

**DOCKETED**

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<b>TN #:</b>	245004
<b>Document Title:</b>	Dr Alexander Cannara Comments - Continued Operation of Diablo Canyon beyond 2025
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<b>Organization:</b>	Dr. Alexander Cannara
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	8/13/2022 1:14:15 AM
<b>Docketed Date:</b>	8/15/2022

*Comment Received From: Dr. Alexander Cannara  
Submitted On: 8/13/2022  
Docket Number: 21-ESR-01*

## **21-ESR-01 -- Continued Operation of Diablo Canyon beyond 2025**

To: The California Energy Commission

Re: Docket 21-ESR-01 -- Continued Operation of Diablo Canyon beyond 2025

Operation of Diablo Canyon nuclear plant generation is essential to both California's commitments to environmental progress and to the reliability of electrical service to California citizens and our economy.

Diablo provides us all with 2.2 billion Watts (GW) of clean energy and CAISO is projecting about 2GW of power shortfall by 2025, if the plant is closed. There is no reason to close it, because like all light-water reactor (LWR) plants, there's nothing in the plant that cannot be repaired or replaced to meet licensing (NRC) standards. Diablo is, in fact, already about half way to completion of such for 2025 license renewal.

The attached graphic summarizes the large benefits to California workers, San Luis Obispo County and the environment. Note that the site itself was chosen to be able to house four more reactors of similar type, even more if SMR designs come to fruition, and to house both clean hydrogen-fuel production and water-desalination facilities; all powered by zero emissions generation.

Diablo canyon also provides CAISO with discretionary emergency power, even when the plant is scheduled for a refuelling outage. This is because fission reactors are 'primary' energy sources, like primary (already-charged) batteries. This has already been exploited by CAISO to avoid life-threatening power shortfalls in the LA region during heat waves...

9 Sep. 2015: "Planned Maintenance at Diablo Canyon Unit 2 Delayed to Meet State Energy Needs During Heat Wave CAISO Requests Both Units Operate at Full Power". <http://tinyurl.com/zha8dba>

No combustion or wind/solar/battery source can reliably do that.

Note that CAISO's warning of a future ~2GW power shortfall is directly consequent to the unnecessary closure of the San Onofre nuclear plant (SONGS). That was the subject of an investigation never completed by our Attorney General. It involved no plant nuclear components. Rather, it appeared consequent to business manipulations that would have been unlawful under the PUHCA of 1935\*.

Ironically, improper SONGS shutdown led to CEC approval (on 10 February 2016) of increased single-cycle gas generation on the region, with concomitant GHG

emissions increases both at the turbine exhausts and the fracking well heads. The state is now trying to reduce such gas generation.

Diablo Canyon further can provide security for the bulk of Los Angeles' water supply, which is currently delivered by the Edmonston Pump from Calif. Water Project canals, using the 800MW Pastoria gas plant. Should a fault slip sever Pastoria's fuel feed, LA might find the 2 million gallons per minute from Edmonston gone. Diablo's proximity to the California electrical backbone and the Edmonston Pump may avert disaster.

Desalination is now a popular planning topic. San Diego is operating its Carlsbad reverse-osmosis (RO) plant, which consumes about 40MW 24/7 (from an adjacent gas plant). Santa Barbara is apparently planning to rejuvenate its RO plant, and Antioch hosts a 6M gallon/day plant now in construction.

All these plants require clean power if Californians can have any hope for our state meeting its climate/emissions commitments.

The scale is impressive -- Carlsbad's 40MW only delivers clean water for about 7% of the San Diego area's citizens (agriculture not included). That means desalination for the region needs about 560MW 24/7. Including agricultural needs balloons regional demand by about 5-fold -- the entire output of Diablo Canyon might barely be enough clean power.

Clean, 24/7 desalination power for California citizens (about 10 times the San Diego population) reveals our need for more nuclear power, not less. We already know wind/solar/battery energy is undependable and threatens the environment, just in terms of raw materials, their processing demands, and land/sea confiscations per Watt and WattHour delivered.

Assurance that Diablo Canyon will continue to operate, even be expanded, for as long as it can be licensed, is essential to our state and our environment. And, our descendants rightly expect us to do more.

Respectfully,

Dr. Alexander Cannara  
2043 Sterling  
Menlo Park, Calif.  
650-400-3071

\* <https://tinyurl.com/2p8p285k>

Ancillary references...  
<https://tinyurl.com/44uv49z3>

<https://tinyurl.com/3curbw7e>  
<https://tinyurl.com/3s9wya7z>

*Additional submitted attachment is included below.*

**Subject:** 21-ESR-01 Diablo Canyon  
**From:** Alex Cannara <cannara@sbcglobal.net>  
**Date:** 8/12/2022, 4:50 PM  
**To:** CEC Docket <docket@energy.ca.gov>

To: The California Energy Commission

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\* <https://tinyurl.com/2p8p285k>

Ancillary references...

<https://tinyurl.com/44uv49z3>

<https://tinyurl.com/3curbw7e>

<https://tinyurl.com/3s9wya7z>

—DiabloFacts.png—

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# Diablo Canyon (DCISC.ORG, CGNP.ORG)



10% of CA Power  
30% of CA Clean “  
< \$0.04/kWhr  
90% Uptime  
\$1 Billion to County  
Desalination “  
Salary Avg. \$147,000  
Flexible Storage...

**CAISO:** “Planned Maintenance at Diablo Canyon Unit 2 Delayed to Meet State Energy Needs During Heat Wave” 9 Sep. 2015, CAISO: “**Requests Both Units Operate at Full Power**”. <http://tinyurl.com/zha8dba>

Attachments:

DiabloFacts.png

2.3 MB