

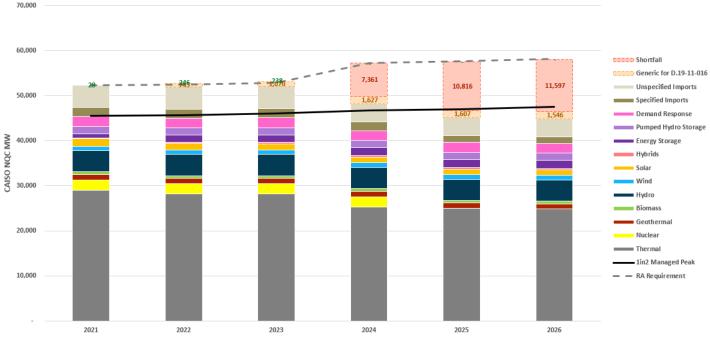
Fact Sheet: Decision Requiring Clean Energy Procurement for Mid-Term Reliability

Overview of D.21-06-035 Ordering Historic Levels of Clean Energy Procurement

- This Decision is part of the CPUC's Integrated Resource Planning (IRP) proceeding (<u>R.20-05-003</u>). It seeks to
 ensure that there are sufficient resources available to ensure reliability and to meet the state's greenhouse gas
 (GHG) emission reduction goals for the electricity sector in a cost-effective manner.
- D.21-06-035 orders the procurement of 11,500 MW of new net qualifying capacity (NQC) to come online in the years 2023-2026; enough to power approximately 2.5 million homes, with all of the resources procured coming from zero-emitting, or otherwise Renewable Portfolio Standard-eligible, sources. This is an unprecedented, but necessary, quantity of clean energy procurement that will ensure reliability in the mid-decade, help California achieve its climate goals, spur the development of the clean firm resources needed for deep decarbonization, and create thousands of green energy jobs in California.
- The resources are needed to respond to more extreme weather events and replace electricity generation from more than 3,700 MW of retiring natural gas plants and 2,200 MW from Diablo Canyon Power Plant. (NQC refers to the ability of a power plant to meet the reliability needs of the grid, especially at peak times. For some resources like variable renewables without storage, the "nameplate" or "installed" MW capacity will be significantly higher than the NQC value.)
- Of the 11,500 MW NQC required, 2,000 MW must be from resources with long development lead times. This procurement will increase resource diversity and enhance grid reliability. At least 1,000 MW must be obtained from *long duration storage resources (eight hours or greater)*, and at least 1,000 MW *from clean firm resources such as geothermal.* ("Firm" means providing power whenever needed, for as long as needed.)
- The Decision requires Diablo Canyon be replaced with at least 2,500 MW from zero-emitting generation, generation paired with storage, or demand response resources by 2025.
- The Decision requires all of the required 11,500 MW to be fulfilled with non-fossil fueled resources.
- The Decision does not allow any fossil generation to qualify for the order, but requires the Commission, in coordination with the California Energy Commission (CEC), to conduct more analysis to determine whether any additional fossil-fueled procurement may be necessary for reliability.
- The Decision assigns procurement responsibility to all LSEs based on their share of peak demand. In the event of non-compliance, penalties could be assessed on the non-compliant LSEs and IOUs would procure on their behalf ("backstop procurement").
- The Decision endorses reducing the 2030 GHG target from 46MMT to 38 MMT in the next IRP decision later this year if the portfolios submitted by the LSEs are analyzed to be reliable.
- The Decision also notes the planning track of the IRP proceeding will continue to explore coordinated planning for resource buildout and resource retirement to inform an orderly and equitable path to SB 100 goals, optimizing for GHG reductions, reliability, and costs.



The figure below shows the CPUC staff analysis of available electricity resources that led to the procurement required in the Decision.



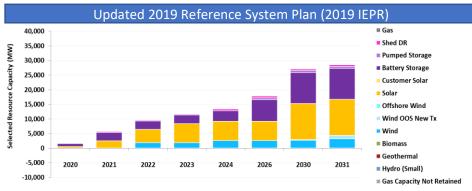
CAISO RA Stack by Resource Type (High Need (2020 IEPR))

The 11,500 MW NQC ordered in this decision is in addition to the approximately 5,000 MW NQC interconnecting between 2020-2024 from prior CPUC decisions.

The procurement proposed in D.21-06-035 is in addition to the 3,300 MW that the CPUC ordered to come online 2021-2023 (see Decision <u>D.19-11-016</u>), the 1,325 MW of energy storage that the Legislature has required by 2020 (See <u>AB 2514 [2010]</u>), and the 4,000 MW from resources already contracted to come online between now and August 2024 associated with other state energy programs such as the Renewables Portfolio Standard (RPS) (See <u>Status of New Resources Expected</u>, 11/23/2020). In addition, the CPUC estimates over 1,500 MW will be procured pursuant to two recent decisions adopted to address extreme weather events and summer reliability.

Assessing Reliability and Need for New Procurement

Relationship to Planning Track of IRP: As part of each IRP cycle, CPUC adopts a greenhouse gas planning target for the electric sector and identifies a portfolio with the optimal mix of resources needed to meet state policy goals. In March 2020, the CPUC adopted a Reference System Plan (RSP) that identified the



need for nearly 18,000 MW of new clean energy nameplate capacity by 2026 (see figure above and Decision, <u>D.20-03-028</u>) on the path to achieving 46 million metric ton (MMT) statewide electric sector emissions by 2030. The mid-need scenario proposed in the ruling leading up to this Decision, when combined with the 3,300 MW NQC ordered in D.19-11-016, closely approximates the 18,000 MW of new nameplate capacity included in the RSP. In response to stakeholder feedback D.21-06-035 now orders the high need scenario of 11,500 MW NQC.

Analysis of Need: To conduct the analysis of potential procurement needed by mid-decade, CPUC staff assessed the reliability need in each year based on the mid-demand forecast from the California Energy Commission's 2019 Integrated Energy Policy Report (CEC's 2019 IEPR). The analysis addressed "low", "mid", and "high need" scenarios using different need and resource addition/retirement assumptions. The Decision is based on the high need scenario, updated with the forecast from the CEC's 2020 IEPR, is 11,597 MW.

Next Steps: LSEs will file their progress toward resource procurement pursuant to this decision on February 1, 2023 and the first tranche of resources are required online by August 1, 2023. LSEs will continue to update the Commission on their progress biannually through 2026 (or 2028 in some cases).

Helpful Links to Learn More:

CPUC IRP Procurement Track: <u>IRP Procurement Track (ca.gov)</u> CPUC Decision: <u>389603637.PDF (ca.gov)</u>