

171 FERC ¶ 61,120
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;
Richard Glick, Bernard L. McNamee,
and James P. Danly.

California Independent System
Operator Corporation

Docket Nos. ER20-732-000
ER20-732-001

ORDER ON TARIFF REVISIONS

(Issued May 19, 2020)

1. On January 2, 2020, as amended on March 20, 2020, the California Independent System Operator Corporation (CAISO) filed, pursuant to section 205 of the Federal Power Act (FPA),¹ tariff revisions to implement three deliverability² enhancements for interconnection customers. In this order, we accept in part and reject in part CAISO's proposed tariff revisions, subject to further compliance.

I. Background

2. As part of the California resource adequacy program, the California Public Utilities Commission (CPUC) determines how much resource adequacy capacity a given generator can reliably provide and assigns each generator technology a monthly "qualifying capacity" based on the generation technology and expected load conditions, but without considering potential transmission constraints.³ To account for transmission constraints, CAISO calculates each specific generator's net qualifying capacity, which adjusts the generator's qualifying capacity based on the expected load and energy flows

¹ 16 U.S.C. § 824d (2018).

² "Deliverability" refers to a generator's ability to deliver its energy to load during different system conditions, including expected congestion caused by other generators' output. CAISO Transmittal at 1.

³ For example, a gas- or nuclear-fueled generator has a qualifying capacity equal to its total capacity for all months of the year, but a solar resource's potential monthly output depends heavily on the time of the year. *Id.* at 7.

on the transmission lines the generator needs to deliver its energy to load.⁴ In 2018, CPUC changed its method for calculating qualifying capacities, which resulted in significantly reduced resource adequacy values for solar resources.⁵

3. CAISO's tariff provides that when a developer submits an interconnection request to CAISO, it must elect one of three on-peak deliverability statuses: (1) Full Capacity Deliverability Status; (2) Partial Capacity Deliverability Status; or (3) Energy Only Deliverability Status. Receiving Full Capacity Deliverability Status means that the maximum output of each facility can be delivered under peak conditions. Receiving Partial Capacity Deliverability Status means a portion of the generator's output can be delivered under peak load conditions, whereas an Energy Only designation represents that the generator's output can be delivered only subject to grid conditions. Full Capacity and Partial Capacity generators are assigned the financing costs for delivery network upgrades, which are upgrades designed to relieve transmission constraints so the resource can physically deliver its designated output, and therefore are eligible to provide resource adequacy capacity. Energy Only generators are not responsible for the financing of delivery network upgrades but are ineligible to provide resource adequacy capacity.⁶ Nevertheless, under CAISO's existing rules, Full and Partial Capacity generators compete on equal footing with Energy Only generators in the CAISO markets in terms of curtailment priorities.⁷ CAISO states that, since 2008, only 18 Energy Only generators have come online, totaling 621 MW, compared to 78 Full Deliverability generators that constitute 4,982 MW in capacity.⁸

4. To identify what delivery network upgrades are necessary due to a generator's planned interconnection, CAISO performs an on-peak deliverability assessment, which evaluates whether each electrical region can reasonably accommodate the output of all its capacity resources. Following the on-peak assessment, CAISO also performs an off-peak deliverability assessment to examine whether any additional delivery network upgrades would be necessary for the generator's output to be deliverable during off-peak hours.

⁴ *Id.* at 12.

⁵ *Id.* at 8-11.

⁶ *Id.* at 13.

⁷ Specifically, if a Full or Partial Capacity generator and an Energy Only generator at the same pricing node bid to supply energy at the same price (or both self-schedule) behind the same constraint, and CAISO must curtail generation, they will be curtailed equally. *Id.* at 12-13.

⁸ *Id.* at 13-14.

However, the off-peak assessment is currently for informational purposes only because, according to CAISO, deliverability concerns principally relate to resource adequacy, and therefore peak demand. Generators' ability to deliver energy off-peak has not historically been a concern warranting developers' financing network upgrades to relieve constraints. Although off-peak assessments are only provided for informational purposes, CAISO's tariff currently requires it to perform an off-peak deliverability assessment to identify transmission upgrades for Location Constrained Resource Interconnection Generators (LCRIG)⁹ whose fuel source occurs during off-peak conditions.¹⁰

5. CAISO further explains that an interconnection customer's ability to receive a Full or Partial Capacity Deliverability Status designation depends on CAISO's Transmission Plan Deliverability allocation process, which determines the volume of new generation in each area whose deliverability can be met by the additional grid capacity that will be provided by network upgrades identified in the transmission planning process. CAISO then allocates the resulting MW volumes of deliverability from the transmission planning process to those proposed generating facilities in each area that are determined to be most commercially viable based on a set of specified project development milestones.¹¹

6. CAISO emphasizes that, to date, the purpose of deliverability network upgrades has been to ensure that generators can deliver energy to load during peak demand conditions, not to ensure delivery outside of those conditions. Instead, CAISO and generation developers have relied on CAISO's transmission planning process to identify transmission upgrades that will relieve congestion and avoid curtailments under those other conditions. However, CAISO notes that the transmission planning process can identify local congestion constraints only after generators have come online and faced persistent curtailment. Under the current curtailment rules, CAISO curtails economic bids ahead of self-schedules and does not consider which developers elected to finance delivery network upgrades. CAISO asserts that this situation is a source of frustration for generation developers because the delivery network upgrades financed by the developers were only designed to ensure the delivery of energy under peak load conditions and are

⁹ An LCRIG is "a Generating Unit that (a) uses a primary fuel source or source of energy that is in a fixed location and cannot be transported from that location; and (b) is located in an Energy Resource Area." CAISO Tariff, Appendix A. An Energy Resource Area is a geographic region certified by CPUC and the California Energy Commission as an area where multiple LCRIGs could be located. CAISO Transmittal at 16-17.

¹⁰ *Id.* at 14-16.

¹¹ *Id.* at 17-20.

frequently inadequate to deliver the energy of both Full Capacity Deliverability Status generators and Energy Only generators.¹²

7. CAISO anticipates that the shift of peak demand to a period later in the day, combined with the much lower contribution of solar resources in meeting later daily peaks, as compared to the previous mid-afternoon peak, will result in solar resources requiring fewer, smaller delivery network upgrades necessary to perform as a resource adequacy resource. CAISO explains that because interconnection requests for solar generation constitute 60% of the CAISO interconnection queue, the expected reduction in delivery network upgrades for these generators will have a significant impact on future grid topology. CAISO asserts that the expected decrease in the size and volume of delivery network upgrades will lead to an increase in curtailments during off-peak hours, even for generators that financed network upgrades based on the on-peak deliverability assessment.¹³

II. CAISO Proposal

8. To reduce the risk of curtailment due to insufficient on-peak delivery network upgrades, CAISO proposes three sets of tariff revisions in this proceeding. First, CAISO proposes a new option for interconnection customers to request Off-Peak Deliverability Status, which indicates that a generator¹⁴ can provide its energy to load during off-peak conditions “without excessive curtailment” due to transmission constraints. Second, CAISO proposes that, for new generators seeking to interconnect, only those that obtain Off-Peak Deliverability Status be allowed to self-schedule in CAISO’s energy market, thus giving these generators curtailment priority. Third, CAISO proposes a process for transitioning to Off-Peak Deliverability Status such that all existing, online generators will be grandfathered into Off-Peak Deliverability Status, regardless of technology or on-peak deliverability status.¹⁵

9. Specifically, CAISO proposes to allow interconnection customers to request Off-Peak Deliverability Status in addition to the existing peak deliverability statuses. CAISO states that interconnection customers can receive Off-Peak Deliverability Status if: (i) they site in locations that do not face off-peak constraints; (ii) they finance the Off-

¹² *Id.* at 20-22.

¹³ *Id.* at 22-24.

¹⁴ CAISO states that although it uses the term “generator” throughout its filing, the references would generally include energy storage resources. *Id.* at 1.

¹⁵ *Id.* at 4-6, 24-32.

Peak Network Upgrades that will relieve off-peak constraints; or (iii) the delivery network upgrades identified in the on-peak deliverability assessment will also relieve any off-peak constraints. CAISO states that the objective of the off-peak deliverability assessment is to identify local transmission upgrades needed to relieve excessive off-peak curtailment caused by transmission constraints. CAISO notes that generators with Off-Peak Deliverability Status will still be subject to curtailment if actual transmission contingencies occur. CAISO states that it will also offer the option of electing Economic Only status for interconnection customers that prefer to avoid the potential financing costs of any off-peak network upgrades.¹⁶

10. To ensure that its tariff remains technology neutral, CAISO states that it will maintain the current tariff language for off-peak deliverability that describes how LCRIGs whose source of energy substantially occurs off-peak may require additional network upgrades to be deliverable off-peak regardless of their on-peak deliverability. CAISO acknowledges that wind and solar are the only such resources currently but asserts that existing and new technologies may meet those conditions in the future as generation and load curves evolve. Further, CAISO explains that generators that are not LCRIGs or whose primary fuel source does not occur primarily off-peak (i.e., all non-wind and non-solar generators today) would not trigger network upgrades under the off-peak deliverability assessment. Thus, CAISO states that Full or Partial Capacity Deliverability Status generators that are not LCRIGs with an off-peak energy source will automatically receive Off-Peak Deliverability Status. However, because Energy Only generators do not finance any delivery network upgrades, they will be ineligible for Off-Peak Deliverability Status. CAISO states that it will implement these distinctions on a going forward basis and all existing, online generators will be grandfathered into Off-Peak Deliverability Status, regardless of technology or on-peak deliverability status.¹⁷

11. CAISO also proposes to designate generators that elect to forego financing off-peak network upgrades to address local transmission constraints as Economic Only and prohibit such generators from self-scheduling energy. Because CAISO curtails economic bids before self-schedules, this proposed revision would give generators with Off-Peak Deliverability Status a curtailment priority over Economic Only generators if CAISO cannot feasibly dispatch both generators. CAISO notes that Economic Only generators would still be able to self-schedule energy in CAISO's real-time market up to any market schedule they receive in the day-ahead market for the same trading interval. CAISO

¹⁶ *Id.* at 24-27.

¹⁷ *Id.* at 27. The grandfathering policy will also include interconnection customers already in the queue but not yet online if: (i) they have Full or Partial Deliverability Status; or (ii) are not LCRIGs with off-peak sources of energy. *Id.* at 30.

asserts that this proposed revision enables the generator with Off-Peak Deliverability Status to preserve the benefit of financing its off-peak network upgrades and mitigates against future generators free-riding on the off-peak network upgrades financed by others. CAISO concedes that generators are ultimately reimbursed for the network upgrades they finance but highlights that the cost of financing upgrades can impact how competitive a generator is for power purchase agreements. Thus, CAISO contends that allowing future developers to unduly free-ride on previously-financed upgrades would undermine the original generator's benefits and be entirely unfair.¹⁸

12. CAISO requests an effective date of March 3, 2020 so that it can implement the instant revisions in the next Transmission Planning Deliverability cycle, which will take place in March 2020, and so that it may perform its studies and maintain its interconnection study deadlines for the 2020 calendar year.

III. Notice and Responsive Pleadings

13. Notice of CAISO's filing was published in the *Federal Register*, 85 Fed. Reg. 1310 (Jan. 10, 2020), with interventions and protests due on or before January 23, 2020. Timely motions to intervene were filed by the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California; Southern California Edison Company; the City of Santa Clara, California; RWE Renewables Americas, LLC (RWE); Pacific Gas and Electric Company; Golden State Clean Energy (Golden State); First Solar, Inc. (First Solar); 8minute Solar Energy; Modesto Irrigation District; San Diego Gas & Electric Company; and Northern California Power Agency. Timely motions to intervene and comments in support of CAISO's proposal were filed by LS Power Associates L.P. (LS Power); American Wind Energy Association (AWEA); EDP Renewables North America LLC (EDP); and Generation Developers I.¹⁹ A timely motion to intervene and protest was filed by the Western Power Trading Forum (WPTF). CAISO filed an answer to WPTF's protest on January 30, 2020.

14. On February 28, 2020, Commission staff issued a deficiency letter seeking additional information regarding CAISO's proposal (Deficiency Letter). On March 20, 2020, CAISO filed its response to the Deficiency Letter (Deficiency Response) in Docket

¹⁸ *Id.* at 27-30. CAISO also proposed a one-time Transmission Planning Deliverability allocation in the upcoming cycle to allocate the large amount of on-peak deliverability capacity that will become available due to CAISO's updated on-peak deliverability assessment methodology assumptions that reflect CPUC's new qualifying capacity methodology and a later peak; however, CAISO subsequently withdrew that element of the proposal in its response to the deficiency letter, as discussed below.

¹⁹ Generation Developers I are First Solar, Inc.; Golden State Clean Energy; LS Power Associates, L.P.; 8minute Solar Energy; and RWE Renewables Americas LLC.

No. ER20-732-001, including amended tariff records removing its one-time Transmission Planning Deliverability allocation tariff revisions. Notice of the Deficiency Response was published in the *Federal Register*, 85 Fed. Reg. 17,324 (Mar. 27, 2020) with interventions and protests due on or before April 10, 2020. A timely motion to intervene and comments were filed by EDF Renewables, Inc. (EDF Renewables). Timely comments were also filed by AWEA. Answers were filed by Golden State, First Solar, and RWE (collectively, Generation Developers II) and CAISO. EDF Renewables filed an answer to CAISO's answer.

A. Comments in Support

15. AWEA, EDP, and LS Power support CAISO's entire proposal as a package.²⁰ EDP states that it supports CAISO's proposal to allow generators to choose Off-Peak Deliverability Status as part of the generator interconnection process because it allows for the funding and development of off-peak upgrades at a much earlier stage than the CAISO's Transmission Planning Process.²¹ AWEA, Generation Developers I, and LS Power similarly agree that the generator interconnection process is a more effective, efficient, or timely way to address local constraints as compared to the transmission planning process.²²

16. EDP explains that the financing and carrying costs associated with the funding of network upgrades impacts the costs passed through power purchase agreements to customers; however, it anticipates that most new interconnection requests will select Off-Peak Deliverability Status because load serving entities will make Off-Peak Deliverability Status a condition of their negotiated contracts.²³ AWEA also believes that load serving entities will require, through contract negotiations, generators to have Off-Peak Deliverability Status.²⁴

17. EDP contends that limiting the ability to self-schedule to Off-Peak Deliverability Status is not unduly discriminatory because generators electing Off-Peak Deliverability Status are offering a different product, one with less curtailment risk, than those choosing

²⁰ AWEA Comments at 2; EDP Comments at 1; LS Power Comments at 6.

²¹ EDP Comments at 4.

²² AWEA Comments at 4; Generation Developers I Comments at 12; LS Power at 8.

²³ EDP Comments at 4-5.

²⁴ AWEA Comments at 5.

Economic Only Status, which is no different than a customer's option under the Open Access Transmission Tariff to elect a firm or a non-firm service, each having its own set of benefits to consider.²⁵ Similarly, LS Power contends that there is nothing unduly discriminatory about treating different classes of interconnection customers differently, but for CAISO's Off-Peak Deliverability Status proposal to work, it is essential for generators that have financed needed upgrades to receive priority delivery under constrained conditions or there is no incentive for funding the upgrades.²⁶ Generation Developers I contend that the scheduling priority proposed by CAISO is essential because without it, new interconnection customers have no incentive to take on the additional up-front cost and risk of funding the upgrades.²⁷ AWEA contends that the self-scheduling limitation is a useful mechanism for an Off-Peak-Deliverability Status generator to receive the benefits from upfront funding off-peak network upgrades in extreme situations where a large non-Off-Peak-Deliverability Status generator may site next to the Off-Peak-Deliverability Status generator.²⁸

B. WPTF Protest

18. WPTF argues that CAISO's proposal is unduly discriminatory and preferential because it restricts access to self-scheduling to only those resources that obtain Off-Peak Deliverability Status. WPTF contends that CAISO's proposed tariff revisions are intended for wind and solar resources and exclude some resources from even having the opportunity to opt in or out of Off-Peak Deliverability Status. WPTF states that, because the CAISO tariff only requires CAISO to assess off-peak constraints for LCRIGs, which currently comprise only wind and solar resources, these are the only types of resources that can meet the first two criteria for Off-Peak Deliverability Status eligibility. WPTF acknowledges that all non-LCRIG generators that have Full or Partial Capacity Deliverability Status will automatically receive Off-Peak Deliverability Status, but objects because Energy Only generators, such as non-resource adequacy storage resources, will be ineligible. WPTF also highlights that even wind and solar resources can only obtain Off-Peak Deliverability Status, and the associated option to self-schedule energy, if they are willing to finance network upgrades.²⁹

²⁵ EDP Comments at 6.

²⁶ LS Power Comments at 9.

²⁷ Generation Developers I Comments at 13-15.

²⁸ AWEA Comments at 5.

²⁹ WPTF Protest at 5-7.

19. According to WPTF, the ability to self-schedule is a fundamental market bidding feature. WPTF asserts that the ability to self-schedule is particularly important to storage resources in the real-time market because the CAISO market optimization cannot ensure a storage resource can meet its day-ahead schedule without the resource self-scheduling in real-time to its day-ahead schedule. WPTF claims that, to account for this necessity, CAISO is considering requiring storage resources to self-schedule in real-time if the resource is providing resource adequacy capacity. WPTF notes that, while CAISO's proposal will automatically grant Off-Peak Deliverability Status to storage resources that can sell resource adequacy capacity, energy-only storage will be unduly and unjustly penalized in the energy market because of its inability to manage risk through self-scheduling.³⁰

20. Further, WPTF contends that the coupling of deliverability status, obtained through the financing of network upgrades, and energy market participation rules does not and should not exist elsewhere in CAISO's energy markets. WPTF argues that, under CAISO's proposal, Energy Only connected resources will lose the ability to self-schedule and, in that way, can be shut out of the market. WPTF asserts that it is not relevant whether the number of non-Off-Peak Deliverability Status resources will be minimal, but only whether the framework proposed by CAISO will discriminate against a group of resources.³¹

21. WPTF also argues that CAISO already has in place a robust transmission planning process that identifies least cost solutions to address the anticipated congestion and curtailment issues that are the basis for CAISO's proposed revisions. WPTF denies that the proposed Off-Peak Deliverability Status rules are an efficient solution to the identified challenges because this process and the associated network upgrades often will not be the best long-term solutions for addressing transmission needs. WPTF objects that this proposal allows developers to determine if ratepayers should incur the cost of local upgrades without consideration of other non-transmission options, such as storage facilities. WPTF disagrees with CAISO's assertion that the transmission planning process does not address local congestion in a timely manner and instead asserts that the transmission planning process is a well-vetted and transparent process that evaluates, on equal footing, all potential transmission solutions from the perspective of what is best for ratepayers.³²

22. Finally, WPTF argues that restricting access to self-scheduling is unjust and unreasonable because CAISO's energy market is premised on the economic concept of

³⁰ *Id.* at 7-8.

³¹ *Id.* at 8-9.

³² *Id.* at 9-10.

allowing all generators to compete equally and submit offers to supply based on marginal costs. According to WPTF, essential to allowing generators to compete equally is to allow access to the same set of energy market bidding features. WPTF asserts that, under CAISO's proposal, there will be generators that cannot fully participate in the market due to a transmission study status. WPTF notes that, under today's market rules, resources with Full Capacity Deliverability Status fund upgrade costs at differing levels than other resources but all have equal access to the same energy market bidding rules. Further, WPTF emphasizes that CAISO does not currently curtail resources differently based on their funding of network upgrades. Moreover, WPTF contends that CAISO's proposal goes beyond maintaining curtailment priority in the event of local congestion and will, by design, unreasonably give Off-Peak Deliverability Status resources a competitive system advantage during system oversupply conditions due to the ability to self-schedule.³³

C. CAISO Answer

23. CAISO disputes WPTF's claim that the proposal is unduly discriminatory because it upfront excludes certain resource types from opting into or obtaining Off-Peak Deliverability Status. To the contrary, CAISO avers that Off-Peak Deliverability Status and access to self-scheduling will be available to all generation technologies, including storage. CAISO asserts that the only factor that determines whether a resource will have Off-Peak Deliverability Status is whether the resource has mitigated any local transmission constraints that would prevent it from delivering energy during off-peak conditions. CAISO emphasizes that this situation is analogous to how CAISO currently determines whether a resource can have Full Capacity Deliverability Status pursuant to Commission approved tariff provisions. CAISO contends that differences between generation technologies are relevant only to how each technology is studied because distinguishing between resources with off-peak energy sources and generation technologies with relatively constant energy sources ensures that CAISO assigns network upgrades proportional to each generator's actual expected energy output during the relevant hours.³⁴

24. Further, CAISO denies that this proposal creates an inappropriate "pay to play" paradigm that is unduly discriminatory. To the contrary, CAISO argues that financing different network upgrades for different levels of service is common in organized energy and natural gas markets. Moreover, CAISO highlights that an analogous construct already exists today to determine whether resources can provide resource adequacy (i.e., financing delivery network upgrades to obtain Full or Partial Capacity Deliverability

³³ *Id.* at 10-13.

³⁴ CAISO Answer at 4-9.

Status). CAISO asserts that WPTF has offered no rebuttal and fails to explain why the resource adequacy comparison is inapposite here. CAISO agrees with WPTF that the proposal addresses deliverability issues facing wind and solar resources but contends that addressing emerging technologies is the mandate of both the CAISO and the Commission.³⁵

25. CAISO claims that WPTF's argument that self-scheduling is a fundamental right for all generators fails for two reasons. First, CAISO dismisses WPTF's assertion as misplaced because every interconnection customer and generator technology can receive Off-Peak Deliverability Status and the right to self-schedule in the markets. Second, CAISO argues that WPTF offers no support for its claim that self-scheduling is fundamental to participating in the CAISO markets, noting that nowhere in its protest does WPTF cite to a statute, regulation, or Commission order finding that self-scheduling is necessary for just and reasonable rates under the FPA. Additionally, CAISO asserts that WPTF ignores that CAISO proposes an express exception to allow all generators, including storage resources, to submit self-schedules in real-time up to their day-ahead schedules even if they are Economic Only. CAISO notes that WPTF is incorrect that CAISO is considering requiring storage resources to self-schedule in real-time and states that it has rejected that option.³⁶

26. CAISO also argues that WPTF's arguments for using the transmission planning process to address local constraints that impair off-peak deliverability misunderstand both the transmission planning process and the interconnection process. CAISO asserts that this argument ignores that the interconnection process has always addressed local congestion as well as the fact that the Commission has already approved as just and reasonable CAISO's ability to address local constraints in the interconnection process for on-peak deliverability. CAISO contends that WPTF fails to explain why doing so for off-peak deliverability is different. In addition, CAISO explains that load serving entities and local regulatory authorities seek to procure the most cost-efficient resources, which means that every dollar spent to finance network upgrades makes the generator less competitive for power purchase agreements. Thus, CAISO denies that it is necessary to rely on the transmission planning process to guarantee efficient solutions to all local congestion issues.³⁷

27. Finally, CAISO argues that WPTF's concerns about curtailment during system oversupply conditions are inconsequential. CAISO contends that based on its data,

³⁵ *Id.* at 10-11.

³⁶ *Id.* at 13-16.

³⁷ *Id.* at 16-19.

generators rarely have to self-schedule to avoid being curtailed during system oversupply conditions and indicates that during 2019, it never had to curtail self-schedules during system oversupply conditions because there were sufficient effective economic bids.³⁸

D. Deficiency Letter, Response, and Comments

28. In the Deficiency Letter, Commission staff sought additional information about the practical impact of CAISO's proposal on scheduling coordinators representing resources that are not interconnection customers, as well as other categories of resources such as imports/exports, non-generator-specific supply, and non-resource adequacy resources. In its Deficiency Response, CAISO states that its proposal will not affect the existing bidding, self-scheduling rights, or curtailment priorities for scheduling coordinators representing resources that are not interconnection customers. CAISO also states that its market parameters for curtailing non-priced bids will not change under this proposal. With regard to resources' ability to self-schedule under the current market rules, CAISO points out two exceptions to the general rule that all supply and demand resources can self-schedule: (1) demand response resources must submit economic bids;³⁹ and (2) flexible resource adequacy resources must submit economic bids for the amount of flexible resource adequacy capacity they provide.⁴⁰ CAISO asserts that, under its proposal, resources will only be prohibited from self-scheduling if they site their projects in an area where they face transmission constraints that impair their deliverability, and then elect not to finance network upgrades that would relieve those constraints. CAISO emphasizes that this approach ensures that those resources that finance network upgrades to relieve local congestion will continue to receive the benefit of their bargain. CAISO also argues that its proposed revisions will reduce the incentive for resources with Off-Peak Deliverability Status to self-schedule.⁴¹ Finally, CAISO notes that the Commission has already approved the interconnection studies that recognize that location constrained generators with off-peak energy sources generally require different network upgrades to relieve local transmission constraints during off-peak hours.⁴²

³⁸ *Id.* at 21.

³⁹ CAISO Tariff, §§ 30.5, 30.6.

⁴⁰ *Id.*, § 40.9.3.

⁴¹ Deficiency Response at 2-5.

⁴² *Cal. Indep. Sys. Operator Corp.*, 124 FERC ¶ 61,292, at P 108 (2008) (Generation Interconnection Process Reform Order).

29. Commission staff also asked why CAISO believes it is necessary to offer curtailment priority as an incentive to induce developers to finance off-peak network upgrades, when deliverability status may already provide additional revenue opportunities. CAISO acknowledges that generators with curtailment priority would be expected to receive additional revenue opportunities because they have Off-Peak Deliverability Status, but contends that offering the ability to self-schedule is not intended to induce resources to fund any particular upgrades. Rather, CAISO states that it is necessary to link the ability to self-schedule with Off-Peak Deliverability Status because without it, Economic Only generators behind the same constraints would receive the exact same benefit from network upgrades funded by the Off-Peak Deliverability Status generators.⁴³

30. In addition, Commission staff asked CAISO to further clarify how CAISO would evaluate whether curtailments without identified network upgrades would be considered “excessive” and what consideration CAISO would give to the costs and benefits of transmission upgrades needed to alleviate such congestion. CAISO replies that, to determine what constitutes “excessive curtailment,” it considers the amount of curtailment as a percentage of the annual energy production. CAISO notes that, currently, approximately three percent of the relevant generation is curtailed due to transmission constraints or system oversupply and also states that, for purposes of the off-peak deliverability assessment, the curtailment of ten percent will be considered excessive. CAISO further states that it will provide a cost/benefit analysis of any off-peak deliverability network upgrades to the interconnection customer.⁴⁴

31. Finally, Commission staff asked whether the individual elements of CAISO’s proposal are severable. In response, CAISO amended its filing to remove the revisions related to the one-time deliverability allocation because firm study deadlines have required CAISO to conduct this year’s deliverability allocation based on current tariff provisions. CAISO states the remaining elements of the proposed revisions are severable, but explains that the revisions pertaining to self-scheduling and curtailment priority are necessarily dependent on the Commission’s acceptance of the revisions that establish Off-Peak Deliverability Status, as are the proposed revisions related to the grandfathering of existing online generation into Off-Peak Deliverability Status. CAISO states that if the Commission approves the proposal without the self-scheduling revisions, it would approve all CAISO’s proposed tariff revisions except proposed sections 30.5.2.2.1 and 30.5.6.1, and the last paragraph of proposed section 6.3.2.3. CAISO also explains that it would be prudent for the Commission to request the CAISO to submit a compliance filing amending the proposed name and definition of “Economic Only” to

⁴³ Deficiency Response at 5-6.

⁴⁴ *Id.* at 6-7.

reflect that it no longer relates to self-scheduling rights. For example, CAISO states, references to Economic Only could be changed to “Off-Peak Energy Only,” and the definition could be “Status for a Generating Facility indicating its expected Energy to the CAISO Controlled Grid during modeled off-peak Load conditions will be subject to curtailment due to transmission constraints.” CAISO adds that the proposed definition of “Off-Peak Deliverability Status” should be amended to strike the last clause: “and that allows its Scheduling Coordinator to submit Self-Schedules consistent with the CAISO Tariff.”⁴⁵

32. In response to CAISO’s Deficiency Response, EDF Renewables comments that it supports the new Off-Peak Deliverability Status, but argues that the self-scheduling mechanism may not be an effective incentive mechanism and may unfairly benefit off-peak resources over on-peak resources that do not have Off-Peak Deliverability Status. EDF Renewables asserts that CAISO should consider developing a different mechanism that does not inadvertently encourage self-scheduling.⁴⁶ AWEA indicates it would support the new Off-Peak Deliverability Status without the self-scheduling mechanism because the proposed self-scheduling revisions may offer minimal benefits.⁴⁷

33. CAISO responds that EDF Renewables offers no rationale for its argument that the proposed curtailment priority may increase reliance on self-scheduling. CAISO reiterates its prior assertions and explanation that its proposal removes incentives to self-schedule and protects Off-Peak Deliverability Status resources from later Economic Only resources free-riding off of, or otherwise eroding the benefits of, the network upgrades financed by the Off-Peak Deliverability Status resource. CAISO contends that EDF Renewables’ claims about an unfair benefit for Off-Peak Deliverability Status resources are inaccurate and implausible because little to no curtailment occurs during on-peak hours and because it is very unlikely that an Energy Only Off-Peak Deliverability Status resource will exist. In addition, CAISO asserts that the triggers for Off-Peak Deliverability Status and on-peak deliverability status are for legitimate reasons. CAISO explains that, because the point of On-Peak Deliverability Status is to ensure that a resource’s energy can be delivered to load during peak conditions, it is essential that the upgrades are in operation before the status is awarded. CAISO states that this is not the case with off-peak upgrades, which are intended to address local constraints during off-peak hours. CAISO argues that it is not necessary for the Commission to consider EDF Renewables’ suggestion for CAISO to develop an alternative proposal because, under

⁴⁵ *Id.* at 8-9.

⁴⁶ EDF Renewables Deficiency Response Comments at 3-10.

⁴⁷ AWEA Deficiency Response Comments at 3.

FPA section 205, the Commission need only evaluate whether CAISO's proposed rate is just and reasonable.⁴⁸

34. Generation Developers II also argue that EDF Renewables has not supported its assertion that the proposed curtailment priority will increase use of self-scheduling. Generation Developers II contend that the curtailment priority is necessary to differentiate resources that have financed off-peak network upgrades and, without this element of the proposal, the benefit of a resource's investment will be unfairly eroded.⁴⁹

35. In its answer, EDF Renewables highlights that self-scheduling is already on the decline and argues that CAISO's answer fails to rebut any of the arguments EDF Renewables made in its comments on CAISO's Deficiency Response. EDF Renewables reiterates its position that the proposed curtailment priority revisions are likely to increase self-scheduling.⁵⁰

IV. Discussion

A. Procedural Matters

36. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

37. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2019), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept the answers filed by CAISO, Generation Developers II, and EDF Renewables answer because they have provided information that assisted us in our decision-making process.

B. Substantive Matters

38. We accept in part and reject in part CAISO's proposed tariff revisions, subject to condition,⁵¹ as discussed below. As an independent system operator (ISO), the

⁴⁸ CAISO Deficiency Response Answer at 1-8.

⁴⁹ Generation Developers II Deficiency Response Answer at 3-6.

⁵⁰ EDF Renewables Deficiency Response Answer at 3-5.

⁵¹ The United States Court of Appeals for the District of Columbia Circuit has held that, in certain circumstances, the Commission has "authority to propose modifications to a utility's [FPA section 205] proposal *if the utility consents to the modifications.*" *NRG*

Commission views CAISO as an “independent entity” with respect to evaluating proposed variations from the *pro forma* interconnection rules established in Order No. 2003.⁵² In Order No. 2003, the Commission explained that it would apply a more flexible standard to variations proposed by independent entities than those proposed by non-independent entities. The Commission found that applying a more flexible standard for independent entities “is a balanced approach that recognizes that [a regional transmission organization (RTO)] or ISO has different operating characteristics depending on its size and location and is less likely to act in an unduly discriminatory manner than a Transmission Provider that is a market participant.”⁵³ Thus, the Commission concluded that “an RTO or ISO shall therefore have greater flexibility to customize its interconnection procedures and agreements to fit regional needs.”⁵⁴

39. Applying that standard here, we find that CAISO’s proposed revisions pertaining to the creation of Off-Peak Deliverability Status and the related grandfathering provisions are just and reasonable and not unduly discriminatory enhancements to its interconnection procedures and, therefore, accept them. However, we find that CAISO has not justified the proposed revisions that restrict the ability to self-schedule and reject them, as discussed below. Specifically, we reject proposed tariff sections 30.5.2.2.1 and 30.5.6.1, and the last paragraph of proposed section 6.3.2.3 of its Appendix DD.

40. We recognize the challenge faced by CAISO that, due to the shift in net demand peak hours to later in the day, the on-peak deliverability assessment may result in smaller and fewer network upgrades being required for interconnection customers to achieve on-peak Full or Partial Deliverability Status. As a result of fewer on-peak deliverability

Power Mktg., LLC v. FERC, 862 F.3d 108, 114-15 (D.C. Cir. 2017) (emphasis in original). In this case, CAISO agrees that the proposed revisions related to self-scheduling are severable from the remainder of the proposal. CAISO Deficiency Response at 8-9.

⁵² *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,103 (2003), *order on reh’g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh’g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh’g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff’d sub nom. Nat’l Ass’n of Regulatory Util. Comm’rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), cert. denied, 552 U.S. 1230 (2008); *see also* Generation Interconnection Process Reform Order, 124 FERC ¶ 61,292 at PP 14, 16.

⁵³ Order No. 2003, 104 FERC ¶ 61,103 at P 827.

⁵⁴ *Id.* *See also* Generation Interconnection Process Reform Order, 124 FERC ¶ 61,292 at PP 14, 16.

upgrades, congestion and the potential for more curtailments during off-peak periods could increase when demand is low but renewable generation is high. CPUC's new method for calculating qualifying capacity also results in a reduced need for solar and wind resources to invest in network upgrades based on the on-peak deliverability assessment. We conclude that it is reasonable for CAISO to evaluate the need for off-peak network upgrades, as it currently does for on-peak network upgrades.

41. We find that CAISO's proposal to identify off-peak network upgrades in the interconnection process to relieve local transmission constraints and allow generators to finance them, rather than potentially waiting years for solutions to develop in the transmission planning process is reasonable. We note that on-peak delivery network upgrades where generators choose to finance such upgrades to obtain deliverability status to provide resource adequacy are also undertaken through the interconnection process, not the transmission planning process.⁵⁵ Thus, we find that it is just and reasonable to include in transmission rates the costs of off-peak upgrades to address local constraints, consistent with the inclusion of costs for on-peak upgrades that address local constraints. As a result, we find CAISO's revisions pertaining to the creation of Off-Peak Deliverability Status and the related grandfathering provisions to be just and reasonable, and therefore accept them.

42. We reject, however, the self-scheduling limitation proposed by CAISO. We find that it is not just and reasonable for CAISO to remove the self-scheduling option from resources that elect not to seek Off-Peak Deliverability Status. We find that CAISO has not adequately supported its proposal to give a self-scheduling benefit to interconnection customers with Off-Peak Deliverability Status, while restricting self-scheduling for other resources solely for the sake of preventing free-ridership. CAISO has not justified why some interconnection customers should receive the proposed self-scheduling benefit in the energy market for upfront funding of transmission upgrades whose costs are eventually rolled into transmission rates and borne by all transmission customers, while other interconnection customers do not. As CAISO explains in its proposal, LCRIGs whose source of energy principally occurs off-peak may require additional network upgrades to be deliverable off-peak regardless of their on-peak deliverability status. Therefore, some LCRIGs may choose Full Capacity Deliverability Status or Partial Capacity Deliverability Status (and upfront fund on-peak network upgrades), but may decline to upfront fund off-peak network upgrades the LCRIG would require to achieve Off-Peak Deliverability Status. In that case, the LCRIG would not receive the same self-scheduling benefit as an LCRIG that upfront funds off-peak network upgrades to gain Off-Peak Deliverability Status, even though in both instances the costs of each respective

⁵⁵ CAISO Tariff, Appendix DD § 6.3.

LCRIG's network upgrades are eventually rolled into transmission rates and borne by all transmission customers.

43. We also find that CAISO's argument that upfront funding of off-peak deliverability upgrades makes an interconnection customer less competitive for power purchase agreements and, therefore, warrants a self-scheduling benefit in CAISO's energy markets is unpersuasive. As demonstrated by the example above, CAISO fails to address why LCRIG interconnection customers that choose to finance on-peak network upgrades but not off-peak network upgrades should not receive the same benefit. We also note that CAISO's proposal would restrict self-scheduling ability, which is a market tool with functions beyond the curtailment hierarchy described by CAISO.⁵⁶ In addition, CAISO points to no Commission precedent in support of the limits on self-scheduling it proposes. Accordingly, we reject proposed tariff sections 30.5.2.2.1 and 30.5.6.1, and the last paragraph of proposed section 6.3.2.3 of its Appendix DD. We therefore direct CAISO to submit a compliance filing, within 30 days of the date of this order, to remove those provisions.

44. Consistent with CAISO's offer in its Deficiency Response, we also direct CAISO to submit a compliance filing, within 30 days of the date of this order, amending the proposed name and definition of "Economic Only" to reflect that it no longer relates to self-scheduling rights. In addition, the proposed definition of "Off-Peak Deliverability Status" should be amended to strike the last clause: "and that allows its Scheduling Coordinator to submit Self-Schedules consistent with the CAISO Tariff."⁵⁷

The Commission orders:

(A) CAISO's proposed revisions to its tariff are hereby accepted in part, subject to condition, effective March 3, 2020, as requested, and rejected in part, as discussed in the body of this order.

⁵⁶ For example, self-schedules allow market participants to express a market view that the resource is a price-taker. Second, self-schedules can complement certain bilateral intertie or wheeling transactions that occur outside (or through) CAISO, bringing both liquidity and extra supply to CAISO's markets. Third, some generators use self-schedules to facilitate testing for generation or ancillary services, or (in the case of energy storage resources) to manage state of charge.

⁵⁷ Deficiency Response at 8-9 n.19.

(B) CAISO is hereby directed to submit a compliance filing, within 30 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.