

# JESS Enhancements to Support CTS Bidding and 15-minute Bid Curves

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*Rensselaer, NY*

# Agenda

- ◆ **Background**
- ◆ **CTS Bidding**
- ◆ **15-minute Bid Curves**
- ◆ **JESS User Enhancements**
- ◆ **Upload/Download Templates**
- ◆ **Training**
- ◆ **Sandbox Testing**
- ◆ **Timeline/ Next steps**

# Background

- ◆ Enhancements to the Joint Energy Scheduling System (JESS) are targeted for deployment in October 2014 to support:
  - *CTS Bidding at PJM proxies*
  - *15-minute transaction bid curve blocks*
- ◆ Changes to the JESS user interface and upload/download templates will impact **all** JESS users, i.e., any MP offering or bidding external energy transactions

# How to Submit a CTS Bid


- ◆ CTS bids will be managed using same bidding screens and templates as existing LBMP type transaction bids
- ◆ User should specify “15-Min CTS” in “Schedule Type” field in JESS User Interface –see next slide
- ◆ Existing “Schedule Type” terms will be updated (old term -> new term):
  - *Intra-Hourly -> 15-Min LBMP*
  - *Hourly -> Hourly LBMP*

# Submitting a CTS Bid in JESS

[Upload/Download](#) | [Visit Marketplace](#) | [Logout](#)

## Joint Energy Scheduling System

[Dashboard](#) > Bidding



*New Contract created*

You are receiving curtailment notifications for this Contract.  
 Your Organization is the Financially Responsible Party ("FRP") for this Contract.  
 PJM\_GEN\_HTP\_PROXY is a Merchant Transmission Facility, which requires a valid reservation.

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### Contract Details

**Transaction ID:** 11535090

**Source:** PJM\_GEN\_HTP\_PROXY      **Sink:** NYISO\_LBMP\_REFERENCE  
**User Reference:** MY USER REF      **Multi-Hour Block Transaction:** No

*In Progress*

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### New Bid

**Bid Date:** 06/25/2014 00:00 EDT

**Num Hours:** 1      **Market:** HAM

**Schedule Type:** 
 Schedule Type: ?  
 15-Min CTS  
 Hourly LBMP  
 15-Min LBMP  
 15-Min CTS

**Curve Time Frame:** 00:00 - 00:14      **Energy Profile MW:** 10

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price:	10	20	30	40	50	60	70	80	90	100	110

    use single curve: ?     default curve: ?

**NERC Tag:**

**SCA:** 01      **PSE:** MY PSE      **Unique Num:** 123      **RCA:** NYIS

# CTS Bids –Schedule Type

- ◆ When submitting a transaction bid the user must specify a ‘Schedule Type’:
  - *Hourly LBMP*
  - *15-Min LBMP*
  - *15-Min CTS*
- ◆ Indicates how the bid will be evaluated in Real-Time Market only, not DAM
- ◆ Required for DAM bids to indicate type of bid to create for Real-Time Market following DAM checkout

# CTS Bids –RTM Bid Price

- ◆ When submitting DAM bid with CTS Schedule Type, the user must specify a “RTM Bid Price” to be used when creating Real-Time Market bid following DAM checkout
- ◆ For LBMP type bids the ISO will continue to use the default values if not specified by the user:
  - *Imports*     $-\$0.01$
  - *Exports*    $+\$1,000$
  - *Wheels*     $-\$1,000$

# CTS Bidding Activation

- ◆ CTS with PJM activation targeted for November 2014 at the four PJM proxies:
  - *Keystone*
  - *HTP*
  - *Neptune*
  - *VFT*



# Bid Type Options for PJM Proxies

- ◆ Import/Export LBMP Bidding
  - *15-minute bids only –no hourly*
- ◆ Import/Export CTS Bidding
  - *15-minute bids only –no hourly*
- ◆ Wheel-Through Bidding
  - *Hourly bids only*


# 15-minute Bid Curves Overview

- ◆ Users have option to specify either:
  - *a single bid curve for entire hour*
  - *Individual bid curves for each quarter hour, must specify bid curves for all four quarters of the hour*
- ◆ Available for intra-hour bid Schedule Types: 15-Min LBMP, 15-Min CTS
- ◆ *Bid curve fields include:*
  - *Energy Profile MW*
  - *Price (1-11)*
  - *MW (1-11)*

# 15-minute Bid Curves in JESS

Logged in as: NYISO Bidder Upload Download Bid Restrictions Logout

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**Joint Energy Scheduling System** 

Dashboard > Bidding

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**Contract Details** New Contract created

Transaction ID: 11530090

Source: PJM\_GEN\_HTP\_PRODY      Sink: NYISO\_LUMP\_REFERENCE  
 User Reference: MY USER REF      Multi-Hour Block Transaction: No

You are receiving curtailment notifications for this Contract.  
 Your Organization is the Financially Responsible Party (FRP) for this Contract.  
 PJM\_GEN\_HTP\_PRODY is a Merchant Transmission Facility, which requires a valid reservation.

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**New Bid** In Progress

Bid Date: 06/23/2014 00:00 EDT  
 Num Hours: 1
 Market: HAM
 Schedule Type: 15-Min CTS
 SCA: 01
 PSE: NY PSE
 Unique Num: 123
 NCA: NYS

Curve Time Frame: 00:00 - 00:14      Energy Profile HW: 10

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

use single curve:
  default curve:

---

Curve Time Frame: 00:15 - 00:29      Energy Profile HW: 11

Point	1	2	3	4	5	6	7	8	9	10	11
MW	1	2	3	4	5	6	7	8	9	10	11
\$ Price	1	2	3	4	5	6	7	8	9	10	11

default curve:

---

Curve Time Frame: 00:30 - 00:44      Energy Profile HW: 20

Point	1	2	3	4	5	6	7	8	9	10	11
MW	20	30									
\$ Price	20	30									

default curve:

---

Curve Time Frame: 00:45 - 00:59      Energy Profile HW: 13

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

default curve:

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# 15-minute Bid Curves in JESS

Joint Energy Scheduling System

Contract Details

Transaction ID: [ ] Source: P.M. [ ] User Reference: [ ]

New Bid

TS Date: 02/25/2014 00:00

Curve Time Frame: 00:00 - 00:14 Energy Profile MW: 10

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

Clear Curve  use single curve  default curve

Curve Time Frame: 00:15 - 00:29 Energy Profile MW: 11

Point	1	2	3	4	5	6	7	8	9	10	11
MW	1	2	3	4	5	6	7	8	9	10	11
\$ Price	1	2	3	4	5	6	7	8	9	10	11

Clear Curve  Copy Previous Curve  default curve

Curve Time Frame: 00:30 - 00:44 Energy Profile MW: 20

Point	1	2	3	4	5	6	7	8	9	10	11
MW	20	30									
\$ Price	20	30									

Clear Curve  Copy Previous Curve  default curve

Curve Time Frame: 00:45 - 00:59 Energy Profile MW: 13

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

Clear Curve  Copy Previous Curve  default curve

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# 15-minute Bid Curves –Default Bid Curve

- ◆ When using 15-minute bid curve feature, the user must specify one of the four curves as the default bid curve
- ◆ The default bid curve will be used to perform an hourly evaluation of the bid in the event that 15-minute scheduling has been disabled

# 15-minute Bid Curves [3]

Joint Energy Scheduling System

Contract Details

Transaction ID: [ ]  
 Source: P.M. [ ]  
 User Reference: [ ]

New Bid

TSR Date: 02/25/2014 00:00

Curve Time Frame: 00:00 - 00:14 Energy Profile MW: 10

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

Clear Curve  use single curve   default curve

---

Curve Time Frame: 00:15 - 00:29 Energy Profile MW: 11

Point	1	2	3	4	5	6	7	8	9	10	11
MW	1	2	3	4	5	6	7	8	9	10	11
\$ Price	1	2	3	4	5	6	7	8	9	10	11

Clear Curve   default curve  default curve: ?

---

Curve Time Frame: 00:30 - 00:44 Energy Profile MW: 20

Point	1	2	3	4	5	6	7	8	9	10	11
MW	20	30									
\$ Price	20	30									

Clear Curve   default curve

---

Curve Time Frame: 00:45 - 00:59 Energy Profile MW: 13

Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

Clear Curve   default curve

# 15-Minute Bid Curve Activation

- ◆ 15-minute bid curve feature will be activated following the October software deployment, prior to activation of CTS bidding in November
- ◆ 15-minute bid curve feature will be available at any proxy which supports 15-minute scheduling
  - *Must use 15-Min (not Hourly) Schedule Type*

# JESS User Enhancements

- ◆ Ability to search for bids on individual NERC Tag fields:
  - *SCA*
  - *PSE*
  - *Unique #*
  - *RCA*
- ◆ Screen Tips; provide users with additional information within JESS User Interface
- ◆ See next two slides for examples



# NERC Tag Search

Logged in as: NYISO BAdmin | Upload/Download | View Marketplace | Logout

## Joint Energy Scheduling System

Contracts | Bids

Bid Search Results (886) [Create Bid](#)

Transaction ID	Date/HR	Market	Source	Srk	Bid Status	User Ref	Confirmations			Action(s)
							FRP	Buyer	Seller	
1	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
2	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
3	06/20/2014 23:00									
4	06/20/2014 23:00									
5	06/20/2014 23:00									
6	06/20/2014 23:00									
7	06/20/2014 23:00									
8	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	PJM_LOAD_KEystone	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
9	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	PJM_LOAD_KEystone	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
10	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
11	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
12	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
13	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
14	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	PJM_LOAD_KEystone	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
15	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	PJM_LOAD_KEystone	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
16	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	PJM_LOAD_KEystone	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
17	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	PJM_LOAD_KEystone	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
18	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)
19	06/20/2014 23:00 EDT	HAM	NYISO_LBMP_REFERENCE	NE_LOAD_SANDY PD	VALIDATION PASSED	MY USER REF	Y	Y	Y	Action(s)

NOTE SELECTED

NERC Tag:

SCA      PSE      Unique #      RCA

Contract Filters

**Search Bids**

Start Date: 06/20/2014 00:00 EDT

End Date: 06/20/2014 23:01 EDT

Market: None Selected

Bid Schedule Type: None Selected

NERC Tag: SCA   PSE   Unique #   RCA

**Contract Filters**

Transaction ID:

User Ref:

Transaction Type: None Selected

Source: NYISO\_LBMP\_REFERENCE

Srk: None Selected

**Status Filters**

Bid Status: None Selected

NERC Tag Status: None Selected

FRP Status: None Selected

Buyer Status: None Selected

Seller Status: None Selected

reset      search

Actions for Selected: [Delete](#) [Confirm](#) [Unconfirm](#) | Page 1 of 18 | Displaying 1 - 50 of 886



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# Screen Tips

New Bid

In Progress

NERC Tag:

Bid Date: 06/25/2014 00:00 EDT  

Num Hours: 1

Market: HAM

Schedule Type: 15-Min CTS

SCA: 01


PSE: MY PSE

Unique Num: 123

RCA: NYIS

Curve Time Frame: 00:00 - 00:14 Energy Profile MW: 10


Point	1	2	3	4	5	6	7	8	9	10	11
MW	10	20	30	40	50	60	70	80	90	100	110
\$ Price	10	20	30	40	50	60	70	80	90	100	110

use single curve: 
 default curve: 



Curve Time Frame: 00:15 - 00:29 Energy Profile MW: 11

Point	1	2	3	4	5	6	7	8	9	10	11
MW	1	2	3	4	5	6	7	8	9	10	11
\$ Price	1	2	3	4	5	6	7	8	9	10	11

default curve: 

**Default Bid Curve**  
 Identifies which one of the four bid curves will be used for scheduling for the entire hour in the event that 15-minute scheduling has been disabled.

# Upload/Download Templates

- ◆ Format of the upload/download templates is being revised to accommodate new fields for CTS bidding and 15-minute bids curves
- ◆ Changes to the following templates:
  - *Submit Bid; EXT\_TRAN\_BID*
  - *Download Bids and Schedules; EXT\_TRAN\_SCH*
- ◆ Revised template specifications posted with today's MIWG meeting materials

# Training Sessions –WebEx

- ◆ Training sessions are being scheduled for the following dates:
  - *Week of August 28; 3 sessions*
  - *Week of September 5; 2 sessions*
- ◆ Delivered via WebEx
- ◆ Registration Details to be announced

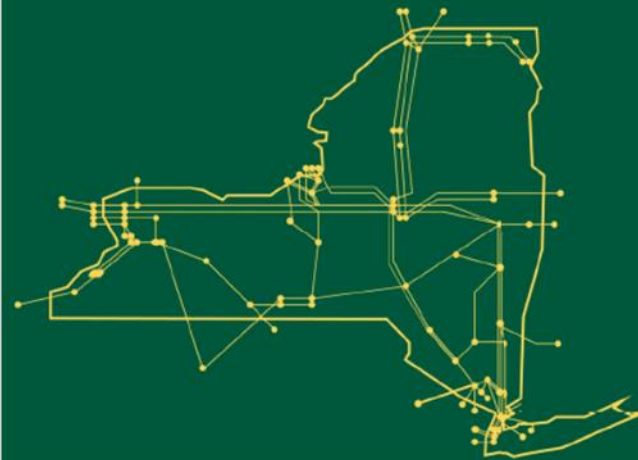
# Sandbox Testing

- ◆ Sandbox testing sessions are planned for the following:
  - *September 2 - 4*
  - *September 16 - 18*
  - *September 30 - October 2*
- ◆ All JESS users are urged to participate in Sandbox testing regardless of whether or not they plan to use CTS bids or 15-minute bid curves because these changes will impact all JESS users

# Timeline

- ◆ Review JESS enhancements for CTS Bidding and 15-minute bid curves
  - 11/1/2013 – MIWG
  - 7/7/2014 – MIWG
- ◆ **MP training –August/September**
- ◆ **Sandbox testing –September/October**
- ◆ **Software deployment –October**
- ◆ **15-minute bid curve activation –October**
- ◆ **CTS bidding activation –November**

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