

DOCKETED

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CEC-70 (Revised 12/2020)

*IN THE MATTER OF:*

Summer 2022 Stack Analysis

Docket No. 21-ESR-01

NOTICE OF AVAILABILITY

RE: Summer 2022 Stack Analysis

Notice of Availability and Request for Comments on the *Summer 2022 Stack Analysis Update*

The 2022 Supply Stack Update is now available on the California Energy Commission's (CEC) [Reliability Assessments](https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/reliability-assessments) web page at <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/reliability-assessments>. The supply stack is intended to provide a short-term grid reliability outlook under average and extreme conditions to assess potential need for contingency measures. CEC staff will conduct a workshop on January 14, 2022 to present and discuss the 2022 Supply Stack Update. Details concerning how to participate in this workshop are provided in a separate notice.

Background

Extreme heat events in 2020 impacted the western United States, straining the electric system in the California Independent System Operator (California ISO) territory and resulting in rotating outages on two days in August. The California ISO, the CEC, and California Public Utilities Commission (CPUC) conducted a Root Cause Analysis¹ of the events and identified the need for the three entities to assess potential impacts of climate-change induced heat events and improve resource planning to improve grid reliability during the summer season.

In response, the CEC developed an hourly stack analysis to assess supply conditions against average and extreme weather conditions for the key summer months of July through September. The hourly stack analysis tool supplements traditional planning methods and is intended to provide a high-level assessment of whether there is potential for resource shortfalls under an extreme weather event and, if so, the magnitude of contingency resources that might be needed to make up the shortfall.

The CEC first published a Summer 2022 Stack Analysis on July 30, 2021.² That analysis provided a preliminary assessment of Summer 2022 and showed a need for contingency resources in the

1 [Root Cause Analysis Mid-August 2020 Extreme Heat Wave](http://www.caiso.com/Documents/Final-Root-Cause-Analysis-Mid-August-2020-Extreme-Heat-Wave.pdf#search=root%20cause%20analysis) <http://www.caiso.com/Documents/Final-Root-Cause-Analysis-Mid-August-2020-Extreme-Heat-Wave.pdf#search=root%20cause%20analysis>

2 <https://efiling.energy.ca.gov/GetDocument.aspx?tn=238737&DocumentContentId=72139>

early evening hours if an extreme heat event occurred in July, August, or September. There have been many developments on supply and demand since that version was published. This Summer 2022 Stack Analysis Update includes more current information on resources, including new procurements required of the Load Serving Entities by CPUC and resources that were anticipated to come online but have experienced delays. The analysis also includes improved estimates of demand, taking into account climate change impacts. This update shows significant improvement from previous projections, with potential energy shortfalls only predicted during September 2022 under the extreme weather planning reserve margins. This analysis forecasts potential need for contingencies resources during a few hours in September 2022 that could range from 200 megawatts (MW) to 2,400 MW. These resources may be required to ensure electric system reliability for peak and net-peak hours during summer 2022 under extreme weather events.

Summary of Changes

The following inputs into the supply stack were updated between the September 2021 business meeting when the CEC adopted the stack analysis and the update made in January 2022.

Input	September 2021 Business Meeting	January 2022 Update
Hourly Demand	CEC 2020 Adopted Demand Forecast	CEC 2021 Draft Demand Forecast
Existing Resource Supply	November 2020 Net Qualifying Capacity (NQC) List	October 2021 NQC List
Imports	Average Resource Adequacy Filings 2015-2020	Average Resource Adequacy Filings 2016-2021
New Resources	CPUC Tracking as of Aug 2021	CPUC Tracking as of Dec 2021
Wind Generation	Tech Factor on NQC List	Hourly Profile based on generation on high load days
Solar Generation	PLEXOS Shapes	Hourly Profile based on generation on high load days
Demand Response	2020 Demand Response (DR) Allocations for 2021-2023 with a 40% Reduction	2021 DR Allocations for 2022-2024
Drought Impact	Hydro derated 1,200-1,500 MW; Demand reduced by approximately 200 MW due to less pumping	Hydro derated 500 MW; no demand reduction
Redondo power plant	Retired December 2021	Extended to 2023

Public Comment

Written comments must be submitted to the Docket Unit by 5:00 p.m. on January 19, 2022.

Written comments, attachments, and associated contact information (including address, phone number, and email address) will become part of the public record of this proceeding with access available via any internet search engine.

The CEC encourages use of its electronic commenting system. Visit the [e-commenting page](https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=21-ESR-01) at <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=21-ESR-01>, which links to the comment page for this docket. Enter your contact information and a comment title describing the subject of your comment(s). Comments may be included in the "Comment Text" box or attached as a downloadable, searchable document in Microsoft® Word or Adobe® Acrobat®. The maximum file size allowed is 10 MB.

Written comments may be submitted by email. Include docket number 21-ESR-01 and Summer 2022 Stack Analysis in the subject line and email to docket@energy.ca.gov.

If preferred, a paper copy may be sent to:

California Energy Commission
Docket Unit, MS-4
Docket No. 21-ESR-01
715 P Street
Sacramento, California 95814

Public Advisor and Other CEC Contacts

The CEC's Public Advisor provides the public with assistance in participating in CEC proceedings. For information on participation or to request interpreting services, reasonable accommodations or other accommodations reach out via email at publicadvisor@energy.ca.gov, or by phone at (916) 957-7910. Requests for interpreting services, reasonable accommodations, and other modifications should be made as soon as possible but at least five days in advance. The CEC will work diligently to accommodate all requests.

Direct media inquiries to mediaoffice@energy.ca.gov or (916) 654-4989.

Direct technical subject inquiries to Mark Kootstra at Mark.Kootstra@energy.ca.gov or (916) 931-8984.

Availability of Documents

Documents and presentations for this paper will be available at [21-ESR-01](https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-ESR-01), or <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-ESR-01>.

When new information is posted, an email will be sent to those on the list servers at the bottom of this notice. Manage existing list servers or sign up for others at [CEC List Servers](https://ww2.energy.ca.gov/listservers/index_cms.html), at https://ww2.energy.ca.gov/listservers/index_cms.html.

Dated: January 13, 2021 at Sacramento, California

Aleecia Gutierrez

Deputy Directory, Energy Assessments Division

List Servers: electricity, DCAG