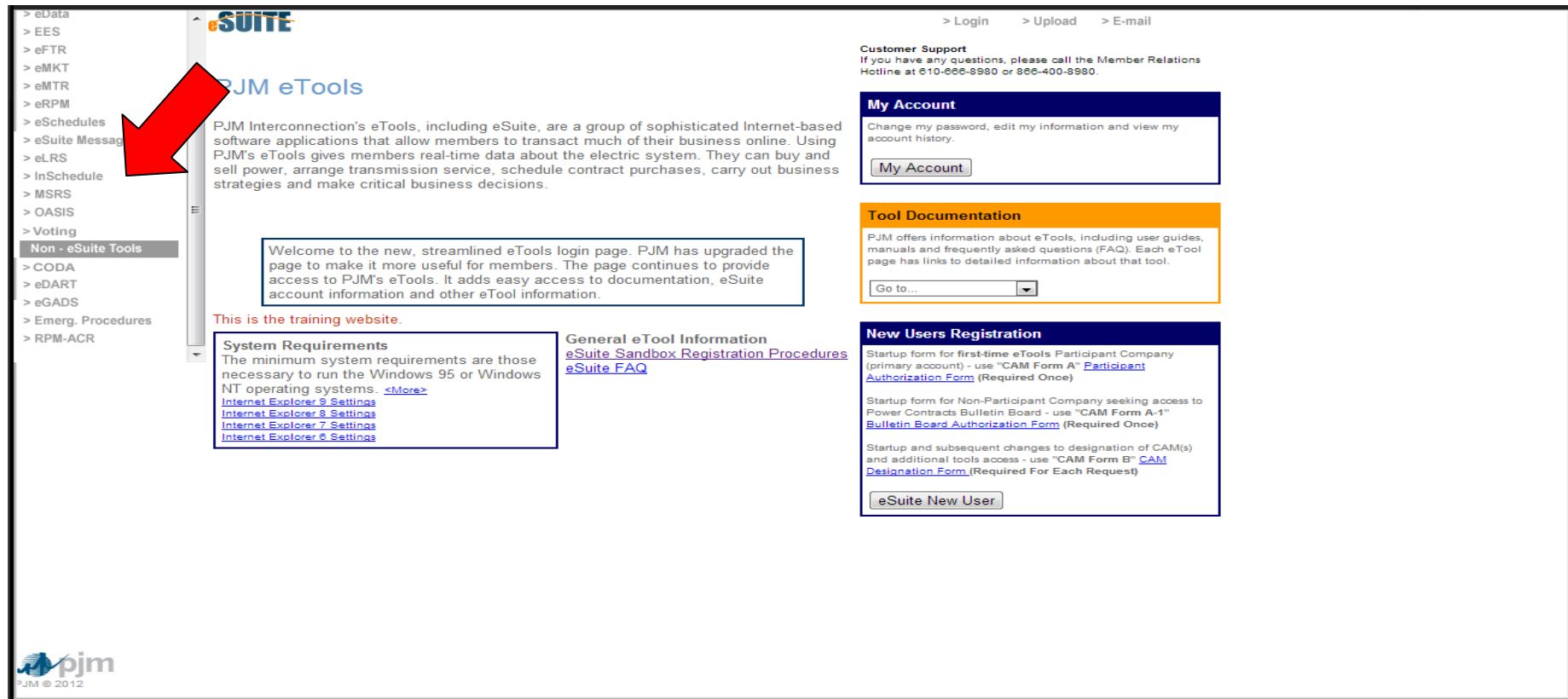


# Contracts

- Contract Information
  - **Schedule Confirmation Type**
    - **Unilateral Buyer**
      - Seller automatically confirmed
    - **Unilateral Seller**
      - Buyer automatically confirmed
    - **Bilateral**
      - Both Buyer and Seller must confirm
  - **Comments**
    - For party-party communications only, PJM does not review



# eSuite: Login for InSchedule



The screenshot shows the eSuite login page. On the left is a vertical navigation menu with the following items: > eData, > EES, > eFTR, > eMKT, > eMTR, > eRPM, > eSchedules, > eSuite Message, > eLRS, > InSchedule, > MSRS, > OASIS, > Voting, **Non - eSuite Tools** (highlighted with a red arrow), > CODA, > eDART, > eGADS, > Emerg. Procedures, > RPM-ACR. The main content area has a header with the eSuite logo and 'PJM eTools'. Below this is a paragraph about PJM's eTools. A red arrow points from the 'Non - eSuite Tools' menu item to this paragraph. The main content area is divided into several sections: 'Customer Support' with contact information, 'My Account' with a 'My Account' button, 'Tool Documentation' with a search box, 'New Users Registration' with links to registration forms, and 'General eTool Information' with links to 'eSuite Sandbox Registration Procedures' and 'eSuite FAQ'. A 'System Requirements' box is also present, listing minimum system requirements and links to download Internet Explorer settings.

> eData  
> EES  
> eFTR  
> eMKT  
> eMTR  
> eRPM  
> eSchedules  
> eSuite Message  
> eLRS  
> InSchedule  
> MSRS  
> OASIS  
> Voting  
**Non - eSuite Tools**  
> CODA  
> eDART  
> eGADS  
> Emerg. Procedures  
> RPM-ACR

**eSuite**

**PJM eTools**

PJM Interconnection's eTools, including eSuite, are a group of sophisticated Internet-based software applications that allow members to transact much of their business online. Using PJM's eTools gives members real-time data about the electric system. They can buy and sell power, arrange transmission service, schedule contract purchases, carry out business strategies and make critical business decisions.

Welcome to the new, streamlined eTools login page. PJM has upgraded the page to make it more useful for members. The page continues to provide access to PJM's eTools. It adds easy access to documentation, eSuite account information and other eTool information.

This is the training website.

**System Requirements**  
The minimum system requirements are those necessary to run the Windows 95 or Windows NT operating systems. [<More>](#)  
[Internet Explorer 9 Settings](#)  
[Internet Explorer 8 Settings](#)  
[Internet Explorer 7 Settings](#)  
[Internet Explorer 6 Settings](#)

**General eTool Information**  
[eSuite Sandbox Registration Procedures](#)  
[eSuite FAQ](#)


> Login > Upload > E-mail

**Customer Support**  
If you have any questions, please call the Member Relations Hotline at 810-666-8980 or 866-400-8980.

**My Account**  
Change my password, edit my information and view my account history.  
[My Account](#)

**Tool Documentation**  
PJM offers information about eTools, including user guides, manuals and frequently asked questions (FAQ). Each eTool page has links to detailed information about that tool.  
 Go to...

**New Users Registration**  
Startup form for first-time eTools Participant Company (primary account) - use "CAM Form A" [Participant Authorization Form](#) (Required Once)  
Startup form for Non-Participant Company seeking access to Power Contracts Bulletin Board - use "CAM Form A-1" [Bulletin Board Authorization Form](#) (Required Once)  
Startup and subsequent changes to designation of CAM(s) and additional tools access - use "CAM Form B" [CAM Designation Form](#) (Required For Each Request)  
[eSuite New User](#)

  
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# InSchedule

Your Company's PJM Accounting Acronym is at the top of each screen

**Dashboard**

From 11/01/2012 To 12/01/2012 Pending Only ☐ Update Reset

New Contract Upload File Download Reports

Schedules Contracts

11/01/2012 to 12/01/2012

Records Per Page: 15 (1 of 10)

Contract ID	Schedule Date	Confirm	Seller	Buyer	Confirmed (MWh)	Pending (MWh)	Pricing	Actions
59953	11/01/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/02/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/03/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/04/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	50	0	Real Time	
59953	11/05/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/06/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/07/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/08/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/09/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/10/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/11/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/12/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/13/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	
59953	11/14/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	55	0	Real Time	
59953	11/15/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	

# Contracts

**Search for Contracts**

From 11/01/2012 To 12/01/2012 Per Page: 10 Update Reset

**Dashboard**

New Contract Upload File Download Reports

**Click to Create a New Contract**

Contract ID	Name	Seller	Buyer	Confirm	Service	Source	Sink	Start Date	Stop Confirmed	Stop Pending	Actions
59953	Dual	PJM	PE	DUAL	RTL LD RESP	Bush Private PNode	Bush Private PNode	07/01/2012	12/25/2012		
59954	Unilateral Buyer PJM	PE	PJM	BUYER	GENERATION	Bush Private PNode	Bush Private PNode	07/01/2012	12/31/2012		
59955	Unilateral seller PJM	PJM	PE	SELLER	GENERATION	Bush Private PNode	Bush Private PNode	07/01/2012	12/31/2012		
59956	Long Contract Dual	PJM	PE	DUAL	WHL LD RESP	Bush Private PNode	Bush Private PNode	07/01/2012	07/14/2016		
59957	Long Contract Uni Buyer	PE	PJM	BUYER	GENERATION	Bush Private PNode	Bush Private PNode	07/01/2012	07/31/2013		
59958	Long Contract Uni Seller	PJM	PE	SELLER	GENERATION	Bush Private PNode	Bush Private PNode	07/01/2012	07/01/2040		
60950	TC35	PE	PJM	DUAL	GENERATION	Bush Private PNode	Bush Private PNode	07/10/2012	07/31/2018		
61956	asdfsadfsadlfhjkjh	PJM	ORION	DUAL	GENERATION	LIBERTY	LIBERTY	07/24/2012	07/24/2015		
61958	Testing on Safari	PE	PJM	DUAL	GENERATION	Liam testing how long this can	Liam testing how long this can	07/24/2012	08/20/2013		
62950	special	PJM	PJMTST	DUAL	GENERATION	Bush Private PNode	Bush Private PNode	08/21/2012	12/28/2012		

**Click to edit a Contract**

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# Contracts

PJM | PJM Interconnection ( ESCHEDULERW ) | Sign Out | Contact | Help

**pjm** | InSchedule

## New Contract

New Contract

Name \*

Contract ID

Start Date \*

Stop Date \*

Pricing \*

Seller \*

Buyer \*

Confirmation \*

Service \*

Source \*

Sink \*

Comment

200 characters remaining

Cancel

Save

To create new contract or modify, enter required information and click "Save"

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Feedback

# Schedules

Find a Schedule associated with a contract or create new Schedule

**Dashboard**

From 11/01/2012 To 12/01/2012 Pending Only ☐ [Update](#) [Reset](#)

[New Contract](#) [Upload File](#) [Download](#) [Reports](#)

[Schedules](#) [Contracts](#)

11/01/2012 to 12/01/2012

Records Per Page: 15 (1 of 10)

Contract ID	Schedule Date	Confirm	Seller	Buyer	Confirmed (MWh)	Pending (MWh)	Pricing	Actions
59953	11/01/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/02/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/03/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/04/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	50	0	Real Time	<a href="#">Edit</a>
59953	11/05/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/06/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/07/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/08/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/09/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/10/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/11/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/12/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/13/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>
59953	11/14/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	55	0	Real Time	<a href="#">Edit</a>
59953	11/15/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Edit</a>

Records Per Page: 15 (1 of 10)

[Feedback](#)

Click to edit a Schedule

# Schedules

**pjm** | InSchedule

## Edit Schedules

[Back to Dashboard](#)
[Contract - 59953](#)
[Schedule Date 11/01/2012](#)

Edit Schedules

Contract Information

Name	Dual
Contract ID	59953
Start Date	07/01/2012
Stop Confirmed	12/25/2012
Confirmation	DUAL
Service	RTL LD RESP
Source	Bush Private PNode
Sink	Bush Private PNode
Pricing	Real Time

Schedule Information

Seller	PJM
	Confirmed ESched Superuser 10/12/2012 08:11
Buyer	PE
	Confirmed ESched Superuser 10/22/2012 14:13

Schedule Assistant

From	0	To	24
Amount	0		

11/01/2012 Thu | Change Schedule Date: 11/01/2012 Go

Time Block (Eastern)	Confirmed (MWh)	Pending (MWh)	New (MWh)	Time Block (Eastern)	Confirmed (MWh)	Pending (MWh)	New (MWh)
0 - 1	2			12 - 13	2		
1 - 2	2			13 - 14	2		
2 - 3	2			14 - 15	2		
3 - 4	2			15 - 16	2		
4 - 5	2			16 - 17	2		
5 - 6	2			17 - 18	2		
6 - 7	2			18 - 19	2		
7 - 8	2			19 - 20	2		
8 - 9	2			20 - 21	2		
9 - 10	2			21 - 22	2		
10 - 11	2			22 - 23	2		
11 - 12	2			23 - 24	2		
Total Confirmed MWh	48						
Total Pending MWh	0						

Confirm

Adjust Schedule "MWh" amount and click "Confirm" when done



# File Upload

**File Upload**

**Dashboard**

From  To  Pending Only ☐ [Update](#) [Reset](#)

[New Contract](#) [Upload File](#) [Download](#) [Reports](#)

[Schedules](#) [Contracts](#)

11/01/2012 to 12/01/2012

Records Per Page: 15 (1 of 10)

Contract ID	Schedule Date	Confirm	Seller	Buyer	Confirmed (MWh)	Pending (MWh)	Pricing	Actions
59953	11/01/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	0	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/02/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	0	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/03/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	0	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/04/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	50	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/05/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/06/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/07/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/08/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/09/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/10/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/11/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/12/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/13/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/14/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	55	0	Real Time	<a href="#">Click to Upload a File</a>
59953	11/15/2012	DUAL	PJM (Confirmed)	PE (Confirmed)	48	0	Real Time	<a href="#">Click to Upload a File</a>

# File Upload

**Upload File**

A file of schedules or reconciliations can be uploaded below. This feature relies on a properly formatted file as specified by the File [Upload Format Definitions](#) (PDF) supplied by PJM. If you do not have the proper file specifications the file will not be processed.

**+ Choose File**

Select the file and click 'Open' and the file will begin uploading immediately

**Close**

**InSchedule**

From 11/01/2012 To 12/01/2012 Pending Only

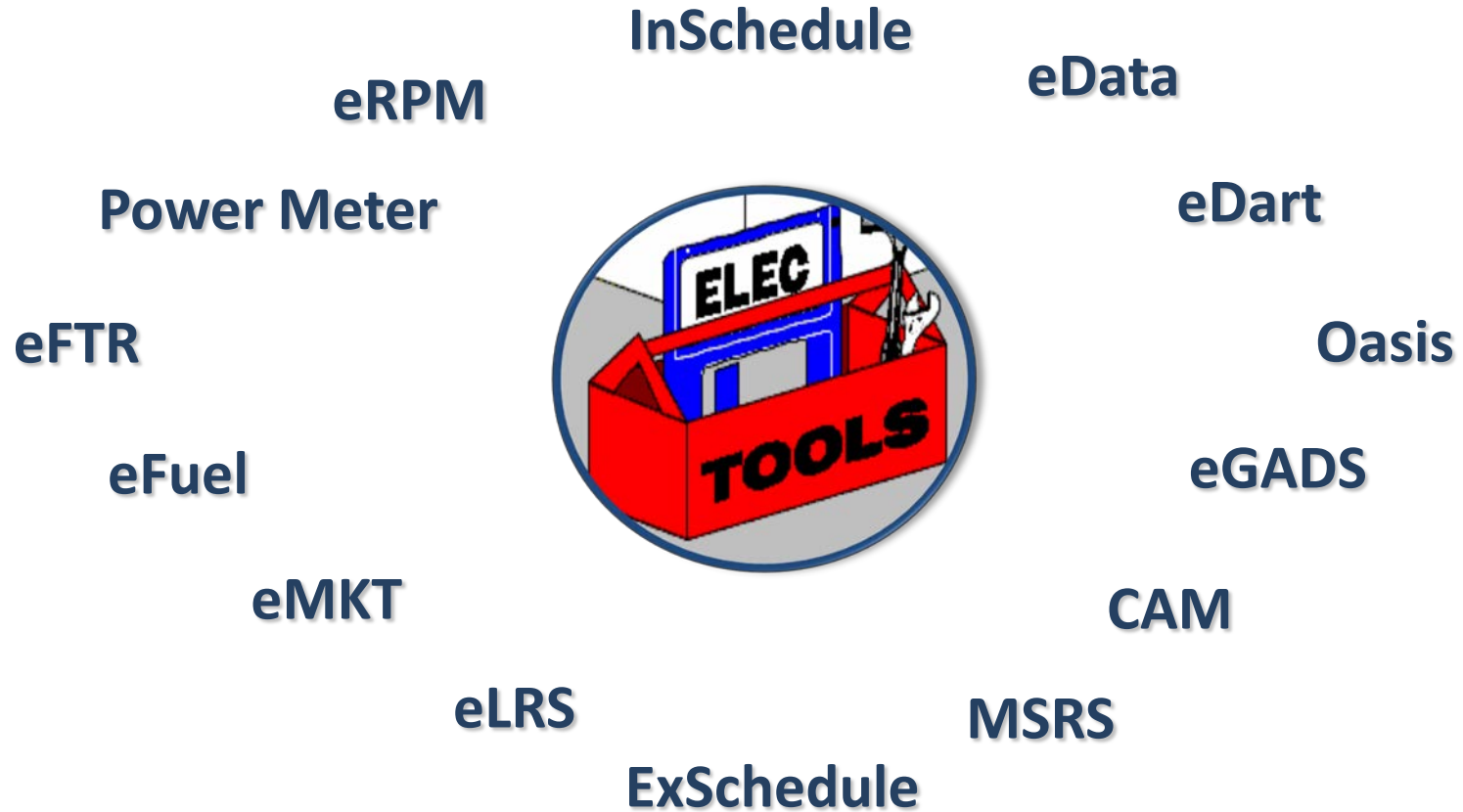
**Schedules** **Contracts**

Contract ID	Schedule Date	Contract
59953	11/01/2012	DUAL
59953	11/02/2012	DUAL
59953	11/03/2012	DUAL
59953	11/04/2012	DUAL
59953	11/05/2012	DUAL
59953	11/06/2012	DUAL
59953	11/07/2012	DUAL
59953	11/08/2012	DUAL
59953	11/09/2012	DUAL
59953	11/10/2012	DUAL
59953	11/11/2012	DUAL
59953	11/12/2012	DUAL
59953	11/13/2012	DUAL
59953	11/14/2012	DUAL
59953	11/15/2012	DUAL

Pricing	Actions
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]
Real Time	[Edit]

# Communication

# Interacting with PJM Markets



# PJM Tools Demonstration

# Questions?