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Vote Solar Comments on IEPR Commissioner Workshop on Draft Load Modifier Electricity Demand Forecast Results

Additional submitted attachment is included below.

California Energy Commission
715 P Street
Sacramento, CA

IEPR Commissioner Workshop on Draft Load Modifier Electricity Demand Forecasts Results

Vote Solar thanks the California Energy Commission (CEC) for the opportunity to provide written comments on the 7 November 2024 Commissioner Workshop on the Draft Load Modifier Electricity Demand Forecasts.

The Integrated Energy Policy Report (IEPR) is the state's best resource to evaluate the interactive effects between dozens of energy programs and related energy policies across all sectors. The California Energy Demand (CED) value (referred to as the IEPR forecast) is one of the primary outputs of this report; it is critical because the value is used as an input into the California Public Utilities Commission (CPUC) Resource Adequacy Proceeding and Integrated Resource Planning (IRP) rulemaking[1] and in the California Independent System Operator (CAISO) Transmission Planning Process (TPP).[2] Despite the joint agencies having a relatively well-coordinated planning process, issues arise because of a tight timeline between an approved IEPR, the required approval of the Preferred System Plan (PSP) in the IRP, and the development of a CAISO Board-approved Transmission Plan.

Vote Solar observes that if one or more data points at any planning milestone are incorrect, the impact will reverberate throughout the entire planning process and ultimately result in decisionmaker uncertainty, leading to unnecessarily high customer costs to resolve reliability issues. This dynamic is not unique to behind-the-meter (BTM) load modification forecasts, as highlighted below.

A More Flexible Planning Process is Needed to Avoid Catch-22s

On 3 November 2024, the California Western Grid Development served an ex-parte presentation in R.20-05-003, *Order Instituting Rulemaking to Continue Electric Integrated*

[1] D.24-02-047, "During every IRP cycle, Commission staff are limited to conducting analysis based on an approved set of IEPR assumptions that will be updated by the time the analysis is complete." p.66.
[2] CAISO, 2023-2024 Transmission Plan, Board Approved May 23, 2024, Section 1.2.1.1 Base Forecasts "the ISO relies on load forecasts and load modifier forecasts prepared by the CEC through its (Integrated Energy Policy Report (IEPR) processes" p.14

Resource Planning and Related Procurement Processes discussing a marine cable transmission project's ability to reduce gas reliance in the LA basin.

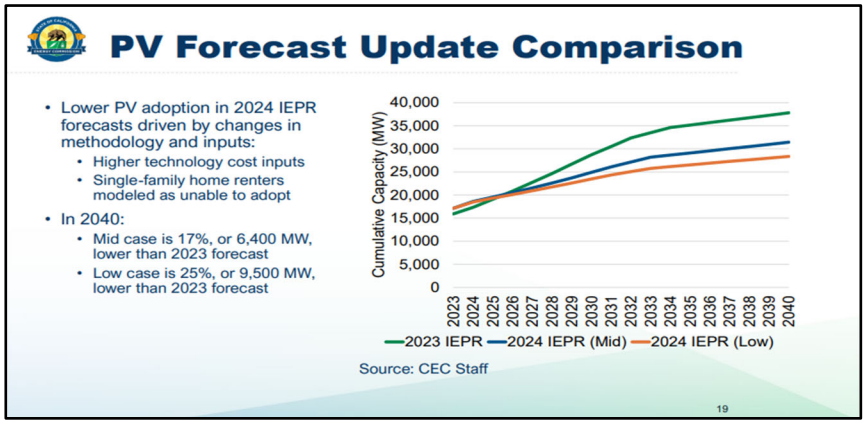
Cal-Western outlined a catch-22 where "CPUC resource portfolios provided to CAISO for transmission planning continue to include LA basin gas plants. CAISO then does not plan transmission that could reduce reliance on the gas plants"[3] Vote Solar takes no position on the merits of Cal Western's proposal, but the dynamic does highlight the difficulty and importance for planning to co-optimize demand side and supply side resource planning.

Vote Solar highlights a similar policy-based catch-22 below, followed by possible solutions to lower customer costs while increasing electric service resiliency through improved interagency planning.

The Base Year Cost of Solar Change is Significant

The CEC revised the forecasted solar photovoltaic (PV) capacity in the draft 2024 IEPR from the 2023 IEPR because of changes in data inputs and methodology.[4] The most significant data revision is due to the increased cost of standalone PV, at $4.04/W (residential).[5] The 2023 IEPR relied on a $3.30/W value derived from D.22.12.056.[6] The updated $/W represents a 19% cost increase, which would extend the payback period for solar adopters and thus, the CEC believes future year adoption will be lower. The non-residential cost of solar also increased between 2023 and 2024.

The 2024 IEPR reduces the BTM load modification contribution by 6,400MW (mid-case) and 9,500 MW (low-case) by 2040,[7] but the capacity shortfalls begin next year in Southern California Edison's low-case scenario.[8] Slide 19 below.



[3] Cal Western Ex-parte TPEP Intro Deck, slide 7, served to R.20-05-003 service list on13 November 2024
[4] Base Year Technology Cost Updates, Slide 12
[5] *id.*
[6] Decision Revising Net Energy Metering Tariff and Sub tariffs, p.82
[7] PV Forecast Update Comparison, slide 19
[8] PV Forecast Comparison, SCE Planning Area, slide 27

This is troubling because there was extensive solar cost data submitted in R.20-08-020, *Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to address other issues related to net energy metering* that documented the cost of standalone PV in 2023 was 20%+ higher than $3.30/W.[9] The CPUC adopted the $3.30/W value "because a crystal ball to determine future costs of solar in California does not exist."[10] Vote Solar is sympathetic to this situation but urges the joint agencies to be more flexible in bringing on more carbon-free resources when opportunities exist to do so. Vote Solar provides recommendations on page 4 to this end.

Planning Timelines, Inputs, and Assumption Issues Result in Higher Planning Reserve Margins

In June 2024, the CPUC issued D.24-06-004, *Decision Adopting Local Capacity Obligations for 2025-2027, Flexible Capacity Obligations for 2025, and Program Refinement.* The Slice of Day (SOD) Decision requires Load Serving Entities (LSEs) to procure resources with a 17% Planning Reserve Margin (PRM) for the 2025 [Resource Adequacy] RA compliance year even though the "Commission observes that the CEC's 2023 IEPR demand forecast for 2025 shows decreased demand compared to previous years, and a shift in the peak to July (rather than September)."[11] Logically, lower demand can be met with lower PRMs, and a 15.34% PRM was modeled by the Energy Division to meet reliability requirements.[12] However, the CPUC agreed with San Diego Gas & Electric (SDG&E) and Cal Advocates that there is "uncertainty associated with a lower demand forecast and changing peak loads, as the IEPR forecast is closely tied to the RA Requirement."[13]

More recently, the CPUC delayed implementation of much higher seasonal-based PRMs (23.5 – 26.5%),[14] in part because of the complexity of the updated RA and IRP alignment process and further timeline issues "including any revised IEPR data which is typically published in February of each year."[15]

The 2023 IEPR forecast was lowered from the 2022 IEPR forecast primarily because of state emigration. Thus, the forecasted demand for 2025 was lower than previously forecasted because fewer people using less electricity will have more of a near-term impact than transportation and building electrification-induced demand would. Unfortunately, a decreased IEPR forecast did not directly correlate to a lower PRM because of the information lag and forecast uncertainty.

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[9] D.22-12-056, p.82
[10] D.22-12-056, p.82
[11] D.24-06-004, p.23
[12] *id.*
[13] *id.*
[14] R.23-10-011, Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Forward Resource Adequacy Procurement Obligations, Decision on Track 2 Issues, p.14
[15] *id.,* p.18.

A similar planning flaw is occurring in the draft 2024 IEPR as a lower load modification contribution will likely result in the CPUC adopting much higher PRMs in Track 3 of the RA proceeding. **In either case, the CPUC procures more fossil gas because of forecast uncertainty.** There needs to be recourse if/when ex-ante inputs and assumptions are proven incorrect post-implementation and ideally a policy environment that encourages lower-risk, cleaner resources such as community solar and storage instead of more gas.

Planning Recommendations

The SOD Decision cited the IEPR as the primary reason for an increased PRM, which results "in an increase in procurement of 726.66 megawatts (MW) in July, 706.59 in August, and 698.38 in September."[16] The CPUC considered proposals to modify the "RA penalty structure and other ways to incent compliance with RA requirements, as well as to identify potential opportunities to increase the availability of RA resources."[17] The SOD Decision evaluated multiple proposals to increase the availability of RA resources, including administrative temporary system waivers and extension of cure periods to strategic reliability reserve capacity, energy-only resources for charging sufficiency, and/or modification to hybrid and co-located resourcing counting.[18] Vote Solar is hopeful that administrative and/or capacity-based alternatives can reduce the PRM; however, the CEC has the ability, and potentially the mandate,[19] to take proactive steps to reduce PRMs from a scenario-planning perspective.

To do so, the CEC should model how much front-of-the-meter (FTM) incremental community solar and storage capacity is necessary to modify load to achieve a monthly ~700MW July-September demand reduction. To further reduce fossil gas reliance, the CEC should also run the analysis using 14, 15, and 16 percent PRMs and include BTM PV in each reduced PRM scenario.

Vote Solar recommends the CEC initiate a **dedicated sub-working group** as part of the California Reliability Outlook to intentionally develop the policy necessary to account for the load modifying value via RA credits that community solar and storage resources provide. The CPUC will then have this information at the beginning of a rulemaking process instead of hastily developing a solution mid-flight. Ideally, this working group includes staff at the CPUC, CAISO, and LSEs to ensure information is available across the planning process.

[16] D.24-06-004, p.24
[17] *id.*
[18] D.24-06-004, p.24-49
[19] Cal. Pub. Res. Code § 25008

Land Use Screening Impacts

Vote Solar is interested to learn how the CEC will modify its land-use screening results due to reduced distributed generation. This is an issue area that is going to increase in intensity,[20] especially given the incoming federal administration's stance toward wind energy.[21]

Residential-serving community solar located on warehouse roofs is a multi-beneficial use of the built environment and CEC planners should model this resource and proactively communicate the resource's potential benefits to CPUC staff. As land use tensions grow in intensity, cost, and biodiversity impact, CEC planners can de-risk known future resource issues by detailing and repeatedly explaining the benefits of increased load modification to the joint agency decision-makers.

The clean energy resource with the least total impact should be the resource the state plans to maximally rely on to meet incremental demand and a continued reduction of community-based resources should trigger pathways toward immediate restitution.

Conclusion

The now proven too-low base case cost of solar value will result in higher ratepayer costs because RA contracts are impacted by higher PRM requirements and increased utility-scale land-use conflicts will escalate costs further. Vote Solar notes these potentially unnecessary cost increases are missing from existing cost-benefit calculations. This needs to change.

All else being equal, the combination of these two facts – higher PRMs and increasing land use tensions – should implore resource planners to acknowledge the benefits of fully incorporating DERs as a core part of the planning process instead of reacting to deployment fluctuations after the fact.

Vote Solar thanks the CEC for the opportunity to provide comments on the draft load modifier results. Vote Solar looks forward to continuing working with commissioners and staff toward planning reform and ratepayer cost reduction strategies.

Respectfully,

Steve Campbell

[20] Power of Place - West, The Nature Conservancy, Introduction
[21] https://calmatters.org/environment/2024/11/trump-offshore-wind-california/