



March 13, 2023

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: California Independent System Operator Corporation

**Compliance Filing to Implement Reference Level Changes for
Washington Resources to Reflect Costs of Greenhouse Gas Compliance
Tariff Amendment**

Docket No. ER23-474-_____

Dear Secretary Bose:

The California Independent System Operator Corporation (“CAISO”) submits this filing in compliance with the Federal Energy Regulatory Commission’s (“Commission”) Order Accepting Tariff Revisions, Subject to Compliance Filing issued on February 10, 2023 in the above-captioned docket (“February 10 Order”).¹ The CAISO requests that the Commission accept the proposed tariff revisions as compliant with the February 10 Order.²

On November 21, 2022, the CAISO submitted a tariff amendment in this proceeding to reflect the costs of greenhouse gas (GHG) compliance associated with Washington’s cap-and-invest program in their default energy bids and commitment costs.³ In its February

¹ *California Indep. Sys. Operator Corp.* 182 FERC ¶ 61,067 (2023) (“February 10 Order”). Capitalized terms not otherwise defined herein have the meaning set forth in the CAISO tariff, and references to specific sections, articles, and appendices are references to sections, articles, and appendices in the CAISO tariff.

² The CAISO is finalizing the expected implementation date and will file notice with the Commission of the effective date within five business days of implementation, as contemplated in the CAISO’s initial filing and accepted in the February 10 Order.

³ Under Washington’s Climate Commitment Act, Washington began its cap-and-invest program on January 1, 2023 pursuant to which the Washington Department of Ecology imposes a compliance obligation on GHG emitters, including electricity generators located in the state of Washington.

10 Order accepting the tariff revisions, the Commission identified an error in the CAISO's proposed language. Revisions to Section 30.4.5.1(c)(iii) as originally proposed inadvertently stated that a resource must be located in California *and* Washington to be eligible to include the costs of greenhouse gas ("GHG") compliance in its commitment costs. The Commission directed the CAISO to correct the language in that section by revising "California *and* Washington" to "California *or* Washington." This change is consistent with the rest of the tariff changes in the CAISO's filing. The CAISO makes this change to its proposed tariff language with this filing.

I. **Materials Provided in this Compliance Filing**

In addition to this transmittal letter, this compliance filing includes:

Attachment A	Clean CAISO tariff sheets reflecting the tariff revision described above
Attachment B	Red-line CAISO tariff sheets reflecting the tariff revision described above

II. **Conclusion**

The CAISO requests that the Commission accept this filing which complies with the Commission's February 10 Order.

Respectfully submitted,

/s/ Sarah E. Kozal

Roger E. Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Andrew Ulmer

Assistant General Counsel

Sarah E. Kozal

Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Counsel for the California Independent
System Operator

CERTIFICATE OF SERVICE

I certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 13th day of March, 2023.

/s/ Jacqueline Meredith

Jacqueline Meredith
An employee of the California ISO

Attachment A – Clean Tariff

Compliance Filing – Washington Greenhouse Gas Compliance

California Independent System Operator Corporation

March 13, 2023

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30.4.5 Proxy Cost Methodology

The CAISO will calculate Proxy Costs as described in this Section 30.4.5.

30.4.5.1 Natural Gas-Fired Resources

For each natural gas-fired resource, the CAISO will calculate a resource's Proxy Costs based on the resource's actual unit-specific performance parameters and applicable gas prices as described below.

- (a) **Fuel Input.** The CAISO will calculate Proxy Costs using formulaic natural gas cost values adjusted for fuel-cost variation, based on the natural gas price calculated pursuant to Section 39.7.1.1.1.3, and consistent with the requirements specified below.
- (b) **Proxy Start-Up Cost.** Proxy Start-Up Costs will also include:
 - (i) a Variable Start-Up Operations and Maintenance Adder as provided in Section 30.4.5.4;
 - (ii) a greenhouse gas cost adder for each resource located within the CAISO Balancing Authority Area or an EIM Entity Balancing Authority Area within California or Washington, and registered with the California Air Resources Board or the Washington Department of Ecology as having a greenhouse gas compliance obligation, which is calculated for each Start-Up as the product of the resource's fuel requirement per Start-Up, the greenhouse gas emissions rate authorized by the California Air Resources Board or the Washington Department of Ecology, and the applicable Greenhouse Gas Allowance Price;
 - (iii) the rates for the Market Services Charge and System Operations Charge multiplied by the shortest Start-Up Time listed for the resource in the Master File, multiplied by the PMin of the resource as registered in the Master File, multiplied by 0.5; and
 - (iv) the cost of auxiliary power calculated using the unit-specific MWh quantity of auxiliary power used for Start-Up multiplied by a resource-specific electricity price.

- (c) **Proxy Cost Minimum Load Costs.** Proxy Cost Minimum Load Costs will also include:
- (i) a Variable Energy Operations and Maintenance Adder as provided in Section 30.4.5.4;
 - (ii) a Variable Minimum Load Operations and Maintenance Adder as provided in Section 30.4.5.4.
 - (iii) a greenhouse gas cost adder for each resource located within the CAISO Balancing Authority Area or an EIM Entity Balancing Authority Area within California or Washington, and registered with the California Air Resources Board or the Washington Department of Ecology as having a greenhouse gas compliance obligation, which is calculated for each run-hour as the product of the resource's fuel requirement at Minimum Load as registered in the Master File, the greenhouse gas emissions rate authorized by the California Air Resources Board or the Washington Department of Ecology, and the applicable Greenhouse Gas Allowance Price;
 - (iv) the rates for the Market Services Charge and System Operations Charge multiplied by the PMin of the resource as registered in the Master File; and
 - (v) the Bid Segment Fee.
- (d) **Proxy Transition Costs.** For each Multi-Stage Generating Resource under the Proxy Cost methodology, the CAISO will calculate the Proxy Transition Costs utilized for each feasible transition from a given MSG Configuration to a higher MSG Configuration based on the difference between the Proxy Start-Up Costs for the higher MSG Configuration, and the Proxy Start-Up Costs for the lower MSG Configuration, as those costs are determined in accordance with the Proxy Start-Up Cost calculation methodology set forth in Section 30.4.5. If the result of this calculation is negative for any transition between two MSG Configurations, then the associated Proxy Transition Cost shall be zero.

30.4.5.2 Non-Natural Gas-Fired Resources

For each non-natural gas-fired resource, the CAISO shall calculate the Proxy Start-Up Cost and Proxy Minimum Load Cost values under the Proxy Cost methodology as specified below.

- (a) **Fuel Input.** The Scheduling Coordinator for the resource will provide the fuel or fuel-equivalent input costs, which the CAISO will maintain in the Master File, pursuant to Section 39.7.1.1.1.2.
- (b) **Proxy Start-Up Costs.** Proxy Start-Up Costs will also include, if applicable:
 - (i) a Variable Start-Up Operations and Maintenance Adder as provided in Section 30.4.5.4;
 - (ii) greenhouse gas allowance costs for each resource located within the CAISO Balancing Authority Area or an EIM Entity Balancing Authority Area within California or Washington, and registered with the California Air Resources Board or the Washington Department of Ecology as having a greenhouse gas compliance obligation, as provided to the CAISO by the Scheduling Coordinator;
 - (iii) the rates for the Market Services Charge and System Operations Charge multiplied by the shortest Start-Up Time listed for the resource in the Master File, multiplied by the PMin of the resource as registered in the Master File, multiplied by 0.5.
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 - (i) A Variable Energy Operation and Maintenance Adder as provided in Section 30.4.5.4 multiplied by the PMin of the resource or MSG Configuration of the resource as registered in the Master File;
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 - (iii) greenhouse gas allowance costs for each resource located within the CAISO Balancing Authority Area or an EIM Entity Balancing Authority Area within California or Washington, and registered with the California Air Resources Board or the Washington Department of Ecology as having a greenhouse gas compliance obligation, as provided to the CAISO by the Scheduling Coordinator;
 - (iv) the rates for the Market Services Charge and System Operations Charge multiplied by the PMin of the resource as registered in the Master File; and

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(d) **Proxy Transition Costs.** For each Multi-Stage Generating Resource under the Proxy Cost methodology, the CAISO will calculate the Proxy Transition Costs utilized for each feasible transition from a given MSG Configuration to a higher MSG Configuration based on the difference between the Proxy Start-Up Costs for the higher MSG Configuration, and the Proxy Start-Up Costs for the lower MSG Configuration, as those costs are determined in accordance with the Proxy Start-Up Cost calculation methodology set forth in Section 30.4.5. If the result of this calculation is negative for any transition between two MSG Configurations, then the associated Proxy Transition Cost shall be zero.

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Attachment B – Marked Tariff

Compliance Filing – Washington Greenhouse Gas Compliance

California Independent System Operator Corporation

March 13, 2023

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30.4.5 Proxy Cost Methodology

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 - (iii) greenhouse gas allowance costs for each resource located within the CAISO Balancing Authority Area or an EIM Entity Balancing Authority Area within California or Washington, and registered with the California Air Resources Board or the Washington Department of Ecology as having a greenhouse gas compliance obligation, as provided to the CAISO by the Scheduling Coordinator;
 - (iv) the rates for the Market Services Charge and System Operations Charge multiplied by the PMin of the resource as registered in the Master File; and

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