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on Diablo Canyon Power Plant

Additional submitted attachment is included below.

Comments on Proposal to Reverse the CPUC final Decision (18-01-022) "DECISION APPROVING RETIREMENT OF DIABLO CANYON NUCLEAR POWER PLANT" and to Relicense Diablo Canyon Nuclear Power Plant as presented at August 12, 2022 Diablo Canyon Joint Agency Workshop

Comments From Jon McHugh

Transmitted to docket number 21-ESR-01 "Diablo Canyon Power Plant"

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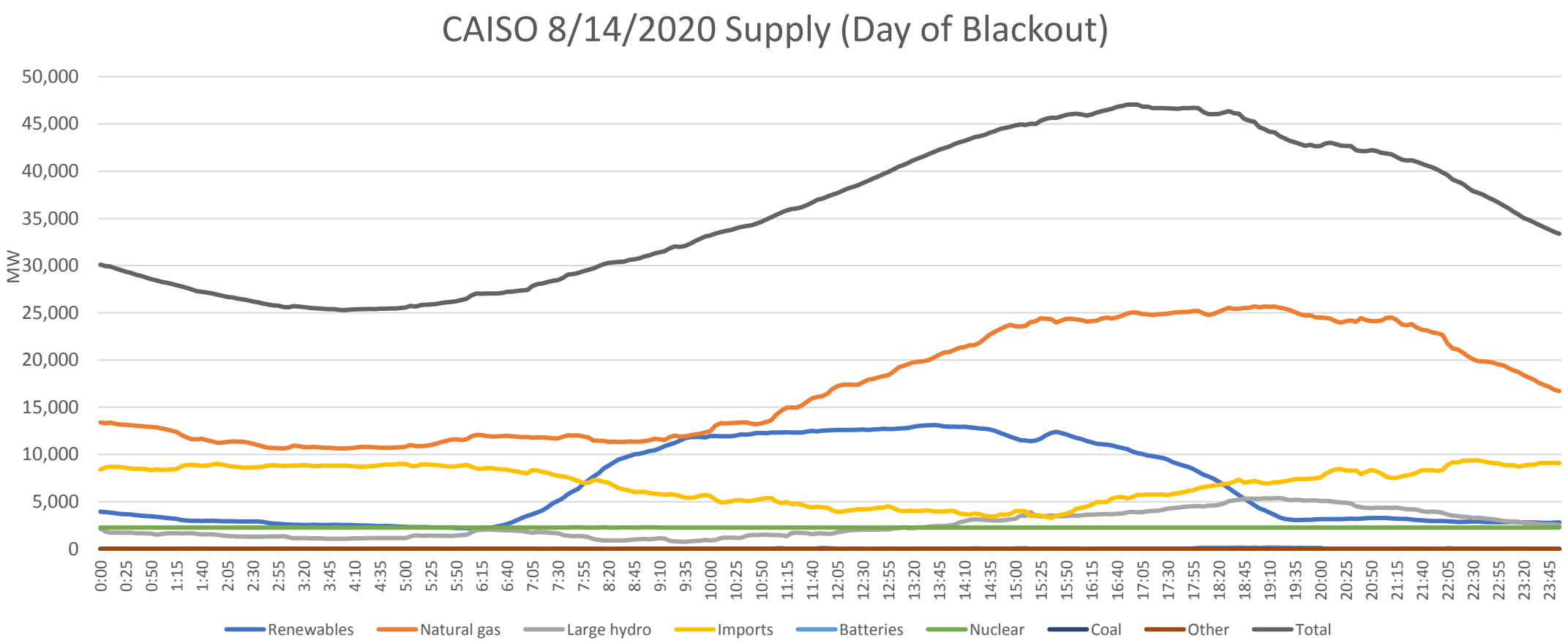
Key Areas of Concern with Governor's/CEC/CalISO Proposal

- Lack of responsibility – who is responsible for this proposal?
- Lack of specificity about duration of planned extension
- Is a fixed output plant compatible with firming up variable renewable energy sources?
- Does Diablo Canyon solve the reliability problem that was identified?
- Lack of specificity concerning costs of this proposal versus alternatives
- Lack of specificity concerning the environmental impact of this proposal versus other proposals

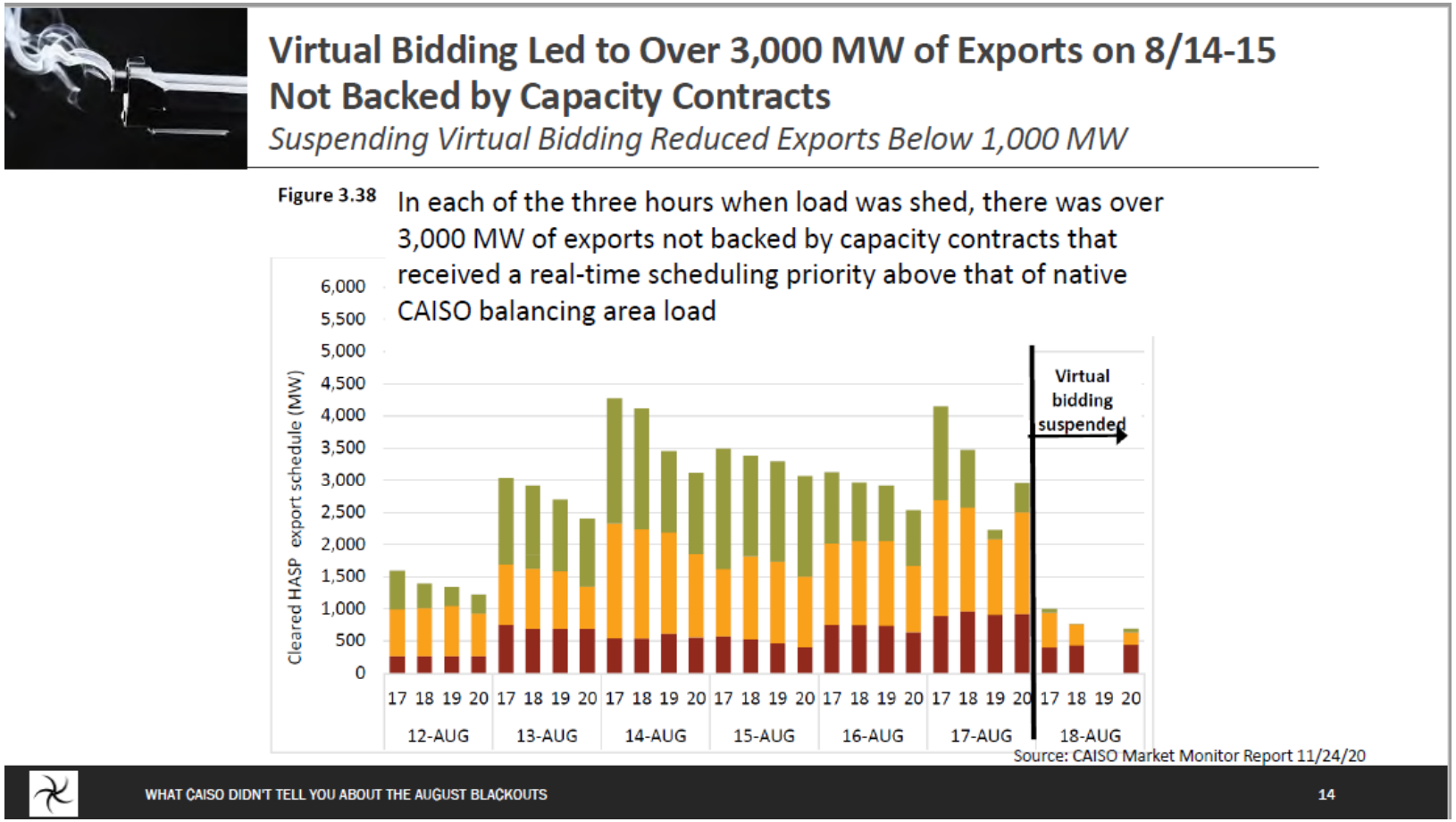
Lack of Specificity on Duration of Extension

- *Transitioning to a Clean Energy Future: Electric Reliability Outlook* implies the shortfall is **until 2028**
- CEC Commissioner Gunda indicated a 5-7 year (**2030 – 2032?)** timeline for power to bridge the transitions to renewables
- Nuclear Regulatory Commission (NRC) relicenses plants for a 20 year period (**2045**)
  - https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fs-reactor-license-renewal.html

The Constancy of Nuclear: A Blessing and Curse. Forces Solar Curtailment in Middle of Day



Is the 2,000 MW capacity provided by Diablo Canyon needed if convergence bidding and other market failures are fixed?



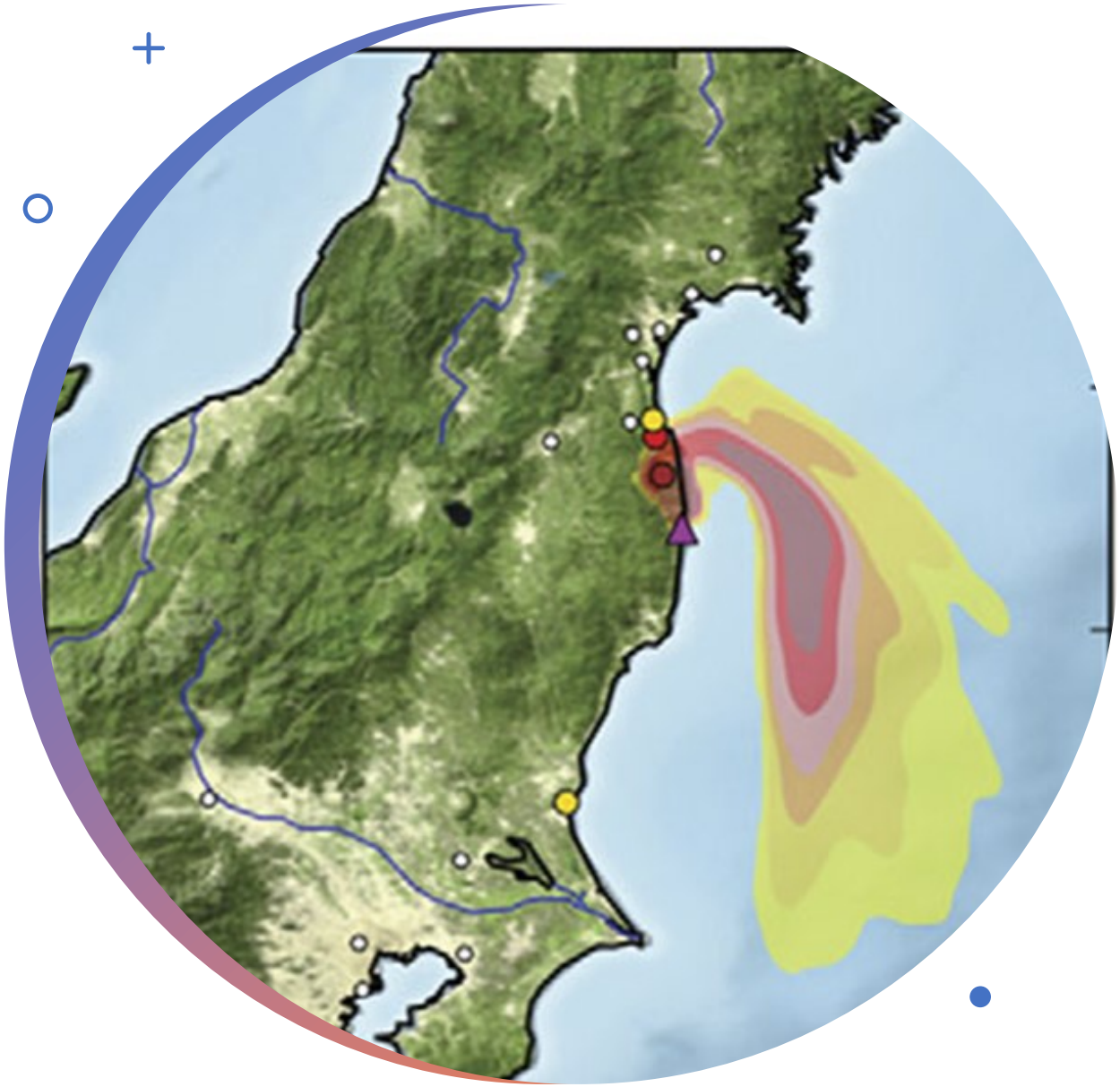
https://clean-coalition.org/wp-content/uploads/2021/01/What-CAISO-didnt-tell-you-about-the-August-blackouts-02_rf-28-Jan-2021.pdf

Lack of specificity of the costs of this proposal

- $75 Million from legislature to extend license(SB-122 Energy) July 11th
- $1.4 Billion loan to cover license renewal cost and maintenance proposed August 12th by Governor Newsom
- Cost of cooling towers
  - $4.5 Billion estimate by PG&E in 2010 (Around $7.3 Billion in 2022)
    - https://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/dcpp/PGE_FactSheet_OncethroughCooling.pdf
  - $6 -14 Billion independent estimate
    - https://thebreakthrough.org/issues/energy/diablo-canyon-nuclear-power-shutdown-risk#:~:text=The%20committee's%20deliberations%20polarized%20around,rival%20the%20Panama%20Canal%20dig.

Resiliency and Storage Benefits Associated with Closing Diablo Canyon

- How much of the reserve margin required is associated with accounting for Diablo Canyon dropping off-line?
- The Plan B document that considered the costs of retiring Diablo Canyon in 2016 made note that the spinning reserve for Diablo Canyon would be freed up and the Helms Pumped Storage could be more fully utilized for storing renewable energy and shifting its delivery to peak periods.
  - V. John White and Associates. *A Cost Effective and Reliable Zero Carbon Replacement Strategy for Diablo Canyon Power Plant*
- What cost and financial benefit does this have for a fully renewable electricity grid?

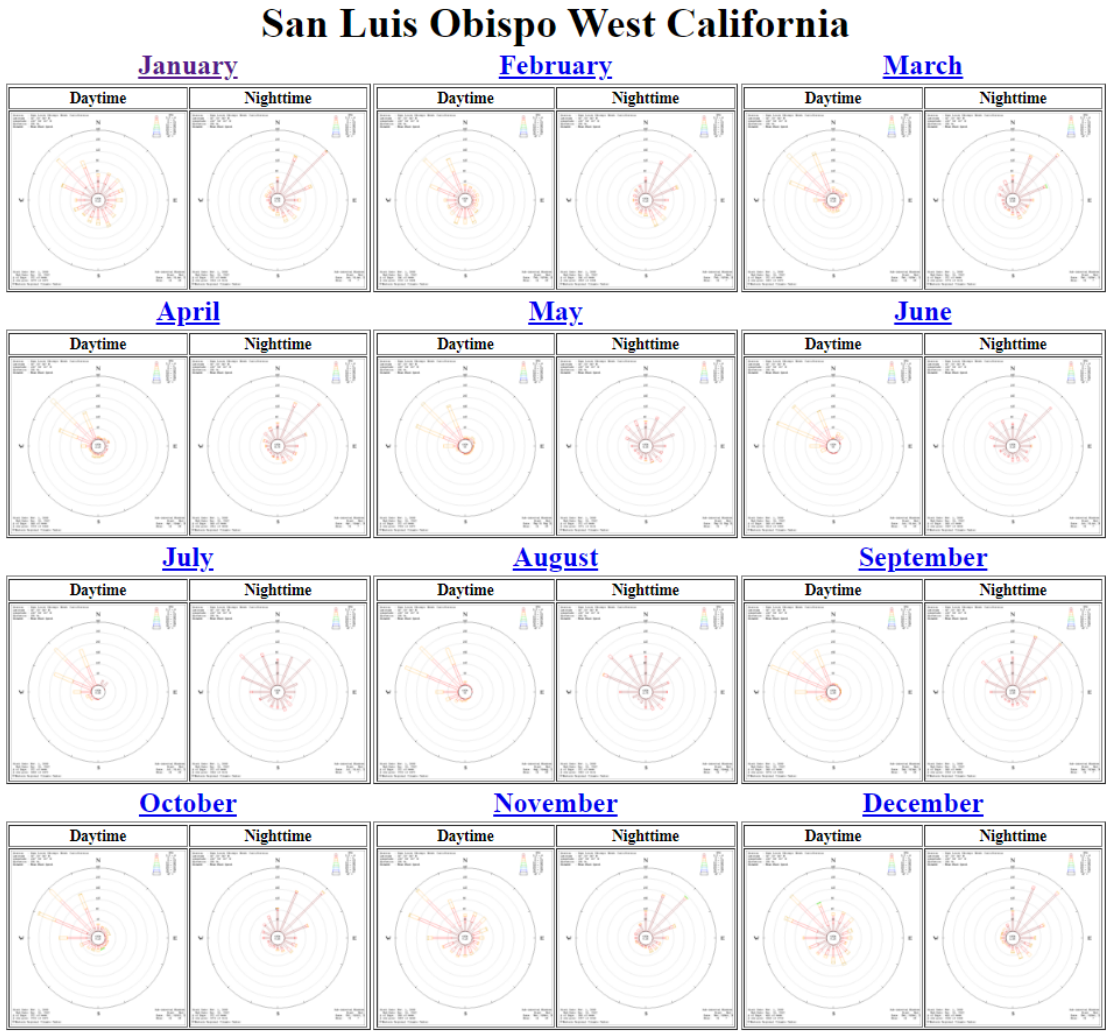


Risk: Learning the Wrong Lessons from Fukushima

- Most of the atmospheric releases of radiation from the Fukushima nuclear plant explosion were blown off-shore
  - https://www.nature.com/articles/nature.2013.12528
- The geography for Diablo Canyon is different

Risk and Safety

- The polar plots to the right are “wind roses” and they indicate the speed and probability of where the winds come from for San Luis Obispo
- These plots indicate during the day the winds are primarily on-shore down the coast and at night off-shore.
- We don’t have the same favorable wind patterns as Fukushima



California: Setting the example for nuclear proliferation

- California has the potential to be and example of how to transition to a zero-carbon economy that might be emulated by others states and countries.
- Of the 36 countries that have nuclear power, 11 of those countries also have nuclear weapons.
- The countries with the most nuclear power plants are also the countries with the most nuclear weapons
- What is the future we are envisioning?