

## Stakeholder Comments

### **Participating Intermittent Resources Protective Measures Draft Tariff Language**

<b>Submitted by</b>	<b>Company</b>	<b>Date Submitted</b>
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The following are Southern California Edison’s (SCE) comments/proposed edits on the California Independent System Operator’s (CAISO) Draft Tariff Language on Participating Intermittent Resources (PIR) Protective Measures<sup>1</sup>.

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<sup>1</sup> <http://www.caiso.com/Documents/DraftTariffLanguage-ParticipatingIntermittentResources-FERCOrder764MarketChanges.doc>

**Revised FERC Order No. 764 Draft Tariff Provisions Related to  
Transitional Protective Measures for Participating Intermittent Resources**

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**4.8 Relationships Between CAISO And Intermittent Resources**

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**4.8.1 Bidding and Settlement**

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The CAISO shall not accept Bids for an Eligible Intermittent Resource other than through a Scheduling Coordinator. Any Eligible Intermittent Resource that is not a Participating Intermittent Resource, or any Participating Intermittent Resource for which Bids are submitted shall be bid and settled as a Generating Unit for the associated Settlement Periods (except that the Forecast Fee shall apply in such Settlement Periods). Scheduling Coordinators shall not submit Economic Bids or Self-Schedules for Participating Intermittent Resources that are subject to PIRP Protective Measures.

**4.8.2 Forecasting**

All Eligible Intermittent Resources, including Dynamically Scheduled System Resources qualified as Eligible Intermittent Resources, are subject to the forecasting requirements and the Forecast Fee as described below. All Eligible Intermittent Resources must provide the CAISO meteorological and outage data as specified in Appendix Q.

**4.8.2.1 Forecast Requirements**

**4.8.2.1.1 Use of Own Forecast**

Scheduling Coordinators may opt to use and provide the CAISO its own forecast instead of using the forecast of an independent forecast service provided by the CAISO. All Scheduling Coordinators for Eligible Intermittent Resources must provide at a minimum a three-hour rolling forecast with fifteen- (15) minute granularity, updated every fifteen minutes, and may provide in the alternative a three-hour rolling forecast at five- (5) minute granularity, updated every five minutes. If a Scheduling Coordinator for an Eligible Intermittent Resource in the CAISO Balancing Authority Area opts to provide the forecast at a five-minute granularity, the CAISO will use the average of the projected Energy output for the relevant three five (5)-minute forecasts to determine the Variable Energy Resource Self-Schedule for the Fifteen Minute Market as specified in Section 34. Scheduling Coordinators may only elect for use of the Eligible Intermittent Resource's own forecast to the extent the CAISO has certified that the resource has

completed the certification requirements specified in the Business Practice Manuals. A Scheduling Coordinator for an Eligible Intermittent Resource that has elected to use its own forecast must also submit the meteorological and outage data specified in Appendix Q. After the CAISO has certified an Eligible Intermittent Resource as eligible to provide its own forecast, the CAISO may terminate the resource's certification if the CAISO determines that: 1) the Eligible Intermittent Resource's forecast is materially less accurate than the forecast provided by the CAISO on a regular basis; or 2) if the CAISO has a reasonable basis to believe that the resource is engaged in strategic forecasting for purposes other than accuracy. If the CAISO revokes the certification of an Eligible Intermittent Resource to use its own forecast, the Eligible Intermittent Resource must again complete the certification requirements specified in the Business Practice Manuals before it can again qualify to use its own forecast.

#### **4.8.2.1.2 Use of Forecast from Independent Forecast Provider**

Scheduling Coordinators for Eligible Intermittent Resources have the option to use the CAISO forecast created by an expert, independent forecasting service. Once the election to use the independent forecast provider is complete the CAISO will specify the election status for the Eligible Intermittent Resource in the Master File. The Scheduling Coordinator for the responsible Eligible Intermittent Resource must provide the meteorological and outage data as specified in Appendix Q. Any changes to this election will be subject to the timeline and rule changes that apply to the Master File as specified in Section 30.7.3.2.

#### **4.8.2.2 Application of the Forecast Fee**

Scheduling Coordinators for all Eligible Intermittent Resources, including Variable Energy Resources located outside the CAISO Balancing Authority Area that are Dynamically Scheduled into the CAISO and are qualified as Eligible Intermittent Resources, are subject to the forecast fee specified in Section 2.4.1 of Appendix Q. Such forecast fee shall apply irrespective of whether the resource elects to use the CAISO-created forecast or relies on its own forecast.

### **4.8.3 Transitional Protective Measures for Participating Intermittent Resources**

#### **4.8.3.1 Request for PIRP Protective Measures**

##### **4.8.3.1.1 Timing**

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Scheduling Coordinators for resources that wish to qualify for PIRP Protective Measures pursuant to Section 4.8.3.2 within the three-year transition period must complete their election for PIRP Protective Measures no later than thirty (30) days after the effective date of this Section 4.8.3.

#### **4.8.3.1.2 Materials Submitted with Request**

For a resource to qualify for PIRP Protective Measures, within thirty (30) days from the effective date of this Section, responsible parties must submit affidavits as described in either Section 4.8.3.1.2.1 or Section 4.8.3.1.2.2.

##### **4.8.3.1.2.1 Physical Limitations**

In the event that the responsible Scheduling Coordinator submits a request for PIRP Protective Measures because of physical limitations as specified in Section 4.8.3.2.2.1, a representative of the Participating Intermittent Resource or Qualifying Facility that is authorized to legally and financially bind the resource must submit a sworn affidavit that states that the resource meets the criteria specified in Section 4.8.3.2.1 and 4.8.3.2.2.1. The sworn affidavit must also state that the relevant party agrees that during the term of the three-year transition period, the party will engage in a good faith effort to upgrade the facility in order to address the limitations specified in Section 4.8.3.2.2.1.

##### **4.8.3.1.2.2 Contractual Limitations**

In the event that the responsible Scheduling Coordinator submits a request for PIRP Protective Measures because of contractual limitations as specified in Section 4.8.3.2.2.2, the following affidavit(s) must be submitted. A representative of the Participating Intermittent Resource or Qualifying Facility that is authorized to legally and financially bind the resource must submit to the CAISO a sworn affidavit that states that the resource is subject to a contract that meets the criteria specified in Sections 4.8.3.2.1 and 4.8.3.2.2.2, which it must also electronically serve on the same day to the counterparty to the contract. A representative of the counterparty to the applicable existing bilateral agreement that is authorized to legally and financially bind the counterparty may also submit a sworn affidavit stating that the resource is subject to a contract that meets the criteria specified in Sections 4.8.3.2.1 and 4.8.3.2.2.2, which it must also electronically serve on the same day to the counterparty to the contract. Both of these affidavits must each state that during the term of the three-year transition period, the Participating Intermittent Resource (or Qualifying Facility) will engage in a good faith effort with the counterparty to modify the

**Comment [A1]:** What happens if they do not? Since the counterparty must take actions to confirm or deny the affidavit, what happens if the counterparty never gets the affidavit to be able to confirm or deny? Do they get a do-over and the clock starts again?

~~relevant bilateral agreement or power purchase agreement, or seek to enter into a new power purchase agreement, to address the existing contractual limitation specified in Section 4.8.3.2.2.2. In the event that the counterparty submits no additional affidavits within the thirty days, the CAISO deems the counterparty to have acquiesced to the request by the representative of the Participating Intermittent Resource. To the extent that the counterparty instead submits an affidavit by a representative of the company that is fully authorized to legally and financially bind the company stating that the resource's contract does not meet the criteria in Sections 4.8.3.2.1 and 4.8.3.2.2.2, the affidavit must also state that the Participating Intermittent Resource is not directly or indirectly subject to Real-Time Imbalance Energy Settlement shall not suffer any economic or other repercussions under the contract were the resource to participate fully in the CAISO Market, including through the submission of Economic bid for economic curtailment. The representative of the Participating Intermittent Resource may choose to withdraw its request in light of the counterparty's affidavit or pursue resolution of a contractual dispute through a dispute resolution process specified in the relevant contract, or if none is available, through the process specified in Section 13 of the CAISO Tariff. During the term that the contract terms are in dispute, the resource will be subject to PIRP Protective Measures provided it meets all the other criteria specified in this Section 4.8.3. Upon resolution of the dispute, if the parties agree the contract is not eligible for PIRP Protective Measures, the resource will resume its status as a Participating Intermittent Resource not subject to PIRP Protective Measures.~~

#### **4.8.3.2 Criteria**

~~Participating Intermittent Resources or Qualifying Facilities that are registered as such on the day that this Section 4.8.3 becomes effective may qualify for PIRP Protective Measures if they meet the criteria specified below. Fulfilling such criteria is a requirement in addition to providing the affidavits described in Section 4.8.3.1.2. Qualifying Facilities whose capacity exceeds twenty (20) MW on the day this tariff section becomes effective may qualify if they meet the criteria specified below. Such Qualifying Facilities that elect and qualify for PIRP Protective Measures must also be qualified as a Participating Intermittent Resource for the term over which they are to receive the PIRP Protective Measures.~~

#### **4.8.3.2.1 Exposure to Real-Time Imbalance Energy**

**Comment [A2]:** Why both affidavits? The counterparty needs to state in an affidavit that the PIR or QF will engage in good faith negotiations or seek a new PPA? What authority would such a statement have?

**Comment [A3]:** Again, does this apply if the counterparty never received the affidavit from the PIR/QF?

**Comment [A4]:** Edited to directly match (or counter) the PIRs affidavit, and address the intended objective of PIRP Protective Measures: the RT energy imbalance charges.

**Comment [A5]:** The term "any" is far too broad. If the contract has curtailment provisions that then does not pay for energy, and if 764 makes it more likely that they will be curtailed, then there will be economic repercussions. The intent was with regard to imbalance costs. The CAISO should stick to a limited scope here.

**Comment [A6]:** Use of the word "term" could be interpreted to be the length of the contract. SCE suggests just deleting the word "terms" as the concern is what to do while the contract is in dispute.

**Comment [A7]:** Is this then subject to any form of refund if it is found to not be eligible? The cost is being paid by entities that are not party to the contract so it may not be in the best interest of parties to resolve the dispute timely.

**Comment [A8]:** Does the CAISO intend favoring one party, in a dispute, over another, without any recourse even if both parties in the end agree that the PIR does not qualify for Protective Measures?

**Comment [A9]:** What if the parties disagree? The language implies that if there is a disagreement, then the PIR's interpretation wins. If that is the case, then why bother with the whole dispute and resolution process in the first place?

The Participating Intermittent Resource, or Qualifying Facility upon expiration of its Qualifying Facility contract with a Utility Distribution Company, either: (1) is subject to an existing bilateral agreement for power purchases from the affected resource, such as a power purchase agreement, that is in effect the day this Section becomes effective, and such agreement in its totality requires that the resource owner directly or indirectly is subject to Real-Time Imbalance Energy Settlement in the CAISO Market; or (2) is not subject to any bilateral agreement for power purchases from the affected resource on the day this section becomes effective and, therefore, the resource is itself subject to Real-Time Imbalance Energy Settlement in the CAISO Market.

#### **4.8.3.2.2 Ability to Curtail**

The affected resource must also meet one of the two criteria below:

##### **4.8.3.2.2.1 Physical Limitation**

More than fifty (50) percent of the Participating Intermittent Resource or Qualifying Facility is composed of technology that is unable to curtail output and cannot be made to do so without significant investment. Participating Intermittent Resources that only lack Dispatch, control, and telemetry or metering that require upgrades to be able to respond will not qualify. Participating Intermittent Resources that require production facility investments, such as turbine replacements, will qualify.

##### **4.8.3.2.2.2 Contractual Limitation**

The resource is subject to an existing bilateral agreement for power purchases, such as a power purchase agreement, that is in effect on the date on which this Section become effective, and that prohibits the resource from curtailing its output (not including times when they are ordered to do so by the CAISO or a affected Utility Distribution Company for reliability reasons).

#### **4.8.3.3 Term of PIRP Protective Measures**

The PIRP Protective Measures shall be in effect until the earlier date of (1) three years after the effective date of this Section, or (2) the execution between the Participating Intermittent Resource owner and its counterparty of a new or amended power purchase agreement (or similar contract for services) that addresses their Imbalance Energy settlement.

#### **4.8.3.4 Posting**

The CAISO will post on its Website the names of the Participating Intermittent Resources that have elected and, subsequently who have been qualified to receive PIRP Protective Measures.

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### **11.12.1 Settlement of Hourly PIRP Schedules – PIRP Protective Measures**

#### **11.12.1.1 Hourly Settlement**

Scheduling Coordinators that represent Participating Intermittent Resources that have been qualified for PIRP Protective Measures pursuant to Section 4.8.3 will be subject to the following Settlement requirements. The CAISO will first settle the market outcomes for the Participating Intermittent Resources subject to PIRP Protective Measures consistent with the rules specified in Section 11. At the end of the month, the CAISO will calculate the PIRP Protective Measures monthly resettlement, which it will base on the forecast established for the Participating Intermittent Resource 90 minutes prior to the applicable Trading Hour. For each month the CAISO will calculate the PIRP Protective Measures Settlement Amount as the total of: (1) the sum of the product of the 90 minute MWh amounts, for each hour of the month multiplied by the simple average of the RTD LMP for the applicable Trading Hour; and (2) the product of (a) the monthly netted MWh quantities under PIRP Protective Measures, which is the sum of the hourly differences between the ninety (90) minute MWh amounts and the Participating Intermittent Resource's 5-minute metered MWhs, and (b) the resource's monthly weighted average RTD LMP, where the weights are the metered Generation quantities associated with each RTD LMP. The provisions in this Section 11.12.1 and in Section 11.12.2 will be in effect as of the day this Section becomes effective and the CAISO will implement these measures no later than twelve months after the effective date of this section.- If the Scheduling Coordinator submits an Economic Bid to the Real-Time Market, the resource will be disqualified from PIRP Protective Measures and shall not be eligible for Bid Cost Recovery related payments for such Economic Bids.

#### **11.12.1.2 Use of Inter-Scheduling Coordinator Trades for Energy**

To the extent a Participating Intermittent Resource that is subject to PIRP Protective Measures is contractually required to make use of the CAISO's Inter-Scheduling Coordinator Trade for Energy to effectuate payment transfers with its contractual counterparty, the Scheduling Coordinator may select a

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Comment [A10]: Clarification requested: is the resource permanently disqualified from Protective Measures? Or just for the relevant interval / hour / day / month?

~~flag in its Master File to indicate its election to settle of any Physical or Converted Physical Inter-Scheduling Coordinator Trades for Energy submitted for the Participating Intermittent Resource at the Participating Intermittent Resource location as follows: the Inter-Scheduling Coordinator Trades will settle at the hourly simple average of the RTD LMP of the PNode at the affected PIR location. Financial Inter-Scheduling Coordinator Trades for Energy will not be eligible for such treatment.~~

#### **11.12.2 Allocation Of Participating Intermittent Resources Protective Measures Costs/Revenues**

~~For each month, the CAISO will calculate the difference between the charges and payments made to the Scheduling Coordinator for each Participating Intermittent Resource under its Settlement as specified in Sections 11, and the PIR. The Protective Measurements resettlement amounts. The CAISO will charge or credit the differences to the Scheduling Coordinator- and will allocate a corresponding credit or charge to all charges (payments) for Uninstructed Imbalance Energy that would have been calculated if the Settlement Interval deviations by each Participating Intermittent Resource were priced at the appropriate Resource-Specific Settlement Interval LMP shall be assigned to a monthly balancing account for all Participating Intermittent Resources in the CAISO Balancing Authority Area. The balance in such account at the end of each month shall be netted against the aggregate payments (charges) by Scheduling Coordinators on behalf of Participating Intermittent Resources. The resulting balance shall be assigned to each Scheduling Coordinators in the same proportion to that each such Scheduling Coordinator's aggregate Net Negative Uninstructed Deviations in that month relative bears to the aggregate Net Negative Uninstructed Deviations for all Scheduling Coordinators in the CAISO Balancing Authority Area in that month.~~

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#### **11.12.3.3 Participating Intermittent Resource Export Fee**

A Participating Intermittent Resource Export Fee will be levied to Participating Intermittent Resources that have elected for PIRP Protective Measures in accordance with Section 5.3 of Appendix Q and Schedule 4 of Appendix F.

#### **11.12.4 Price For Uninstructed Deviations**

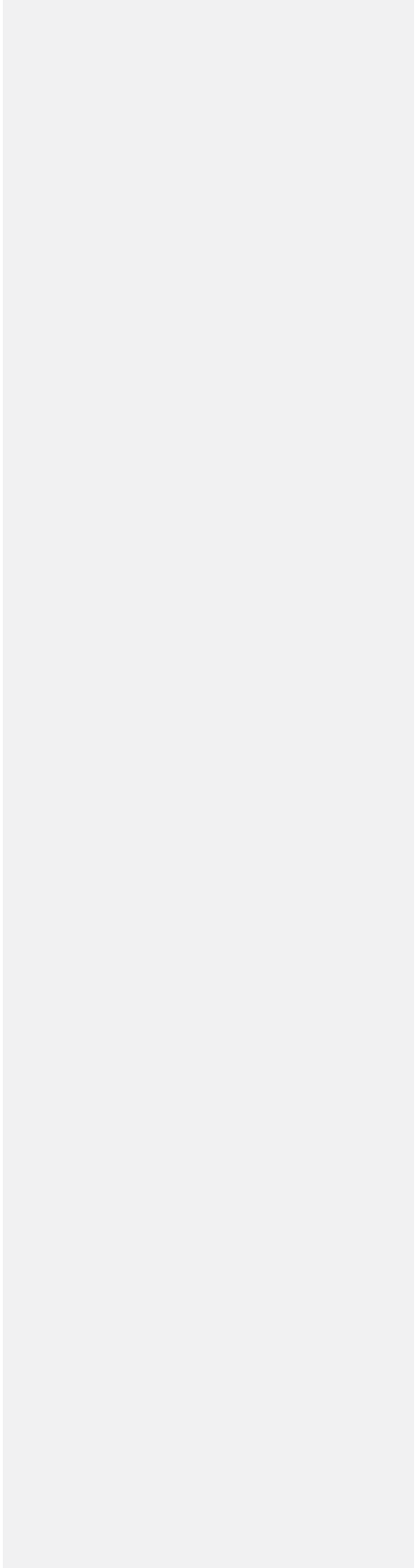
~~Uninstructed Deviations associated with each Participating Intermittent Resource in a Scheduling Coordinator's portfolio shall be settled as provided in Section 34.19.2.5 at the monthly weighted average~~



~~Dispatch Interval LMP, where the weights are the metered Generation quantities associated with each Dispatch Interval LMP.~~

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**Appendix Q**  
**Eligible Intermittent Resources Protocol (EIRP)**



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## 2.2.5 Information Requirements For Participating Intermittent Resource Export Fee

In order for the CAISO to administer, implement and calculate the Participating Intermittent Resource Export Fee, each Participating Intermittent Resource jointly with, and through, its Scheduling Coordinator must provide the CAISO with the following information and documents under the schedule and conditions set forth in this section.

The CAISO will maintain the confidentiality of all information and documents received under this section in accordance with CAISO Tariff Section 20 et seq.

- A. A certification, in the form set for in a Business Practice Manual, signed by an officer of the Participating Intermittent Resource and its Scheduling Coordinator, identifying (1) the PIR Export Percentage under Section 5.3.2 of this EIRP for resources that have elected PIRP Protective Measures, if any, and basis thereof, and (2) each contract to sell Energy or capacity from the Participating Intermittent Resource, including for each such contract, the counterparty, start and end dates, delivery point(s), quantity in MW, other temporal terms, i.e., seasonal or hourly limitations.

The certification must be updated by resubmission to the CAISO (1) upon a request to modify the composition of the Participating Intermittent Resource under Section 2.4.2 of this EIRP; or (2) within ten (10) calendar days of final execution of a new contract or any change in counterparty, start and end dates, delivery point(s), quantity in MW, or other temporal terms, as described above, for any prior certified contract. All other contractual changes will not trigger the obligation for recertification;

- B. Copies of all contracts, including changes, identified in the above-referenced certification; however, price information may be redacted from the contracts provided.

Each Participating Intermittent Resource, as of November 1, 2006, must initially provide the information requested by this Section 2.2.5 in accordance with a Market Notice provided by the CAISO to Participating Intermittent Resources. All other Eligible Intermittent Resources must satisfy this Section 2.2.5 in order to become a Participating Intermittent Resource after November 1, 2006.

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## 4.1 [Not Used]

### Hour-Ahead Forecast

~~The CAISO shall develop expert, independent hourly forecasts of Energy generation for each Participating Intermittent Resource. A forecast shall be published each hour for each of the next seven operating hours. Other forecasts, including a Day Ahead forecast, may be developed at the CAISO's discretion. must use the hour-ahead forecast that is available thirty (30) minutes prior to the deadline for submitting the HASP/RTM Bids. The CAISO shall use best efforts to provide reliable and timely forecasts. However, if the CAISO fails to deliver the hour-ahead forecast to the Scheduling Coordinator prior to fifteen (15) minutes before the deadline for submitting HASP/RTM Bids, then the hour-ahead forecast shall be the most recent Energy forecast provided by the CAISO to the Scheduling Coordinator for the operating hour for which Bids are next due.~~

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5 SCHEDULING AND SETTLEMENT

5.1 Schedules

~~For all Generating Units that comprise the Participating Intermittent Resources shall comply with the Bidding and scheduling rules specified in Sections 4, 30, 31, and 34. Scheduling Coordinators shall be required to submit HASP/RTM Bids (MWh) for the Generating Units that comprise each Participating Intermittent Resource that are identical, in the aggregate, to the hour-ahead forecast published for that Participating Intermittent Resource (MWh).~~

Comment [A11]: Which sections? Missing / incomplete reference

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5.3 Participating Intermittent Resource Export Fee

~~The rules specified in this Section 5.3 and its subsection applies only to Participating Intermittent Resources that have elected PIRP Protective Measures and do not apply to resources that have not elected for such measures.~~

5.3.3 ~~Monthly~~ Quarterly Application of Participating Intermittent Resource Export Fee

Each ~~month~~quarter the CAISO will charge Exporting Participating Intermittent Resources the Participating Intermittent Resource Export Fee, as set forth in Schedule 4 of Appendix F.