

DOCKETED

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Support for initiatives seeking the development of grid-integrated, clean, affordable and reliable industrial decarbonization

Attachment is included below

Additional submitted attachment is included below.



June 18th, 2026

To: California Energy Commission

Subject: Support for initiatives seeking the development of grid-integrated, clean, affordable and cost-effective industrial decarbonization solutions.

Noble Thermodynamic Systems, Inc. thanks the California Energy Commission for the opportunity to provide comments on the EPIC 5 plan and, specifically, on the Cost-Effective Industrial Decarbonization initiative. We are grateful for the CEC's continued leadership in empowering California innovation and for its support of technology development efforts like ours. As a California-based company working to advance clean firm power solutions, we recognize the importance of CEC's role in helping emerging technologies move from concept to meaningful deployment.

Noble strongly supports and applauds this initiative. Decarbonizing industry and its associated transportation needs is essential to achieving California's climate goals while protecting grid reliability, energy affordability, and public health. We especially appreciate CEC's recognition that industrial decarbonization must be evaluated not only by emissions reductions, but also by its impacts on grid reliability, ratepayer affordability, and local air quality. That balanced framing is critical to avoiding unintended tradeoffs.

We encourage CEC to explicitly recognize grid-integrated clean distributed energy resources (DER) as an important pathway for low-risk industrial electrification. Large industrial loads can be costly and time-consuming to serve through conventional grid upgrades alone. Clean DER, when designed to operate in coordination with the grid, can help serve new industrial load, reduce congestion, improve resilience, and provide value to ratepayers. These same assets may also support transportation electrification, particularly where industrial facilities are linked to heavy-duty vehicle operations, logistics, ports, warehouses, or other large transportation energy needs.

Noble also recommends that process-integrated clean DER, including process-integrated clean heat and power, be considered within this initiative. Industrial decarbonization will require a multitude of approaches, including clean firm power, clean heat, thermal integration, carbon management, and operational flexibility. Technologies that can reduce

emissions cost-effectively while maintaining reliability and protecting air quality should be eligible for consideration if they meet the initiative's goals.

We strongly recommend that the initiative remain technology-agnostic and outcome-oriented. Nuclear, hydrogen, CCUS, and CCUS-adjacent solutions all present potential pathways for reliable industrial decarbonization, as recognized in recent California energy planning discussions, including the 2025 Integrated Energy Policy Report. These pathways should be considered under EPIC 5 on equal footing with other alternatives, provided they can demonstrate performance against the same core metrics: lower emissions, improved or protected local air quality, reliability, and cost-effectiveness.

In that spirit, Noble recommends that supported projects be evaluated using clear and consistent criteria. First, projects should demonstrate real decarbonization, including power or industrial service at a life-cycle carbon intensity lower than the California grid. Second, projects should avoid local air-quality tradeoffs and meet the applicable California air-quality requirements. Third, project merit should be assessed through transparent and standardized techno-economic analysis and life-cycle assessment so that ratepayer-funded projects truly support affordable decarbonization.

Noble also strongly supports CEC's first-of-a-kind deployment initiative. FOAK funding plays an important role in helping promising technologies cross the gap between technical validation and commercial deployment. In light of lessons learned from federal-level FOAK programs, we respectfully recommend that CEC's FOAK support be structured to remain competitive, accessible, and technology-neutral throughout the EPIC 5 period. The program should not unintentionally become a mechanism to de-risk only the projects or companies that are most ready at the beginning of the cycle.

A staged FOAK funding structure could help address this concern. For example, innovators could compete for support at defined stages such as pre-FEED, TEA and LCA, FEED, etc. Applicants should be able to enter at the stage appropriate to their maturity, provided they meet the requirements and milestones for that stage. This would help preserve competition, avoid locking funds too early into projects that may not ultimately deliver the strongest results, and allow qualified California innovators to participate throughout the five-year EPIC 5 period.

Furthermore, we encourage CEC to consider the appropriate scale of FOAK projects based on the specific technology and use case. Industrial decarbonization offers an opportunity to support multiple FOAK deployments at scales that are large enough to produce meaningful

learning, but sized as small as practical to protect ratepayer funds and maximize cost-effective outcomes.

Noble also supports CEC's continued emphasis on California-based companies building in California for Californians. Prioritizing local innovation helps train local workforce, create high-quality jobs, attract diverse technical talent, cement California's position as a clean technology leader, and deepen the project-development capabilities needed to scale clean technology in California. Supporting California innovators can strengthen the state's clean energy economy while advancing the practical deployment of technologies needed to achieve reliable, affordable, and clean industrial decarbonization.

Noble offers these comments from the perspective of a California innovator working directly in the industrial decarbonization space. Our company is developing clean, reliable, and affordable power solutions at industrial scale. Through this work, Noble seeks to demonstrate that firm, dispatchable energy can support deep decarbonization while maintaining the reliability and affordability that industrial customers and ratepayers require. We are especially grateful that this progress has been supported by the CEC, both in the earliest stages of the Argon Power Cycle™ concept developed at the University of California Berkeley and in Noble's continued technology development today. We believe this type of sustained support for California-based innovation is exactly what enables emerging technologies to mature into practical solutions for the state's most difficult decarbonization challenges.

On behalf of Noble Thermodynamic Systems

Dr. Miguel Sierra Aznar
Chief Executive Officer