

March 5, 2020

SENT VIA EMAIL AND U.S. MAIL

John Spomer Senior Counsel California ISO 250 Outcropping Way Folsom, California 95630

RE: Subpoena duces tecum and confidentiality letter

Dear Mr. Spomer:

Please find enclosed a subpoena duces tecum from the California Air Resources Board (CARB) to the California Independent System Operator Corporation (CAISO) regarding an Inquiry Into Mandatory Greenhouse Gas Emissions Reporting Data. You will also receive an electronic copy of the subpoena via email. CARB appreciates the CAISO's responsiveness and looks forward to receiving the documents and information requested in the subpoena. You will note that for efficiency's sake, we have made this a standing request for through 2030. This subpoena request updates our previous request sent April 1, 2015.

CARB will treat confidential information produced by the California Independent System Operator (CAISO) in response to a CARB subpoena or data request, including this subpoena, as confidential consistent with California law, including the California Public Records Act (Cal. Gov. Code, §§ 6250-6270) and California Code of Regulations, title 17, sections 91000-91022, and the terms of this letter agreement.

Specifically, this letter confirms that CARB staff will follow the disclosure procedures set forth in California Code of Regulations, title 17, section 91022 in response to public requests for information regarding data produced and shared by CAISO pursuant to the attached subpoena or in circumstances where CARB seeks to disclose such data itself. For more information regarding CARB's processes under the Public Records Act, please see http://www.arb.ca.gov/html/pubrecsguidelines.htm.

Additionally, CARB staff will not disclose in response to a subpoena, without CAISO's consent, any confidential information produced by CAISO, unless directed to do so by CARB or an Administrative Law Judge in the course of a hearing or proceeding, or by a court of law. CARB staff will promptly notify CAISO upon receipt of any such subpoena. Upon request by CARB staff, CAISO will provide, within the time frame imposed by applicable law, a written explanation setting forth the legal basis for the claim of confidentiality by CAISO. In addition to any other applicable authority, CARB staff will rely on California Evidence Code

John Spomer March 6, 2020 Page 2 of 2

section 1040 to the maximum extent consistent with governing law as the basis for non-disclosure of official information obtained in confidence from CAISO, citing the legal justification for the claim of confidentiality provided by CAISO.

When producing confidential information to CARB staff, CAISO will identify the information to be kept confidential. CARB also understands that any CAISO market participant specific information it receives pursuant to the subpoena is considered confidential, regardless of whether it is marked confidential, and will treat it as such, consistent with California law.

If you have questions regarding this subpoena, please do not hesitate to contact me.

Sincerely,

M. Rhead Enion Senior Attorney Legal Office

California Air Resources Board

(916) 322-2467

rhead.enion@arb.ca.gov

cc: via email

Andrew Ulmer
Director of Federal Regulatory Affairs
California ISO
aulmer@caiso.com

Syd Partridge, Manager Climate Change Reporting Section California Air Resources Board IN THE INQUIRY INTO:

MANDATORY GREENHOUSE GAS

EMISSIONS REPORTING DATA

SUBPOENA DUCES TECUM

Government Code § 11181 Health & Safety Code § 39515 Health & Safety Code § 41511

TO THE CUSTODIAN OF RECORDS FOR CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION:

The Air Resources Board administers a Mandatory Greenhouse Gas Emissions
Reporting Program, as set forth in Cal. Code Regs., tit. 17, § 95100, et seq. The Air
Resources Board is seeking information related to electricity transactions in the
California Independent System Operator's Energy Imbalance Market (EIM). Therefore,
pursuant to the authority vested in the Executive Officer of the Air Resources Board
under Health and Safety Code §§ 39515 and 41511, and Government Code § 11181,
you are hereby commanded to produce:

- 1. The information listed on Attachment A to this Subpoena; and
- 2. A completed Affidavit of Custodian of Records.

Because the same information is needed on an annual basis, this subpoena is continuing in nature through the year 2030 or until cancelled by the Air Resources Board.

All information and the Affidavit of Custodian of Records shall be sent to:

Syd Partridge
Manager, Climate Change Reporting Section
California Air Resources Board
Industrial Strategies Division
Program Planning and Monitoring Branch
1001 I Street, P.O. Box 2815
Sacramento, CA 95814

We request the information from the 2019 calendar year no later than April 1, 2020, and information for each successive year by April 1 of each year thereafter through and including 2025, or until notice from the Air Resources Board that compliance with this Subpoena is no longer required.

Questions concerning this Subpoena should be directed to Rhead Enion, Senior Attorney, California Air Resources Board, at 916-322-2467 or rhead.enion@arb.ca.gov.

Dated this $\mathcal{L}^{\mathcal{H}}$ day of \mathcal{M} and $\mathcal{L}^{\mathcal{H}}$ 2020.

Richard W. Corey Executive Officer

CALIFORNIA AIR RESOURCES BOARD

2		IN THE INQUIRY INTO:	AFFIDAVIT of CUSTODIAN of RECORDS
3		MANDATORY GREENHOUSE GAS	re SUBPOENA DUCES TECUM
4		EMISSIONS REPORTING DATA	Issued to:
5			California Independent System Operator Corp.
6			
7		1. My name is	. I am the
9		duly authorized custodian of the reco duces tecum referenced above. I am	ords that are the subject of the subpoena authorized to respond to this subpoena
LO		records as being true and correct.	certify those records and any copy of those
L1	:	subpoena duces tecum referenced a	rue copy of all records described in the bove to the person set out in that
L2		subpoena.	
L3		 The records accompanying this Affid attached to this affidavit, and incorp 	avit are described in Exhibit 1, which is orated by reference.
15		 I prepared the records in the manner Affidavit and incorporated by referen 	r set in Exhibit 2, which is attached to this nce.
L6 L7	!		ng this Affidavit are true and correct copies such original records in any case where I that I maintain.
L8	(6. I certify that the records accompanyi described by this subpoena duces te	ng this Affidavit constitute all the records cum referenced above.
ا9	Ì	I swear/affirm under penalty of perjury unde	er the laws of the State of California that
20		the foregoing is true and correct.	
21			
22	I	Dated this day of 2	020.
23			
24	(Custodian of Records	

25

IN THE INQUIRY INTO:

MANDATORY GREENHOUSE GAS EMISSIONS REPORTING DATA

M. Rhead Enion Senior Attorney NOTICE AND ACKNOWLEDGMENT

TO THE CUSTODIAN OF RECORDS FOR CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION:

This subpoena duces tecum is served pursuant to Section 415.30 of the California Code of Civil Procedure. Failure to complete this form and return it to the sender within 20 days may subject you (or the party on whose behalf you are being served) to liability for the payment of any expenses incurred in serving a subpoena duces tecum upon you in any other manner permitted by law. If you are served on behalf of a corporation, unincorporated association (including a partnership), or other entity, this form must be signed in the name of such entity by you or by a person authorized to receive service of process on behalf of such entity. In all other cases, this form must be signed by you personally or by a person authorized by you to acknowledge receipt of subpoena duces tecum. Section 415.30 provides that this subpoena duces tecum is deemed served on the date of execution of an acknowledgment of receipt of this subpoena duces tecum.

Dated this 5th day of March 2020.

ACKNOWLEDGMENT OF RECEIPT OF SUBPOENA DUCES TECUM This acknowledges receipt on _____ (Date) of a copy of the subpoena duces tecum at ______ (Address). (Date this acknowledgement is executed) Signature of person acknowledging receipt, with title if acknowledgment is made on behalf of another person Subpoena Duces Tecum / California Independent System Operator Corporation

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Attachment A -- Subpoena for EIM Data

Under the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (title 17; California Code of Regulations, sections 95100-95163) (Mandatory Reporting Regulation or MRR) and the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (title 17, California Code of Regulations, sections 95800-96022) (Cap and Trade), electric power entities (EPE) include electricity importers and electricity exporters. The Energy Imbalance Market (EIM) is an expansion of the California Independent System Operator's (CAISO) Balancing Authority Area's Real-Time Market that results in transfers of electricity into and out of the State of California (California).

EIM transfers of electricity into and out of the State of California constitute imports and exports under MRR. Section 95102(a)'s definition of "imported electricity" states that, "Imported electricity shall include Energy Imbalance Market dispatches designated by the CAISO's optimization model and reported by the CAISO to EIM Participating Resource Scheduling Coordinators as electricity imported to serve retail customers load that are located within the State of California." Section 95102(a)'s definition of "Electricity exporter" states that "electricity exporters include Energy Imbalance Market (EIM) Entity Scheduling Coordinators serving the EIM market that can result in exports from California." EPEs must calculate, report (by June 1), and cause to be verified an annual GHG emissions data report by August 10 for the prior calendar year.

1. Background

To clarify the terms of this subpoena, we provide the following background information.

a. General EIM Greenhouse Gas Accounting

The EIM Draft Final Proposal (DFP) issued on September 23, 2014 stated that CAISO will include a mechanism to calculate the energy produced by each generator within an EIM Entity that serves ISO load, and CAISO will provide EIM Participating Resource Scheduling Coordinators [PRSC] with summary reports listing these amounts. The DFP states:

"California Greenhouse Gas Regulation

Imports of energy into California and generation of energy within California from CO2 emitting resources, result in an obligation for the market participant to surrender compliance instruments to the California Air Resources Board (CARB) for the greenhouse gas emissions associated with the energy pursuant to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism Regulation. Energy generated outside of California that is not imported into California is not subject to this obligation.

The EIM will account for this through the following:

- It will incorporate the cost of the greenhouse gas compliance obligation into its dispatch of generation within an EIM Entity to serve ISO load, but not consider this cost when it dispatches this generation to serve load outside the ISO.
- It will include a mechanism to calculate the energy produced by each generator within an EIM Entity that serves ISO load. It will provide EIM Participating Resource Scheduling Coordinators with summary reports listing these amounts. These amounts will be the basis of their greenhouse gas regulation compliance

obligation [emphasis added]."

Source: DFP (page 8) http://www.caiso.com/Documents/EnergyImbalanceMarket-DraftFinalProposal092313.pdf.

The requirement for CAISO to provide reporting information to each PRSC for energy imported into the CAISO balancing authority area (BAA) from an EIM Entity to serve ISO load is established in CAISO EIM Tariff Section 29.32(f), Reporting Requirements under Section 29.32 "Greenhouse Gas Regulation and EIM Bid Adders." This tariff section states:

"Reporting Requirements. The CAISO will report to each EIM Participating Resource Scheduling Coordinator [1] the portion of the [Fifteen Minute Market] FMM Energy Schedule and [2] the portion of [the Real Time Dispatch] RTD Energy Dispatch that is associated with Energy deemed to have been imported to the CAISO Balancing Authority Area or other EIM Entity Balancing Authority Areas in California from all EIM Resources as part of the Real-Time Market results publication from each of its EIM Resources." Source: CAISO Tariff Section 29.32(f) (August 1, 2019). http://www.caiso.com/Documents/Section29-EnergyImbalanceMarket-asof-Aug1-2019.pdf

2. Imports to California: Tariff Section 29.32(f)

CARB requests that CAISO provide California import information on the basis of the market results reported under Tariff Section 29.32(f).

3. Exports from California: EIM Transfer Data

CARB requests that CAISO provide California export information through the provision of EIM Transfer data between CAISO and other BAAs. EIM Transfers are defined in CAISO EIM Tariff Section 29.7(e)-(f): "EIM Transfers" and "Dynamic Imbalance Schedule to Net EIM Transfers." EIM Transfers were discussed in the 2nd Revised Straw Proposal:

"There is a similar requirement to report exports from California to CARB. However, since the EIM market optimization will not identify the specific generators within the ISO that are the source of exports from the ISO to an EIM Entity BAA, this reporting will likely have to be at a system level using the dynamic interchange e-Tag for the transfers between the ISO and the EIM Entity BAAs." Source: EIM 2nd Revised Straw Proposal, July 2, 2013, page 68.

http://www.caiso.com/Documents/SecondRevisedStrawProposal-EnergyImbalanceMarket-Jul2 2013.pdf.

4. EIM Purchasers

EIM Purchasers. Effective for emissions April 1, 2019 and later, CARB will calculate EIM Purchaser Emissions. The subpoena requests data from CAISO on California scheduling coordinator and load-serving entity participation in CAISO's 5-minute energy market to support the identification of EIM Purchasers. The subpoena request for this data can be satisfied by the provision of data on scheduling coordinators representing California load who purchased negative uninstructed imbalance energy in the data year. EIM Purchaser's are defined by CARB as follows:

Energy Imbalance Market Purchaser" or "EIM Purchaser" means, for a given data year, an electrical distribution utility that directly or indirectly purchases any electricity through the EIM to serve California load in the data year and receives allowance allocation in the subsequent year pursuant to section 95892. An electrical distribution utility is considered to have purchased electricity through the EIM in a given data year if, during any 5-minute interval in the data year, the electrical distribution utility serves California load through imbalance energy purchased directly from the CAISO market. An electrical distribution utility is considered to have purchased electricity through the EIM in a given data year if, during any 5-minute interval in the data year, the electrical distribution utility participates in CAISO markets indirectly through a CAISO scheduling coordinator that meets any part of the electrical distribution utility's California load with imbalance energy. Source: Title 17, California Code of Regulations, sections 95802.

5. Data Request

CARB requests that CAISO provide the data specified in 5a through 5d for calendar years 2014 through 2019 data described in this exhibit by April 1 of 2020. For future years, CARB requests CAISO provide calendar years 2014 through the year's data by April 1 of the subsequent year.

a. Table 1: Annual State-Wide Totals for Imports and Exports

- i. Annual State-Wide Totals for Imports and Exports for all years except 2019: Provide summary import and export values into and out of California in MWh, consistent with the results of the EIM optimization model (summary of import and export values). This is illustrated in all years (rows) in Table 1 except 2019.
- ii. State-Wide Totals for Imports and Exports for 2019: For 2019 only, provide two rows of summary import and export values. The first row shall provide the summary of import and export values from January 1, 2019 through March 31, 2019. The second row shall provide the summary of import and export values from April 1, 2019 through December 31, 2019.

Table 1: Annual State-Wide Totals for Imports and Exports

Consistent with EIM model results
Annually, beginning with Calendar Year 2014

For Imports:

Consistent with CAISO EIM Tariff Section 29.32(f), Reporting Requirements under Greenhouse Gas Regulation and EIM Bid Adders, and with CARB's MRR, provide the summation of "(1) the portion of the [Fifteen Minute Market] FMM Energy Schedule and (2) the portion of [Real Time Dispatch] RTD Energy Dispatch, that is associated with Energy deemed to have been imported to the CAISO Balancing Authority Area or other EIM Entity Balancing Authority Areas in California from all EIM Resources." And, in addition, include in the summation as applicable of (3) any other EIM imports not included as part of FMM and RTD energy as a result of changes to EIM operations and/or design.

For Exports:

Consistent with CAISO EIM Tariff Section 29.7(f)(2) on Dynamic Imbalance Schedule to Net EIM Transfers, provide the summation of system level transfers using dynamic interchange e-Tags.

Note: Illustrative data below is included for explanatory purposes.

Year (and date range if 2019)	FMM Imports (MWh)	FMM Exports (MWh)	RTD Imports (MWh)	RTD Exports (MWh)
2014	5,000	1,000	6,000	5,000
January 1, 2019 to March 31, 2019	1,400	400	2,000	3,000
April 1, 2019 to December 31, 2019	2,000	300	1,400	1,200

b. Table 2: Annual State-Wide Imports by EIM Entity and Scheduling Coordinator

Provide summary import values into California in MWh, consistent with the results of the EIM optimization model, for each combination of EIM Entity and Participating Resource Scheduling Coordinator (PRSC). The summary import values shall equal the summation reported to the PRSCs under CAISO Tariff Section 29.32(f).

- i. **For all years except 2019**: provide one Table 2 for the summation of values reported under CAISO Tariff Section 29.32(f) for each combination of EIM Entities and PRSC.
- ii. **For 2019 only**: provide one Table 2 for the summation of values reported under CAISO Tariff Section 29.32(f) for each combination of EIM Entities and PRSC from January 1, 2019 through March 31, 2019. Also provide a second Table 2 with the summation of values reported under CAISO Tariff Section 29.32(f) for each combination of EIM Entities and PRSC from April 1, 2019 through December 31, 2019. For all other years, provide an annual summation.

Table 2: Annual State-Wide Totals for Imports by EIM Entity and PRSC

Consistent with EIM model results
Annually, beginning with Calendar Year 2014

For Imports: Consistent with CAISO Tariff Section 29.32(f), and with CARB's MRR, for each Market Participant and Scheduling Coordinator SCID, provide the summation of "[1] the portion of the [Fifteen Minute Market] FMM Energy Schedule and [2] the portion of [Real Time Dispatch] RTD Energy Dispatch, that is associated with Energy deemed to have been imported to the CAISO Balancing Authority Area or other EIM Entity Balancing Authority Areas in California from all EIM Resources."

In addition, include in the summation as applicable for (3) any other EIM imports not included as part of FMM and RTD energy, as a result of changes to EIM operations and/or design.

Note: Illustrative data below is included for explanatory purposes.

EIM Entity	Scheduling Coordinator	Scheduling Coordinator SCID	FMM Energy Schedule Imports (MWh)	RTD Energy Dispatch Imports (MWh)	Other EIM Imports (MWh)	Calendar Year
Acme Power	Acme Power	APWR01	800	1,000	0	2014
Acme Power			200	300	0	2014
Good Power	Good Power	GP0001	1,200	2,000	0	2014
Good Power	The Power Company	TPC001	20	20	0	2014
XYZ Energy	The Power Company	TPC002	2,780	2,680	0	2014
		•••		•••		

c. Table 3: Annual State-Wide Annual Net EIM Transfers by Entity

Consistent with CAISO EIM Tariff Section 29.7(f)(2) on Dynamic Imbalance Schedule to Net EIM Transfers, and with CARB's MRR, for each EIM Entity, provide (1) Annual Summation of Dynamic Imbalance Schedule Net EIM Transfers into California from each EIM Entity outside of California based on dynamic interchange e-Tags, and (2) Annual Summation of Dynamic Imbalance Schedule Net EIM Transfers out of California to each EIM Entity outside of California based on dynamic interchange e-Tags.

- i. For all years except 2019: provide Table 3 with data for the entire data year.
- ii. **For 2019 only**: provide one copy of Table 3 with summation of the data for the time period January 1, 2019 through March 31, 2019. Provide a second Table 3 with the summation of values from April 1, 2019 through December 31, 2019.

Table 3: Annual Net EIM Transfers

Into California, and Out of California
From, and To, Each EIM Entity per Tariff Section 29.7(f)(2)
Consistent with EIM model results
Annually, beginning with Calendar Year 2014

For Exports: Consistent with CAISO EIM Tariff Section 29.7(f)(2) on Dynamic Imbalance Schedule to Net EIM Transfers, and with CARB's MRR, for each EIM Entity, provide (1) Annual Summation of Dynamic Imbalance Schedule Net EIM Transfers into California from each EIM Entity outside of California based on dynamic interchange e-Tags, and (2) Annual Summation of Dynamic Imbalance Schedule Net EIM Transfers out of California to each EIM Entity outside of California based on dynamic interchange e-Tags.

Note: Illustrative data below is included for explanatory purposes. Further, note that for any given (non-annual) interval, when the Net EIM Transfer into CAISO from an EIM Entity is a positive, non-zero value, there will be no Net EIM Transfer out of CAISO to the same EIM Entity in the same interval, and vice versa.

	Annual Summation of Dynamic Imbalance Schedule	Annual Summation of Dynamic Imbalance Schedule		
EIM Entity	Net EIM Transfers Into California from Each EIM Entity (MWh)	Net EIM Transfers Out of California to Each EIM Entity (MWh)		
PacifiCorp for data year 2014	1000	800		
PacifiCorp for data year				
NV Energy for data year 2015	700	600		
NV Energy for data year				
Puget Sound Energy for data year 2016	300	250		
Puget Sound Energy for data year				

d. Tables 4 and 5: EIM Purchaser Data

Provide a list of all scheduling coordinators representing California load who in any 5-minute interval, purchased negative uninstructed imbalance energy in the data year. For each of these scheduling coordinators, please provide:

- i. A list of the load-serving entities each scheduling coordinator served in the data year:
- ii. the date and hour when each scheduling coordinator first purchased negative uninstructed imbalance energy for each load-serving entity it served in the data year;
- iii. A list of all months in which the scheduling coordinator purchased negative uninstructed imbalance energy for each load-serving entity it served during any operating interval in the data year; and
- iv. For 2019 only, the date and hour when the scheduling coordinator first purchased negative uninstructed imbalance energy for each load-serving entity it served starting 00hr on April 1, 2019.

Table 4: First Interval of California LSE negative uninstructed imbalance energy in the 5-minute Market in the Data Year

For data year 2019 only: first interval evaluated should begin on 00:00hr on April 1, 2019 of the data year.

For data year 2020 and beyond: first interval evaluated should begin on 00:00hr on Jan 1st of the data year.

Note: Illustrative data below is included for explanatory purposes

				1				
Scheduling Coordinator	Load Serving Entity	Year	Month	Trade Date	Hour	Interval		
Southern California Edison	Southern California Edison	2019	4	4/1/2019	1	1		
Southern California Edison	Southern California Edison	2020	1	1/1/2020	1	1		

Table 5: Monthly Data on California LSE Participation in the 5-minute Market in the Data Year

Note: Illustrative data below is included for explanatory purposes

Scheduling Coordinator	Load Serving Entity	Year	Jan	Feb	Mar	Apr	May	Jun	
Southern California Edison	Southern California Edison	2019	Х	Х	Х	Х	Х	Х	