

September 1, 2022

The Honorable Jennifer Granholm
Secretary of Energy
United States Department of Energy
1000 Independence Ave, SW
Washington DC 20585

RE: Request for Emergency Order Pursuant to Section 202(c) of the Federal Power Act

Dear Secretary Granholm:

Pursuant to Section 202(c) of the Federal Power Act (FPA),¹ and the Department of Energy (DOE) Administrative Procedures and Sanctions,² the California Independent System Operator Corporation (CAISO)³ requests the Secretary of Energy find an electric reliability emergency exists within the State of California that requires intervention, in the form of a Section 202(c) emergency order, to preserve the reliability of the bulk electric power system in California. As described below, an emergency order will allow the CAISO to dispatch additional generation that may be necessary for the CAISO to meet demand in the face of extreme heat.

The CAISO respectfully requests that the Secretary issue the requested emergency order by Friday, September 2, 2022, or as soon as possible thereafter, authorizing specific electric generating resources (Covered Resources) located within California to operate at their maximum generation output levels between 2:00 p.m. and 10:00 p.m., when directed to do so by the CAISO, notwithstanding air quality or other permit limitations. The CAISO requests that the Secretary make this order effective for an initial period of seven days. The Covered Resources subject to this request include:

- 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

¹ 16 U.S.C. § 824a(c).

² 10 C.F.R. Part 205, Subpart W.

³ The CAISO is a non-profit public benefit corporation organized under the laws of the State of California. The CAISO is a balancing authority responsible for the reliable operation of the electric grid comprising the transmission systems of numerous utilities.

The CAISO has prepared this request in consultation with the California Energy Commission (CEC) and the California Air Resources Board (CARB). These state entities have informed the CAISO they will support any reporting DOE may require under an emergency order.

The CAISO estimates that granting this request will provide approximately 28 MW of additional generation supply from the Covered Resources when conditions merit. **Exhibit A** includes a list of the Covered Resources, each of which is within the South Coast Air Quality Management District. This list includes: (1) the name of each Covered Resource and its location by city, zip code, and geographic information system (GIS) coordinates⁴; (2) the owner of the Covered Resource; (3) an estimated amount of additional megawatts this request may allow the CAISO to dispatch at each Covered Resource; and (4) permit exceedances that the CAISO understands may occur, if the CAISO dispatches the resources to the levels requested under the emergency order.⁵ Each of these generating units utilizes natural gas as a fuel supply. **Exhibit B** identifies the nearest air quality monitoring stations to each Covered Resource. If the CAISO identifies additional generation units it deems necessary to operate in excess of federal environmental permitting limits to maintain electric reliability, the CAISO will request authorization to amend the list of Covered Resources.

In accordance with 10 CFR §205.391(a), the CAISO requests that DOE issue an emergency order by September 2, 2022 to remain effective – subject to the conditions described below – for a period of seven days, without prejudice to the possible issuance of further orders as necessary to address the emergency should it continue or recur. This initial period will make additional supply available when California experiences extreme heat and the potential for insufficient energy and reserves.

I. Background

California is experiencing extreme heat, which is forecast to continue into the first full week of September. On Tuesday, August 30, 2022, the National Weather Service issued excessive heat warnings for parts of California.⁶ The threat of wildfire to the reliable operation of the bulk power system remains significant, and drought conditions are affecting the availability of hydroelectric power. The CAISO expects abnormally high temperatures to continue over the next week. The CAISO also anticipates high

⁴ The CAISO has obtained these coordinates from the CEC which maintains them in its publicly available power plant dataset: <https://cecgis-caenergy.opendata.arcgis.com/datasets/CAEnergy::california-power-plants/about>

⁵ The CEC has identified potential permit exceedances relate to nitrogen oxide emissions. Additional permit exceedances may relate to fuel throughput and maximum output levels.

⁶ More information is available on the National Weather Service website: <https://alerts.weather.gov/cap/ca.php?x=1>

temperatures across the West, which will affect the ability of the CAISO to rely on electricity supply from other parts of the region.

Despite efforts undertaken by state regulators and electric utilities over the last 12 months to secure additional resources to meet reliability needs, the CAISO is forecasting potential supply deficiencies. For the next several days, the CAISO forecasts a supply deficiency to meet demand during peak demand hours. Granting this request for an emergency order and authorizing the operation of additional generating capacity identified in this request when conditions merit will support the CAISO's efforts to maintain reliability and serve electric demand.

A. The State of California is experiencing extreme heat and an expected energy supply shortfall

The CAISO is forecasting extreme heat and high electric demand over the next several days. Fire remains a significant variable for electric grid reliability in California and other western states and could exacerbate electric grid reliability issues at any time. On August 31, 2022, the Governor of California issued a proclamation declaring a state of emergency through September 7, 2022.⁷ The proclamation authorizes emergency measures so that energy customers can make contingency plans ahead of the Labor Day holiday weekend. Among other things, the proclamation authorizes the use of stationary and portable generation to operate outside of state regulation and permitting requirements when an Energy Emergency Alert Level 2 or Energy Emergency Level 3 is in effect. The proclamation would excuse the requirement for ocean-going vessels berthed in California ports to use shore power when these conditions are in effect and for a reasonable period thereafter. The proclamation also directs the CARB to implement its Climate Heat Impact Response Program (CHIRP) to mitigate emissions arising from operation of permitted sources pursuant to the proclamation.

The CAISO forecasts a supply deficiency to meet demand during peak demand hours. Based on the current forecasts, this supply deficiency could exceed 3000 MW during evening hours and lead to load curtailment at a time when Californians will need electricity for both health and safety. Accordingly, the CAISO is taking all available steps to address this shortfall, including submitting this request for an emergency order from the Secretary of Energy.

⁷ A copy of the Governor's Proclamation is available here: <https://www.gov.ca.gov/wp-content/uploads/2022/08/8.31.22-Heat-Proclamation.pdf?emrc=78e3fc>

B. The CAISO and state entities continue to take steps to address electric supply deficiencies this summer

Based on an assessment of available electric supply to meet expected electricity demand and input from California state energy officials, the CAISO has taken steps to respond to and mitigate the power shortage condition it faces. The CAISO has denied requests of generating facilities that notified the CAISO of their intent to mothball or retire. The CAISO instead designated those facilities as Reliability Must-Run units to run as cost-of-service units under the terms of the CAISO tariff. This has preserved more than 400 MWs of existing generation that was at risk of being lost.⁸ In addition, the CAISO has worked with the owner of Midway Sunset Cogeneration under its Reliability Must Run agreement to deploy emission controls at one of its units and make an additional 80 MW available to the CAISO system. Working with state regulators and utilities, California has also increased the size of its resource fleet by adding over 1500 MW of electric storage within the California balancing authority area since the summer of 2021.

Working in consultation with the California Public Utilities Commission (CPUC), electric utilities have implemented an emergency load reduction program that provides some relief to the bulk power system during stressed grid conditions. The program seeks to reduce energy consumption or increase electricity supply during periods of electrical grid emergencies.⁹ In addition, the California Department of Water Resources (CDWR), subject to licenses issued by the CEC in response to the July 30, 2021 emergency proclamation, has deployed 4 mobile, modular General Electric TM2500 aero-derivative gas turbine generators at existing generating facility sites. Each unit has a nameplate capacity of approximately 30 MW and is available to operate during emergency conditions.

Efforts are underway to address the longer-term needs in California in response to increasing heat waves and drought conditions, and thereby reducing the need to seek emergency relief in the future. The CPUC has 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 2026.¹⁰ In addition, California enacted Assembly Bill 205 this year, which adopts various measures to enhance electric grid

⁸ Some of those generating units have since resumed operating as market units.

⁹ More information about the Emergency Load Reduction Program is available the CPUC's website: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/emergency-load-reduction-program>

¹⁰ CPUC Decision No. 21-06-035 - Decision Requiring Procurement To Address Mid-Term Reliability (2023-2026) issued June 30, 2021: <http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=389603637>

reliability.¹¹ Among these, the bill authorizes creation of a strategic reserve for use to meet electric demand in extreme events such as heatwaves. The strategic reserve will consist of new emergency and temporary generators, new storage systems, clean generation projects, and potential funding for extension of existing generation, including potentially the Diablo Canyon Nuclear Power Plant.

The CAISO will continue to utilize its day-ahead market to ensure it has secured sufficient supply to meet its forecast of demand for the next operating day and its real-time market to increase incremental supply to meet changes in the day-ahead demand forecast. When there is insufficient supply in the day-ahead timeframe, the CAISO activates emergency procedures, which can include 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. The CAISO will also 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. However, it increasingly appears that these measures may be insufficient to avoid load curtailments in the coming days. Issuing the emergency order the CAISO requests will provide another tool for the CAISO to help mitigate this risk.

II. The relief requested is necessary to access additional generating capacity but should not create a disproportionate impact on any individual community

In consultation with the CEC and CARB, the CAISO understands that, given their permit limits, the owners of the Covered Resources cannot make additional identified capacity available absent an order from the Secretary under FPA 202(c). The CAISO further understands that the electric generating units identified in this request have derated their facilities based on conditions set forth in their permits regarding nitrogen oxide emissions, heat output, and fuel throughput. Accordingly, the CAISO anticipates that the emergency order it is requesting may result in exceedance of National Ambient Air Quality Standards (NAAQS) under the Clean Air Act. The CAISO anticipates that, collectively, these constraints will preclude CAISO dispatch of approximately 28 MW of available generating capacity. Authorizing these facilities to operate, notwithstanding permit and other limitations, will help mitigate shortages of expected energy and reserve requirements.

The CAISO seeks an order from DOE authorizing the Covered Resources to provide additional energy beyond their permitted levels. This authorization will help the CAISO meet the existing emergency and serve the public interest by preventing or

¹¹ A copy of Assembly Bill 205 is available here:
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205

mitigating power disruptions and the potential curtailment of electricity load within the CAISO balancing authority area. To minimize any adverse impact on the environment, the CAISO will only dispatch the generating units identified in this request above their permitted levels during peak demand hours - from 2 p.m. to 10 p.m. - and only if necessary to meet exceptional levels of electricity demand or to address a transmission emergency that would otherwise create the risk of curtailing electric demand.

The CAISO appreciates the importance of the environmental permit limits that are at issue. However, losing power to homes and businesses in the areas affected by curtailments presents a greater risk to public health and safety than the temporary and limited exceedances of air emission permit limits that would occur under the requested emergency order. Authorizing the Covered Resources to operate notwithstanding permit requirements will reduce that risk. The affected power plants are located in different communities throughout southern California. Accordingly, the CAISO does not anticipate a disproportionate impact on any single community. In addition, this request does not seek to exempt Covered Resources requirements under CARB's Mandatory Reporting of Greenhouse Gas Emissions Regulation (MRR) and the Cap-and-Trade Regulation. Covered Resources will need to report and verify their greenhouse gas emissions and secure any applicable offsets or allowances associated with their emissions. The Governor's August 31, 2022 emergency proclamation does not waive obligations under those programs, and the Covered Resources will be required to meet them to the extent applicable. In addition, any Section 202(c) order should not grant relief from MRR or Cap-and-Trade Program compliance obligations because that relief would not be necessary to carry out the order's purposes.

III. The CAISO requests authority to direct operation of the Covered Resources above permitted levels pursuant to an emergency order under specified conditions and commits to report on the Covered Resources' operation

The CAISO performs short-term forecasting to assess electricity supply and demand in its balancing authority area and coordinates outages of transmission and generation facilities. The CAISO closely monitors the potential impacts of various factors, including wildfire threats, which can cause sudden de-rates of transmission capability on its system. Additionally, the CAISO closely monitors forced de-rates of generating facilities that can occur from lack of fuel and extreme heat, or units forced out of service because of mechanical reasons. These conditions can give rise to sudden needs for electricity supply.

As part of its day-ahead market, the CAISO undertakes a process to commit additional supply for reliability based on the CAISO's forecast of demand in its balancing authority area. This process follows the CAISO's economic market clearing process and usually is completed before 3:00 p.m. Pacific Time on the day before an operating day. If the CAISO observes a deficiency, it will issue a grid alert to solicit additional supply during the specified hours it is short for the next day. The CAISO also plans to

call for voluntary conservation during specified hours. To request voluntary conservation, the CAISO issues a Flex Alert and activates media to communicate that there is a predicted shortage of energy supply, which threatens reliable electricity system during certain hours.¹² If the CAISO projects a deficiency during the operating day, it will issue a grid warning for specified hours and mobilize emergency demand response. The CAISO's issuance of a grid warning is synonymous with an Energy Emergency Alert, Level – 1 condition. Once in an Energy Emergency Alert, Level – 1 condition, the CAISO may deploy emergency demand response, *i.e.* reliability demand response resources, which then triggers an Energy Emergency Alert, Level - 2.

For purposes of dispatching the Covered Resources at levels exceeding their permitted values, the CAISO proposes to put them on call in the day-ahead timeframe if the CAISO issues a grid alert for specified hours. This will allow operators of these resources additional time to prepare for their operation and secure necessary fuel. The CAISO will direct these units to operate only after the CAISO has entered an Energy Emergency Alert – Level 2 condition, *i.e.* after the CAISO has initiated the dispatch of reliability demand response resources. In addition, the CAISO requests authority to direct the operation of the Covered Resources above permitted levels during any hour in which transmission emergency requires operation of the Covered Resource to mitigate the risk of load curtailment during any operating hour. The Covered Resources would operate outside of permitted levels only as needed to help mitigate the risk the CAISO may need to curtail native load.

The CAISO commits to report on the operation of the Covered Resources at the frequency determined by DOE. The CAISO proposes to report on the Covered Resources' hours of operation, MWhs generated at each Covered Resource, and emissions that exceed permitted limits at each Covered Resource. Based on information and belief, the CAISO understands each of the Covered Resources operate continuous emissions monitoring systems and can report emissions data on an hourly basis. The CAISO will coordinate any such reports with the CEC, CARB, local air districts, and the operators of the Covered Resources to determine the excess emissions that result from operations of the Covered Resources under a DOE emergency order. .

IV. Relief Requested

The emergency for which the CAISO seeks relief could have serious consequences regarding the CAISO's ability to serve load in California and meet its reserve obligations. Accordingly, the CAISO requests that DOE issue an order,

¹² More information about the CAISO's Flex Alert program is available on the following website: <https://www.flexalert.org/>

effective for seven days, that allows the generating units identified in Exhibit A that are subject to permit limits to operate at their maximum levels. The CAISO proposes that DOE grant this relief subject to the following and any additional conditions DOE may deem appropriate:

- Using the generating capacity of Covered Resources may create permit exceedances during the following conditions:
 - (1) the pendency of an Energy Emergency Alert - Level 2 condition or greater between the peak demand hours of 2:00 p.m. and 10:00 p.m. after exhausting all reasonably and practically available resources; or
 - (2) a transmission emergency that requires operation of the Covered Resource to mitigate the risk of load curtailment during any operating hour.
- Covered Resources comply with the requirements of CARB's Mandatory Reporting Regulation and Cap-and-Trade regulation, to the extent applicable, because such relief is not necessary to carry out the purpose of the emergency order requested.
- Report to DOE at requested intervals on emergency operations, permit exceedances, and other DOE-specified information.
- Support from the CAISO for any environmental impact review DOE may be required to undertake regarding the effects of the emergency order, including analysis of or modeling to assess the impact on NO₂ and ozone levels.

The CAISO greatly appreciates DOE's expedited consideration of this request. Please do not hesitate to contact the undersigned if you have any questions or require additional information in order to act on this request.

Respectfully submitted,



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Exhibit A - List of Covered Resources

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Power plant and location	Owner/Operator	Estimated MW affected by limitation	Permit Exceedances
<p>Alamitos Energy Center Long Beach, California 90803</p> <p>Coordinates:</p> <p>Power Plant Latitude: 33.769295 Power Plant Longitude: -118.101155 Switchyard Latitude: 33.7713325 Switchyard Longitude: -118.1002474</p>	<p>AES Southland Development, LLC</p>	<p>5 MW Alamitos Energy Center is a 640 MW combined-cycle electric generating station comprised of natural gas-fired turbines (power block 1) and the steam turbine (power block 2). The two gas turbines in power block 1 can each generate an additional 2.5 MW of supply using peak firing software.</p>	<p>Nitrogen oxide emissions</p>
<p>Huntington Beach Energy Project Huntington Beach, California 92646</p> <p>Coordinates:</p> <p>Power Plant Latitude: 33.644395 Power Plant Longitude: -117.978672 Switchyard Latitude: 33.6459679 Switchyard Longitude: -117.9778218</p>	<p>AES Huntington Beach Energy, LLC</p>	<p>6 MW Huntington Beach Energy Project. Huntington Beach Energy Project is a 640-MW combined-cycle facility, comprised of two natural gas-fired turbines and a steam turbine generator. The two combustion turbines can each produce 3.0 MW of additional supply using peak firing software</p>	<p>Nitrogen oxide emissions</p>
<p>Walnut Creek Energy Park City of Industry, California 91745</p> <p>Coordinates:</p> <p>Power Plant Latitude: 37.48777 Power Plant Longitude: , -120.895557 Switchyard Latitude: 34.0082706 Switchyard Longitude: -117.9499278:</p>	<p>Clearway Energy</p>	<p>17 MW Walnut Creek Energy Park is s a 500-MW natural gas-fired, simple cycle facility that can produce additional MW as a result of a modification to its hourly fuel input and ammonia flow rates,</p>	<p>Nitrogen oxide, ammonia and carbon monoxide emissions</p>

**Exhibit B –
Nearest Air Quality Monitoring Stations for each Covered Resource**

Exhibit C - Nearest air quality monitoring stations for each Covered Resource

Power Plant	Nearest Air Quality Monitoring Station
<p>Alamitos Energy Center Long Beach, California 90803</p>	<p>Long Beach - Signal Hill EPA AQS Site ID: 60374009</p> <p>PM10, PM2.5: The South County Los Angeles County 2 (SCLA2) -South Long Beach station is located approximately 4.6 miles northwest of the project site</p> <p>PM2.5: The South County Los Angeles County 1 (SCLA1) -North Long Beach station (SCLA1) is located 6.4 miles northwest of the project site</p> <p>NO₂, PM10: The South Coastal Los Angeles 3 (SCLA3) -Hudson Long Beach station is located approximately 7.2 miles northwest of the project site</p>
<p>Huntington Beach Energy Project Huntington Beach, California 92646</p> <p>:</p>	<p>Anaheim - Loara School EPA AQS Site ID: 60590007</p> <p>O₃, NO₂, SO₂, and CO: North Coastal Orange County monitoring station data, located about 3.5 miles northeast from the project site</p> <p>PM10 and PM2.5: North Long Beach station, approximately 17 miles to the northwest of the project site</p>
<p>Walnut Creek Energy Park City of Industry, California 91745</p>	<p>La Habra EPA AQS Site ID: 60595001</p> <p>Ozone, CO, NO₂: La Habra Station, about 5.8 miles to the south;</p> <p>PM10, PM2.5, SO₂: LA-North Main St, about 16.7 miles to the northwest.</p>