



**Load Serving Entity Definition Refinement  
Draft Final Proposal**

**Updated: September 21, 2016**

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## Revision History

Date	Revision
09/14/2016	Initial Release
09/21/2016	In Section 7, revised part (b)(iii) of the proposed load serving entity definition

## 1. Executive Summary

The ISO intends to update the tariff definition of the term “Load Serving Entity” (LSE) to include entities that have been granted authority pursuant to state, local law or regulation to serve their own load directly through wholesale purchases of electric energy and that have chosen to exercise that authority. The ISO first made this suggestion in a July 29, 2016 tariff waiver filing submitted to FERC<sup>1</sup>. That waiver request was granted by FERC on September 1, 2016.<sup>2</sup>

All entities serving load within the ISO balancing authority area may participate in the congestion revenue rights allocation process and must demonstrate adequate resources to meet peak load.

The proposed load serving entity definition is meant to include entities that have the authority and exercise the authority to forgo the services of a load serving entity as currently defined in the tariff by serving their own load through the wholesale purchase of power. Some entities have the authority to meet their load serving obligations either by purchasing power retail from a load serving entity, as currently defined, or by choosing to forgo the services of a load serving entity and purchasing power wholesale. Where an entity chooses to exercise its authority to serve its own load as an end user through the purchase of wholesale power, the tariff does not currently afford it the same rights and place upon it the same obligations as any other entity serving load within the ISO balancing authority area.

To the best of the ISO’s knowledge, today, all entities with this option, other than the State Water Project, have chosen to make retail purchases of power from a load serving entity, as currently defined. In this scenario, the actual load serving entity may receive congestion revenue rights allocations for the load it serves (including the load from the entity that has chosen not to exercise its right to serve its own load) and is also responsible for meeting the resource adequacy obligations associated with the load it serves (including the load from the entity that has chosen not to exercise its right to serve its own load).

However, when an entity with this option exercises its authority to serve its own load by purchasing wholesale power, it should be afforded the same rights and take on the same obligations as any other load serving entity in the ISO balancing authority area. If such an entity exercises its authority to serve its own load under the current ISO tariff, its treatment under the existing congestion revenue rights and resource adequacy provisions would be different than other load serving entities. Such an entity would essentially serve all the same functions of what the ISO tariff currently defines as a “Load Serving Entity, yet such an entity would not meet the tariff definition. The proposed definition will now include all load serving entities, applying equal treatment under the tariff in cases where an entity chooses to exercise its right to serve its own needs directly through wholesale market purchase.

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<sup>1</sup> *Cal. Indep. Sys. Operator Corp.*, Petition for Limited Tariff Waiver and Request for Expedited Consideration, FERC Docket No. ER16-2327-000 (Jul. 29, 2016).

<sup>2</sup> *Cal. Indep. Sys. Operator Corp.*, 156 FERC ¶ 61,153 (2016).

## 2. Scope of Initiative

This initiative is focused on required updates to the tariff to allow the congestion revenue rights and resource adequacy provisions to apply to entities that have been granted authority pursuant to state, local law, or regulation, to serve their own load directly through wholesale purchases of electric energy and have chosen to exercise this authority.

## 3. Changes to this proposal

In response to the issue paper and straw proposal, stakeholders were primarily concerned that the proposed definition would unintentionally include entities such as existing transmission contract holders, transmission ownership rights holders, or electric generators. They were also concerned that the proposed definition would have a major impact on current congestion revenue rights holders/participants. Other stakeholders requested that the ISO remove the term “California” from the proposed definition.

The ISO made the following changes to address stakeholder comments:

- (1) The ISO clarified that an entity must be an end user, have the authority to serve its load through the wholesale purchase of power, and choose to exercise its authority to serve its load through the wholesale purchase of power.
- (2) The ISO clarified that the proposed definition is not intended to include electric generators serving their own load because under the proposed definition, entities must be serving their own load through the purchase of electric energy. Electric generators serving their own load with their own generation are not purchasing electric energy.
- (3) The ISO discussed the congestion revenue rights allocation impact for multiple scenarios related to entities with or without existing transmission contracts and transmission ownership rights to show little or no impact to current congestion revenue rights allocation participants.
- (4) The ISO removed the term “California” from the definition to properly include entities such as the Valley Electric Association.

One stakeholder commented that the ISO should allow non-LSE exporters to participate in the congestion revenue rights allocation or be exempted from the wheeling access charge. These comments did not result in a change to this proposal. The purpose of the current initiative is to properly define a load serving entity in the tariff. We are not proposing changes to the congestion revenue rights program or the resource adequacy program within this initiative. The ISO’s current policy to allocate congestion revenue rights to load serving entities is based on sound principles, has been approved by FERC to be just and reasonable, and therefore the ISO does not see a need to reconsider this policy.

Other stakeholders commented that the ISO should clarify that it intends to include entities that pay either the wheeling access charge or the transmission access charge in the definition of a load serving entity. These comments resulted in no changes to the proposal. The proposed definition does not make a distinction between whether an entity pays transmission access

charge or wheeling access charge; it is only focused on whether an entity is exercising its authority to serve its load through the purchase of wholesale power.

#### 4. Stakeholder Engagement

The schedule for stakeholder engagement is provided below and targets presentation of the proposal to the Board of Governors' October 2016 meeting, with a FERC filing requesting the amended tariff language to be effective on January 1, 2017.

The policy issues that this initiative addresses are not within the scope of and do not affect the ISO's Energy Imbalance Market.

Date	Event
Mon 8/15/2016	Issue paper & straw proposal posted
Tue 8/23/2016	Stakeholder call
Fri 9/2/2016	Stakeholder comments due on straw proposal
Mon 9/14/2016	Draft final proposal posted
Wed 9/21/2016	Stakeholder call
Wed 10/05/2016	Stakeholder comments due on draft final proposal
10/26/2016-10/27/2016	October Board of Governors Meeting

## 5. Background

The ISO tariff defines a Load Serving Entity as:

Any entity . . . that (a) (i) serves End Users within the CAISO Balancing Authority Area and (ii) has been granted authority or has an obligation pursuant to California state or local law, regulation, or franchise to sell electric energy to End Users located within the CAISO Balancing Authority Area; (b) is a federal power marketing authority that serves End Users; or (c) is the State Water Resources Development System commonly known as the State Water Project of the California Department of Water Resources.

Entities that have been granted authority pursuant to state or local law or regulation to serve their own load directly through wholesale purchases of electric energy are responsible for securing energy and transmission service to serve their own electrical demand and energy requirements. These entities are similarly situated to load serving entities as currently defined under the ISO tariff because they have the obligation to serve load, their load will be subject to access charges, and their scheduling coordinator will be exposed to congestion charges associated with locational marginal pricing in the day-ahead market.

While these entities are similarly situated to load serving entities as currently defined in the ISO tariff, with one exception, they do not meet the tariff definition of the term because the current definition focuses on an entity serving end-use customers, while these entities are themselves the end-use customer. The one exception, which is stated in the definition of the term, is the State Water Project. Even though it is not a retail electric utility that serves load, the tariff specifically identifies the State Water Project as a LSE. During the tariff approval process associated with the ISO's transition to its locational marginal price-based market, the ISO explained that the State Water Project should be treated as a Load Serving Entity the same as a retail electric utility and that the term "Load Serving Entity" itself should be interpreted broadly.<sup>3</sup> The Commission found the then-pending tariff definition ambiguous and ordered the ISO to offer further clarity.<sup>4</sup> On compliance, the ISO added the third prong of the current tariff definition, which specifically includes the State Water Project.<sup>5</sup> The ISO did not at that time offer a broader revision of the definition that would have covered other entities similarly situated to the State Water Project.

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<sup>3</sup> *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61274, P 1131 (2006).

<sup>4</sup> *Id.* at P 1138.

<sup>5</sup> *Cal. Indep. Sys. Operator Corp.*, Compliance Filing, FERC Docket No. ER06-615-000 (Nov. 20, 2006).

Because these entities are not load serving entities under the existing tariff definition they cannot receive allocated congestion revenue rights<sup>6</sup> and cannot take on corresponding resource adequacy obligations associated with their load.

Under a new Load Serving Entity tariff definition that includes these entities, they will be eligible to receive allocated congestion revenue rights by certifying that they are a Load Serving Entity and they will also take on corresponding resource adequacy obligations associated with their load.

### 5.1. Allocation of Congestion Revenue Rights to Load Serving Entities

Congestion revenue rights are an integral component in the ISO markets. Congestion revenue rights are a financial instrument settled on the difference in the marginal cost of congestion<sup>7</sup> between two points (the source and the sink) on the ISO's system (as determined in the ISO day-ahead market), multiplied by the MW value of the congestion revenue right between the two points. The quantity of congestion revenue rights available is based on a model of the ISO's electric system. Based on the congestion revenue rights requested, the ISO conducts a simultaneous feasibility test to determine which congestion revenue rights it will release in each round of the congestion revenue rights process.

The ISO releases Monthly, Seasonal, and Long Term congestion revenue rights, with one month, three month, and ten year terms, respectively. The ISO releases congestion revenue rights through both an allocation process, in which parties are awarded congestion revenue rights at no cost, and an auction mechanism, in which parties are awarded congestion revenue rights based on the market-clearing prices in an auction. The ISO conducts both an annual process, in which it allocates Seasonal and Long Term congestion revenue rights and auctions Seasonal congestion revenue rights, and a monthly process, in which it both allocates and auctions Monthly congestion revenue rights. The allocation is an iterative, multi-tier process in which internal and external load serving entities are entitled to nominate congestion revenue rights based on their load-serving obligations. The auction, in contrast, is open to all registered parties wishing to obtain congestion revenue rights. Eligibility to participate in the auctions is not based on an entity's load-serving obligations.

The tariff explicitly states that only tariff defined "Load Serving Entities" may participate in the allocation. Section 4.10.1.5.2 states that an entity that "intends to obtain congestion revenue rights through the congestion revenue rights Allocation process must certify that it qualifies as a Load Serving Entity as defined in the CAISO Tariff." Similarly, section 36.8.2 of the tariff states that an "entity that wishes to participate in the CRR Allocation process must provide information that demonstrates that it has an obligation to serve load."

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<sup>6</sup> "Candidate CRR Holder Load Serving Entity Certifications -- A Candidate CRR Holder applicant that intends to obtain CRRs through the CRR Allocation process must certify that it qualifies as a Load Serving Entity as defined in the CAISO Tariff," ISO Tariff Section 4.10.1.5.2

<sup>7</sup> The marginal cost of congestion is one of the components of the ISO's locational marginal prices.

The rationale behind limiting allocated congestion revenue rights to load serving entities is that they, on behalf of the load they serve, pay for the embedded costs of the transmission system by paying access charges and, thus, the ISO should allocate them congestion revenue rights to enable them to hedge the volatility in the marginal cost of congestion component of locational marginal prices. The ISO was clear in establishing this system that it was a forward-looking principle because it allocates congestion revenue rights for a future congestion revenue rights term in which the load serving entity will be paying access charges and will be exposed to congestion costs to serve its load, as opposed to an entitlement based on past payment of access charges.<sup>8</sup>

## 5.2. Resource Adequacy Obligations

An entity that meets the tariff definition of “Load Serving Entity” with demand in the ISO balancing authority area must demonstrate that it satisfies the resource adequacy provisions outlined in section 40 of the ISO tariff. Under those provisions, load serving entities must procure capacity to meet their forecasted load, plus a reserve margin, local area capacity needs, and flexible resource adequacy requirements.<sup>9</sup> To demonstrate that procurement, under section 40.2.2.4 load serving entities must submit annual and monthly resource adequacy plans to the ISO.<sup>10</sup>

An entity that meets the tariff definition of Load Serving Entity in the ISO balancing authority area must satisfy the resource adequacy requirements associated with that load. The proposed load serving entity definition ensures that when an entity chooses to exercise its authority to serve its end use needs through the purchase of wholesale power, it should take on the same obligations as any other entity serving load within the ISO balancing authority area.

As far as the ISO is aware, today, all entities with the option to serve their end use needs through the purchase of power at wholesale, other than the State Water Project, have chosen to make retail purchases of power from a registered load serving entity. In this scenario, the registered load serving entity is responsible for meeting the resource adequacy obligations associated with the load. The proposed load serving entity definition ensures that when an entity chooses to exercise its authority to serve itself as an end user through the purchase of wholesale power, it will also appropriately be responsible for meeting the resource adequacy obligations associated with the load.

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<sup>8</sup> *Cal. Indep. Sys. Operator Corp.*, Tariff Filing to Reflect Market Redesign and Technology Upgrade, Kristov Testimony at 88-89, FERC Docket No. ER06-615-000 (Feb. 9, 2006).

<sup>9</sup> The specific requirements are developed by the ISO in collaboration with the California Public Utilities Commission and other local regulatory authorities to develop procurement requirements to ensure that the capacity procured by the Load Serving Entities under their respective jurisdictions is adequate to meet the CAISO’s operational needs and maintain grid reliability.

<sup>10</sup> Section 40.2.2.4 applies to a Non-CPUC Load Serving Entity (which these types of entities would be), while section 40.2.3.4, which contains parallel provisions, applies to “a Load Serving Entity electing Modified Reserve Sharing LSE status . . . .”

## **6. Issues**

Other than the State Water Project, entities that have been granted authority pursuant to state or local law or regulation to serve their own load directly through wholesale purchases of electric energy and that have chosen to exercise that right do not meet the current definition of Load Serving Entity in the ISO tariff. This prevents these entities from eligibility to participate in the CRR allocation process and requirement to participate in the resource adequacy processes, even though they are similarly situated to entities that currently meet the ISO tariff definition.

## 7. Proposal

The ISO proposes to update the tariff definition of “Load Serving Entity” to include entities that have been granted authority pursuant to state or local law or regulation to serve their own Load directly through wholesale purchases of electric energy and have chosen to exercise that authority. The specific reference to the State Water Project is proposed for deletion because the State Water Project would be covered under the new category of Load Serving Entity. Keeping the current reference would be superfluous and potentially could cause confusion in the future.

The current definition reads:

### **- Load Serving Entity (LSE)**

Any entity (or the duly designated agent of such an entity, including, e.g., a Scheduling Coordinator), including a load aggregator or power marketer, that (a) (i) serves End Users within the CAISO Balancing Authority Area and (ii) has been granted authority or has an obligation pursuant to California state or local law, regulation, or franchise to sell electric energy to End Users located within the CAISO Balancing Authority Area; (b) is a federal power marketing authority that serves End Users; or (c) is the State Water Resources Development System commonly known as the State Water Project of the California Department of Water Resources.

The proposed definition reads:

### **- Load Serving Entity (LSE)**

Any entity (or the duly designated agent of such an entity, including, e.g., a Scheduling Coordinator), including a load aggregator or power marketer, that (a) (i) serves End Users within the CAISO Balancing Authority Area and (ii) has been granted authority or has an obligation pursuant to state or local law, regulation, or franchise to sell electric energy to End Users located within the CAISO Balancing Authority Area; (b) (i) is an End User, (ii) has been granted authority pursuant to state or local law or regulation to serve its own Load through the purchase of electric energy from an entity that does not qualify under either part (a) or part (c) of this definition of Load Serving Entity, and (iii) serves its own Load through purchases of electric energy from an entity that does not qualify under either part (a) or part (c) of this definition of Load Serving Entity with respect to such purchases of electric energy; or (c) is a federal power marketing authority that serves End Users.

For convenience, the following redline shows the difference between the current definition and the proposed definition:

**- Load Serving Entity (LSE)**

Any entity (or the duly designated agent of such an entity, including, e.g., a Scheduling Coordinator), including a load aggregator or power marketer, that (a) (i) serves End Users within the CAISO Balancing Authority Area and (ii) has been granted authority or has an obligation pursuant to ~~California~~ state or local law, regulation, or franchise to sell electric energy to End Users located within the CAISO Balancing Authority Area; (b) ~~(i) is an End User, (ii) has been granted authority pursuant to state or local law or regulation to serve its own Load through the purchase of electric energy from an entity that does not qualify under either part (a) or part (c) of this definition of Load Serving Entity, and (iii) serves its own Load through purchases of electric energy from an entity that does not qualify under either part (a) or part (c) of this definition of Load Serving Entity with respect to such purchases of electric energy; or~~ (bc) is a federal power marketing authority that serves End Users.; ~~or (c) is the State Water Resources Development System commonly known as the State Water Project of the California Department of Water Resources.~~

The proposed definition is not intended to include electric generators serving their own load which is currently allowed by California law and regulation. Under the proposed definition, entities must be serving their own load through the purchase of electric energy. Electric generators serving their own load with their own generation are not purchasing electric energy.

## 8. Impacts

### 8.1. Solution ensures little to no impact on congestion revenue rights allocation

The ISO anticipates little to no impact on the allocation of congestion revenue rights to current load serving entities because the solution is aligned with current tariff provisions related to load shares, Existing Transmission Contracts (ETCs), and Transmission Ownership Rights (TORs). In this section, we consider three scenarios to display the potential impact on the congestion revenue rights allocation to current load serving entities. In each scenario the entity fits the new “Load Serving Entity” definition and chooses to exercise its authority to serve its end use needs through the purchase of power at wholesale.

- (1) **Entities fitting the new definition with expiring ETCs.** In this scenario, an entity that has expiring ETCs wishes to exercise its authority to serve its load through the purchase of wholesale power. The entity is currently being served by a Load Serving Entity that schedules the load under an ETC, which exempts those schedules from congestion charges. Since these schedules are exempt from congestion charges, the Load Serving Entity is not able to also request CRRs for this load. In order for the CRR model to ensure that there is sufficient congestion revenues available to reimburse those scheduled ETCs the CRR system models those ETCs as CRR source/sink nominations which remove the ETC capacity from the CRR optimization. The load associated with these ETCs is set aside from the total load share calculation and subtracted from the LSE’s load share. The ETC related CRRs are held by the ISO and are not provided to the ETC holder or scheduling entity. After the entity becomes its own LSE and the ETCs expire, the ETC capacity is no longer set aside in the total load share calculation, and the entity that becomes its own LSE also gets a comparable load share for purposes of CRR allocation. Because the ETC capacity is set aside today, adding the capacity into the allocation and giving the new LSE its load share results in little to no impact to other load serving entities.
- (2) **Entities fitting the new definition with ETCs that are not expired or that hold TORs.** In this scenario, an entity that has ETCs and/or holds TORs wishes to exercise its authority to serve its load through the purchase of wholesale power. The entity is currently being served by a Load Serving Entity that schedules the load under the ETC and/or TOR which exempts those schedules from congestion charges. Since these schedules are exempt from congestion charges the Load Serving Entity is not able to also request CRRs for this load. In order for the CRR model to ensure that there is sufficient congestion revenue available to reimburse those properly scheduled ETCs and/or TORs the CRR system models those ETCs and TORs as CRR source/sink nominations which remove the ETC and TOR capacity from the CRR optimization. The load associated with these ETCs and/or TORs is set aside from the total load share calculation and subtracted from the LSE’s load share. The ETC and TOR related CRRs are held by the ISO and are not provided to the ETC holder or scheduling entity. After

the entity becomes its own LSE, the ETCs and/or TORs will continue to be set aside from the total load share calculation and subtracted from the new LSE's load share. Because the ETC and/or TOR capacity is set aside today and will continue to be set aside after the transition, there is little to no impact to other load serving entities.

- (3) **Entities fitting the new definition with no ETCs or TORs.** In this scenario, an entity that does not have ETCs and holds no TORs wishes to exercise its authority to serve its end use needs through the purchase of wholesale power. The entity is currently being served by a Load Serving Entity that counts the entity's load in the Load Serving Entity's load share for the purposes of CRR allocation; the LSE receives CRR allocation for the entity's load. After the entity becomes its own LSE, the old LSE's load share is adjusted and the load is migrated to the new LSE. Because the load share is migrated after the transition, there is little to no impact to other load serving entities.

## 8.2. Solution ensures no impact on the total resource adequacy obligation

The ISO anticipates no impact on the ISO total resource adequacy obligation because the proposed definition is aligned with current resource adequacy tariff provisions. The ISO will migrate resource adequacy obligations from the current Load Serving Entity to an entity that chooses to exercise its authority to serve its load through the purchase of power at wholesale.

Today, entities that have the authority to serve their load through the purchase of wholesale power have chosen to instead purchase power at retail from a load serving entity, as currently defined. These load serving entities are currently meeting the resource adequacy obligations on behalf of the load. The load serving entities, as currently defined, are also receiving any resource adequacy import allocations associated with the load to offset obligations by any ETC or TOR associated with the load. If an entity chooses to exercise its authority to serve its load through the purchase of wholesale power, the load share and import allocations will be migrated from the current Load Serving Entity to the new Load Serving Entity. Because the import allocations and load share is migrated after the transition, there is no impact on the ISO total resource adequacy obligation.

## **9. Next Steps**

The ISO will discuss the draft final proposal with stakeholders during a teleconference to be held on September 21, 2016. Stakeholders should submit written comments by October 5, 2016 to [InitiativeComments@caiso.com](mailto:InitiativeComments@caiso.com).