

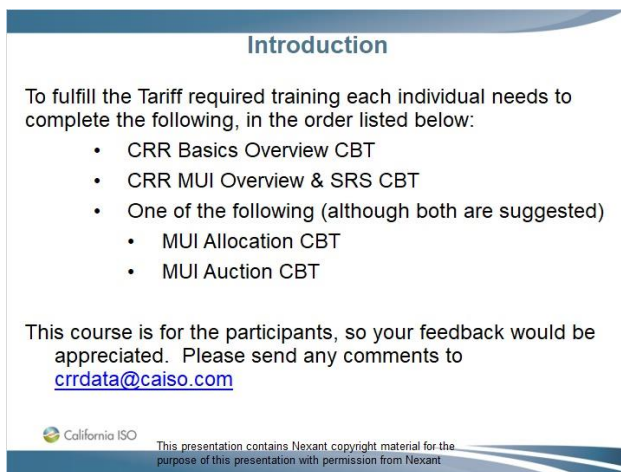
MUI Auction Overview

1. CRR MUI Training - Auction_CBT_2014_04_03

1.1 Congestion Revenue Rights (CRR)



1.2 Introduction



1.3 Goal of this Training Course

Goal of this Training Course

Provide an overview of the various CRR processes that participants should understand in order to be able to participate in the CRR Allocation and/or CRR Auction. This course will specifically focus on the use of the Market User Interface as it relates to the auction processes.



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1.4 Auction Processes - Agenda

Auction Processes - Agenda

In this presentation we will discuss the following topics related to Congestion Revenue Rights and the auction process:

- Auction parameters
- Bid curves
- Portfolio creation / editing / deleting
- Credit margin
- Credit validation
- Portfolio validation and possible errors




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1.5 Auction Portfolio - Overview

Auction Portfolio - Overview


- Important parameters in the auction market
 - Each bid can contain a maximum number of 20 breakpoints.
 - Maximum bids allowed per portfolio is 1000.
 - Maximum bids allowed per market participant per auction is 100,000.
 - Minimum credit requirement for participating in a monthly auction market is \$100,000.
 - Minimum credit requirement for participating in a seasonal auction market is \$500,000.

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1.6 Auction Portfolio - Overview

Auction Portfolio - Overview

- Important parameters in the auction market
 - Bid prices are for a CRR term and time-of-use. For example, in the monthly auction the CRR bid is for either all on peak or off peak hours within the month. For the annual auction the CRR bid is for either all on peak or off hours within a season/quarter.
 - Sell bids can be submitted by offering to buy a counter-flow direction for a negative bid price.
 - Sell bids are only taken by the optimization if a counter-party is willing to pay for the counter-flow provided by the sell bid.

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1.7 Auction Portfolio - Overview

Auction Portfolio - Overview

- CRR bid is composed of breakpoints (minimum 2)
 - Each breakpoint has a MW and \$ value (first MW value is 0)
 - CRR bid curves will be piecewise linear
 - CRR **buy** bid curves must be *monotonically non-increasing*
 - CRR **sell** bid curves must be *monotonically non-decreasing*
 - MW of the last breakpoint implies the maximum MW amount
 - Below example is for a buy bid curve

MW	Price (\$/MW)
0	2800
100	2800
100	2000
250	2000
350	400
400	400

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1.8 Auction Portfolio List – Current

Auction Portfolio List – Current

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CRR SYSTEM
Welcome CRR3 Full Access (WPP-ICCA) | Return to E...

Public CRR | Private CRR | Downloads | Messages | Auction Portfolio | Allocation Portfolio | Secondary Market

Private CRR > Auction Portfolio

Click here to see the user's list of CRR auction bid/offer portfolios

Portfolio Name	Historical/Forecasted Load	Download	Auction Name	Submit to Auction	Remove from Auction	Delete	Bid Exposure	Error Message
Test	2010-11-12T13:22:19-0900	XML						

Refresh Add New Upload Delete

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This box contains the portfolio bid exposure value. It is only populated for a submitted or accepted portfolio. Exposure values for rejected bids can be found in your private messages.

Current tab displays the portfolios that are either being submitted to an open auction or have never been submitted to any auctions.

The user can prepare any number of CRR auction portfolios, and submit them all to a given auction.

Click to download a portfolio in XML format – this will prompt for the name of the file to be saved to

This box contains a link named "Submit" if the portfolio is assigned to the current auction. Click to submit the portfolio to auction – then "Submit" disappears and "Remove" appears in the next column

This box contains a link named "Remove" if a portfolio has been submitted and the auction window is open. Click to withdraw

This box contains bid error information. Click on the link to display details. Errors may also be viewed via private messages.

1.9 Auction Portfolio List - Historical

Auction Portfolio List - Historical

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Public CRR Private CRR
Private CRR > Auction Portfolio List

Click here to see the user's list of CRR auction bid/offer portfolios

Historical tab shows a list of portfolios submitted to auctions which their bidding window have been closed.

Portfolio Name	Submitted	Download	Auction Name	Make a copy as Template
Test	2012-03-22T16:01:34-0700	XML	AUC_MH_2012_M04_T0	Copy

Portfolio Name at time of submission appears here.

Date this portfolio was submitted

Click here to download the portfolio.

Market for which this portfolio was submitted to.

Copy this portfolio to move over to the current tab.

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1.10 Portfolio Management

Portfolio Management

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Public CRR Private CRR
Private CRR > Auction Portfolio List

Click on Upload to upload a portfolio file created externally

Portfolio Name	Date Modified	Download	Auction Name	Submit to Auction	Remove from Auction	Delete	Bid Exp.	Error Message
Test	2010-11-12T13:22:19-0800	XML						

Click on a portfolio name to view and/or modify it in the Portfolio Editor

Click on Add New to create a new portfolio using CRR System user interface

Click on Delete after selecting the portfolio to be deleted

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1.11 Auction Portfolio Editor

Auction Portfolio Editor

The screenshot shows the Auction Portfolio Editor interface. It includes a header with the title "Auction Portfolio Editor" and a breadcrumb "Profile CRB > Auction Portfolio Editor". Below the header, there are several input fields and a table. Callouts point to the following elements:

- Name of the portfolio:** Points to the "Portfolio Name" field.
- Select to save to auction or save as a template:** Points to the "Save" and "Save as Template" buttons.
- Pull down menu to select a different portfolio to edit:** Points to the "Select Another Portfolio" dropdown menu.
- Brief description of the portfolio (optional):** Points to the "Description (Optional)" field.
- Expand to see list of Asset Owners and source sink list:** Points to the "Expand" button next to the "Asset Owners" and "Source Sink List" sections.

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1.12 Auction Portfolio Editor

Auction Portfolio Editor

The screenshot shows the Auction Portfolio Editor interface, focusing on the table of portfolio entries. Callouts point to the following actions:

- ADD inserts a blank line:** Points to the "ADD" button.
- REMOVE deletes the selected line:** Points to the "REMOVE" button.
- SAVE saves this portfolio, and returns to the Portfolio List:** Points to the "SAVE" button.
- BACK returns to the Portfolio List page before making any changes:** Points to the "BACK" button.

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1.13 Auction Portfolio Editor

Auction Portfolio Editor

Note: To ensure that you are selecting the most current AP nodes, we recommend that you select the market name first.

To populate the Asset Owner, Source and Sink select the appropriate "Set" button

There are two categories in this window Asset Owners and Sources/Sinks

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1.14 Auction Portfolio Editor

Auction Portfolio Editor

Market effective start and end date

Market open and close date. Open time is 0100 and close time is 1700 (PT)

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1.15 Auction Portfolio Editor

Auction Portfolio Editor – Buy Bids

The screenshot shows the 'Auction Portfolio Editor – Buy Bids' interface. It includes a header with 'Portfolio Name' and 'Description/Type' fields. Below this is a table with columns for 'MW', 'Price', 'MW', 'Price', 'MW', 'Price', 'MW', 'Price'. A 'Bid Curve' table is also visible on the right side of the interface.

Callout boxes provide the following information:

- The CRR Buy Bids tab only allows BUY bids and only as Obligations
- Click here to obtain the drop-down menu for selection of ON-PEAK and OFF-PEAK
- AUC is the only CRR type allowed in the auction market for buy bids

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1.16 Auction Portfolio Editor

Auction Portfolio Editor – Buy Bid

The screenshot shows the 'Auction Portfolio Editor – Buy Bid' interface. It includes a header with 'Portfolio Name' and 'Description/Type' fields. Below this is a table with columns for 'MW', 'Price', 'MW', 'Price', 'MW', 'Price', 'MW', 'Price'. A 'Bid Curve' table is also visible on the right side of the interface.

Callout boxes provide the following information:

- Click here to display the bid curve table
- Enter or change the MW and Price values in the table
- Add a bid segment to the bid
- Delete the selected bid segment
- Save all the changes made to the bid curve
- Cancel disregard all the changes made to the bid curve

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1.17 Auction Portfolio Editor

Auction Portfolio Editor – Sell Bids

The CRR Sell Bids tab allows any CRR that is held by the bidder and that is active for the period of the auction to be offered for sale

A market needs to be selected first before the drop down to the right will be populated

The CRR type is populated based on the CRR being offered for sale. The purchaser will hold an AUC type CRR if awarded

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1.18 Auction Portfolio Editor

Auction Portfolio Editor – Sell Bids

To create a sell offer manually first click on the ADD button

Find the CRR in the drop down list you want to offer for sale. By double clicking on the row that contains start/end date the user will see the details of the CRR

When the CRR has been selected click on Set CRR button and the data will be populated in the row that was added

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1.19 Auction Portfolio Editor

Auction Portfolio Editor – Sell Bids

1) Click here to display the bid curve table

2) Enter or change the MW and Price values in the table

3) Add a bid segment to the bid

4) Delete the selected bid segment

5) Save all the changes made to the bid curve

6) Cancel disregard all the changes made to the bid curve

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1.20 Auction Portfolio Editor

Auction Portfolio Editor

By clicking on the plus button the system will display a detail message below the bid

2) Line with the error will be highlighted in yellow

1) Sometimes you receive an error message stating that credit margin data is missing

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1.21 Auction Portfolio Editor

Auction Portfolio Editor

Portfolio Name: [Field]
Description/Contract: [Field]

ID	Product	Unit	Quantity	Price	Order Type	Time	Order Status
1	1000	1000	1000	1000	1000	1000	1000
2	1000	1000	1000	1000	1000	1000	1000
3	1000	1000	1000	1000	1000	1000	1000

Please save the portfolio as template

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1.22 Auction Portfolio Editor

Auction Portfolio Editor

Automated credit margin process is as follows:

- Submit a bid via the CRR system. If you receive an error message regarding missing credit margin data, save your portfolio as a template.
- Try re-submitting your bid an hour later or after the next scheduled run time.
- The scheduled run times of this correction process is as follows:
 - All Auction days excluding last day - 5:00, 8:30, 9:30, 10:30, 11:30, 12:30PM, 1:30PM, 2:30PM, 3:30PM, 4:30PM, 5:30PM, 9:00PM
 - Last Day - 5:00, 8:30, 9:30, 10:30, 11:30, 12:30PM, 1:30PM, 2:30PM, 3:30PM, 4:30PM

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1.23 Auction Portfolio Editor

Auction Portfolio Editor

Portfolio Name	Set Method	Default	Auction Name	Submit to Auction	Market Name	Auto	Set Exposure	Call
CSL_2013_2014	2013-01-01-10-00	REL	REL_AU_2013_2014	REL				Call
REL	2013-04-15-10-00	REL						Call
REL_AU_13	2013-01-01-10-00	REL						Call

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1.24 Auction Portfolio Editor

Auction Portfolio Editor


Portfolio Name	Set Method	Default	Auction Name	Submit to Auction	Market Name	Auto	Set Exposure	Call
CSL_2013_2014	2013-01-01-10-00	REL	REL_AU_2013_2014	REL				Call
REL	2013-04-15-10-00	REL						Call
REL_AU_13	2013-01-01-10-00	REL						Call

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1.25 Auction Portfolio Editor

Auction Portfolio Editor



Portfolio Name	Date Range	Status	Auction Name	Quantity	Market Type	Date	Bid Location	Price
Day 1 Portfolio	2019-11-27 11:00:00 - 2019-11-27 11:00:00	OK	AGC_10000000000000000000	10000000000000000000	Day 1	2019-11-27 11:00:00	AGC	0.00000000000000000000
Day 2 Portfolio	2019-11-27 11:00:00 - 2019-11-27 11:00:00	OK	AGC_10000000000000000000	10000000000000000000	Day 2	2019-11-27 11:00:00	AGC	0.00000000000000000000


If the portfolio is rejected by CTS, the Submit button becomes enabled again and an Error Message is available

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1.26 Auction Portfolio Editor

Auction Portfolio Editor



Portfolio Name	Date Range	Status	Auction Name	Quantity	Market Type	Date	Bid Location	Price
Day 1 Portfolio	2019-11-27 11:00:00 - 2019-11-27 11:00:00	OK	AGC_10000000000000000000	10000000000000000000	Day 1	2019-11-27 11:00:00	AGC	0.00000000000000000000
Day 2 Portfolio	2019-11-27 11:00:00 - 2019-11-27 11:00:00	OK	AGC_10000000000000000000	10000000000000000000	Day 2	2019-11-27 11:00:00	AGC	0.00000000000000000000

Click on link to see the detail message

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1.27 Auction Portfolio Editor

Auction Portfolio Editor

Private CTS > Auction Portfolio List

Portfolio Name	Asset Number	Contract	Market Name	Market	Market Type	Order	Market Status
Day 1 (Market)	2016-11-27T19:19:00-08:00	166	ASC_ML2016_01_17_1	Asset			Open
Day 2 (Market)	2016-11-27T19:19:00-08:00	166	ASC_ML2016_01_17_1	Asset			Open

You may modify this portfolio and submit it again to CTS or contact the ISO Finance Department to post additional secured collateral.

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1.28 Auction Portfolio Editor

Auction Portfolio Editor

Private CTS > Auction Portfolio List

Portfolio Name	Asset Number	Contract	Market Name	Market	Market Type	Order	Market Status
Day 1 (Market)	2016-11-27T19:19:00-08:00	166	ASC_ML2016_01_17_1	Asset			Open
Day 2 (Market)	2016-11-27T19:19:00-08:00	166	ASC_ML2016_01_17_1	Asset			Open

Bid Exposure for this portfolio is populated here

Once successfully submitted to the Auction market, the Remove button is enabled


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1.29 Auction Portfolio Editor


Auction Portfolio Editor

- The schedule for updates to the CRR Bid Liability (Column I) Values on the Credit Management section of the Market Participant Portal (Parent-Child EAL Report) will take place at fifteen minute intervals during the open submittal window for the CRR auction as follows:
 - HH:05
 - HH:20
 - HH:35
 - HH:50
- When canceling the submitted portfolios or posting additional secured collaterals, please give sufficient time for credit management to reflect the latest available secured collateral value to be used in the auction based on the above schedules.


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1.30 Auction Portfolio Editor

Auction Portfolio Editor



The screenshot shows the 'Private CRR - Auction Portfolio List' interface. A table lists several portfolios with columns for Portfolio Name, Date Modified, Submitted, Auction Date, and Bid Price. A yellow callout box labeled '1) Click Remove' points to the 'Remove' button in the table's action column. Below the table, a confirmation dialog box is displayed with the text: 'portalstage.caiso.com says: Are you sure you want to remove the Portfolio from being submitted to Auction?'. A yellow callout box labeled '2) Confirm Action' points to the 'OK' button in the dialog.

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1.31 Auction Portfolio Editor

Auction Portfolio Editor

Auction Name	Date	Status	Amount
New Contract 2010	2010-11-01 11:00:00	Processing	\$1,000,000.00
New Contract 2010	2010-11-01 11:00:00	Completed	\$1,000,000.00
New Contract 2010	2010-11-01 11:00:00	Completed	\$1,000,000.00

3) Processing

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1.32 Auction Portfolio Editor

Auction Portfolio Editor

Auction Name	Date	Status	Amount
New Contract 2010	2010-11-01 11:00:00	Processing	\$1,000,000.00
New Contract 2010	2010-11-01 11:00:00	Completed	\$1,000,000.00
New Contract 2010	2010-11-01 11:00:00	Completed	\$1,000,000.00

4) Submit button is enabled

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1.33 Auction Portfolio Editor

Auction Portfolio Editor

Public CRM Private CRM Auction Portfolio List

Portfolio Name	Contract	Contract Name	Market	Market Type	Order	Marketplace	Market
2017-12-21-2018	MS	AUC_ML_2018_PLC_12	MS	MS			
2018-01-02-2018	MS	AUC_ML_2018_PLC_12	MS	MS			
2018-02-19-2018	MS	AUC_ML_2018_PLC_12	MS	MS			

5) Click on Portfolio Name

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1.34 Auction Portfolio Editor

Auction Portfolio Editor

Public CRM Private CRM Auction Portfolio Editor

Portfolio Name: [Text Field]

Select Auction Portfolio: [Dropdown Menu]

Start Date: 12/21/2017 End Date: 12/21/2017 Open Date: 11/21/2017 Close Date: 11/21/2017

Save [Button] [Dropdown Menu]

7) Save

6) Select Template to save as template

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1.35 Auction Portfolio Editor

Auction Portfolio Editor

Public CRM Private CRM
Private CRM > Auction Portfolio List

Portfolio Name	Start/End Dates	Contract	Auction Name	Market	Market Type	Order	Delivered	Cancel
Use Contract	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z
Use 1	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z
Use Contract 2018	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z

8) Portfolio is now a template

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1.36 Auction Portfolio Editor

Auction Portfolio Editor

Public CRM Private CRM
Private CRM > Auction Portfolio List

Portfolio Name	Start/End Dates	Contract	Auction Name	Market	Market Type	Order	Delivered	Cancel
Use Contract	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z
Use 1	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z
Use Contract 2018	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z	2018-11-07T18:00:00Z

9) Check the Delete box next to portfolio you want to remove

10) Click Delete to Remove from Auction Portfolio List

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1.37 Auction Portfolio Editor

Auction Portfolio Editor

The following error messages are displayed when there is a problem uploading a portfolio

- If upload size file is bigger than 4 MB, the error message: "The upload portfolio file size is over 4MB"
- If the upload file is not an XML file , the error message: "The upload file type is not valid"
- If there is no file to upload, the error message: "There is no XML file to upload"
- If there are no bids in the upload file, the error message: "No auction portfolio bids found in the upload file"
- If there are no valid bids in the XML file, the error message: "No valid bids to upload!"
- If there is an IO exception that is not covered above, the error message: "System file input/output exception occurs"
- If the portfolio upload XML file format does not match the XSD file format, the error message: "XML parsing exception occurs!"

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1.38 Auction Processes - Questions

Auction Processes - Questions

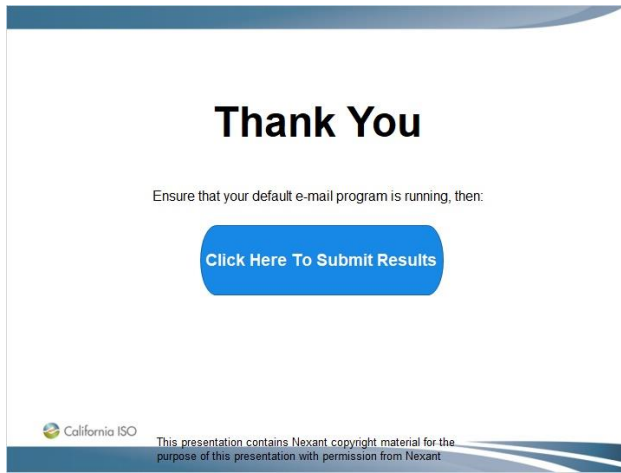
In this presentation we discussed the following topics related to Congestion Revenue Rights and the auction process:

- Auction parameters
- Bid curves
- Portfolio creation / editing / deleting
- Credit margin
- Credit validation
- Portfolio validation and possible errors

End of CRR MUI Auction training section

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1.39 End - Thank You



Thank You

Ensure that your default e-mail program is running, then:

[Click Here To Submit Results](#)

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