

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



March 11, 2019

Via E-mail and U.S. Mail

Mr. John Spomer, Senior Counsel
California Independent System Operator Corporation
250 Outcropping Way
Folsom, CA 95630

Re: Combined Subpoena for General RA information necessary for the CPUC to evaluate Resource Adequacy program and policies

Dear Mr. Spomer:

The California Public Utility Commission's ("CPUC"), pursuant to its duties to establish and administer California's Resource Adequacy requirements for load serving entities under the CPUC's jurisdiction, subpoenas information and data in the possession of the California Independent System Operator ("CAISO"). The attached subpoena requests certain data and information necessary for the CPUC to evaluate the Resource Adequacy program and policies as detailed in Exhibit A.

This letter confirms that all confidential information contained in any documents produced by the CAISO in response to the above-referenced subpoena will be treated consistent with the terms of the Confidentiality Letter Agreement between the Commission and the CAISO, dated April 28, 2004. Should you have any questions or concerns, please feel free to contact me at (415) 703-1123.

Sincerely,

A handwritten signature in blue ink, appearing to read "Christopher Clay".

Christopher Clay
Assistant General Counsel

cc: Nick Dahlberg, CPUC

PUBLIC UTILITIES COMMISSION
STATE OF CALIFORNIA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102
v

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Re: Combined Subpoena for General RA information necessary for the CPUC to evaluate Resource Adequacy program and policies

**SUBPOENA OR
SUBPOENA DUCES TECUM
(Cal. Pub. Util. Code § 311)**

THE PEOPLE OF THE STATE OF CALIFORNIA,

TO: The Custodian of Record for the California Independent System Operator Corporation, 250 Outcropping Way Folsom, CA 95630

1. Pursuant to section 311(a) of the Public Utilities Code, you are ordered to appear before the California Public Utilities Commission, located at 505 Van Ness Avenue, San Francisco, California, 94102 to testify as a witness in this matter unless your appearance is excused as indicated in box 2c below or you make an agreement with the person named in item 4 below.
2. You are:
 - a. Ordered to appear in person.
 - b. Ordered to appear in person and produce the documents described in Exhibit A. The personal attendance of the custodian or other qualified witness and the production of the original records is required by this subpoena.
 - c. Not required to appear in person if you produce copies of the documents described in Exhibit A to the persons named in item 4, below, and in Exhibit A, prior to the dates and times set forth in Exhibit A.
3. If you have been subpoenaed as a witness, you are entitled to witness fees and mileage actually traveled, as provided by law. You may request one day's witness and mileage fees for travel to and from the place you are required to appear. You may demand these fees at the time of service from the process server or from the party or attorney requesting the subpoena. If they are not paid or tendered at that time, or unless the subpoena was obtained by the Commission staff, you are not required to appear (Public Utilities Code Section 1791).
4. IF YOU HAVE ANY QUESTIONS ABOUT THIS SUBPOENA OR YOU WANT TO BE CERTAIN WHETHER YOUR PRESENCE IS REQUIRED, CONTACT THE FOLLOWING PERSON:

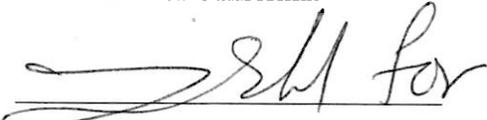
Name: Chris Clay

Telephone: (415) 703-1123

DISOBEDIENCE OF THIS SUBPOENA MAY BE PUNISHED AS CONTEMPT BY THIS COMMISSION

By Order of the Public Utilities Commission of the State of California.

Dated this 11th day of March, 2019

By: 
Alice Stebbins
Title: Executive Director

**DECLARATION IN SUPPORT
OF SUBPOENA DUCES TECUM**

I, Christopher Clay declare as follows:

1. I am an attorney duly licensed to practice in the State of California and am employed as a staff attorney for the California Public Utilities Commission (hereinafter "CPUC"). My business address is 505 Van Ness, San Francisco, California. Good cause exists for the production of the documents requested in the Subpoena Duces Tecum issued by the CPUC to the California Independent System Operator Corporation ("CAISO"), as set forth with particularity in Exhibit A attached to the Subpoena Duces Tecum, in that the documents are material to the Commission's on-going implementation of the Resource Adequacy Requirements in Rulemaking 14-10-010, pursuant to Public Utilities Code § 380, and implementation of General Order 167.

2. It is my understanding and belief that the documents requested are in the custody, control and/or possession of the CAISO.

Executed under penalty of perjury under the laws of the State of California, on this 11th day of March, 2019, at San Francisco, California.



Christopher Clay

PROOF OF SERVICE BY MAIL

I am employed with the California Public Utilities Commission and I am over 18 years of age. My business address is 505 Van Ness Avenue, San Francisco, California 94102.

On March 11th, 2019 I caused to be sent by email and by U.S. Mail the following document(s):

SUBPOENA DUCES TECUM

by depositing in a U.S. mailbox in stamped sealed envelopes, and by sending via email to the address and email address below.

Mr. John Spomer. Senior Counsel
California Independent System Operator Corporation
250 Outcropping Way, Folsom CA 95630
jspomer@caiso.com

Executed under penalty of perjury under the laws of the State of California, on this 11th day of March, 2019 at San Francisco, California.



Christopher Clay

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



**Exhibit A to
Subpoena for data and information necessary to evaluate
Resource Adequacy program and policies**

INSTRUCTIONS AND DEFINITIONS

The following instructions and definitions apply to each Request for Production of Documents ("Request") herein, and each Request is to be responded to as if these instructions and definitions were set forth in full with regard to it.

Each Request calls for all documents responsive to that Request that are in your possession, custody or control, including documents in the possession of your attorneys, investigators, representatives or others acting on your behalf or under your direction or control. You must make a diligent search of your records and of other papers and any materials in your possession or available to you or to persons subject to your influence and control.

If you claim privilege as to any documents, state the nature of the privilege, all facts that support the claim of privilege, the person claiming the privilege and a full and complete description of the document, including its title, date, author, nature, the job titles of the document's author(s), recipients(s), and persons copied (e.g., "cc" or "bcc"), form (e.g., letter, memorandum, etc.), subject matter and the name and address of the present custodian of the original or any copies of the document known to you.

The singular number and masculine gender as used herein also mean the plural, feminine or neuter, as is necessary to give the broadest possible scope to each Request.

The following definitions apply to each Request for Production of Documents ("Request") herein, and each Request is to be responded to as if these definitions were set forth in full with regard to it:

“DOCUMENT” means any written, printed, typed, recorded, magnetic, punched, copied, graphic or other tangible thing in, upon, or from which information may be conveyed, embodied, translated, or stored, including, but not limited to, papers, records, books, telegrams, telexes, dictation or other audio tapes, video tapes, computer tapes, computer disks, diskettes, CD roms, computer printouts, microfilm, microfiche, laser disks, diaries, calendars, photographs, charts, viewgraphs, drawings, sketches and all other writings or drafts thereof, as well as any other writings as defined in California Evidence Code Section 250. This definition expressly includes, without limitation, all originals, drafts, non-conforming copies, reproductions, facsimiles of written, typed or printed material of any kind, books, letters,

contracts, minutes of meetings, memoranda, notes on desk calendars and appointment books, canceled checks, invoices, correspondence, telegrams, telex messages, intra-office communications, electronic mail messages, photographs and films, art work and information stored on tape, computer disk or any other type of data storage device. If copies of a document are not identical by reason of hand notations, initials, identification marks or any other modification, each such non-identical copy is a separate document within the meaning of this definition.

"PERSON" means any natural person and any other cognizable entity, including without limitation, corporations, proprietorships, partnership, joint ventures, consortiums, Limited Liability Company, clubs, associations, foundations, governmental agencies or instrumentalities, societies and orders. As used in the document requests, the acts and knowledge of a "person" are defined to include the acts and knowledge of that person's directors, officers, members, employees, licensees, representatives, agents and attorneys.

"RESPONDENT" and "CAISO or ISO" refer to the California Independent System Operator Corporation (CAISO), its officers, directors, employees, agents, representatives and attorneys, responding party (ies), their predecessor(s) and successor(s) in interest, their agents, employees, servants, officers, representatives, counsel, and anyone else acting on its behalf or at its request.

"RELATE" and "RELATING TO" mean consisting of, summarizing, identifying, explaining, reflecting, describing, discussing, pertaining to, containing, mentioning, concerning, illustrating, referring to, alluding to, responding to, commenting on, in respect of, about, regarding, discussing, involving, analyzing, constituting or referring to in any way.

"ANY" includes and encompasses "all" and "all" includes and encompasses "any". "Or" includes and encompasses "and" and "and" includes or encompasses "or." Each of these terms shall be interpreted to give the broadest possible scope to each Request.

MATERIALITY

Currently, the CAISO provides the CPUC with ongoing access to the CAISO Outage Management System (OMS) Web Client and to the CAISO Daily Outage Report, pursuant to a CPUC subpoena dated September 30, 2003. As described in that subpoena, the CPUC developed General Order 167 (GO 167) to meet its obligations under Public Utilities Code §761.3, which require the CPUC to, among other things, implement and enforce maintenance and operation standards for electric generating facilities. The CPUC's Safety and Enforcement Division (SED) accesses OMS on a daily basis to obtain scheduling and outage information regarding individual generators.

California Assembly Bill 380, now PU Code §380, requires that the CPUC, in consultation with the CAISO, establish resource adequacy requirements for all load serving entities within the CPUC's jurisdiction. Per §380, RA requirements must facilitate the development of new generating capacity, equitably allocate the cost of generating capacity, and minimize enforcement requirements and costs.

The CPUC's RA program annually establishes minimum capacity obligation requirements for CPUC jurisdictional load serving entities (LSEs) on a one year-ahead basis at both the system and local level. D. 05-10-043 established system RA requirements and D.06-06-064 established local RA requirements. The CPUC also adopted a flexible RA capacity requirement in D.13-06-024. Through R.17-09-020, the CPUC currently administers its Resource Adequacy (RA) program and requires all Load Serving Entities ("LSEs") to demonstrate compliance by entering capacity contracts with generators on a year-ahead and month-ahead basis, and in specific local areas. The CPUC's Energy Division (ED) administers the RA program, reviews all RA-related compliance filings, and advises the presiding Administrative Law Judge in the ongoing RA proceeding(s).

Since 2017, with the passage of SB 350, now PU code §454.51 and §454.52, the CPUC administers the Integrated Resource Planning program that among other things requires the CPUC to "Identify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy in a cost-effective manner." This will require modeling of reliability and cost constraints on the electrical generators, and usage of accurate and detailed information about the CAISO's electric operations.

Finally, the CPUC is also tasked in PU Code §714 with studying the "feasibility of minimizing or eliminating use of the Aliso Canyon natural gas storage facility" and is ordered to use the best available data in making the determination of how to perform that study. For that reason, the data requested in this subpoena specifically will be used to inform modeling and analysis in the RA, IRP, and Aliso proceedings. If there are additional unanticipated uses, in accordance with Public Utilities Code sections 311 and 701, of this data that the CPUC encounters in the future, the CPUC will notify and confer with the CAISO on the scope of use for the data at issue.

This subpoena requests critical data and information which will allow the CPUC to evaluate the success of the RA program on an annual and monthly basis, and to determine whether program modifications could improve the CPUC's ability to fulfill its statutory duties in future program years. ED staff also requests the data in support of the IRP proceeding, the Aliso Canyon OII, and other modeling efforts. Specifically, ED staff uses plant specific information for generators that are dispatched to serve CAISO and other California electricity demand in simulating their dispatch over hourly and potentially subhourly time steps. Calculating, predicting, and planning for reliability, cost, and GHG impacts related to IRP procurement in the future, as well as possible curtailment of the Aliso Canyon gas storage field, requires ED staff to have accurate and complete resource specific operating characteristics of generating facilities. If ED staff needs to broaden the use of the requested data for additional purposes in accordance with Public Utilities Code Sections 311 and 701, it will notify and confer with the CAISO on the scope of use for the data at issue.

As such, this subpoena is meant to be an inclusive subpoena, renewed annually. The subpoena requests that the CAISO deliver data to the CPUC at scheduled intervals, to reflect the availability of the data at CAISO. The CPUC requests data in twenty-two broad categories: (1) RA import allocations, (2) Supply Plans Filed by generators and Monthly Supply Plan Validations for RA resources (3) List of Units Confirmed to Provide Resource Adequacy, (4) Economic Bids and Self-Schedules (5) Exceptional Dispatch Reports, (6) CAISO settlement quality meter data, (7) Access to OMS application, (8) Quarterly Masterfile Data (9) Flexible Capacity Needs Assessment Data and Allocations, (10) Access to Customer Interface for Resource Adequacy (CIRA), (11) Energy Management Systems (EMS) data, (12a) Capacity Procurement Mechanism (CPM) and Capacity Solicitation Process (CSP) results, (12b) Capacity Procurement Mechanism (CPM) and Reliability Must Run (RMR) Settlement Data, (13) Methodology Work Papers Supporting the Flexible Resource Adequacy Capacity Must Offer Obligation 2 (FRACMOO 2) Component of the RA Enhancements Stakeholder Initiative, (14) Reliability Event Reports sent to WECC (15) Demand Response (PDR/RDRR) Settlement Data Files, (16) CPUC Jurisdictional LSE Annual and Monthly Deficiency Notices, (17) Local Capacity Study Data, (18) Local Residual Analysis, (19) CPM and RMR Designation Capacity Costs and Allocations, (20) Notices of Intent to Retire, Mothball, or Return to Service, (21) CEC Subpoena Data, and (22) TPP Data.

The field names in the data files shall not be changed over the course of the year. CPUC requests that all data and notifications identified in this subpoena be sent to the following two e-mail addresses:

RAFiling@cpuc.ca.gov and Eric.Dupre@cpuc.ca.gov.

DESCRIPTION OF DATA REQUESTED

1. Resource Adequacy Import Allocations

The CPUC now has access to CAISO's CIRA application and no longer needs the CAISO to provide this Import Allocation file. However, if CIRA becomes inaccessible or if the data contained therein becomes inaccurate, CAISO will provide the import allocation information to the CPUC at a time mutually agreeable by the parties.

Specifically, the CAISO will provide the final numerical values per branch group and per LSE of import allocations received by LSEs applicable for the 2019 and 2020 compliance years. Please format the information similar to the chart posted here, including the source data for previous steps in the import allocation process: <http://www.aiso.com/Documents/2019HoldersImportCapability.pdf>.

2. Supply Plans Filed and Monthly Supply Plan Validations for RA resources

The CPUC currently has access to supply plan validation files through the CIRA application. However, if CIRA becomes inaccessible or if the data contained therein becomes inaccurate, CAISO will provide to the CPUC, at a time mutually agreeable by the parties, two spreadsheets which show validation of Year Ahead, as well as monthly System, Local, and Flexible RA Filings by all LSEs serving load in CAISO. The CAISO will also include both the monthly supply files and the annual supply files submitted at the end of October. The validation spreadsheets will list all RA capacity committed to provide RA to any LSE. The CPUC specifically requests two sets of files, an initial validation and a final validation. The initial validation is to be performed before any corrections or communications with suppliers is

performed, to allow the CPUC to validate filings as of the RA Filing due date (currently at T-45 days before the beginning of the RA compliance or trade month). A second validation is to be performed after all corrections and re-filings have been performed. This is to ensure that after remediation by LSEs and suppliers, all RA Filings are ready for approval. In addition to these two sets, the CPUC requests that the ISO provide, on an as needed basis as requested by CPUC staff, any additional updated cross validation files between the T-45 and T-30 sets. Please provide a spreadsheet in MS Excel with a tab for all RA resources (both physical resources internal to CAISO and system resources external to CAISO) committed as RA, both those resources where suppliers confirmed RA capacity that was listed in RA Filings, and that capacity committed by suppliers as RA that did not match with any LSE RA Filing. Also note that this subpoena requests data for all system and flexible RA resources, including those resources listed by non-CPUC jurisdictional LSEs. Within the System RA Validation file, please include the following columns:

Columns for the System RA Validation File:

RA Validation Status	“Passed”= LSE gets credit for RA Capacity MW “Error”= LSE does not get credit for RA Capacity MW
Supply Validation Status	“Pass” or “Warning”= Resource ID is committed for Supply Capacity MW “Error”= Resource ID is not committed for Supply Capacity MW
RA LSE	The name of the LSE claiming the facility as RA capacity
Resource ID	The facility’s identification used for scheduling
SCID/Scheduling Coordinator ID	The Scheduling Coordinator for the facility
Effective Start Date	When the RA Capacity MW starts
Effective End Date	When the RA Capacity MW ends
RA Capacity (MW)	RA Capacity shown on LSE’s RA plan
Supply Capacity (MW)	Total RA Capacity shown on supplier’s supply plan
Comments	Description of error or warning

Within the Flexible RA Validation file, please include the following columns:

Columns for Flexible RA Validation File:

RA Validation Status	“Passed”= LSE gets credit for RA Capacity MW “Error”= LSE does not get credit for RA Capacity MW
Supply Validation Status	“Pass” or “Warning”= Resource ID is committed for Supply Capacity MW “Error”= Resource ID is not committed for Supply Capacity MW
RA LSE	The name of the LSE claiming the facility as RA capacity
Resource ID	The facility’s identification used for scheduling

SCID/Scheduling Coordinator ID	The Scheduling Coordinator for the facility
Effective Start Date	When the RA Capacity MW starts
Effective End Date	When the RA Capacity MW ends
RA Flex Category	Flexible Capacity category shown on LSE's RA plan
Supply Flex Category	Flexible Capacity category shown on supplier's supply plan
RA Flexible Capacity (MW)	Flexible RA Capacity shown on LSE's RA plan
Supply Flexible Capacity (MW)	Flexible RA Capacity shown on supplier's supply plan
Comments	Description of error or warning

Specifications of data: The CAISO is requested to provide the data in MS Excel format. A template for the supply plan validation file is provided as Appendix A with a format for the CAISO to fill out and send to the CPUC. Please provide two files, one for the system RA validations and the other for the flexible RA validations. Please provide both files again for final validations.

Dates covered by this item: Year Ahead Filings for 2019 RA compliance year, as well as all month-ahead filings for the months of 2019. In addition, this subpoena requests access to the Year Ahead Filings of 2020 and the first Month Ahead Filings for January through March, 2020.

3. List of Units Confirmed to Provide Resource Adequacy to the CAISO

The CPUC now has access to CAISO's CIRA application and no longer needs the CAISO to provide these files. However, if CIRA becomes inaccessible or if the data contained therein become inaccurate, CAISO will provide to the CPUC (1) a monthly list of all Resource IDs that are confirmed as RA capacity for the following operational month and (2) a spreadsheet in MS Excel with a tab for each month, adding information for each month as it becomes available after RA units are confirmed for the operational month. Within each tab, CAISO will create and fill in the following columns:

- a. **Resource Name** – all Resources confirmed to provide RA capacity that month
- b. **SCID for the Resource** – the SCID for the resource that is providing RA capacity
- c. **SCID for the LSE** that the resource is committed to provide RA capacity to
- d. **Resource ID** – the Resource ID of the unit providing RA
- e. **Supply RA Capacity** – Amount in MW of RA capacity that the unit has confirmed to provide to the CAISO
- f. **Scheduled Outage Replacement Capacity** – Amount in MW of replacement capacity on each unit that is being replaced for the month.
- g. **Start and End Dates** of confirmed capacity or replacement capacity on same line as the capacity

4. Economic Bids and Self-Schedules

In order to evaluate DRAM Resources in the CAISO Market, verify compliance with the CPUC Flexible, Local, and System RA compliance obligations, evaluate net qualifying capacity of pre-dispatch resources, and assist staff in evaluating energy procurement and scheduling patterns, the CPUC requests that the

CAISO provide unit specific hourly bid or self-schedule data for every generator, RDRR, PDR and import energy provider that participates in the CAISO electricity market. CPUC staff must assess patterns in bidding or scheduling of import energy as staff develops import and export assumptions about future load and resource balance for IRP modeling. This request covers generators, demand response providers and import energy providers.

Based on ease of production, the following data may be provided in a single file or potentially multiple files based on the resource type (generator, demand response provider, or import energy provider) with the following fields, except for the RUC Dispatch Quantity, which may be limited to demand response providers. For bid segment data, the CPUC is requesting all bid segments. This data allows the CPUC to analyze behavior of each individual generator, import energy resource, and DR program and aggregate quantities either bid or self-scheduled in the CAISO. All files will be in .csv format.

Generator and Demand Response (PDR/RDRR) -Information is requested for all of 2019 beginning on 1/1/2019 and continuing for each month through 2019.

Imported energy – The CPUC requests the following information for import energy resources that participated in the CAISO electricity market starting September 1, 2018 through 2019. This will allow CPUC to true-up the bid and self-schedule data received via a previous request for confidential data. The CPUC will use the requested data to assess patterns in resource bidding and scheduling to enhance IRP modeling. CPUC will also use these data to adequately evaluate the current RA import rules (including qualifying capacity and Must Offer Obligation) developed in prior Commission decisions (D.05-10-042, 06-07-031, and D.06-12-067). Current Commission rules exempt non-dynamic, non-specific imports from the real-time must offer obligation, and bidding data will allow staff to assess the current exception.

Missing DMM Data Covering 1/1/17 through 8/31/18 – The CPUC also requests that CAISO provide bidding data for any import resources that were not included in the data which CPUC received from the Department of Market Monitoring (DMM) in September 2018. These data should cover the same time period as the DMM data (1/1/17 through 8/31/18) and should be in either the same format as the DMM data or in the format below (excluding equivalent fields that did not appear in the DMM data).

Multiple bid segments are noted below as “segment [X].”

<u>CPUC Field Name</u>	<u>ISO Native Field Name</u>
Unit Type	UNIT_TYPE
Resource ID	RESOURCE_NAME
Scheduling Coordinator ID	SCID
Trade Date	TRADE_DATE
Trade Hour	TRADE_HOUR
Real Time Market Dispatch Quantity	RTM_DISPATCH_QUANTITY
Real Time Market Dispatch Price	RTM_DISPATCH_PRICE
Real Time Bid Segment [X] Quantity	RTM_BID_QUANTITY
Real Time Bid Segment [X] Price	RTM_BID_PRICE
Real Time Market Self-Schedule Capacity (MW)	RTM_SELFCHEDMW
RUC Dispatch Quantity	RUC_DISPATCH_QUANTITY
Day Ahead Market Dispatch Quantity	DAM_DISPATCH_QUANTITY
Day Ahead Market Dispatch Price	DAM_DISPATCH_PRICE

Day Ahead Bid Segment [X] Quantity	DAM_BID_QUANTITY
Day Ahead Bid Segment [X] Price	DAM_BID_PRICE
Day Ahead Market Self-Schedule Capacity (MW)	DAM_SELFCHEDMW

Definition of each field name:

- a. **Unit Type** – To help differentiate generator, demand response, or import energy
- b. **Resource ID** – The Resource ID for each unit
- c. **Scheduling Coordinator ID** – The four letter SCID that represents the SC for the resource
- d. **Trade Date** – Please include every day of the month
- e. **Trade Hour** – Please include all 24 hours each day
- f. **Real Time Market Dispatch Quantity**– Please provide the hourly integrated MW quantity at which the resource was dispatched during the hour in the real time market.
- g. **Real Time Market Dispatch Price** – Please provide the hourly integrated dollar value dispatch price paid to the resource in the real time market.
- h. **Real Time Bid Segment [X] Quantity** – Please provide the MW range of each individual real time bid segment for the given hour in a separate field (replace “[X]” with “1,” “2,” etc.). If the resource does not bid, leave this field blank. Do not enter 0.
- i. **Real Time Bid Segment [X] Price** - Please provide the price of each individual real time bid segment for the given hour in a separate field (replace “[X]” with “1,” “2,” etc.). If the resource does not bid, leave this field blank. Do not enter 0.
- j. **Real Time Market Self-Schedule Capacity (MW)** – Please provide the MW quantity scheduled into the RTM if scheduled. If the resource bids and does not self-schedule leave this field blank. Do not enter 0.
- k. **RUC Dispatch Quantity** – Please provide the hourly MW quantity committed for this resource via the RUC process. If CAISO did not commit capacity via the RUC process for the resource in a given hour, leave this field blank. Do not enter 0.
- l. **Day Ahead Market Dispatch Quantity** – Please provide the hourly integrated MW quantity at which the resource was dispatched during the hour in the day ahead market.
- m. **Day Ahead Market Dispatch Price** – Please provide the hourly integrated dollar value dispatch price the resource received in the day ahead market.
- n. **Day Ahead Bid Segment [X] Quantity** – Please provide the MW range of each individual day ahead bid segment for the given hour in a separate field (replace “[X]” with “1,” “2,” etc.). If the resource does not bid, leave this field blank. Do not enter 0.
- o. **Day Ahead Bid Segment [X] Price** - Please provide the price of each individual day ahead bid segment for the given hour in a separate field (replace “[X]” with “1,” “2,” etc.). If the resource does not bid, leave this field blank. Do not enter 0.
- p. **Day Ahead Market Self-Schedule Capacity (MW)** – Please provide the MW quantity scheduled into the IFM if scheduled. If the resource bids and does not self-schedule leave this field blank. Do not enter 0.

5. Exceptional Dispatch Reports

CPUC requests CAISO Exceptional Dispatch (ExD) Reports, provided on a unit specific basis. In short, the CPUC requests the CAISO to provide Table 2 from the monthly ExD reports filled in with the Resource ID of the unit subject to the ExD instruction. The CPUC requests that all ExD reports for the whole year be aggregated into one workbook, with a tab that lists all unit instructions on one tab. Monthly ExD reports are posted to the CAISO website at this URL:

Classes of generation covered: All generating resources within CAISO.

Time period of data requested: All monthly reports covering January 1, 2018 until December 31, 2018. Please aggregate all reports into one single workbook.

6. Settlement Quality Meter Data

CPUC requests quarterly provision of settlement quality meter data from all resources that participate in the CAISO electricity market. CPUC staff requires access to these data in order to properly evaluate performance of LSE contracted generation, develop QC for non-dispatchable resources in the RA program, develop accurate production profiles for non-dispatchable resources in IRP and RA modeling, and properly assess patterns of import and export to validate hourly modeling in the RA and IRP proceedings. CPUC staff are also evaluating patterns of energy flow and dispatch in order to inform long term procurement guidelines for LSEs and to inform our comments related to CAISO market design.

Classes of generation covered: All generator types including (but not limited to) wind, hydro, solar, geothermal, biomass, cogeneration, import resources, and demand response.

Time period of data requested: The CPUC requests provision of the latest version of the Actual Settlement Quality Meter Data from 1/1/18 through 12/31/19 for all resources. Additionally, CPUC requests Actual Settlement Quality Meter Data from 1/1/17 through 12/31/17 for import resources in order to supplement the data received via previous subpoenas, which did not include all import resources.

Specifications of data: The CAISO is requested to prepare a settlement file that contains hourly (8,760 entries per year) actual settlement quality meter data reported by all Resource IDs. Each current Resource ID should be reported separately. Data should be listed using the current (i.e., applicable in 2019) Resource ID; previous Resource IDs are not needed. Data should be sent in a comma separated value (.csv) file. Five columns are needed:

- a. **Scheduling Coordinator ID** – the four letter SCID that represents the SC for the resource
- b. **Res_ID** - Resource ID
- c. **Date** - The standardized date in the format MM/DD/YYYY
- d. **Hour** - The hour in which the MWh to be reported was generated. All hours should be in the hour-ending (1 through 24) format. For example, a data field with the number “4” will represent all the MWh produced in the hour from 0300 through 0359.59. There should be no adjustment for Daylight Savings Time. A year is presumed to have 8,760 hours occurring in it, except for leap years, which would have 8,784 hours.
- e. **MWh** - The total MWh metered (either positive for generation or negative for demand response) in the 60 minutes for the hour being reported. Missing data should be represented as a blank cell and periods of no generation should be marked as a zero.

Description of intended use -The CPUC intends to use the requested data primarily for the purpose of preparing and posting to its website the following reports:

- a. Annual Net Qualifying Capacity Report for the subsequent compliance year: The CPUC or the CEC on the CPUC’s behalf will use the settlement quality meter data to compute Qualifying Capacity values for intermittent resources subject to the CPUC counting conventions and will post the Net Qualifying Capacity totals on the CPUC website.

- b. Oversight of the DRAM Pilot: CPUC staff will use this data to oversee general DR program activities including the DRAM pilot.
- c. The CPUC may retain this data and use it for other analytical purposes, although the CPUC will not publicly disclose the data in any other way without prior ISO notification and consultation.

7. Access to OMS application

CPUC requests online access to transmission and generation outage information contained in the OMS application.

8. Quarterly MasterFile data request

The CPUC requests the CAISO to provide quarterly updates of data entered by generators into the MasterFile database in order to monitor generator performance, reliability and compliance with GO 167, and to implement key features of the RA Program related to system physical and operational needs. The CPUC is responsible for directing the construction of sufficient generating and transmission facilities in order to meet the CPUC's established reliability criteria in both the RA proceeding and the CPUC's Integrating Resource Planning (IRP) Proceeding. As more of the physical and operational needs of the system reflect specific performance qualities of specific plants (e.g. ancillary service capabilities, ramp rates, minimum start times etc.) for purposes of renewable integration, once through cooling mitigation, and general IRP system needs assessments, the CPUC will need to monitor the quality and level of operational flexibility particular to each plant and across the generation fleet in general.

The CPUC seeks access to all listings by all Scheduling Coordinator IDs (SCIDs). In particular, CPUC requests data corresponding to all fields listed in (1) the "Intertie RDT - RESOURCE" tab and (2) the "Generator RDT - RESOURCE" tab in the most recent "GRDT and IRDT Definitions" table posted to the CAISO website as of the date of this subpoena.¹ CPUC also requests SEGMENT data corresponding to the fields listed in Appendix B, referring also to the "GRDT and IRDT Definitions" document.

Energy Division will use this data for purposes of reliability modeling as well as other purposes of procurement oversight. The CPUC will publish a limited range of the unit specific data to the CPUC website to allow for stakeholders to understand the inputs to reliability modeling. The CPUC will maintain confidentiality for the MasterFile data.

Specifications of data: Please provide these files in .csv format. The CAISO is requested to submit data to the CPUC via the Commission's SFTP application, accessible via the link here:

<https://cpucftp.cpuc.ca.gov/>

9. 2020 Flexible Capacity Needs Assessment Data and Allocations

The CPUC requests the CAISO provide the CPUC with the following information:

- a. Complete LSE responses to the CAISO data request made pursuant to Tariff section 40.10.1.2, asking for information on each wind, solar, and behind the meter resources owned, in whole or in part, by the LSE or entity under contractual commitment to the LSE for all or a portion of its capacity.
- b. Work papers used to add together wind, solar and behind the meter resources contained in the LSE data request responses.

¹ GRDT and IRDT Definitions file posted to the CAISO website here:
<http://www.caiso.com/Documents/GRDTandIRDTDefinitions.xls>

- c. The time-shifted 2018 minute-by-minute variable energy output profiles used to calculate variable energy profiles. Please indicate which if any actual facilities are taken as models for the output data.
- d. Work papers used to scale the production data.
- e. The time-shifted 2018 minute-by-minute load data used to calculate the flexible capacity requirement.
- f. Work papers used to develop the monthly ISO minute-by-minute forecast from the CEC Integrated Energy Policy Report (IEPR) 1-in-2 monthly peak load forecast (Mid Demand Scenario, with mid AAEE) and/or from the CEC hourly load forecast (Mid Demand with mid AAEE and mid AAPV).
- g. The ISO's simulated minute-by-minute forecast of net load curves for the time frame of the annual study.
- h. Work papers used to calculate the minute-by-minute net load curves.
- i. The monthly peak load ratios used in the Flexible need equation.
- j. Work papers used to calculate the Seasonal Percentages Needed in each Category.
- k. Work papers used to allocate the CPUC its Flex RARs.
- l. Any new or additional data or workpapers in the 2020 assessment process that are not identified above and that would be considered necessary for Energy Division to review.

Specifications of data: Please provide the data listed above in MS Excel or SAS file format, and include any additional information that would enable CPUC to understand and replicate the underlying calculations in the spreadsheets or data files.

10. Access to California ISO Interface for Resource Adequacy (CIRA) database

CPUC staff requests live access to the CIRA database for a limited number of CPUC staff. This access is necessary (as opposed to requests for periodic data reports) in order to enable coordination with the CAISO Reliability Requirements process and to enable CPUC enforcement of RA program rules. Due to the complexity of the RA program, and differing submission requirements and formats, CPUC staff needs to verify the form and content of information submitted to the CAISO and to review automated or manual communication between the LSE and CAISO through the CIRA system.

Specifications of Data:

CPUC staff requests the ability to do the following actions:

1. Log securely into the CIRA system as needed throughout the month.
2. Review and export uploaded RA Filing data (both year ahead and month ahead) from all SCs that submit RA Plan data to CAISO (both CPUC jurisdictional and non-jurisdictional) on as needed basis by CPUC staff.
3. Review and export supply plan data submitted by all SCs that submit supply plans for RA compliance to CAISO whether the LSE being supported is CPUC jurisdictional or non-jurisdictional.
4. Review and export CEC forecasts uploaded by CEC staff for all LSEs whether CPUC jurisdictional or non-jurisdictional. Review of all calculations performed in CIRA to calculate RA obligations for LSEs.
5. Review and export any filing status, cross validation results, error logs, or communication/compliance logs developed by CIRA pertaining to RA plan data submitted by any SC for an LSE to CAISO.

Time period of data requested:

CPUC staff expects the CAISO to provide ongoing access to CIRA.

11. Energy Management System (EMS) Data

The CPUC requests the CAISO provide the CPUC with monthly actual hourly EMS load data for each month of 2019. In addition, the CPUC requests historical EMS data from 2006 – 2010.

Specification of the Data:

The monthly files should include actual hourly EMS load data for the subareas used in the CAISO internal load forecast process, including PG&E-Bay Area, PG&E-Non-Bay Area without Pump Load, PG&E-Non-Bay Area Pump Load, SCE without Pump Load, SCE Pump Load, SDG&E, and VEA TAC.

12a. Capacity Procurement Mechanism and Capacity Solicitation Process (CSP) results:

The CPUC now has access to CAISO's CIRA application and does not need the CAISO to provide this CSP result. However, if CIRA becomes inaccessible or if the data contained therein becomes inaccurate, CAISO will provide the CSP information to the CPUC at a time mutually agreeable by the parties.

The CPUC requests the CAISO provide the CPUC with the monthly, intra-monthly and annual CSP and CPM data. The CPUC would like these data in order to identify if CAM resources are bidding into the CSP. Additionally, the CPUC would like to examine the effectiveness of the CSP as it relates to CPM designations. The CSP data will include all bids that were locked into the CSP after the adjustment period ended. This would be the finalized offer set that gets locked in after the CAISO validates that the offer is not shown on a supply plan. The CPM designation data may overlap with a CSP bid or they may be without one.

The CPUC requests three types of files:

- i. One annual file - The annual data should include any CPM designations that came out of the YA validation processes and all locked in CSP bids that were submitted in the YA CSP process.
- ii. Twelve monthly files - The monthly data should include any CMP designation, made in the prior month for the coming month, in addition to locked in CSP bids, submitted in the prior month for the coming month (whether they were designated or not).
- iii. Twelve intra-monthly files - These files will include the results of the CSP bids and CPM designations for the each identified time period. The intra-monthly data should include data from the prior month that was designated intra-monthly for the prior month.

Specifications of data: Please provide the data listed above in MS Excel format file. The format of the data should include the following fields:

- a.) **Resource ID** - this should include all resources that bid into the monthly CSP and any resource that was assigned a CPM designation that may have not bid into the CSP
- b.) **Type of CSP or CPM** (if resource did not submit through CSP) - monthly, intra-monthly, or annual
- c.) **System MW Amount** - the generic MW amount the resource bid into the CSP. If the resource did not bid in system MW, then leave blank
- d.) **Flexible MW Amount** - the flexible MW amount the resource bid into the CSP. If the resource did not bid in flexible MW, then leave blank
- e.) **Flexible Category** - the flexible category designation of the flexible MW entered in the bid. If the resource did not bid in flexible MW then leave blank
- f.) **Bid Price** - reflect the price of the bid. If no bid was submitted, leave blank.

- g.) **Designated** - If the resource was designated a CPM, then select Y. If no, then select N.
- h.) **CPM Event Covered** - If the resource was designated, show the CPM event covered.
- i.) **Duration of the Designation** - If the resource was designated a CPM, reflect the duration of the designation. (e.g., 30 days, 60 days, 90 days)
- j.) **Date of the Designation** - reflect the date the designation was noticed
- k.) **Accepted or Declined CPM Designation** - reflect whether the resource's SC accepted or declined the designation. Only applies if the resource was exceptionally dispatched.

Note - If the CAISO is not able to access this data through CIRA, the CPUC requests access to any data that is available that would allow for an assessment of the CSP (e.g., data made available to DMM)

12b. Capacity Procurement Mechanism (CPM) and Reliability Must Run (RMR) Settlement Data:

Please provide the CPUC with the following information for all CPM designations for 2019:

Trade_DATE – In this data set, the only use of the Trade_DATE is to track the month and year.

Charge_Name – Has the following three categories:

BA_MTH_RSRC_CPM_CAP_HRLY_AVG_DESIGNATED@QUANTITY – The MW quantity

BA_MTH_RSRC_CPM_CAP_PMT@PRICE – The CPM price (\$/MW-year)

BA_MTH_RSRC_CPM_STLMT@AMOUNT – Total payment (price x quantity), expressed as a negative number

Attribute1 - Business Associate ID (for CAISO Settlements use)

SC_ID - SC Short Name that corresponds to Attribute1 (Business Associate ID)

Attribute2 - Resource Name

Attribute17 - Bill Period Start Date

Attribute18 - Bill Period End Date

Attribute22 – CPM Type

Interval_Total – The total quantity, amount or price associated with Charge_Name

Please provide the CPUC with the following information for all RMR designations for 2019:

START_DATE – Start date of the RMR designation.

END_DATE – End date of the RMR designation.

BPID - Estimated (**_EST_**) payments/charges or final adjusted (**_ADJ_**) payments/charges per RMR resource.

CHARGE_NAME – Charge code reference name (for CAISO Settlements use)

ATTRIBUTE1 - Business Associate ID (for CAISO Settlements use)

SC_ID - SC Short Name that corresponds to Attribute1 (Business Associate ID)

ATTRIBUTE2 - Resource Name

INTERVAL_TOTAL – Payment (expressed as a negative number) or charge (expressed as a positive number) to the Scheduling Coordinator. This column should be read in conjunction with the BPID to distinguish between estimated (**_EST_**) payments/charges versus or final adjusted (**_ADJ_**) payments/charges. The final adjusted amounts override prior estimates.

Specification of the data: Please provide the CPUC quarterly files in .csv format.

13. Methodology Work Papers Supporting the Flexible Resource Adequacy Criteria Must Offer Obligation 2 (FRACMOO 2) Component of the RA Enhancements Stakeholder Initiative

The CPUC requests all work papers used by the CAISO in developing the draft final proposal(s) related to the FRACMOO 2 component of the RA Enhancements stakeholder initiative.

Specifications of data: Please provide data in MS Excel and MS Word format.

14. Reliability Event Reports sent to WECC

The CPUC requests that CAISO send to the CPUC the following three reliability event reports based on the specific event types listed for each:

- (a) Appendix C: Brief Template sent to WECC for all CPUC jurisdictional PTOs.
- (b) EOP-004 event reports sent to WECC for the following specific event types:
 - 1. BES Emergency requiring public appeal for load reduction
 - 2. BES Emergency requiring manual firm load shedding
 - 3. BES Emergency resulting in automatic firm load shedding
 - 4. Loss of firm load
 - 5. System separation (islanding)
 - 6. Generation loss
- (c) OE-417 report sent to WECC when initiated by the CAISO (rather than a single PTO) or if the event impacts more than one PTO for the following specific event types:
 - 1. Uncontrolled loss of 300 Megawatts or more of firm system loads for more than 15 minutes from a single incident
 - 2. Load shedding of 100 Megawatts or more implemented under emergency operational policy
 - 3. Loss of electric service to more than 50,000 customers for 1 hour or more
 - 4. Fuel supply emergencies that could impact electric power system adequacy or reliability

Specifics of data: The completed event report sent to WECC following a reliability event.

15. Demand Response (PDR/RDRR) and Non-generating Resource (NGR) Settlement Data Files:

The CPUC requests settlement data related to demand response resource performance covering 2018 through 2019. CPUC requests a summary file of any PDR/RDRR resource payment or charge with these specifications (all at 5 minute granularity). CPUC also asks that non-generating resources (NGR) be included in this file. If it is possible to separate storage NGRs from other NGRs, CPUC requests that only the storage NGRs be included. If it is not possible to separate these resources, CPUC requests data for all participating NGRs.

Specifications of settlement data file (CAISO native field name in parentheses):

- a.) Trade Date (TRADE_DATE)
- b.) Scheduling Coordinator ID (BA_ID, conversion to Scheduling Coordinator ID is provided separately)
- c.) Resource ID (ATTRIBUTE2)
- d.) Day-ahead scheduled quantity (DA_SCH_QUANTITY)
- e.) Day-ahead energy payment (DA_AMOUNT)
- f.) Fifteen minute market instructed imbalance energy (FMM_IIE_QUANTITY)

- g.) Fifteen minute market instructed imbalance energy payment or charge (FMM_IIE_AMOUNT)
- h.) Five minute market instructed imbalance energy (RTD_IIE_QUANTITY)
- i.) Five minute market instructed imbalance energy payment or charge (RTD_IIE_AMOUNT)
- j.) Standard ramping energy (SRE_QUANTITY)
- k.) Total expected energy (EXP_ENRGY_QUANTITY)
- l.) Uninstructed energy (UIE_QUANTITY)
- m.) Uninstructed energy payment or charge (UIE_AMOUNT)
- n.) Metered energy (METER_QUANTITY)

Files will be provided in .csv format. To save space, if any of the fields from (d) through (n) are zero, the field will be omitted from the data file.

16. CPUC jurisdictional LSE Annual and Monthly Deficiency Notifications

The CPUC currently has access to CIRA as a Local Reliability Authority (LRA), which allows the CPUC to see LSE deficiencies directly after the submission deadlines. CPUC also receives direct notification of deficiencies, though CAISO and CPUC continue to coordinate which CPUC e-mail addresses should receive these notifications. If CIRA becomes inaccessible (or the data within CIRA become inaccurate) and if the direct notification functionality becomes inoperative, CPUC requests that CAISO notify CPUC of any LSE RA deficiencies as indicated in Table 1 at the end of this document.

Please provide a table containing the following information for LSEs with system RA deficiencies:

- a.) Month
- b.) SCID – SCID of deficient LSE
- c.) TAC – TAC in which deficiency exists
- d.) REQ – System RA requirement in TAC
- e.) DR – System DR credit in TAC
- f.) ADJ_DR – Adjusted system DR credit in TAC
- g.) RMR – System RMR credit in TAC
- h.) CAM – System CAM credit in TAC
- i.) TOT_ADJ – Total system credit adjustment in TAC
- j.) REQ+PRM – RA requirement in TAC, adjusted for PRM
- k.) ADJ_OBL – REQ+PRM minus TOT_ADJ
- l.) Local RA – Total local RA shown by LSE in the TAC
- m.) System RA – Total non-local system RA shown by LSE in the TAC
- n.) Total RA – Sum of Local RA and System RA

Please provide a table containing the following information for LSEs with local RA deficiencies:

- a.) Month
- b.) SCID – SCID of deficient LSE
- c.) TAC – TAC in which deficiency exists
- d.) REQ – Local RA requirement in TAC
- e.) DR – Local DR credit in TAC
- f.) CAM – Local CAM credit in TAC
- g.) TOT_ADJ – Total local credit adjustment in TAC
- h.) ADJ_OBL – REQ minus TOT_ADJ
- i.) Local RA – Total local RA shown by LSE in the TAC

Please provide a table containing the following information for LSEs with flexible RA deficiencies. Please include all flex categories, even if LSE is not deficient in all categories.

- a.) Month

- b.) SCID – SCID of deficient LSE
- c.) TAC – TAC in which deficiency exists
- d.) CATEGORY – Flex category
- e.) OBL – Flexible RA requirement for given category
- f.) SHOW – LSE flexible RA showing for given category
- g.) QUAL – Qualified flexible RA showing for LSE in given category
- h.) SHORT/LONG – QUAL minus OBL

17. Local Capacity Study Data

Access to the following data requires executing a separate non-disclosure agreement for qualified individuals. In order to better evaluate the results of CAISO’s annual Local Capacity Study, the CPUC requests that the CAISO send the following files. These files should be sent for the draft LCR study and the final LCR study. The term “LCR study” incorporates all timeframes for which CAISO assesses local capacity.

Dispatched base case PSLF files used for each local area and sub-area. This will include flat files of the generators and MW being dispatched in the power flow study to mitigate the N-1 and N-1-1 contingencies for each local area and sub-area in the draft and final studies.

18. Local Residual Analysis

Access to the following data requires executing a separate non-disclosure agreement for qualified individuals. If the CAISO executes an annual year-ahead CPM, then the CPUC requests the CAISO provide the base case or proof of need for the impacted local area or sub-area.

19. CPM and RMR Designation Capacity and Costs Allocations

Please provide the CPUC with the following information for all CPM and RMR designations for 2019 and 2020:

- 1.) RA capacity allocations broken down by LSE (non-jurisdictional and jurisdictional) for each month of the designation.

20. Notices of Intent to Retire, Mothball, or Return to Service

From time to time, the CAISO receives notices from generating resources about the planned retirement or mothball of certain resources. The CAISO posts a list of these resources pursuant to its Generator Management Business Practice Manual. The list provides stakeholders with information regarding requests to change a resource status from active to retired, mothballed, or otherwise unavailable to the grid. In addition, there is an RSS feed available to the public which provides automatic notification when the list is updated. This is available at: <http://www.aiso.com/Pages/GlobalRSS.aspx>.

Upon request by the CPUC, the CAISO will also provide the CPUC with copies of all letters or other notifications received from generating resources or the owners of generating resources related to the intent to retire the resource(s), mothball the resource(s), or return the resource(s) to service. This information will allow CPUC to remain apprised of market conditions affecting RA capacity as they arise.

21. CEC Subpoena Data

Please provide the CPUC with all files sent to the California Energy Commission pursuant to the latter’s subpoena of CAISO. This information will allow CPUC to more closely monitor CEC development of the RA load forecast, in particular by ensuring CPUC has access to the same data as CEC.

22. TPP Data

Please provide the CPUC with the underlying data in support of Attachment C to Appendix G of the ISO’s Board-approved 2018-2019 Transmission Plan.

Please provide the requested information to the CPUC, by the Close of Business (“COB”) according to the following schedule:

Table 1 Submission Dates

Item	Delivery Date to CPUC						
1. Resource Adequacy Import Allocations	If CIRA access is not available or data in CIRA are inaccurate, please provide 2019 data within three business days of the date when CIRA becomes inaccessible or the data become inaccurate.						
2. Supply Plans Filed and Monthly Supply Plan Validations for RA resources	<p>If CIRA access is not available or data in CIRA are inaccurate, please provide data as follows:</p> <p>Monthly supply plan files and initial validation file within three calendar days of the RA Filing due date. Please provide final validation files no less than four calendar days before the start of the compliance (trade) month.</p> <p>For annual supply plans and supply plan validations, provide files within 10 calendar days after the annual RA submission filing due date.</p>						
3. List of Units Confirmed to Provide Resource Adequacy to the CAISO	If CIRA access is not available or data in CIRA are inaccurate, please provide data within three business days of the date when CIRA becomes inaccessible or the data become inaccurate.						
4. Economic Bids and Self-Schedules	<p>Quarterly starting on May 1, 2019. Please submit files for each quarter of 2019 within 30 calendar days of the last trade date of the last month of each quarter, i.e., by May 1, 2019 (for Jan – March); by August 1, 2019 (for April – June); by November 1, 2019 (for July – September); by February 1, 2020 (for Oct – Dec).</p> <p>Please provide economic bid and self-schedule data for import resources over the term September 1, 2018 through December 31, 2019 and missing DMM data for import resources over the term January 1, 2017 through August 31, 2018 by April 1, 2019 or within one business day of expiration of the three-week posting period of this subpoena, if the posting period extends beyond 4/1/2019.</p>						
5. Exceptional Dispatch Reports	For 2018 reports, provide by April 12, 2019						
6. Settlement Quality Meter Data	<p>Please provide data quarterly per schedule below:</p> <table border="1" data-bbox="704 1816 1338 1879"> <thead> <tr> <th data-bbox="704 1816 808 1879">Data type</th> <th data-bbox="808 1816 1073 1879">Trade Dates</th> <th data-bbox="1073 1816 1338 1879">SQMD Available</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Data type	Trade Dates	SQMD Available			
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7. Access to OMS Application	Ongoing, immediately																		
8. Quarterly MasterFile Data Request	Quarterly (January 25, April 25, July 25, October 25, 2019)																		
9. 2020 Flexible Capacity Needs Assessment Data and Allocations	Please provide all data relative to the draft analysis (all items in Item 9) by April 12, 2019. Please provide all data relative to the final assessment (all items in Item 9 that were modified since the draft assessment) within five business days of posting the final assessment.																		
10. Access to California ISO Interface for Resource Adequacy (CIRA) database	Ongoing, immediately																		
11. Energy Management System (EMS) Data	The monthly 2019 data should be provided to the CPUC by the 25 th of each month for the prior month. Please provide historical (2006-2010) data at one time and within one business day after expiration of the three-week posting period of this subpoena.																		
12a. Capacity Procurement Mechanism and Capacity Solicitation Process (CSP) results	<p>If CIRA access is not available or data in CIRA are inaccurate, please provide data as follows:</p> <p>Provide monthly CSP/CPM data on coming compliance month by the 4th day of each month.</p> <p>Provide annual data by November 15, 2019 for 2020 YA requirements</p> <p>Provide intra-monthly data on the prior compliance month by the 4th day of each month</p>																		
12b. Capacity Procurement Mechanism (CPM) and Reliability Must Run (RMR) Settlement Data	Please provide data quarterly, within 60 calendar days after the quarter.																		
13. Methodology Work Papers Supporting FRACMOO 2 Component of the RA Enhancements Stakeholder Initiative	Please provide this data within one week of posting the draft final proposal related to the FRACMOO 2 component of RA Enhancements.																		

14. Reliability Event Reports sent to WECC	Please provide WECC reliability reports to staff the next business day after delivery to WECC.														
15. Demand Response (PDR/RDRR) and Non-generating Resource (NGR) Settlement Data Files	<p>Please provide quarterly per schedule below:</p> <table border="1" data-bbox="704 296 1339 575"> <thead> <tr> <th data-bbox="704 296 808 359">Data type</th> <th data-bbox="808 296 1073 359">Trade Dates</th> <th data-bbox="1073 296 1339 359">SQMD Available</th> </tr> </thead> <tbody> <tr> <td data-bbox="704 359 808 575" rowspan="5">PDR, RDRR, NGR</td> <td data-bbox="808 359 1073 401">2018 - Q4</td> <td data-bbox="1073 359 1339 401">4/1/2019*</td> </tr> <tr> <td data-bbox="808 401 1073 443">2019 - Q1</td> <td data-bbox="1073 401 1339 443">6/25/2019</td> </tr> <tr> <td data-bbox="808 443 1073 485">2019 - Q2</td> <td data-bbox="1073 443 1339 485">9/25/2019</td> </tr> <tr> <td data-bbox="808 485 1073 527">2019 - Q3</td> <td data-bbox="1073 485 1339 527">12/25/2019</td> </tr> <tr> <td data-bbox="808 527 1073 575">2019 - Q4</td> <td data-bbox="1073 527 1339 575">3/25/2020</td> </tr> </tbody> </table> <p data-bbox="618 632 1432 688">*Or within one business day of expiration of the three-week posting period of this subpoena, if the posting period extends beyond 4/1/2019.</p>	Data type	Trade Dates	SQMD Available	PDR, RDRR, NGR	2018 - Q4	4/1/2019*	2019 - Q1	6/25/2019	2019 - Q2	9/25/2019	2019 - Q3	12/25/2019	2019 - Q4	3/25/2020
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16. CPUC Jurisdictional LSE Annual and Monthly Deficiency Notifications	If CIRA access is not available (or data in CIRA are inaccurate) and if the direct notification functionality becomes inoperative, please provide data within five business days following the relevant annual or monthly RA filing deadline.														
17. Local Capacity Study Data	For cases that are in PSLF format, data will be provided within one business day of posting the final draft. For cases that are in other formats (and thus require conversion), data will be provided within 10 business days of posting the final draft.														
18. Local Residual Analysis	Provide information within 1 calendar week of posting CPM designation report.														
19. CPM and RMR Designation Capacity and Costs Allocations	Please provide the allocation spreadsheet no later than 30 business days after issuing a designation.														
20. Notices of Intent to Retire, Mothball, or Return to Service	Upon request by CPUC, please provide notices to CPUC within five business days.														
21. CEC Subpoena Data	Please provide CEC Subpoena files to CPUC on the same schedule as CAISO provides the files to CEC.														
22. TPP Data	Please provide the requested data within five business days of CAISO Board approval.														

Should full production of any information item not be possible within these time frames, please provide whatever partial information is available, together with a brief explanation of the circumstances preventing full production on that date, identify the date on which full production of the requested information will be made, and fulfill production of the remaining documents by such date.