

**DOCKETED**

<b>Docket Number:</b>	21-ESR-01
<b>Project Title:</b>	Energy System Reliability
<b>TN #:</b>	250975
<b>Document Title:</b>	James E. Hopf Comments - Keep Diablo Running - Use New Renewable Generation to Replace Fossil
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	James E. Hopf
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	7/7/2023 3:33:12 PM
<b>Docketed Date:</b>	7/7/2023

*Comment Received From: James E. Hopf  
Submitted On: 7/7/2023  
Docket Number: 21-ESR-01*

## **Keep Diablo Running - Use New Renewable Generation to Replace Fossil**

SB 846 directs the California Energy Commission to evaluate the replacement of Diablo Canyon with other clean generation sources, in terms of cost and grid reliability. At the June 7 hearing, the CEC said that climate impacts would also be evaluated. The CEC said that it will only consider options that would fully replace all of Diablo Canyon's attributes, i.e., non-intermittent baseload power, as well as being carbon-free. The CEC also pointed out (correctly) that SB 846 directs them to analyze replacing Diablo with new clean generation, as opposed to keeping the plant open AND building an equivalent amount of new, clean generation (i.e., using the new clean generation to replace fossil generation instead).

While I understand that the CEC is bound by the requirements of SB 846, I urge the CEC to include language in their final report which clarifies that closing Diablo Canyon will result in increased emissions, even if it is fully replaced by an equivalent source of carbon-free, reliable power, because fossil generation could have been replaced instead. Also, a statement that there will be a significant amount of gas generation to replace, for the foreseeable future. Supporting arguments are given below:

The truth is that, even if Diablo Canyon were fully replaced by new renewable generation that provided an equivalent amount of reliable baseload power, the net effect would still be Diablo's replacement with gas generation. The reason being that the new renewable generation could be used to replace fossil generation instead. That will remain true as long as fossil generation provides a significant fraction of the state's power.

And gas generation will be a significant source of California's power for a long time.

California *\*still\** gets ~50% of its in-state power generation from natural gas. The gas fraction hasn't fallen much over the last 20 years, because California has been using renewable energy to replace other non-emitting sources (nuclear and hydro), as opposed to using it to replace fossil. The same flawed practice that SB 846 is asking the CEC to evaluate.

Not only does California has a long way to go to retire its current gas generation, but eliminating it will take even longer given the large, expected increase in overall electricity demand due to increased electrification. A large amount of new, clean energy may be required to generate desalinated water and hydrogen. Notably, a Stanford/MIT study showed that Diablo Canyon, which produces both heat and non-intermittent electricity, would be a particularly efficient, lower-cost source of desalinated water or hydrogen.

<https://energy.stanford.edu/news/extending-diablo-canyon-nuclear-plant-would-help-california-meet-its-climate-goals-new-study>

It should be obvious that one shouldn't voluntarily shut down large sources of carbon-free power in a climate crisis. It's obvious that new clean generation should be used to replace fossil generation, as opposed to existing clean generation. It's appropriate to say "I can't believe we're even asking this question." But alas, the CEC is required to do so by SB 846. But I don't think that the CEC would run afoul of SB 846 if it merely clarified in its report that, for the foreseeable future, closing Diablo Canyon will increase emissions, whether equivalent new clean generation is built or not.