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Californians for Green Nuclear Power Board-Approved Submission

The California Energy Commission (CEC) should urge the California State Water Resource Control Board (SWRCB) to adopt the SWRCB "Appendix A" amendments for alternative compliance to the federal EPA CWA section 316(B) provisions for Diablo Canyon Power Plant (DCPP) once-through-cooling (OTC.)

Here is the executive summary from the 45-page document:

The CGNP Board endorses the SWRCB adoption of "Appendix A Proposed Amendment to the Water Quality Control Policy on the use of Coastal and Estuarine Waters for Power Plant Cooling" which appears to have a date of Mar 31, 2014 on the SWRCB website.
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/otc_2014.pdf
(This Appendix appears to not yet be listed on the SWRCB's "Plans and Policies" webpage at http://www.swrcb.ca.gov/plans_policies/)
In the event that the SWRCB fails to adopt this Appendix as policy for Diablo Canyon Power Plant (DCPP) there will be significant harms regarding the safety and reliability of DCPP, which provides Greenhouse Gas (GHG)-emission-free generation of about 10% of California's electric power as a baseload generation facility. There would also be multi-billion dollar costs borne by ratepayers, substantially increased GHG emissions, significant reductions in air quality, and likely diminutions in California electric grid reliability. The index found in the file also provides the supporting documents. A copy of this packet was forwarded separately to the California Energy Commission on 06 February 2015.

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Here is a link http://www.nuclearmatters.com/resources/reports-studies/document/The-Value-of-Transmission-in-Electricity-Markets-Evidence-from-a-Nuclear-Plant-Closure.pdf
to a March, 2014 paper that documents some of the real costs of the premature closure of SONGS. This paper also illustrates some of the likely costs that ratepayers would be forced to pay if DCPP were forced to shut down. As noted in the references in the above CGNP packet, the costs are currently estimated at $3.3 billion dollars in addition to the already paid and escrowed decommissioning costs of approximately $4 billion.

As a consequence of website limitations and difficulty in uploading documents to the docket website, the CEC is urged to follow this link to download the document, which is about 10 megabytes in length.

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The Value of Transmission in Electricity Markets:
Evidence from a Nuclear Power Plant Closure
Lucas Davis and Catherine Hausman
March, 2014

Abstract:

The San Onofre Nuclear Generating Station (SONGS) was closed abruptly and permanently in February 2012. During the previous decade, SONGS had produced about 8% of the electricity generated in California, so its closure had a pronounced

impact on the wholesale market, requiring large and immediate increases in generation from other sources. In this paper we use publicly available micro-data from a variety of sources to examine the impact of the closure on market outcomes. We noted that in the months following the closure, almost all of the lost generation from SONGS was met by natural gas plants inside California at an average cost of $66,000 per hour. During high load hours, we find that as much as 75% of the lost generation was met by plants located in the southern part of the state. Although lower-cost production was available elsewhere, transmission constraints and other physical limitations of the grid severely limited the ability of other producers to sell into the southern California market. The transmission constraints also made it potentially more pro table for certain plants to exercise market power, and we find evidence that one company, in particular, may have acted non-competitively.

From the Introduction:

Between 2005 and 2011, the San Onofre Nuclear Generating Station (SONGS) generated an average of 16 million megawatt hours of electricity annually, making it one of the largest electric generating facilities in California. During this period, SONGS generated enough power to meet the needs of 2.3 million California households1 { about 8% of all electricity generated in the state. Moreover, SONGS was more valuable than these numbers suggest because of its location between Los Angeles and San Diego, two enormous demand centers. Although there is transmission that connects Southern California to the rest of the state, the capacity is limited, implying that a large part of demand must be met locally.

Key Words: Electricity Markets, Transmission Constraints, Nuclear Outages, Carbon Emissions
JEL: L51, L94, Q41, Q54
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This paper is part of the Energy Institute at Haas (EI @ Haas) Working Paper Series.
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http://ei.haas.berkeley.edu
http://www.nuclearmatters.com/resources/reports-studies/document/The-Value-of-Transmission-in-Electricity-Markets-Evidence-from-a-Nuclear-Plant-Closure.pdf
Note: megawatt hours is used in report, or MWH
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