

# **OASIS Data Downloading Usage Model**

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Version 1.0  
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## REVISION HISTORY

VERSION NO.	DATE	DESCRIPTION
1.0	04/18/2016	Initial version

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## 1.0 Introduction

This document describes the suggested method for downloading data from the CAISO OASIS site. The CAISO is detecting extremely heavy download requests from some users, which is resulting in sluggish performance for all users. The request frequency in some cases goes well beyond the expected business needs for CAISO Market Participants. Some users are querying the OASIS site in excess of 20,000 times per day.

This usage model was created with the expectation that the load on the OASIS can easily be decreased, if the recommendations below were implemented. If the load can be decreased, the performance for all OASIS users will improve.

## 2.0 General Use for all Data Downloads

### Recommended Use

By observing the Publication and Revisions Log, users can submit requests more efficiently. The CAISO strongly recommends that the users confirm that the data is published to the OASIS database, prior to submitting requests to return report data. Once the required data is published, then users should submit the requests for the required reports. This way the user can eliminate unnecessary requests for the required data.

1. Query the Publications and Revisions log.
2. Review results in order to detect that the required data has posted to the OASIS site.
3. Submit the report query for the required data.

### Publication and Revisions Log Sample Queries

To find-out the Day-Ahead LMP report publication posted on calendar date 04/18/2016:

[http://oasis.caiso.com/oasisapi/SingleZip?queryname=ATL\\_PUB&market\\_run\\_id=DAM&oasis\\_section=PRICES&status=Push\\_Completed&atlpubversion=New&startdatetime=20160418T07:00-0000&enddatetime=20160419T07:00-0000&version=1](http://oasis.caiso.com/oasisapi/SingleZip?queryname=ATL_PUB&market_run_id=DAM&oasis_section=PRICES&status=Push_Completed&atlpubversion=New&startdatetime=20160418T07:00-0000&enddatetime=20160419T07:00-0000&version=1)

Refer to entries with OASIS\_REPORT="PRC\_LMP" as such:

```
<ATLS_DATA>
  <PUBLICATION_DATE>2016-04-18T12:09:53</PUBLICATION_DATE>
  <PUBLICATION_DATE_GMT>2016-04-18T19:09:53-00:00</PUBLICATION_DATE_GMT>
  <OPR_DATE>2016-04-19</OPR_DATE>
  <OPR_HR>0</OPR_HR>
  <OPR_INTERVAL>0</OPR_INTERVAL>
  <OASIS_SECTION>PRICES</OASIS_SECTION>
  <OASIS_REPORT>PRC_LMP</OASIS_REPORT>
  <OASIS_MARKET_RUN_ID>DAM</OASIS_MARKET_RUN_ID>
  <STATUS>Push Completed</STATUS>
  <VERSION>New</VERSION>
  <COMMENTS>Push Completed</COMMENTS>
```

To find-out the RTD/5-minute LMP report publication posted on calendar date 04/18/2016:

[http://oasis.caiso.com/oasisapi/SingleZip?queryname=ATL\\_PUB&market\\_run\\_id=RTM&oasis\\_section=PRICES&status=Push\\_Completed&atlpubversion=New&startdatetime=20160418T07:00-0000&enddatetime=20160419T07:00-0000&version=1](http://oasis.caiso.com/oasisapi/SingleZip?queryname=ATL_PUB&market_run_id=RTM&oasis_section=PRICES&status=Push_Completed&atlpubversion=New&startdatetime=20160418T07:00-0000&enddatetime=20160419T07:00-0000&version=1)

Refer to entries with OASIS\_REPORT="PRC\_INTVL\_LMP" as such:

```
<ATLS_DATA>
  <PUBLICATION_DATE>2016-04-18T20:05:54</PUBLICATION_DATE>
  <PUBLICATION_DATE_GMT>2016-04-19T03:05:54-00:00</PUBLICATION_DATE_GMT>
  <OPR_DATE>2016-04-18</OPR_DATE>
  <OPR_HR>21</OPR_HR>
  <OPR_INTERVAL>3</OPR_INTERVAL>
  <OASIS_SECTION>PRICES</OASIS_SECTION>
  <OASIS_REPORT>PRC_INTVL_LMP</OASIS_REPORT>
  <OASIS_MARKET_RUN_ID>RTM</OASIS_MARKET_RUN_ID>
  <STATUS>Push Completed</STATUS>
  <VERSION>New</VERSION>
  <COMMENTS>Push Completed</COMMENTS>
</ATLS_DATA>
```

To find-out the RTPD/15-minute LMP report publication posted on calendar date 04/18/2016:

[http://oasis.caiso.com/oasisapi/SingleZip?queryname=ATL\\_PUB&market\\_run\\_id=RTPD&oasis\\_section=PRICES&status=Push Completed&atlpubversion=New&startdatetime=20160418T07:00-0000&enddate=20160419T07:00-0000&version=1](http://oasis.caiso.com/oasisapi/SingleZip?queryname=ATL_PUB&market_run_id=RTPD&oasis_section=PRICES&status=Push Completed&atlpubversion=New&startdatetime=20160418T07:00-0000&enddate=20160419T07:00-0000&version=1)

Refer to entries with OASIS\_REPORT="PRC\_RTPD\_LMP" as such:

```
<ATLS_DATA>
  <PUBLICATION_DATE>2016-04-18T02:46:23</PUBLICATION_DATE>
  <PUBLICATION_DATE_GMT>2016-04-18T09:46:23-00:00</PUBLICATION_DATE_GMT>
  <OPR_DATE>2016-04-18</OPR_DATE>
  <OPR_HR>4</OPR_HR>
  <OPR_INTERVAL>2</OPR_INTERVAL>
  <OASIS_SECTION>PRICES</OASIS_SECTION>
  <OASIS_REPORT>PRC_RTPD_LMP</OASIS_REPORT>
  <OASIS_MARKET_RUN_ID>RTPD</OASIS_MARKET_RUN_ID>
  <STATUS>Push Completed</STATUS>
  <VERSION>New</VERSION>
  <COMMENTS>Push Completed</COMMENTS>
</ATLS_DATA>
```

### Alternate Recommended Use for Interval LMP Downloads:

The CAISO Market Notification Service (MNS) can be utilized to detect updated postings for the Interval LMP OASIS data. The RTPA Event Code prompts subscribers that the next Real-Time interval LMP data has posted to OASIS. Details on the MNS are available at the [Application Access Page](#) on the public site, under the "Market Notification Service (MNS)" heading.

Note: The MNS RTPA messages will post at approximately 10-15 seconds after the OASIS Publication and Revisions Log record is created. This is because there is a dependency between the OASIS completion and the MNS message creation.

## 3.0 Usage for Interval (RTM/5-minute) LMP Downloads

### Frequency of requests:

- Should be based on the results from monitoring the Publication and Revisions log for both current real-time and post-market corrections
- Postings to the log will occur approximately every 5 minutes for current real-time market publication

**Use Case #1:** User needs to detect the most recent Interval LMP data for the three Trading Hubs. (TH\_NP15\_GEN-APND, TH\_SP15\_GEN-APND, TH\_ZP26\_GEN-APND)

**Recommended Query:** PRC\_CURR\_HUB\_LMP

The PRC\_CURR\_HUB\_LMP query returns the most recent Interval LMP data for the three Trading Hubs. (TH\_NP15\_GEN-APND, TH\_SP15\_GEN-APND, TH\_ZP26\_GEN-APND) This data is cached.

**Sample Query:**

[http://oasis.caiso.com/oasisapi/SingleZip?queryname=PRC\\_CURR\\_HUB\\_LMP&startdatetime=20160418T07:00-0000&enddatetime=20160419T07:00-0000&version=1](http://oasis.caiso.com/oasisapi/SingleZip?queryname=PRC_CURR_HUB_LMP&startdatetime=20160418T07:00-0000&enddatetime=20160419T07:00-0000&version=1)

**Alternate Recommended Method:** Utilize the HTML posting of the Trading Hub RTM Pricing page at

[http://oasis.caiso.com/oasisapi/prc\\_hub\\_imp/PRC\\_HUB\\_LMP.html](http://oasis.caiso.com/oasisapi/prc_hub_imp/PRC_HUB_LMP.html)

**Use Case #2:** User does not need data in real-time. Retrieval of Interval LMP data is not needed until after the hour is fully published.

**Recommended Query:** RTM\_LMP\_GRP

If you can wait until the top of the hour to download all 12 intervals, then use the RTM\_LMP\_GRP. This query returns data for all Pnodes and APNodes.

**Sample Query:**

[http://oasis.caiso.com/oasisapi/GroupZip?groupid=RTM\\_LMP\\_GRP&startdatetime=20160418T07:00-0000&enddatetime=20160418T08:00-0000&version=1](http://oasis.caiso.com/oasisapi/GroupZip?groupid=RTM_LMP_GRP&startdatetime=20160418T07:00-0000&enddatetime=20160418T08:00-0000&version=1)

**Use Case #3:** User needs Interval LMP data in real-time, for all PNodes and APNodes.

**Recommended Query:** CURR\_LMP\_GRP

**Not Recommended:** PRC\_CURR\_LMP, PRC\_INTVL\_LMP

CURR\_LMP\_GRP:

This report is available for download only. Lists five minute Locational Marginal Prices for all Pnodes and all APNodes for the current interval. Returns the most recently posted interval only.

**Sample Query:**

[http://oasis.caiso.com/oasisapi/GroupZip?groupid=CURR\\_LMP\\_GRP&startdatetime=20160418T07:00-0000&version=1](http://oasis.caiso.com/oasisapi/GroupZip?groupid=CURR_LMP_GRP&startdatetime=20160418T07:00-0000&version=1)

**Use Case #4:** User needs Interval LMP data in real-time, for only select PNode or APNodes.

**Recommended Query:** CURR\_LMP\_GRP

**Not Recommended:** PRC\_CURR\_LMP, PRC\_INTVL\_LMP

CURR\_LMP\_GRP: This result-set is pre-cached and will return faster than the non-cached PRC\_CURR\_LMP and PRC\_INTVL\_LMP queries. The file will contain the most recently posted interval data for all Pnodes and APNodes, so client will need to filter for the nodes that are required.

PRC\_CURR\_LMP: If the user does not need to receive data for all nodes, the PRC\_CURR\_LMP query can be used. This result-set is not pre-cached, so could be subject to delays in retrieval due to excess load to the database. This report is available for download only. Lists five minute Locational Marginal Prices for select Generator PNodes and all APNodes for the current interval. Returns the most recently posted interval only. User can select specific nodes that they would like to see data for.

PRC\_INTVL\_LMP:

Lists five minute Locational Marginal Prices for select Generator PNodes and all APNodes for all intervals for a specific hour. This result-set is not pre-cached, so could be subject to delays in retrieval due to excess load to the database. User can select specific nodes that they would like to see data for.

## 4.0 Usage for FMM/15-minute Reports

- Should be based on the results from monitoring the Publication and Revisions log for both current FMM and post-market corrections
- Postings to the log will occur approximately every 15-minutes for current real-time market publication

## 5.0 Usage for Hourly Reports

Frequency of requests:

- Should be based on the results from monitoring the Publication and Revisions log for both current real-time and post-market corrections
- Postings to the log will occur approximately every hour for current real-time market publication

## 6.0 Usage for Daily Reports

Frequency of requests:

- Should be based on the results from monitoring the Publication and Revisions log for both current day market and post-market corrections
- Postings to the log will occur approximately once daily for current day's market publications

## 7.0 Reference

For more details regarding available API reports and its proper request query construction, please refer to the OASIS technical documents posted on the [Application Access Page](#) on the public site, under the “Open Access Same-Time Information System/Technical documentation/Interface specifications” heading.