

Market Modeling Data User Guide

Version 1.0 October 7, 2013

| | Template Version No: | 1.0 |
|--------------------------|------------------------|------------|
| Shaping a Renewed Future | Template Version Date: | 08/09/2011 |
| User Guide | Effective Date: | 08/09/2011 |

REVISION HISTORY

| VERSION NO. | DATE | DESCRIPTION |
|-------------|------------|-----------------|
| 1.0 | 10/07/2013 | Initial version |
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User Guide

Introduction

In addition to the full network model, the ISO provides participants with modeling data used in the operation of the ISO markets. This information is referred to as Market Modeling Data (MMD) or protected data. MMD is furnished to all interested parties, however because MMD is sensitive, the ISO controls access to the data and requires parties to sign a non-disclosure agreement.

MMD includes the following information for the day-ahead market:

- 1. Flowgate constraint enforcement status.
- 2. Nonogram constraint definitions and enforcement status, including minimum on-line constraints (MOC).
- 3. Contingency definition and enforcement status.
- 4. Transmission corridor definition and enforcement status.
- 5. Actual load distribution factors

MMD also includes the following information for both the day-ahead and real-time markets:

- 1. Limits for flowgates, nomograms and transmission corridors
- 2. Congestion shift factors

This document outlines the process for obtaining access to MMD. In addition the document indicates where the data may be viewed and downloaded.

Getting access to MMD/protected data

The following two steps are required to obtain access to MMD/protected data:

1. Fill out and submit the non-disclosure agreement.

The non-disclosure agreements are found on the Application access page under the heading 'Nondisclosure agreements'. Please use the following link: <u>http://www.caiso.com/participate/Pages/ApplicationAccess/Default.aspx</u>

Look for the sub-heading titled 'Protected data non-disclosure agreement and instructions'. Both the agreement and instructions for submitting the agreement and contained here. See screenshot below.

Non-disclosure agreements

Certain secure planning and market systems data are available upon compliance with the applicable Submission Instructions and submittal of a non-disclosure agreement. Requesting entities must be members of the Western Electricity Coordinating Council (WECC) or have an approved WECC Base Case Data Request Package prior to requesting access to this data.

- Transmission planning non-disclosure agreement and instructions
- Congestion revenue rights full network model non-disclosure agreement and instructions 🗗
- Protected data non-disclosure agreement and instructions P

Protected Data Non-Disclosure Agreement Submission Instructions 6/14/2013 08:15 Protected Data Non-Disclosure Agreement 7/30/2013 11:41

2. Fill out and submit the application access form with a request for MMD.

The External User Application Access Request Form (AARF) is also located on the Application access under the heading 'System access and security information'. Please use the following link: <u>http://www.caiso.com/participate/Pages/ApplicationAccess/Default.aspx</u>

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Look for the sub-heading titled 'Application access request forms and application installation instructions'. See screenshot below.

System access and security information

The ISO has security requirements for accessing the ISO system and applications. You can find security and access policies and information about our application process here.

Application access request forms and application installation instructions

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In the Excel form, look for the MMD row, set the action to 'ADD' and set the environment to 'Production'. Instructions for submitting the form are contained on the form. See screenshot below.

| Click here to select action | Master File (User Interface) | | Production Market Simulation | Click Here To Select Role For Access (Required) | |
|---|--|------------|---|--|--|
| ADD | MMD (Market Modeling Data) | <u>N/A</u> | Production Market Simulation | | |
| Please read the Submission Instructions and then complete the NDA and Exhibits for Protected Data (Click here for the link) | | | | | |
| Click here to select action | MRI-S (Market Results Interface Settlements) | | Production Market Simulation | | |

Viewing and downloading MMD

Once approval has been given, you will either be sent a new ISO security certificate, or your existing security certificate will be given access to MMD. Instructions for installing a new certificate should be provided with the certificate.

Information about each report is described in the business practice manual for market instruments, sections 10.2.1 through 10.2.8. See <u>http://bpmcm.caiso.com/Pages/BPMLibrary.aspx</u> for the business practice manual library.

MMD can be viewed at the following two locations:

 Transmission constraint definition and enforcement information can be found on CMRI (<u>https://portal.caiso.com/cmri</u>). If your computer has a certificate installed, you should see a Transmission Constraints tab on the CMRI screen. Five reports are available for viewing or download to Excel.

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| California ISC Shaping o Renewed Futur | Market Results | ← → ∞ ⊘. | ₽ ≠ ➡ | | |
| Day-Ahead Real-Time | Post-Market Default Bids | Convergence Bidding Lo | ad Forecast | ransmission Const | raints |
| Trade Date: 10/04/2013 | 31 Market: [ALL] | 🗕 🔁 Apply Rese | t | | |
| Flowgate Constrain ▼ 🖈 획 🖨 | n ts 1 - 20 of 10850 ▶ | | | | |
| Trade Date Market Type | Flowgate Name | 1 Туре | 2 Enforce 3 | Competitive A | |

2. Congestion shift factors, transmission constraint limits, and load distribution factors can be found on the portal (<u>https://portal.caiso.com</u>). If your computer has a certificate installed, you should see a Market Modeling Data tab on the portal screen. Clicking on the Market Modeling Data Tab will reveal three folders representing each type of data. Each folder has a subfolder representing the market type (DA for Day Ahead, HASP for Hour Ahead Scheduling Process, and RTD for Real Time market). Within each folder are compressed files representing a day's worth of data in CSV format. The last 90 days are available for download. Note, per the tariff there is a three day lag in the availability of the data.

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| arket M | | | | |
| | lodeling Data | | | |
| lark iis data sclosur | tet Modeling Dat is protected under ISO tariff and re Agreement. | a can only be viewed by or shared wi | h persons that have fully executed the a | pplicable Non- |
| Lo Di: for | oad Distribution Factors splays the load distribution factor r single customer nodes are aggr | s (LDF) s by node used in the Day-Ahead Ma agated and reported by DLAP. | rket. To protect confidential data the loa | d distribution factors |
| Di TI Di or | splays the complete list of shift for ransmission Limits (TL) splays the transmission limits for at the limit. | ctors for all binding constraints. In t all critical constraints in the IFM, HA: | he IFM, HASP, and RTD markets. SP and RTD markets. The term "critical" | refers to being close to |
| ype I | Name | | Modified | |
| | SF_DA_20131004 ! NEW | | 10/7/2013 4:00 AM | |
| | SF_DA_20131003 ! NEW | | 10/6/2013 4:00 AM | |
| | SF_DA_20131002 | | 10/5/2013 4:00 AM | |
| | SF_DA_20131001 | | 10/4/2013 4:00 AM | |
| | SF_DA_20130930 | | 10/3/2013 4:00 AM | |
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