



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Rulemaking 25-06-019

**INFORMAL COMMENTS OF FERVO ENERGY COMPANY ON THE MID-TERM RELIABILITY
COMPLIANCE STAFF PROPOSAL WORKSHOP QUESTIONS**

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I. INTRODUCTION AND SUMMARY

Fervo Energy Company (Fervo) appreciates the opportunity to provide informal responses to the Mid-Term Reliability (MTR) Compliance Staff Proposal Workshop Questions served on June 17, 2026. Fervo is a leading developer of enhanced geothermal systems (EGS) and a supplier of clean firm capacity to California load-serving entities (LSEs). Fervo's Cape Station development in southwest Utah is contracted with California LSEs to supply 500 megawatts (MW) of clean firm power toward their MTR long lead-time (LLT) obligations.

The Commission's MTR framework ordered 11,500 MW of new net qualifying capacity between 2023 and 2026,¹ including 2,000 MW of LLT resources composed of 1,000 MW of long-duration energy storage and 1,000 MW of clean, firm zero-emitting generation. D.23-02-040 subsequently ordered 4,000 MW of supplemental MTR procurement and extended the LLT online date from June 1, 2026 to June 1, 2028.² Most recently, the alternative compliance approach adopted in D.25-09-007 recognizes that LLT resources contracted in good faith may come online as late as 2031 without placing the contracting LSE out of compliance, provided the LSE maintains its resource adequacy (RA) position.³ The Commission has since directed procurement of at least 1,500 MW of additional clean firm or long-duration resources by 2032.⁴

California's LSEs have responded to the clean firm mandate in good faith. The substantial majority of clean firm capacity contracted toward the 1,000 MW clean firm LLT requirement to date is next-generation geothermal capacity contracted with Fervo, and LSEs executed those long-term contracts years ahead of the resources' online dates, exactly as the MTR framework intended. Where

¹ Decision (D.) 21-06-035, Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026) (June 30, 2021).

² D.23-02-040, Decision Ordering Supplemental Mid-Term Reliability Procurement (2026-2027) and Transmitting Electricity Resource Portfolios for 2023-2024 Transmission Planning Process (Feb. 28, 2023).

³ D.25-09-007 (Sept. 2025) (adopting the alternative compliance approach under which an LSE remains compliant where the online date of its contracted long lead-time resource is delayed from 2028 up to 2031, provided the LSE has executed long-term contracts meeting its LLT procurement obligation and is otherwise meeting its month-ahead system resource adequacy obligations).

⁴ D.26-02-057 (Feb. 2026) (directing procurement of at least 1,500 MW of clean firm or long-duration resources by 2032).

clean firm projects face timing risk today, the causes are predominantly outside the control of either the LSE or the developer — most notably transmission and deliverability constraints and the pace at which planning processes study and approve enabling upgrades.

Fervo's responses below focus on Sections 2, 4, 5, and 7. In summary: (1) the Commission should retain a good faith effort policy as a complement to the alternative compliance approach, with an objective, measurable definition; (2) the 80% capacity factor requirement for LLT clean firm resources should be measured on the basis of resource capability across the contract term, not market dispatch outcomes in any single year; (3) a resource delay should be defined to include delays caused by factors beyond the control of the buyer and seller, expressly including transmission and deliverability constraints, and LSEs acting in good faith should be permitted to recontract for a later online date without losing compliance credit; and (4) aligning the IRP's inputs and assumptions with observed market data is a necessary foundation for aligning IRP, RA, and RPS.

II. SECTION 2 — GOOD FAITH EFFORT

2.1 Is there a need for a complementary policy alongside the alternative compliance approach?

Yes. The alternative compliance approach addresses when a delayed resource may come online without penalty; it does not address why a resource is delayed or how an LSE that has done everything within its power should be treated when circumstances outside its control shift a project's schedule. A complementary good faith effort policy fills that gap. Without it, LSEs that contracted early and maintained their contracts would face the same treatment as LSEs that made no effort to procure, which would penalize exactly the behavior the MTR decisions sought to encourage and may chill future long-term contracting for LLT resources.

2.2 Should good faith effort be defined? If yes, how?

Yes. An objective and measurable definition would give LSEs the certainty needed to keep contracts in place through delays rather than abandoning them. Fervo recommends that a good faith effort finding be available to an LSE that demonstrates, with documentation: (a) it executed, or diligently pursued, a long-term contract for the required capacity ahead of the applicable compliance date; (b) the resource's delay results from a cause beyond the reasonable control of both the LSE and the seller, such as transmission or deliverability constraints, interconnection or network upgrade timelines, permitting delays, or supply chain disruption; (c) the LSE has maintained the contract, replaced it with a contract for equivalent capacity, or sought a good faith waiver for the duration of the delay; and (d) the LSE remains RA compliant for the duration of the delay. Each element can be evidenced objectively through executed contracts, interconnection and transmission planning records, and RA filings.

Although delaying long-term contract execution could theoretically create reliability concerns, existing RA compliance obligations that require load-serving entities to procure sufficient capacity throughout the delay period (see Section 5.4 below), and continued long-term resource planning processes will continue to incorporate updated resource and transmission upgrade timing to ensure a sufficient supply exists. This alternative compliance approach is necessary to avoid penalizing LSEs that are working diligently to meet the state's resource diversity and clean-firm compliance needs.

2.3 Why may the good faith effort policy still be necessary? Example scenario.

Consider an LSE that executed a long-term contract for clean firm LLT capacity well before its compliance deadline, from a project that subsequently encounters a deliverability constraint because the enabling transmission upgrade has not yet been studied or approved in the applicable planning cycle. Neither the LSE nor the developer controls transmission planning timelines. Under the alternative compliance approach alone, the LSE's flexibility is bounded by fixed outside dates even where the delay-causing condition persists. A good faith effort policy allows the Commission to preserve the contract, the project, and the ratepayer value already created, while holding the LSE to its RA obligations in the interim. This complements, rather than duplicates, the alternative compliance approach.

III. SECTION 4 — CAPACITY FACTOR

4.1 What engineering assessment methods can demonstrate an 80% capacity factor?

As a threshold matter, Fervo understands the 80% capacity factor to function as a resource qualification criterion — an engineering design threshold demonstrated at the time of contract execution to establish that a resource belongs in the clean firm LLT category — and not as an annual operational performance requirement to be re-tested for compliance purposes over the life of the contract. This approach would be consistent with the existing structure for reliability accreditation, for example, evaluation of the marginal ELCC values for solar, wind, and storage resources. The Commission should confirm this understanding. Once a resource qualifies, ongoing performance is appropriately governed by the parties' contract and by the resource adequacy counting rules, which already provide the operational accountability the Commission needs; layering an annual MTR capacity factor re-test on top would create duplicative compliance risk and would chill contracting for exactly the resources the clean firm category was created to procure.

Specifically, for geothermal resources, Fervo recommends the use of the Flexible Geothermal Economics Model (FGEM), a performance simulation tool which can model project-specific characteristics across a range of parameters. FGEM is an open-source tool developed by researchers at Stanford University. In addition to its prominence in industry and research circles,

including by the National Lab of the Rockies, Fervo understands that CPUC staff utilized FGEM in their most recent update of geothermal profiles for the Integrated Resource Plan.

On that qualification basis, an 80% capacity factor can be demonstrated through standard engineering methods, including: reservoir and resource assessments prepared or reviewed by an independent engineer; design-basis documentation showing nameplate capacity, expected parasitic loads, and planned outage schedules; and operating histories of analogous units. These methods are routinely used in project finance and can be readily furnished by sellers to LSEs and by LSEs to the Commission.

4.2 Should the 80% requirement be an average across the contract term or a first-year requirement?

Consistent with the response to Question 4.1, the demonstration should be an ex-ante showing that the resource is designed and expected to achieve an average annual capacity factor of at least 80% across the term of the contract — not an operational test applied to any single year. A single-year test — particularly a first-year test — would penalize normal commissioning ramp periods and would not reflect the sustained, around-the-clock production that defines clean firm resources. If the Commission nonetheless applies any ongoing measurement, it should measure what the resource is capable of delivering, not its realized market dispatch: a clean firm resource that is economically curtailed by the CAISO market or dispatched down at the buyer's instruction is performing as contracted, and such curtailment or dispatch should not count against the capacity factor demonstration.

4.4 Should there be a varied definition of capacity factor for LLT resources?

The distinct definition for LLT resources should be preserved, because it is what gives the clean firm category meaning. A high sustained capacity factor, demonstrated on a capability basis as described above, distinguishes clean firm generation from paired or hybrid configurations that provide capacity in fewer hours. Fervo encourages the Commission to retain a rigorous capability-based standard for the clean firm LLT category while adopting the term-average and curtailment clarifications described in response to Question 4.2.

IV. SECTION 5 — RESOURCE DELAYS

5.1 Which ELCC should apply when a delayed resource is paired with a bridge or alternative compliance pathway?

The LSE should be permitted to apply the ELCC associated with its originally selected tranche. The LSE committed capital and made its portfolio decisions based on that tranche; applying a later, potentially lower ELCC after an intervening delay outside the LSE's control would retroactively penalize early procurement and discourage LSEs from keeping delayed contracts in place, which could jeopardize the state's resource diversity and clean-firm procurement goals.

5.2 How should resource delay be defined, and what evidence should prove it?

A resource delay should be defined as a change to a resource's expected online date resulting from a cause beyond the reasonable control of the buyer and the seller. The definition should expressly include transmission and deliverability constraints as qualifying causes, alongside interconnection timelines, permitting, force majeure, and supply chain disruption. Qualifying evidence should include interconnection queue and study documentation, transmission planning process schedules and study results, deliverability allocation outcomes, seller notices and attestations describing the cause of delay, and contract milestone records. This documentation exists in the ordinary course and provides Staff an objective basis for verification.

5.3 How should the ELCC for the initial tranche be applied if a long-term contract is not procured?

Where an LSE has not procured a long-term contract, the ELCC in place at the time of procurement should be applied. The alternative compliance treatment appropriately differs between the treatment of an LSE holding a delayed contract versus an LSE that has not contracted at all. Fervo's primary concern is to avoid conflating LSEs who did contract but whose resources are delayed by external causes with LSEs who did not procure at all.

5.4 Should the alternative compliance mechanism cure a deficiency for a resource contracted for a later date?

Yes. The alternative compliance mechanism should be available where a resource is delayed, regardless of whether the executed contract predates the original compliance date or reflects a subsequent recontracting to a later online date. When a project is delayed by causes outside the parties' control, the commercially rational response is often to amend or re-execute the contract to reflect a realistic online date. An LSE should not lose access to alternative compliance because it took that prudent step; a contrary rule would push parties to keep commercially fictitious dates in contracts or to terminate otherwise viable projects. Permitting LSEs to recontract for a later online date due to a qualifying delay, while requiring RA compliance during the interim, protects both reliability and the durability of the long-term contracts the MTR framework was designed to produce.

5.5 What documentation should demonstrate a resource was originally intended for an earlier date, absent an executed contract?

Appropriate documentation should include: executed term sheets or exclusivity agreements; RFO shortlist notifications and evaluation records; board or governing-body approvals authorizing the transaction; correspondence demonstrating active negotiation as of the relevant date; and interconnection or site control documents showing the project was being developed toward the earlier online date. The Commission should permit a flexible, totality-of-the-record demonstration rather than a single mandatory document.

5.6 Can delivery periods be extended to maintain a 10-year tenure?

Yes, and the Commission should confirm that parties may extend the delivery period so the contract maintains its full 10-year (or longer) tenure following a delay. This preserves the long-term value and financeability the tenure requirement is intended to secure, and it is a straightforward, pro-reliability accommodation with no downside for ratepayers.

V. SECTION 7 — ALIGNING IRP, RA, AND RPS

7.1 Are there opportunities to align the three programs?

Yes. The most consequential near-term alignment opportunity is a shared, regularly updated foundation of resource cost and availability inputs that reflects observed market data. Today, the IRP's planning models can diverge materially from the procurement reality the MTR program has produced. Independent modeling using the Commission's own RESOLVE framework and the prior cycle's modeling inputs indicates that, even where staff has expanded the modeled resource potential for enhanced geothermal, the model selects little to no EGS because its cost assumptions remain well above the pricing at which LSEs are actually executing EGS contracts.⁵⁵ When planning inputs overstate the cost of a resource that LSEs are contracting for at scale to meet Commission-ordered clean firm requirements, the consequences compound across programs: the IRP portfolio understates the resource, the transmission planning process does not study the deliverability upgrades the resource needs, and LSEs are then exposed to MTR compliance risk for delays rooted in that same planning gap — a circumstance beyond the control of any LSE or seller.

Aligning IRP inputs and assumptions with executed contract prices and developer-reported costs — refreshed on a predictable cadence and validated against RA and RPS program data — would make the three programs mutually reinforcing: IRP portfolios would reflect what LSEs are actually buying, transmission planning would study what the portfolio actually needs, and RA and RPS accounting would recognize the same resources on consistent timelines.

7.2 What burdens need to be overcome?

The principal burdens are data confidentiality and update cadence. Executed contract prices are commercially sensitive, but the Commission already collects them and can incorporate them into planning inputs in aggregated or anonymized form. On cadence, inputs and assumptions should be revisited frequently enough that a resource class whose market pricing has shifted is not carried at stale costs through an entire planning cycle. Fervo supports Staff processes that allow parties to submit cost and performance data, with appropriate confidentiality protections, in advance of each inputs and assumptions update.

⁵⁵ Independent Modeling by Roderick Go and Gabe Mantegna (Resilient Transition) for Fervo Energy

VI. CONCLUSION

Fervo appreciates Staff's work on the MTR compliance framework and the opportunity to provide these informal responses. The MTR program has succeeded in bringing long lead-time clean firm resources under contract; the compliance framework should now ensure that LSEs who procured in good faith are not penalized for delays they cannot control. Fervo looks forward to participating in the July 23 workshop.

Respectfully submitted,

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