

California Energy Commission  
Final 2013 Integrated Energy Policy Report  
13-IEP-1A

Comments of Ben Davis Jr.  
California Nuclear Initiative

At the June Workshop on Nuclear Issues, I asked the Commission to prepare a Societal Cost-Benefit Evaluation of California's use of nuclear power as part of the 2013 IEPR. Another Petition for a Cost-Benefit Evaluation on a separate issue was filed by the American Lung association on June 15, 2013. In denying that Petition, Chairman Weisenmiller stated that the Petition does not relate to matters subject to a petition under the commissions regulation, the study requested does not fall within the range of topics identified in the 2013 IEPR Scoping Order, and the Petition was not timely filed.

In contrast, my request for a Cost-Benefit Evaluation of California's use of nuclear power is fully related to matters subject to the commission's regulation, within the range of topics identified in the 2013 IEPR Scoping Order, and was submitted at the appropriate proceeding, the Workshop on Nuclear Issues, in a timely manner. In fact such a cost-benefit evaluation is so germane to the proceedings that one would expect it to be within the IEPR as a matter of course without the need of a formal request. However, my request has apparently been denied without comment. The 2013 IEPR does not contain adequate information to consider whether the benefits of nuclear power currently outweigh the risks in California.

At the Workshop on Nuclear Issues I specifically noted that there was not even any evidence in the IEPR proceedings that the use of nuclear power in California was of any benefit to the state at all, and that the entire workshop had been devoted to the problems associated with the use of nuclear power. (Transcript of Nuclear Workshop for 2013 IEPR, [http://www.energy.ca.gov/2013\\_energy\\_policy/documents/2013-06-19\\_workshop/2013-06-19\\_nuclear\\_workshop\\_transcript.pdf](http://www.energy.ca.gov/2013_energy_policy/documents/2013-06-19_workshop/2013-06-19_nuclear_workshop_transcript.pdf) comments of Ben Davis Jr. pages 244- 249)

In response, Chairman Weisenmiller noted that the only evidence on this topic was out of date and that PG&E, who had already left the Workshop, would probably like to offer evidence on the topic of Diablo Canyon's benefits to California while written comments were still being accepted. PG&E compiled the study within a week and filed it with the Commission.

([http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/dcpp/PGE\\_Economic\\_Impact\\_Report\\_Final.pdf](http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/dcpp/PGE_Economic_Impact_Report_Final.pdf)).

I also noted at the Workshop that the negative side of nuclear power in California included the accumulation and storage of nuclear waste for an indefinite period of time, those problems concerning Once Through Cooling, the potential of nuclear accidents as exemplified by Fukushima, and the lack of adequate insurance covering nuclear accidents.

The 2013 IEPR does note that the 2011 IEPR recommended that PG&E provide a comprehensive study on the adequacy of the Price-Anderson liability coverage for a severe nuclear accident at Diablo Canyon and that PG&E has responded, two years later, that it has no plans to do such a study. Thus PG&E was able to come up with a 70 page report on the benefits to California from Diablo Canyon in about one week, but has refused for two years to study its lack of liability insurance for nuclear accidents. Though the 2013 IEPR notes that the Fukushima accident has been estimated to exceed half a trillion dollars, the CEC's response to PG&E's outright refusal to provide information on its insurance for nuclear accidents is to grant PG&E 11 more years, till the plant comes up for license renewal, to provide the information. (2013 Integrated Energy Policy <http://www.energy.ca.gov/2013publications/CEC-100-2013-001/CEC-100-2013-001-LCF.pdf>. See page 154, recommendation 3).

I also emphasized at the Workshop that Diablo Canyon was being allowed to operate while studies were ongoing to determine whether it was able to withstand earthquakes that are considered reasonably probable in its location, without any evidence in the IEPR proceedings that it was safe to operate while these studies were ongoing, and of course, without evidence of adequate insurance for such an accident.

Also in stating that there was no evidence in the IEPR proceedings of any benefit to the state from nuclear power I noted that, for the first time since Fukushima, and in fact for the first time since Diablo Canyon opened, we could completely stop the use of nuclear power within the state while maintaining a 15% surplus of energy. I noted that a few months earlier CAISO had completed a report requested by this Commission that demonstrated that we can end our use of nuclear power without causing any grid instability in the state, and that there was no evidence that closing Diablo Canyon would even result in a rate increase for energy in the state. In responding to my comments neither Energy Commission Staff nor PG&E disputed any of these facts.

Why, given that I brought these issues up, given I noted there would be no rate increase, given I noted that we had a surplus that was over 15% even without Diablo Canyon, given I noted there was no evidence in these proceedings that there was any benefit from operating Diablo Canyon to the state, and in fact to anyone other than PG&E, given PG&E did a benefit analysis as a result of my statement, and given PG&E did not dispute my primary comments in their response- why given all this did the CEC completely ignore my comments in its 2013 IEPR, while quoting PG&E'S response to my comments verbatim, as if true?

The PG&E study, apparently created, or at least updated as a direct result of my two primary comments at June's Workshop, doesn't dispute my primary points. There is no evidence that shutting the plant will cause a rate increase. Nor is it disputed that California will have an energy surplus above 15% even without the plant. There is ample evidence that closing the plant will not cause any grid instability to the state. The PG&E study itself acknowledges that Diablo Canyon generates less than 7% of the states consumed electricity.

The PG&E study does not suggest any precautions were taken to produce an unbiased report, or to select consultants who were unbiased, despite the obvious incentives to be prejudiced given the owner of the plant and the Nuclear Industry sponsored the study. It is likely that the IMPLAN software was chosen after considering other such software that produced less favorable results, given the large sums involved for PG&E.

A similar economic study to that done by PG&E for these proceedings was completed in 1987 by the a group endorsing startup of the Rancho Seco nuclear power plant which was facing a ballot measure which closed Rancho Seco the next year. The plant statistics are extremely similar to those used in PG&E's Diablo Canyon economic analysis, as are predictions of economic loss, none of which came to pass in Sacramento. In fact, if the statistics from the Rancho Seco plant were put in the IMPLAN software used for the Diablo Canyon plant's economic study the output would likely be quite similar. Rancho Seco employed 1,495 workers, slightly more than the 1,483 Diablo Canyon currently employs. Rancho Seco had a local payroll of \$60 million (\$120 million adjusted for inflation) while Diablo Canyon has a local payroll of \$202 million.

The Metropolitan Chamber of Commerce's economic study for Rancho Seco predicted that Sacramento would lose \$300,000 a year in personal income (about \$600,000 when adjusted for inflation) and 6,000 jobs.

(<http://news.google.com/newspapers?nid=2245&dat=19870409&id=6hc0AAAAIBAJ&sjid=qDIHAAAAIBAJ&pg=6060,5583513>). The report also predicted an 80% jump in rates for electricity. As noted, the PG&E study does not even predict a rate increase.

After the dire predictions contained in the Rancho Seco economic study, in fact, there were no layoffs at SMUD. All of the employees from Rancho Seco were absorbed into other departments. Rates, for the first time in years, stabilized at SMUD. Closing Rancho Seco had an unexpectedly positive effect on the renewables market not just in California, but globally. In other words, if one put SMUD's statistics into the IMPLAN software the result would look not unlike that of Diablo Canyon. However, what actually happened was completely different. And if one was to put Diablo Canyon's statistics into this SMUD Model (by "SMUD Model" I mean using the only evidence on record of what actually occurred economically after closing a nuclear power plant), closing the Diablo Canyon plant could potentially have a positive economic effect on the state.

Much of the PG&E study is at best very questionable, if not purposefully misleading. The PG&E study appears to assume that all 714 retirees will move out of San Luis Obispo County. There is no reason to assume any will. Once settled in a community why would a retiree, who no longer lives there for a job related reason, move elsewhere? That the IMPLAN software does not recognize this casts doubt on its other conclusions. Do all statistics in the report (local taxes, money spent in other local businesses, rental activity, etc.) assume retiree's income will leave the community also? This is left unclear but appears to be the assumption. There are half as many retirees in the county as employees, so if they were included in the IMPLAN methodology

as having the same impact on the local economy as employees, all figures will have been exaggerated by more than 33% from that assumption alone. Who knows what other assumptions are contained in this 'study' to make it look desirable to keep Diablo Canyon operating? The 2013 IEPR does not state, in quoting this PG&E study, that Energy Commission staff did any investigation of the conclusions of that study.

The PG&E study does not consider the potential that employees will find other jobs, either in the community they currently live in, or elsewhere in California. It appears to be assumed these employees will in fact leave the country, as the potential that they will relocate in the United States appears to be left out of the conclusions of how plant closure will affect the US economy.

The PG&E study doesn't consider the positive effect closing one business can have on other businesses. In particular, closing a nuclear power plant can have a positive effect on renewables, as it did with closing the Rancho Seco plant. Closing Diablo Canyon could have a very positive effect on renewables and on the move toward renewables mandated in California.

In quoting the PG&E study in the 2013 IEPR, Commission staff doesn't qualify the information appropriately. It is left unclear whether the Commission has confirmed that the information presented in the study is in fact true and whether the Commission is endorsing the study.

Since the time Fukushima occurred, our understanding of California's reliance on nuclear power has changed dramatically. Only months after the nuclear accidents at Fukushima, our state's Legislative Analyst's Office concluded that closing our nuclear power plants would cause grid instability causing rolling blackouts and costing the state tens of billions of dollars annually. Today it has been demonstrated that we can close our nuclear power plants with no grid instability and none of those associated costs, while maintaining the state's 15% energy surplus requirement for the first time since Diablo Canyon opened.

In fact every piece of evidence that could be used to demonstrate that California has no need for nuclear power has been left out of this 2013 IEPR. Even the most central piece of evidence to this effect, the CAISO study demonstrating that closing Diablo Canyon will have no effect on grid stability, has not been included in the 2013 IEPR as intended. The study (<http://www.caiso.com/Documents/BoardApproved2012-2013TransmissionPlan.pdf>) which was recommended after Fukushima in the 2011 IEPR, and finished last March, specifically states that it was to be included in the 2013 IEPR. "The mid-term studies addressed the recommendations from the CEC, which were made in consultation with the CPUC, in the 2011 Integrated Energy Policy Report that "to support long-term energy and contingency planning, the California ISO (with support from PG&E, SCE, and planning staff of the CPUC and CEC) should report to the CEC as part of its 2013 Integrated Energy Policy Report (IEPR)." (pgs. 19-20) In fact this same study had been recommended in the 2007 IEPR after the earthquake in

Japan had raised concerns about nuclear power in California. That recommendation had been completely ignored until Fukushima reminded us of the dangers.

Had California been in a position to close its nuclear power plants without economic harm the day after the tragic Fukushima nuclear accident, Californians would have certainly wanted to be made aware of that fact. That this information has come to light less than three years later does not change that. The information is as pertinent today as it was the day after the accident at Fukushima happened.

The Governor, the Legislature and the voters of the state should be made aware of the dramatic change in the state's reliance on nuclear power that has occurred since Fukushima, and this 2013 IEPR is *the* precise vehicle for such communication. Yet this 2013 IEPR does not even attempt to make such communication. On the contrary, the IEPR has completely ignored my comments in this regard and instead quotes a PG&E study, without qualifying whether that study has been verified by CEC staff. The 2013 IEPR is written as if balancing the benefits of nuclear power with the risks is a non-issue in California.

The facts that I have brought up are all based on current CEC documents. Minimally, those facts should be included in this 2013 IEPR. And if an economic study concerning how closing the state's nuclear power plants could affect California is needed, CEC staff should do that study, not the owners of the plants in question. The 2013 IEPR should not be adopted till it has been amended to address these concerns. Minimally the document should contain adequate information for the Governor, the Legislature and the Citizens of California to consider whether the benefits of nuclear power outweigh the risks in our state.