



Department of Energy

Washington, DC 20585

Order No. 202-21-2

Pursuant to the authority vested in the Secretary of Energy by section 202(c) of the Federal Power Act (FPA), 16 U.S.C. § 824a(c), and section 301(b) of the Department of Energy Organization Act, 42 U.S.C. § 7151(b), and delegated to the Deputy Secretary of Energy by paragraph 1.12(A) of Delegation Order No. 00-001.00H (Oct. 2, 2020), and for the reasons set forth below, I hereby determine that an emergency exists in California due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest.

Emergency Situation

On September 7, 2021, the California Independent System Operator Corporation (CAISO), the Independent System Operator whose service territory includes California and a portion of Nevada, filed a *Request for Emergency Order Pursuant to Section 202(c) of the Federal Power Act* (Application) with the United States Department of Energy (Department or DOE) “to preserve the reliability of [the] bulk electric power system in California.”

California has experienced several periods of extreme heat, drought conditions, and wildfires. Such conditions are expected to occur over the next 60 days and threaten the reliable operation of the bulk electric power system in California. Application at 2-3.

Since June 2021, California Governor Gavin Newsom has issued three proclamations of a state of emergency regarding electricity. In declaring a statutory emergency, the proclamations cited a number of factors and observations, including the following as set forth in the July 30 proclamation:

- As a result of drought conditions, “water supplies in California's reservoirs have dropped to levels so low that hydroelectric power plants have had to reduce or cease production, leading to a reduction of nearly 1,000 megawatts of capacity and further exacerbating the drought’s impact on California”
- In June and July 2021, states of emergencies were proclaimed due to “record-breaking extreme heat events that hit California and other Western states, increasing residents’ demand and putting significant demand and strain on California’s energy grid”
- “[A]t the same time as the July 2021 Extreme Heat Event, the Bootleg Fire in Southern-Central Oregon threatened the California-Oregon Intertie, which delivers power from the Pacific Northwest into California, and reduced electricity supply into California by almost 4,000 megawatts”

- Due to “continuing wildfires, ongoing drought, and extreme heat conditions caused by climate change, California currently faces an additional projected energy supply shortage of up to 3,500 megawatts during the afternoon-evening ‘net-peak’ period of high power demand on days when there are extreme weather conditions, which is even greater than projected in May 2021”

The July 30, 2021 emergency proclamation further describes the extreme climate impacts across the West and their ongoing impacts on electric reliability. The “proclamation identifies an energy supply shortage in California this summer and in the summer of 2022.” *Id.* at 4. The proclamation authorizes several measures aimed at mitigating the emergency, including authorizing the California Energy Commission (CEC) “to expedite amendments to existing power plant licenses and issue new licenses to emergency and temporary generators.” *Id.* The proclamation also directs the California Air Resources Board (CARB) “to develop and implement a plan to mitigate the effects of additional emissions authorized by the proclamation. The mitigation plan must include plans to invest in programs to improve air quality in communities, with a particular focus on disadvantaged communities, and to reduce risk to sensitive populations.” *Id.*

The Application includes a letter from the CARB to DOE regarding the environmental mitigation plan. *Id.* at Exhibit F. In its letter, the CARB confirms to the Department that the state-funded environmental mitigation plan will address emissions authorized by the Order and that the CARB will determine details of environmental mitigation options through a public process. *Id.* Further, the CARB will gather “local perspectives on how best to mitigate the effects of local increases of emissions to potential and historically affected parties.” *Id.* The CARB letter also supports the continued application of the requirements under its Mandatory Reporting of Greenhouse Gas Emissions Regulation (MRR) and California’s Cap-and-Trade Regulation during the pendency of an order under FPA section 202(c). *Id.*

Description of Mitigation Measures

In its Application, the CAISO described actions it has taken in order to alleviate the generation shortfall, including: 1) denying requests of five existing generating facilities that notified the CAISO of their intent to mothball or retire and designating those facilities as Reliability Must-Run units; 2) declaring a capacity procurement mechanism significant event that triggers authority to procure additional electric generating capacity under its tariff approved by Federal Energy Regulatory Commission; 3) working to accelerate energization of projects in its interconnection queue; and 4) consulting with other California stakeholders in “implementing a utility load reduction program that provides some relief to the bulk power system during stressed grid conditions.” *Id.* at 4-5. In addition, the Application explains that the California Department of Water Resources (CDWR) has “undertaken procurement efforts to deploy mobile, modular General Electric TM2500 aero-derivative gas turbine generators at existing generating facility sites,” four of which are included as Covered Resources (defined below). *Id.* at 5.

California is also engaged in long term efforts to mitigate the supply shortfall and address the reliability of the bulk electric power system in California. In June 2021, the California Public Utility Commission (CPUC) “issued an order directing its jurisdictional load serving entities to procure 11,500 MW of new electricity resources to come online between the years 2023 and 2026.” *Id.* The CPUC order includes requirements that this additional capacity come solely from zero-emission sources, including specific requirements for long-duration storage and clean firm generation. CPUC Decision No. 21-06-035 - Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026), 35-38, 46-48.

The Application describes emergency procedures the CAISO can use to meet insufficient supply in the day-ahead market, such as “restricting transmission and generator maintenance activities, calling for voluntary conservation, requesting additional supply bids to meet expected energy and reserve requirements, seeking emergency assistance from neighboring balancing authorities, and deploying emergency demand response.” Application at 5. The CAISO plans to “direct generators to produce more MW than their interconnection capacity for specific hours and day(s) during the emergency event if reliability studies find the transmission system can support their increased output.” *Id.* at 5-6. However, the CAISO Application indicates “that these measures may not be sufficient to avoid load curtailments absent issuance of an emergency order.” *Id.* at 6.

Request for Order

The CAISO “requests that the Secretary issue the requested emergency order by September 10, 2021, or a[s] soon as possible thereafter, authorizing specific electric generating resources (Covered Resources) located within California to test and operate at their maximum generation output levels when directed to do so by the CAISO, notwithstanding air quality or other permit limitations.” *Id.* at 1. The Covered Resources that this Order pertains to are listed below and more fully described in Application Exhibit A – List of Covered Resources:

- Midway Sunset Cogeneration Facility Unit C in Fellows, California (Midway Sunset Unit C);
- The Alamitos Energy Center in Long Beach, California;
- The Huntington Beach Energy Project in Huntington Beach, California;
- The Walnut Creek Energy Park in the City of Industry, California;
- Greenleaf Unit 1 in Yuba City, California (Greenleaf Unit 1); and
- The Roseville Energy Park in Roseville, California (Roseville Energy Park).

The CAISO indicates that “the owners of the Covered Resources will not make additional identified capacity available absent an order from the Secretary under FPA section 202(c).” *Id.* at 6. The CAISO noted that the electric generating units identified in its Application “have de-rated their facilities based on conditions set forth in their permits regarding nitrogen oxide emissions, heat output as well as fuel throughput.” Accordingly, the CAISO anticipates that the emergency order it requested “may result in exceedance of National Ambient Air Quality Standards (NAAQS) under the Clean Air Act.” *Id.* In addition, the Midway Sunset Unit C is unable to satisfy a permit requirement that it operate in support of an industrial host. *Id.* The new General Electric TM2500 aero-derivative gas turbine generators deployed at the Greenleaf Unit 1 site and Roseville Energy Park do not yet have required best available control technology to control emissions and have not completed permitting processes to obtain their pre-construction permits under Title I, or operating permits under Title V, of the Clean Air Act. *Id.* The CAISO expects that, in the absence of an order under FPA section 202(c), over 200 megawatts of available generating capacity will not be available for dispatch as a result of these constraints. *Id.* “Authorizing these facilities to operate, notwithstanding permit and other limitations, would help mitigate shortages of expected energy and reserve requirements.” *Id.*

ORDER

Given the emergency nature of the expected load stress, the responsibility of the CAISO to ensure maximum reliability on its system, and the ability of the CAISO to identify and dispatch generation necessary to meet the additional load, I have determined that additional dispatch of the Covered Resources is necessary to best meet the emergency and serve the public interest for purposes of FPA section 202(c). These factors, including as declared in the Governor’s July 30 emergency proclamation and as described in the Application, have led to my determination that an emergency exists in California due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest. In line with the emergency proclamation’s anticipation of energy shortages this summer, this Order is limited to a 60-day period. Because the additional generation may result in a conflict with environmental standards and requirements, I am authorizing only the necessary additional generation, with reporting requirements as described below.

FPA section 202(c)(2) requires the Secretary of Energy to ensure that any order that may result in a conflict with a requirement of any environmental law be limited to the “hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable,” be consistent with any applicable environmental law and minimize any adverse environmental impacts. The CAISO anticipates that this Order may result in exceedance of NAAQS under the Clean Air Act and other conflicts with environmental law. Based on the CAISO Application, the distance between the Covered Resources is large enough that no two of the Covered Resources are expected to impact the same community. *Id.* at 6-7. To minimize adverse environmental impacts, this Order limits operation of dispatched units to the times and within the parameters determined by the CAISO for reliability purposes, and subject to the conditions set forth in this Order.

Based on my determination of an emergency set forth above, I hereby order:

- A. From September 10, 2021 to November 9, 2021, in the event that the CAISO determines that generation from the Covered Resources is necessary to preserve the reliability of the bulk electric power system in California, I direct the CAISO to dispatch such unit or units and to order their operation solely under the following conditions:
- i. the issuance and continuation of an Energy Emergency Alert Level 2¹ condition or greater between the hours of 14:00 Pacific Daylight Time and 22:00 Pacific Daylight Time after exhausting all reasonably and practically available resources;
 - ii. a transmission emergency² that requires operation of the Covered Resource to prevent or mitigate load curtailment during any operating hour; or
 - iii. limited testing directed by the CAISO or synchronization of Midway Sunset Unit C, Greenleaf Unit 1, and Roseville Energy Park during periods of lowest electric demand for natural gas resources, as determined by the CAISO.
- B. Consistent with good utility practice, the CAISO shall exhaust all reasonably and practically available resources, including demand response and identified behind-the-meter generation resources to the extent that such resources provide support to maintain grid reliability, prior to dispatching the Covered Resources.
- C. All operation of the Covered Resources must comply with applicable environmental requirements, including but not limited to monitoring, reporting, and recordkeeping requirements, to the maximum extent feasible while operating consistent with the emergency conditions. This Order does not provide relief from any obligation to purchase offsets or allowances for emissions that occur during the emergency condition or to use other geographic or temporal flexibilities available to generators. Covered Resources must comply with the requirements of the CARB MRR and California's Cap-and-Trade regulation, to the extent applicable.
- D. The CAISO shall provide such additional information regarding the environmental impacts of this Order and its compliance with the conditions of this Order, in each case as requested by the Department from time to time. By December 1, 2021, the CAISO shall report source specific data for all dates

¹ For the purposes of this Order, "Energy Emergency Alert Level 2" has the meaning set forth in Section 3.6.4 of the California ISO System Emergency Operating Procedure Version 13.1, Effective Date August 20, 2021 (CAISO Emergency Operating Procedure).

² For the purposes of this Order, "transmission emergency" has the meaning set forth in Section 3.5 of the CAISO Emergency Operating Procedure.

between September 10, 2021 and November 9, 2021, on which the Covered Resources were operated, including, for each unit, (1) the hours of operation, as well as the hours in which any permit limit was exceeded and (2) a preliminary description of each permit term that was exceeded and the manner in which such exceedance occurred. The CAISO shall also submit a final report by January 7, 2022, with any revisions to the information reported on December 1, 2021. The environmental information submitted in the final report shall also include the following information:

- i. Emissions data in pounds per hour for each Covered Resource unit, for each hour of the operational scenario, for CO, NO_x, PM_{2.5}, PM₁₀, volatile organic compounds (VOC), and SO₂;
 - ii. Emissions data must include the actual emissions (lbs/hr), permitted operating/emission limits, and the actual incremental emissions above the permit limits, except that for emissions units not equipped with continuous emission monitoring systems, actual emissions shall be calculated using source test data;
 - iii. Stack parameters for each Covered Resource unit: stack height, exit diameter, exit gas temperature, and exit velocity (or volumetric flow rate). Temperature and velocity must be the values applicable to the operations above permit limits;
 - iv. The actual hours that each Covered Resource unit operated in excess of permit limits or operated without otherwise-required permits;
 - v. Information provided to the CARB in response to the CARB's development and implementation of the plan to mitigate the effects of additional emissions authorized by the July 30, 2021 proclamation; and
 - vi. Additional information requested by DOE as it performs any environmental review relating to the issuance of this Order.
- E. The CAISO shall inform all affected communities where all Covered Resources operate that the CAISO has been issued this Order, in a manner that ensures that as many members of the community as possible are aware of the Order, and explains clearly what the Order allows the CAISO to do. The CAISO shall describe the actions taken to comply with this paragraph in the reports delivered to the Department pursuant to paragraph D above.
- F. This Order shall not preclude the need for any Covered Resource to comply with applicable state, local, or Federal law or regulations following the expiration of this Order.
- G. The CAISO shall be responsible for the reasonable third-party costs of performing analysis of the environmental and environmental justice impacts of this Order, including any analysis conducted pursuant to the National Environmental Policy Act.

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- H. This Order shall be effective upon its issuance, and shall expire at 23:59 Pacific Daylight Time on November 9, 2021, with the exceptions of paragraphs F and G and the reporting and analysis requirements in paragraphs D and E. Renewal or amendment of this Order, should it be needed, must be requested before this Order expires.

Issued in Washington, D.C. at 16:26 Eastern Time on this 10th day of September, 2021.

A handwritten signature in blue ink that reads "David M. Turk". The signature is written in a cursive style and is positioned above a horizontal line.

David M. Turk
Deputy Secretary of Energy