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Form Energy's Comments on 2025 Scoping Order

Additional submitted attachment is included below.



February 11, 2025
David Hochschild
California Energy Commission (CEC)
715 P Street
Sacramento, CA 95814

Re: Form Energy Comments on the Draft Scoping Order for the 2025 Integrated Energy Policy Report

Dear Chair Hochschild:

Form Energy appreciates the opportunity to comment on the Draft Scoping Order for the 2025 Integrated Energy Policy Report (IEPR). The IEPR plays a critical role in shaping California's energy future, and we strongly support its focus on advancing the deployment of resources needed to help California meet its clean energy goals while maintaining grid reliability. Below, we identify a few recommendations for the CEC to refine its approach in key areas to better align with its stated objectives of the IEPR, including:

- **Prioritize the rapid deployment of firm zero-carbon resources, as defined in state law, including long-duration and multiday energy storage (LDES and MDS)**
- **Identify funding (i.e., the Clean Energy Reliability Investment Plan, or CERIP, and LDES Program) to scale firm zero-carbon resources**
- **Enhance energy demand forecasting to account for extreme weather and grid correlations**

Prioritize the Rapid Deployment of Firm Zero-Carbon Resources (LDES and MDS) that are Consistent with State Policy Goals

Form Energy urges California to update its current energy and climate planning abilities to more adequately account for extreme weather events, the retirement of natural gas power plants, and local reliability constraints. Without adequate consideration, California is at risk of over-procuring intermittent resources that cannot provide firm power for extended periods of time, while simultaneously paying to maintain aging fossil-fueled resources for reliability purposes. This results in an inefficient dichotomy in the state's energy systems - on one hand, it is reliant on fossil fuels, contrary to its policy goals, and on the other hand, its renewable build-out is at risk of being oversized. Firm zero-carbon resources, including LDES and MDS, offer the opportunity to develop a single, optimized, clean energy system that meets the state's goals and energy needs, rather than a suboptimal portfolio that seeks two different paths simultaneously.

The CEC has funded studies evaluating the role of LDES on the electricity grid, including a study conducted in 2023¹ by E3 and Form Energy that highlights the value of LDES in California. That study concludes that utilizing LDES and MDS as part of a diverse, clean energy portfolio can lower overall system costs, reduce air pollution and greenhouse gas emissions, and mitigate land use impacts. In other words, quickly deploying these firm zero-carbon resources is critical to advancing California's clean energy and climate policies in a way that is affordable and reliable. **The IEPR scope should be sure to include a robust consideration of the ability of firm zero-carbon resources to optimize resource portfolios for customers.**

Form Energy appreciates that the SB 423 report is referenced in the Draft Scoping Order. The draft SB 423 report includes helpful consideration of the role of firm zero-carbon resources in the state. We note that the draft includes little discussion of barriers to deploying firm zero-carbon resources and recommendations to overcome them. **Comprehensively addressing barriers and solutions to deployment in the final SB 423 report could better inform the 2025 IEPR and allow all stakeholders to more quickly advance the state's clean energy goals.**²

We also identify an important connection between the IEPR and the upcoming SB 100 report, and hope that the SB 100 report can play a central role in evaluating pathways to most cost-effectively transition from aging fossil fueled resources, in accordance with the state's policies. As with the SB 423 report, a thorough SB 100 report that analyzes the best pathways to achieve the state's goals will allow the 2025 IEPR to paint the best picture of the state's energy future.

Additionally, to ensure firm zero-carbon resources can quickly scale while reducing ratepayer costs, **we urge the CEC to identify available funding sources and deploy them in a manner that serves to help promising, emerging technologies rapidly reach market scale.** This includes CERIP,³ LDES Program,⁴ Demand Side Grid Support Program,⁵ Distributed Energy Backup Assets Program,⁶ and DWR investments pursuant to the Strategic Reliability Reserve Fund.⁷

¹ Go, Roderick, Jessie Knapstein, Sam Kramer, Amber Mahone, Arne Olson, Nick Schlag, John Stevens, Karl Walter, and Mengyao Yuan. 2024. *Assessing the Value of Long-Duration Energy Storage in California*. California Energy Commission. Publication Number: CEC-500-24-003.

<https://www.energy.ca.gov/sites/default/files/2024-01/CEC500-2024-003.pdf>

² Houck, Jason. 2024. *Jason Houck Comments – Form Energy comments on Draft SB 423 Report*. California Energy Commission. Docket Number: 21-ESR-01.

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=258678>

³ Erne, David. 2023. *Clean Energy Reliability Investment Plan*. California Energy Commission. Publication No. CEC-200-2023-003. <https://www.energy.ca.gov/publications/2023/clean-energy-reliability-investment-plan>

⁴ California Energy Commission. Long Duration Energy Storage Program. California Energy Commission, n.d., <https://www.energy.ca.gov/programs-and-topics/programs/long-duration-energy-storage-program>. Accessed 11 Feb. 2025.

⁵ California Energy Commission. Demand Side Grid Support Program. California Energy Commission, n.d., <https://www.energy.ca.gov/programs-and-topics/programs/demand-side-grid-support-program>. Accessed 11 Feb. 2025.

⁶ California Energy Commission. Distributed Electricity Backup Assets Program. California Energy Commission, n.d., <https://www.energy.ca.gov/programs-and-topics/programs/distributed-electricity-backup-assets-program>. Accessed 11 Feb. 2025.

⁷ California Energy Commission. Business Meeting Backup Materials for Agenda Item No. 7: DWR Investment Plan. California Energy Commission, 16 June 2023, <https://www.energy.ca.gov>.

The IEPR scoping order recognizes that, per SB 1075, hydrogen may be considered in this assessment. In addition to evaluating hydrogen's potential role in helping the state cost-effectively meet its clean energy policies, **we advocate for the IEPR to provide a comprehensive evaluation of a wide array of firm zero-carbon resources to ensure competitive market conditions that maximize affordability and reliability for customers.** The IEPR should highlight strategies to create market mechanisms that allow diverse technologies to compete and achieve California's energy goals at the lowest cost.

Enhance Energy Demand Forecasting to Account for Extreme Weather & Grid Correlations

The IEPR scoping order indicates that the state will fully update its electricity and natural gas forecasts. This will be helpful to develop the right resources for an affordable, reliable, and resilient system going forward. As the state implements this shift, we encourage planning to better account for widespread and extreme weather events, which can significantly impact energy demand and system reliability across sectors.

Additionally, **the state should publish weather-unified hourly forecasts; that is, profiles for demand, renewable generation, and other weather-correlated grid planning variables (e.g. fuel prices) that are all based on the same underlying weather conditions.** Such datasets are necessary to capture realistic grid stress events, such as simultaneous periods of high demand and below average renewable generation. Updating these forecasts with integrated weather and generation data will help California plan for the full range of expected grid conditions, including extreme events that could strain the system. By strengthening these forecasting methods, California can ensure a more accurate, resilient, and cost-effective energy planning process that better anticipates future challenges.

Load Shift Goal Considerations

Form Energy appreciates that the 2025 IEPR will provide updates on California's load shift resource potential and make recommendations to reduce net-peak electricity. As California's electricity demand grows, LDES and MDES can work to balance the grid by discharging energy when it is needed and shift loads away from peak periods, including over days, weeks and even seasons. **We urge the CEC to increasingly consider flexible energy storage resources as part of a balanced portfolio and flexible load system to support reliability, affordability, and clean energy.**

Thank you again for the opportunity to comment on the Draft Scoping Order for the 2025 IEPR, and for your work to deliberately and effectively advance California's clean energy goals. By prioritizing firm zero-carbon resources, improving electricity and gas forecasts, and accelerating deployment and scale up of emerging firm zero-carbon resources through available funding programs, California can best optimize its future system for the benefit of customers.

Sincerely,

Mark Thompson
Senior Director, State Affairs
Form Energy