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San Luis Obispo Mothers for Peace's Comments on Draft Senate Bill 846 Diablo Canyon Power Plant Extension Cost Comparison

Additional submitted attachment is included below.

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SUBMITTED VIA ELECTRONIC E-MAIL

California Energy Commission Docket Unit, MS-4 Docket No. 21-ESR-01 715 P Street Sacramento, California 95814-5512 Email: docket@energy.ca.gov

RE: Comments of San Luis Obispo Mothers for Peace on Draft Diablo Canyon Power Plant Extension Cost Comparison, Comparison to Alternative Portfolio of Resources Consistent with Greenhouse Gas Reduction Goals; Docket Number 21-ESR-01

To the California Energy Commission:

I. INTRODUCTION

The undersigned submits these comments on behalf of our client, San Luis Obispo Mothers for Peace ("SLOMFP"). SLOMFP is party to the Rulemaking Proceeding at the California Public Utilities Commission ("CPUC"), R.23-01-007.

The California Energy Commission (CEC) has finally released a *draft* of its second report on the extension of Diablo Canyon Power Plant, "Draft Senate Bill 846 Diablo Canyon Power Plant Extension Cost Comparison." (Hereinafter "September Draft Report"). There are a number of issues with this draft report, similar to its predecessor assessment, "California Energy Commission Report: Diablo Canyon Power Plant Extension Final Draft," which was issued in March, 2023. (Hereinafter "March 2023 Report.")

¹ SB 846 required this report to be completed by September 30th, however all that was available by that date is a draft report, docketed September 26. According to the CEC's July 7, 2023 Diablo Canyon workshop (time stamp: minute 37:51), this draft was supposed to come out in early August, with an opportunity for public review and comment before the report was to be issued in final form, which CEC said they were aiming to issue by the end of August. It is questionable whether CEC is in compliance with SB 846's September 30 deadline, which cannot reasonably be read to require release of a mere draft, which can subsequently be altered, rather than a final report, by the deadline.

As a threshold matter, we would like to bring your attention the fact that no notice was sent to previous commenters for this CEC docket, and no notice of availability of this September Draft Report, or of the comment deadline, was sent to previous commenters participating in the July 7, 2023 CEC workshop.² Further, there is no indication in the draft report that the comments submitted as part of the workshop were even considered by the authors of the draft report.

Similarly, we are concerned that the CEC website indicates that a final report will be released just days after public comment on the draft report are due, which suggests that the public comments will not be seriously considered, if at all.

II. POINTS AND AUTHORITIES

The assumptions in the September Draft Report are compared against the March 2023 Report.³ There are a number of problems with the September Draft Report, similar to those underpinning the conclusions in the March 2023 Report, which are more fully discussed below.

In the March 2023 Report, CEC admits that "[t]he analysis shows that under the current resource adequacy planning standard, the CPUC's procurement orders, Decision (D) 19-11-016 and D.21-06-035, are sufficient to eliminate shortfalls through 2030." It further concludes that even with the maximum presumed possible delay in planned procurement of new renewables and storage (40% delay), the state would meet its reliability requirements during all extreme events that were within CEC's current, long-standing resource adequacy planning standard.⁵

Nonetheless, in order to seemingly produce the desired result of support for Diablo Canyon Nuclear Power Plant ("DCPP") extension, CEC then proceeded to dismiss its own current and long-standing resource adequacy planning standard (1-in-10). To produce a scenario in which the California grid, without DCPP, is supposedly unable to keep up with demand during an emergency peak, the CEC piled on a long list of assumptions including fire shutting down receipt of power from the Pacific Northwest and numerous natural gas plants being inoperative, all happening simultaneously and during an "extraordinary" heat event. The likelihood of these all occurring at the same time is vanishingly small, a probability CEC itself admitted is well below the probability limit of its own resource adequacy planning standard.

² The draft report and notice of opportunity to comment were not separately posted on the CEC website but instead incorporated into the docket associated with the July 7 Workshop, making it difficult for anyone not already party to the CPUC Rulemaking proceeding to actually have received notice.

³ Erne, David, Mark Kootstra. 2023. *Final Draft Diablo Canyon Nuclear Power Plant Extension – CEC Analysis of Need to Support Reliability*. California Energy Commission. Publication Number: CEC-200-2023-004.

⁴ Id., p. 3.

⁵ See Figure 5 in March 2023 Report. That planning standard is for a one-day-in-ten-year event (1 in 10).

Under the standard California planning reserve margin, the CEC admits that there are no reliability issues with shuttering DCPP's Unit 1 in 2024 and Unit 2 in 2025, even if there are significant delays in renewable energy buildout. This is plainly demonstrated by the graphs on page 5 of the September Draft Report, which depict the State's energy demand exceeding capacity without DCPP only under the "+ 26% PRM" condition the CEC staff have assumed, which they admit in the March 2023 Report is well outside of the CPUC's required, updated standard.

1. Demand Response Assumptions Are Not Realistic.

The September Draft Report recognizes the 3,600 MW potential for Demand Response in California but, unfortunately, accounts for only 725 MW of incremental Demand Response by 2025⁸ to justify the need for DCPP extension. The following statement in the September Draft Report: "the size of existing demand-side resources (available through DR programs and rates) is 3.1 GW–3.6 GW in 2022⁹" supports SLOMFP Witness Konidena's testimony in the sister California Public Utilities Commission ("CPUC") proceeding¹⁰ and shows that the March 2023 Report¹¹ erred in its assumptions assuming no forecast in Demand Response programs, and that the starting point for Demand Response MWs is 75% lower (1,200 MW compared to 4,800 MW) than what California is capable of producing during grid emergencies. Specifically, the March 2023 Report assumed 1,200 MW for Demand Response, but the September Draft Report shows the Demand Response value is much higher at 3,100 – 3,600 MW. However, the September Draft Report does not go as far as the 4,800 MW of Demand Response realized¹² during the September 2022 Public Emergency Event.

2. Interconnection Timelines Do Not Account For CAISO's New Initiative.

The September Draft Report inexplicably assumes it takes 6 years for new resources to interconnect when new and improved interconnection reforms at other grid operators estimate 1-

⁶ The cited 26% PRM is based on the record 2022 heat event (deemed by CEC to be a 1-in-14 event) when the standard PRM is an entire 9% lower, at 17% (p. 15 of the March 2023 Report).

⁷ See p. B-4 of the March 2023 Report, identifying the CPUC PRM for 2024 and beyond as 17%.

⁸ "Only 725 MWs of demand resources could be online by 2025", p. 29, September Draft Report.

⁹ See p. 21, September Draft Report.

¹⁰ See p. 26, Line 11, of Exhibit SLOMFP-05, Opening Testimony of Rao Konidena, filed in docket R.23-01-007 of the California Public Utilities Commission.

¹¹ Table 2: 2023 Aggregated DR Numbers Reported by IOUs, p. 18, March 2023 Report.

^{12 &}quot;Ralph Cavanagh, co-director of the climate and clean energy program at the Natural Resources Defense Council — another Diablo Canyon opponent — echoed this point at last week's Senate hearing. During grid emergencies in 2020 and 2021, he said, 'the governor's office organized energy-efficiency and demand-response campaigns that cut our electricity use during peak hours by 4,800 megawatts, double the capacity of Diablo Canyon, in less than three months."

https://www.canarymedia.com/articles/nuclear/california-faces-big-power-challenges-even-if-diablo-canyon-stays-open (emphasis added.)

2 years. The September Draft Report falls into the same corner¹³ as the March 2023 Report on interconnection. ¹⁴ Both CEC Reports acknowledge that CAISO generator interconnection is a drag on renewable project interconnections, leading to delays in resources coming online.

However, both CEC Reports fail to account for CAISO's generator Interconnection Process Enhancements (IPE) initiative, ¹⁵ as mentioned in SLOMFP Witness Konidena's testimony ¹⁶. Since the March CEC Report was issued, the Federal Energy Regulatory Commission (FERC), which regulates CAISO, has issued ¹⁷ Order 2023 that addresses generator interconnection reforms across all grid operators, including CAISO. As a result of this Order 2023, CAISO must comply with FERC requirements, including speeding up the generator interconnection queue. Otherwise, CAISO risks penalties. ¹⁸ The September Draft Report fails to account for CAISO's generator Interconnection Process Enhancements (IPE) initiative, ¹⁹ which will speed up new generator interconnections to take 1-2 years, not 6 years. ²⁰

3. The September Draft Report Unjustifiably Excludes Multiple Renewable Resources to Justify the DCPP Extension.

The September Draft Report has excluded²¹ multiple renewable resources such as solar, Off Shore Wind, Geothermal energy, pumped storage hydro and energy storage under the "Competes

¹³ "Based on California ISO's Resource Interconnection Management System (RIMS) data, interconnection has taken an average of six years for projects that have come on-line since 2010." p. 20, September Draft Report.

¹⁴ "The pace of new, clean-energy resource development is impacted by three issues: supply chain disruptions, interconnection delays, and permitting delays." p. 3, March 2023 Report.

¹⁵ https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/Interconnection-processenhancements-2023

¹⁶ See p. 24, Lines 8-10, Exhibit SLOMFP-05, Opening Testimony of Rao Konidena, filed in docket R.23-01-007 of the California Public Utilities Commission.

¹⁷ 184 FERC ¶ 61,054, Issued July 28, 2023, https://www.ferc.gov/media/e-1-order-2023-rm22-14-000

¹⁸ *Ibid.*, ¶ 962, "delays of cluster studies beyond the tariff-specified deadline will incur a penalty of \$1,000 per business day; delays of cluster restudies beyond the tariff-specified deadline will incur a penalty of \$2,000 per business day."

¹⁹ See p. 9 here, http://www.caiso.com/InitiativeDocuments/Presentation-Interconnection-Process-Enhancements-Track-2-Sep282023.pdf

MISO's generator interconnection process, which FERC approved, shows 373 days, slide 3 here: https://cdn.misoenergy.org/Definitive%20Planning%20Phase%20Schedule629192.pdf
PJM's generator interconnection process, which FERC approved, shows 710 days, slide 20 here: https://www.pjm.com/-/media/committees-groups/committees/mrc/2022/20220427/20220427-item-02a-interconnection-process-reform-presentation.ashx. The September Draft Report also ignores California's new clean energy bill SB 410. See: https://www.utilitydive.com/news/california-newsom-signs-clean-energy-bills-SB-

^{410/695964/?}utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202023-10-09%20Utility%20Dive%20Newsletter%20%5Bissue:55254%5D&utm_term=Utility%20Dive

²¹ "Renewable energy resources such as geothermal, hydropower, solar, and on/offshore wind are proven resources that may be important for California's energy future, but they were removed from this analysis as are the resources likely to be procured by CPUC jurisdictional LSEs for their compliance with IRP

with IRP Procurement Orders" reasoning. These renewable resources are not planned in a vacuum, as the CAISO presentation illustrates. Load Serving Entities ("LSE") must focus on **zones** where there is a current capacity need, or there could be a capacity need in the future. CAISO plans to prioritize generator interconnections in those **zones** and identify transmission upgrades needed to deliver the capacity in those **zones**. Hence, by excluding multiple renewable technologies under the pretense that those technologies compete with Load Serving Entities IRP procurement orders, the September Draft Report misses that **zones link** the resource procurement with CAISO generator interconnection and transmission planning efforts.

Regrettably, September Draft Report,²³ has the appearance of an "ends justify the means" by starting with desired conclusions and then working backwards to reach them. The Legislature intended, by way of SB 846, for the CEC to perform good-faith, neutral analysis, comparing cost-effective of alternatives (e.g., renewables and storage) to DCPP for the potential risk of brief power supply constraints. However, the key alternative energy resources in the September Draft Report are not included by the authors: no conventional clean energy sources such as solar, wind, geothermal, and small hydro, plus storage such as lithium batteries and pumped storage hydro are included. Once all the genuinely clean resources are filtered out of the equation by the authors, the few remaining alternative sources could not possibly get through the final two filters: "like-for-like" analysis and net peak analysis.

Due to the unjustified elimination of clean energy resources from consideration, the Draft Report does not suffice pursuant to SB 846:

"By September 30, 2023, the commission shall present a cost comparison of whether extended operations at the Diablo Canyon powerplant compared to a portfolio of other feasible resources available for calendar years 2024 to 2035, inclusive, is consistent with the greenhouse gases emissions reduction goals of Section 454.53 of the Public Utilities Code. As part of this comparison, the commission shall evaluate the alternative resource costs, and shall make all evaluations available to the public within the proceeding docket."

Additionally, much of the September Draft Report is focused not on alternative resources that could meet reliability in an extreme, rare event, but instead on finding a "like-for-like" replacement of DCPP, i.e., a power source that puts out consistent, around-the-clock power

procurement requirements and POUs within California ISO to meet the state's carbon reduction goals and reliability need." p. 10, September Draft Report.

²² Slide 7 here, http://www.caiso.com/InitiativeDocuments/Presentation-Interconnection-Process-Enhancements-Track-2-Sep282023.pdf

²³ Even as a draft, the document is incomplete. In three locations in the text there is the warning inserted, "Error! Reference source not found," making it impossible for the public to provide a fully informed comment on the draft.

equivalent to 18,000 GWh per year, which is not found in the plain language or intent of SB 846. Adding it as a condition to the analysis by fiat improperly excludes consideration of the renewable alternatives that the Legislature intended be considered in the CEC cost-comparison report.

4. Flexible Fuel Resources Are Conveniently Excluded Without Acknowledging That DCPP is Not Flexible.

The September Draft Report excludes²⁴ "flexible fuel resources²⁵" to justify the need for zero-carbon electricity from DCPP. However, the September Draft Report does not acknowledge that DCPP is not flexible because it is not dispatchable during grid emergencies. DCPP is a baseload resource, and according to PG&E, ²⁶ operating DCPP as a flexible resource is both a "speculative and unrealistic assumption."

The report also does not analyze how DCPP's shutdown would open up new opportunities for renewables. DCPP is located in a prime location for an offshore windfarm to connect to, but while DCPP remains operational, the transmission lines are at capacity from DCPP's power. This is precisely the type of obstacle to renewable energy buildout that the report relies on to assert that absolutely no further renewable energy procurement is possible in addressing grid reliability by 2025, thus employing circular reasoning: because renewable energy source buildouts are stalled, we must keep DCPP online, thus further stalling a wind farm buildout.

There is also no assessment of the possibility for current resources to be optimized. For example, the Helms Pumped Storage Plant was built in tandem with Diablo to store excess energy that Diablo produced when demand was low.²⁷ The transmission lines connecting Helms to the grid are unable to transmit enough power to take full advantage of the 1212MW of power that Helms could provide. These transmission lines could be upgraded at relatively low cost because the majority of the infrastructure is already in place, requiring no new rights-of-way. The fact that CEC removes from consideration in its analysis pumped storage means that it is unknown how many similar solutions were overlooked in this report.

²⁴ "Replacement with a fossil-fueled resource would result in increased GHG emissions. Therefore, flexible fuel resources are excluded from evaluation." p. 7, September Draft Report.

²⁵ Defined as "Flexible fuel resources are technologies that have the flexibility of operating on different fuel types and potentially different fuel blends, including fossil fuels. These technologies are used as transitional technologies from fossil fuels to zero-carbon fuels." Footnote 5, p. 7, September Draft Report. ²⁶ D.18-01-022, California Public Utilities Commission "*Decision Approving Retirement Of Diablo Canyon Nuclear Power Plant*" p. 12, ["PG&E points out that this is a speculative and unrealistic assumption, and would make Diablo Canyon even less cost effective."]

²⁷ David Middlecamp, "Diablo Canyon's Odd Cousin in the Mountains", The Tribune, October 12, 2015.

III. <u>CONCLUSION</u>

Thank you for considering these comments.

Sincerely,

Sabrina Venskus

Attorney for SLOMFP