Convergence bidding on the interties

Note: On 4/29/2015 this project was placed on hold. The delay will be in effect pending further FERC Commission order.

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Agenda

- Review of business requirements
  - Why convergence bidding (CB) on the interties was delayed
  - Precautions that have been put in place
  - Staging of position limits
  - How it settles
- Application changes
  - SIBR
  - CMRI
  - OASIS

Agenda (continued)

- Transaction IDs
  - Why they're necessary
  - What they look like
- Important milestones
  - Market simulation
  - Go live
- Open forum

Business requirements – Why CB on the interties was delayed

- CB on the interties initially went live on 2/1/2011 and was suspended on 11/28/2011. Reasons why it was suspended:
  - Market inefficiencies
  - Excessive real-time imbalance energy offset uplift charges

Business requirements – Precautions that have been put in place

- Day-ahead dual constraint
  - With FERC Order 764, "physical only" E-tagging constraint has been removed
    - Physical only constraint will be maintained in RUC
    - Mechanism has been put in place to ensure that artificial constraints will not create reliability concerns
    - IFM schedules not allowed to tag in the day-ahead due to RUC will not be subject to existing HASP reversal rule

Business requirements – Staging of position limits

- Intertie limits for CB awards will be set at:
  - 0% 15-minute market implementation to 12 months (completed)
  - 5% for 12-20 months
  - 25% for 20-24 months
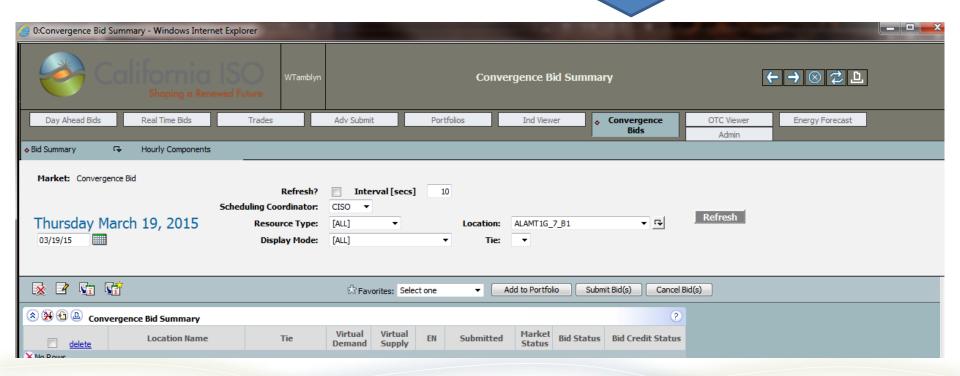 - 50% for 24-28 months
  - No limit after 28 months

Business requirements – How it settles

- Virtual supply awards
  - Receive day-ahead locational marginal price (LMP) and pay the 15-minute LMP

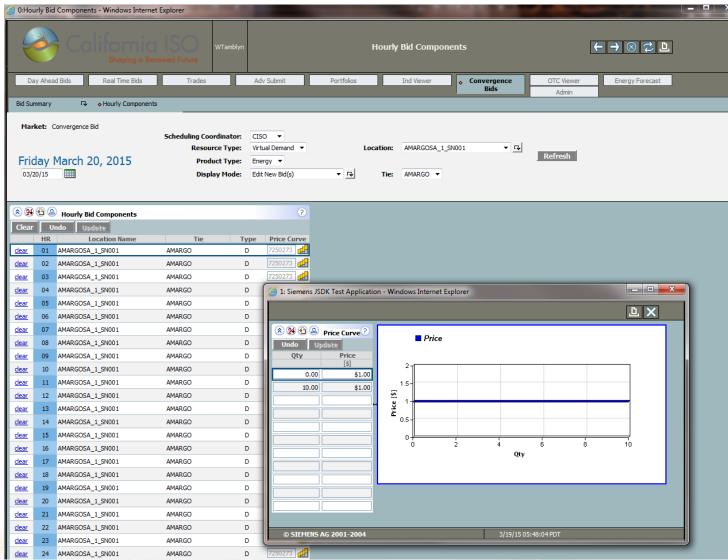- Virtual demand awards
  - Pay the day-ahead LMP and receive the 15-minute LMP

Application changes - SIBR

Within the Convergence Bids section, Bid Summary and Hourly Components have "Tie" indications where appropriate now.
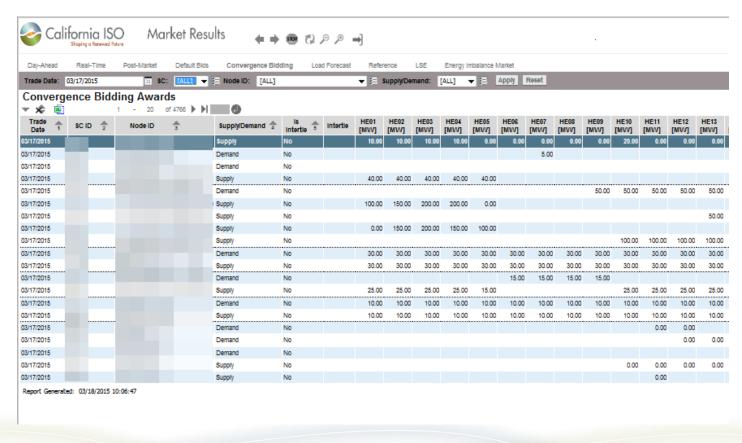
Application changes - SIBR

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Application changes - CMRI

- No changes (was already part of fall 2014 release)!

Application changes - OASIS

A new "CB Node Listing" report will show eligible nodes and tie/combinations for Convergence Bidding.

Note - "Convergence Bidding Public Bids" download report will include a new "Tie" column. (Sample not available)

Convergence Bidding Node Listing

1 - 20 of 2794

Node ID	Tie	CB Start Effective Date	CB End Effective Date
0096WD_7_N002		01/15/2015	12/31/2030 23:59:59
3EMIDIO_6_N001		01/26/2011	12/31/2030 23:59:59
3EMIDIO_6_N002		01/26/2011	12/31/2030 23:59:59
4C744C12_7_N002		01/15/2015	12/31/2030 23:59:59
4C744C32_7_N002		01/15/2015	12/31/2030 23:59:59
A100US_1_B1		02/28/2013	12/31/2030 23:59:59
ACTONSC_6_N001		10/13/2011	12/31/2030 23:59:59
ADCC_2_N001		01/26/2011	12/31/2030 23:59:59
AEC300_1_N001		01/26/2011	12/31/2030 23:59:59
AGNEW_1_N003		01/26/2011	12/31/2030 23:59:59
AGRILINK_6_N001		01/26/2011	12/31/2030 23:59:59
AGUCALG1_7_B1		06/25/2012	12/31/2030 23:59:59
AIRPROD_1_N001		01/26/2011	12/31/2030 23:59:59
AIRWAYS_1_N001		01/26/2011	12/31/2030 23:59:59
AIRWAYS_1_N004		01/26/2011	12/31/2030 23:59:59
ALAMITOS_2_N001		01/26/2011	12/31/2030 23:59:59
ALAMITOS_2_N040		01/26/2011	12/31/2030 23:59:59
ALAMOSC_7_N001		11/27/2013	12/31/2030 23:59:59
ALAMT1G_7_B1		01/26/2011	12/31/2030 23:59:59
ALAMT2G_7_B1		01/26/2011	12/31/2030 23:59:59

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Application changes - OASIS

"Reference Price" report will include a new "Tie" column.

Reference Prices

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Effective Start Date ▲1	Effective End Date ▲2	Node ID ▲3	Tie ▲4	Supply Reference Price	Demand Reference Price
01/01/2015	03/31/2015	BLUESKY_7_N001		19.37	28.72
01/01/2015	03/31/2015	BLYTHESC_1_GN001		18.86	36.61
01/01/2015	03/31/2015	BLYTHESC_1_N005		18.86	36.61
01/01/2015	03/31/2015	BNAVSTA_6_N001		18.65	27.21
01/01/2015	03/31/2015	BNAVSTA_6_N002		18.65	27.21
01/01/2015	03/31/2015	BNAVSTA_6_N003		18.65	27.21
01/01/2015	03/31/2015	BNTACRB_6_N001		20.34	27.68
01/01/2015	03/31/2015	BOGUE_1_N001		19.12	27.89
01/01/2015	03/31/2015	BOGUE_1_N201		19.12	27.89
01/01/2015	03/31/2015	BOLINAS_6_N001		18.90	27.50
01/01/2015	03/31/2015	BOLLMAN_1_N003		18.37	27.33
01/01/2015	03/31/2015	BOLTHSE_1_N009		17.84	29.23
01/01/2015	03/31/2015	BONITA_6_N001		19.37	28.24
01/01/2015	03/31/2015	BONNIEN_7_N001		19.64	26.90
01/01/2015	03/31/2015	BONNIEN_7_N002		19.64	26.90
01/01/2015	03/31/2015	BORDEN_2_N007		18.97	28.00
01/01/2015	03/31/2015	BORDEN_2_N008		18.97	28.00
01/01/2015	03/31/2015	BORDER_6_N001		20.29	34.07
01/01/2015	03/31/2015	BORDER_6_N008		20.29	34.07
01/01/2015	03/31/2015	BORONDA_6_N001		18.58	27.04

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Why do we need to use transaction IDs?

- The network model has expanded and now provides multiple possibilities for scheduling with the ISO.
  - Using the master file for each resource's physical registration is becoming increasingly impractical.

- Uniquely identifies static system resource bids and schedules

- Certain types of system resources will still be registered in the master file

Registered Intertie Resources

- Resources with resource adequacy obligations

- ETC/TOR contracts

- Certified to provide ancillary services

- IBAA agreements for transmission loss adjustment

- Trans Bay Cable resource ID

- Resource recirculating resource ID

- Losses, Inadvertent payback, emergency assistance

- MSS load following

- EIM transfer schedule defined by intertie and transmission service provider

Intertie transaction inputs

Field	Description
Scheduling Coordinator	Scheduling Coordinator identifier (required)
Scheduling Point	Intertie Scheduling Point identifier (required)
Primary Tie	Primary Intertie identifier (required)
Direction	Direction (required): I for import, E for export
Bid Type	Bid Type (inserted): P for physical, ~~V for Virtual~~
Alternate Tie	Alternate Intertie identifier (optional)
Energy Type	Energy Type (required for physical transactions): F – Firm N – Non-Firm U – Unit Contingent D – Dynamic Interchange W – Wheeling
Purchase- Selling Entity Identifier	A registered Purchase-Selling Entity identifier (required for physical transactions); allow PSE, PSE.1, PSE.2 …PSE.9

Intertie Transaction - fictitious examples

Non-resource specific physical import bid :

SC05-AMARGOSA_1_SN001-AMARGO-I-P-F-DECM01
SC05-AMARGOSA_1_SN001-AMARGO-I-P-F-DECM01.1
SC05-AMARGOSA_1_SN001-AMARGO-I-P-F-DECM01.2
SC05-AMARGOSA_1_SN001-AMARGO-I-P-F-DECM01.9

Non-resource specific physical export bid:

SC05-AMARGOSA_1_SN001-AMARGO-E-P-F-DECM01
SC05-AMARGOSA_1_SN001-AMARGO-E-P-F-DECM01.1

Scheduling Coordinator

Intertie Scheduling Point
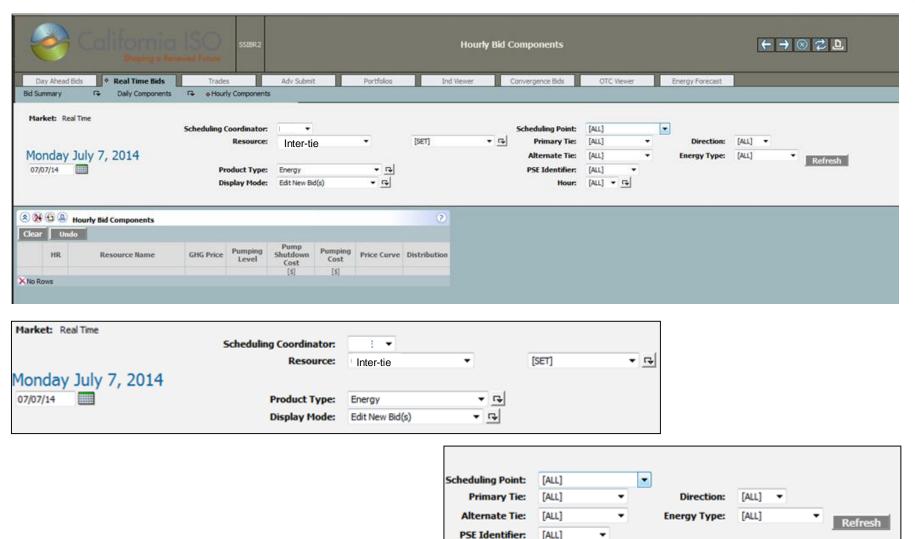
Primary Intertie Identifier

Direction
Bid Type
Energy Type

Purchase-Selling Entity Identifier

SIBR UI

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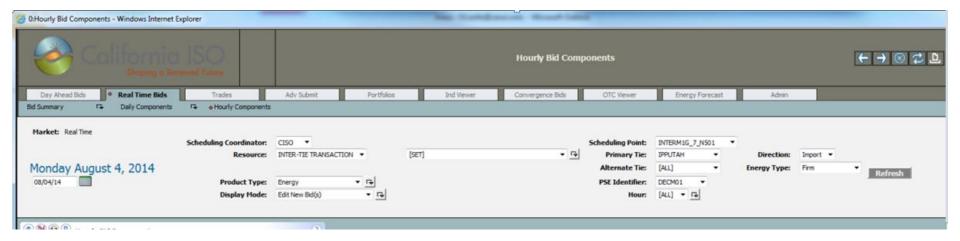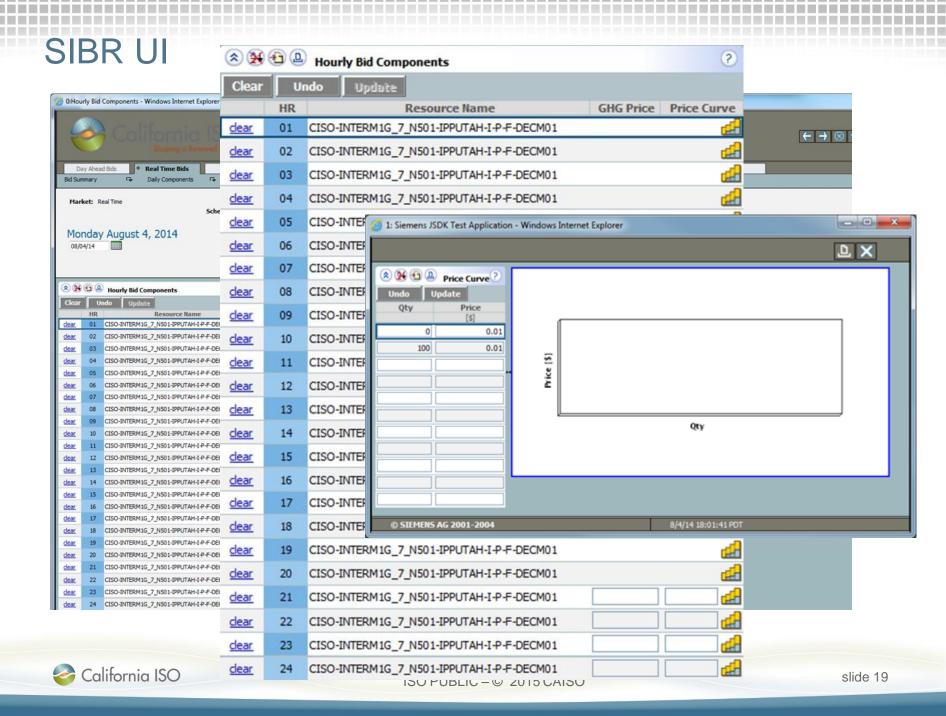
SIBR UI

Go to "Transaction ID Illustration" document

http://www.caiso.com/Documents/TransactionID_Illustration.pdf

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Transaction ID

Transaction ID	SC ID	Aggregated Pnode	Individual Pnode	Direction	Primary Flowgate ID	Secondary Flowgate ID
ABCD BLYTHE_1_N101-BLYTHE161-E-P-N-DECM01	ABCD	BLYTHE_1_N101		E	BLYTHE161	
ABCD CAPTJACK_5_N504-WESTLYTSLA-I-P-F-DECM01	ABCD	CAPTJACK_5_N504		I	WESTLYTSLA	
ABCD CAPTJACK_5_N509-LLL115-I-P-F-DECM01	ABCD	CAPTJACK_5_N509		I	LLL115	

Energy Type	Purchase Service Entity	Wheeling Resource ID	Wheeling Resource Registered Flag
NFRM	DECM01		
FIRM	DECM01		
FIRM	DECM01		

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Important milestones

- Market simulation starts 3/31/2015
- "Go live" starts 5/1/2015 (remember the staging)
  - 5% for 12-20 months
  - 25% for 20-24 months
  - 50% for 24-28 months
  - No limit after 28 months

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Open forum

Note: Please contact your client representative if you have additional questions.