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September 30, 2008

Honorable Vice Chair and Commissioner Jim Boyd  
Honorable Commissioner Jeff Byron  
California Energy Commission  
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**Reference: HGP's Comments on AB 1632 Assessment of California's Operating Nuclear Plant-Draft Report, and constructive feedback from workshop held on September 25, 2008**

Dear Commissioners Boyd and Byron,

First I want to thank both of you for conducting the workshop on AB 1632 - Assessment of California's Operating Nuclear Plants. I was impressed with the balanced interchange between the parties in attendance, although I was quite surprised at the very limited amount of participation from stakeholders given the size and importance these issue have to all State of California Stakeholders. PG&E clearly had more support at the meeting and was much more prepared to answer questions and take action in response to the CEC and public's feedback. That is not to say that SCE was unprepared, their Company representative was very candid and professional.

My firm and I agree with both of the Investor Owned Utilities (IOUs), Pacific Gas & Electric (PG&E) and Southern California Edison (SCE) in their oral comments, that the draft report should be revised to be more balanced in terms of the benefits of the nuclear stations and that the conclusions supported with facts and the consequences in the report's narrative. Case in point was the limited CAISO comments; if both nuclear stations were shutdown for any extended period, the reserve margins would drop significantly. What was omitted was that the price in the market would also skyrocket and in many cases rolling blackouts would most certainly occur in California. This needs to be transparent to ALL the California stakeholders. That is not to say there are not many viable alternatives to commercial nuclear power, but they need to be planned for and the public needs to be aware of both their costs and RISKS.

This letter and the attachment contain our firms written comments and document our oral comments as you requested. Please note that some of our comments and suggestions were not presented during the public comment period due to the time constraints at the meeting, not to mention it was well into the lunch hour! A couple of the more significant points you may want to consider when Commissioner Byron presides over next years AB 1632 proceedings are labeled in the attachment.

I was somewhat dismayed at the lack of transparency of the report and the ease which a non-nuclear reader could digest and follow the key salient material findings, of which there are many, and they are significant. One of the suggestions we made in my public comment period was to organize and summarize the final reports findings in a more transparent manner that will allow future proceedings to evaluate the current base case findings (the SONGS and Diablo Canyon nuclear power stations continue to operate as the licensed operators have been authorized and have conveyed to the CEC, the NRC and the public).

This base case could then be compared to several alternative options for each nuclear station, or renewable energy transition option. For example; Option-1 License extension for Diablo Canyon Station, Option -2 Early shut down of SONGS Units 2 & 3 with Diablo Canyon still operating, Option -3 Sell both the nuclear stations to a third party with a long term PPA, Option-4 Shutdown both nuclear stations at the end of 2020 and transition to renewable energy sources, or some other alternative options that the other interested stake holders or IOU's raise and allow this alternate case to be fully vented for all the stake holders. The CEC would vent the reasonableness and flush out each Option in the annual AB 1632 process.

As decisions are made by the IOU's and/or the CEC, and authorizations and approvals are secured, the base case or alternate cases could be revised accordingly. New Alternatives could be systematically review and compared to the "Base Case" and shared with the stakeholder for a true transparent discussion of the options. This type of modeling provides consistency for both utilities and stake holders and allows year to year incremental changes to be discerned by the commission as new data (both performance and industry events) becomes available – these could quickly be modeled and the impact be conveyed to all the stake holders. Options such as transitioning to renewable energy generation (wind, solar, hydro, biomass) are laudable and should be evaluated, but the true impact to the California stake holders has not been adequately exposed nor is the economic impact correctly quantified. Commercial nuclear power, as both of you stated in the workshop, is a base load resource. Renewable energy options such as biomass and geothermal can also be utilized as base load resources, but have significant risks and consequences such as fuel availability, emissions, earthquakes, and other issues that impact renewable energy production. Some of the significant nuclear issues that need to be revisited before the final report is issued include:

1. The impact of NRC and INPO regulatory performance ratings/findings on the plants safety economics and viability was not really identified or vented. Both plants have experienced significant rating declines and in the case of PG&E recent improvements as well as other issues over the last ten years. Given the number of commercial nuclear plants PG&E - (2) and SCE - (2), they are really ill-equipped to take advantage of economies of scale (technical, safety and economic) as compared to many of their peer commercial nuclear plants. NIH (Not invented here is akin to NIMBY for some of the staff at each plant. Also see number 3 below).
2. The capacity factor as compared to their Peer plants. I stated in my oral comments that both nuclear stations have had a good historical record, but many of their peer plants have performed much better and more cost effective over the last ten years. PG&E has brought in many new senior managers with mixed results, and SCE as stated, has had some declining performance in terms of safety culture and real key metric performance.
3. The impact to California stake holders (which by the way not only includes the rate payers but the stockholders) of being basically small nuclear plant owner/operators (both PG&E and SCE) was NOT identified in the draft report. This impacts safety, cost, reliability and most of all human resources. This directly applies to nuclear fuel, the seismic issues, and management, oversight and safety culture performance. This is a key issue for both units that could be qualitatively evaluated in an option study - what is the base case going forward versus a sale to a larger, more effective operator. Of course PPA and other terms would need to be developed for this case.
4. The study had NO Peer plant comparison for any of the key Sections of the draft report. Why? California is clearly the leader in Seismic Research and Analyses in the USA. PG&E has some great programs and studies underway as noted by the Commission, but other

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plants have updated many of their nuclear plant analyses such as flooding, tomado, storm and other natural event analyses. No coverage at all in this report. The vulnerability of Spent Fuel is an industry issue. Yet again, no peer reviews of what process and systems are in place and how they are dealt with by other states or licensed operators. Plant Ageing is much more of an issue with the commercial nuclear plants back east that are Pre-TMI (Three Mile Island) vintage. There are again, programs in place in the nuclear industry to assess and address plant ageing.

As a home owner in Monterey County, a PG&E rate payer and a very interested party, we would welcome a chance to discuss our comments in more detail or at the next work shop if asked.

Very truly yours,

*Fred W. Giffels*

Fred W. Giffels  
CEO

cc: Garth K. Erdmann - HGP, Inc.  
File



### Attachment-1 HGP Inc. Comments

This attachment represents three types of comments on the AB 1632 Assessment of California's Operating Nuclear Plant-Draft Report, and constructive feedback from the workshop held on September 25, 2008.

First - Generic Comments on the Current Report and Process.

Second - Detail comments on the Draft Report and workshop comments.

Third - Suggestions for the future proceedings to consider venting and expanding the issues.

Section	Comment	Presented Orally By FW Giffels on September 25, 2008 In AB 1632 Workshop (Yes or No)
Overall	Generic Comments	
	AB 1632 - This serves all the stakeholders of California and is a valuable process to allow venting and material discussion to occur.	Yes
	The team that was assembled should have met face to face and toured each nuclear station; this would have allowed verification and validation of the findings to occur on such material matters and points for fact and opinion. This is SOP in any due diligence or work done by most consulting firms and should be incorporated as a requirement in the AB 1632 work in 2009 and beyond.	No
	The renewable representative at the workshop and other Stakeholders should have been contacted and offered a chance to submit issues on nuclear fuel, as well as the transition alternatives to shutting down the nuclear power stations and relying on renewable energy. PG&E and SCE could then have commented on the viability and underlying assumptions and risk and benefits therein. Diablo Canyon and SONGS performance, oversight, Seismic issues, equipment and plant ageing and staffing. This could have been done in person or through web cast.	No
	Many of the "Facts" do not back up the opinions in the report and should be checked and vented before the final version is issued.	Yes
	The Becoming issues were NOT accurate in terms of ignoring price impacts, reserve margin issues (and wholesale and retail price implications) and real benefits of the commercial nuclear stations on the local and regional economy.	Yes
Detail	Specific Comments on Draft Report	
Page 10	"Preliminary Draft – Not to be Cited." This seems inconsistent with what the California Energy Commission (CEC) wanted in the way of Public and the nuclear station owner operator comments? This needs to be addressed in future AB 1632 sessions.	No
Page 10	Reports recommendation is "California needs a long-term plan to prevent major disruptions and to be ready should a disruption occur". This is a great recommendation - however the AB 1632 process and the overall response from the IOU's is not cohesive nor consistent. The	Yes

	meeting itself demonstrated that some of the major players, if such an event was to occur (CAISO and PG&E, SCE and CEC), had not worked together on reviewing the Draft report findings. On issues that are as large and material as this, the State should work with all of the major stakeholders and the NRC to develop, fund and staff an emergency response similar to the site drills that PG&E referred to in their comment period but with much wider impacts since this will impact not only the State of California but adjoining States such as Nevada, Oregon, Arizona and other members of the WEC.	
Page 16	Vulnerability Power Plant Buildings and Structures. The consultants should contact each utility and become more familiar with both the IPE and reliability centered maintenance. Additionally, as PG&E and SCE pointed out during their public comments, the nuclear station is not the only issue – the electrical transmission and distribution systems are of equal if not greater importance if such an event should occur. Additionally, communications and public coordination contingency plans (see comment above) need to be developed, disseminated and drills should occur. Funding needs to be secured for same.	No
Page 19	Plant Ageing and Reliability Assessment. The consultants need to contact each utility and some of the major vendors as this issue is well known and not as significant as the report indicates it is. Again, if this issue were to be qualitatively framed and ranked it would help with transparency and significance ranking.	No
Page 21	References SONGS, INPO rating slipping to an INPO rating of 3. Diablo Canyon has also had decreases in their INPO rating and then improvements in its INPO rating. The consultants did not recognize the economic and oversight issues that are, and can be, significant due to INPO and NRC oversight findings. Both IOU's are in reality very small as compared to other nuclear plant owner/operators. If the CEC were to benchmark Diablo Canyon and SONGS the results would be quite enlightening for the stakeholders.	No
Page 29	License Renewal Issues for State Policymakers. Again, this should be an alternative option studied and compared to the "Base Case" which should be quantified with metrics. A cohesive process that is studied by all the stakeholders and led by each investor owned utility. Consideration should be given by the CEC to working with each owner/operator (PG&E and SCE) to create a standard evaluation model that could compare the benefits and risks associated with license extension versus other alternatives. The stakeholders should be allowed to vent the findings in an iterative fashion so that various alternative scenario outcome measures could be fully disclosed to the public and all interested stakeholders. Based on the comments at the workshop, funding for these license renewal studies has been approved for PG&E and requested by SCE. Consideration should be given to the co-owners of SONGS to participate with SCE and future studies.	Yes but not in detail due to time limitations
Page 110 – 112	Seismic and Earthquake issues. Each of these should be modeled in the base case as well as any alternative cases to establish the range of outcomes to the stakeholders. Based on the workshop discussion, PG&E is well ahead of SCE and consideration should be given for the state of California to fund through one of the leading universities a more integrated, consistent, seismic review of each commercial nuclear station. In the long run, this may save SCE rate payers and co-owners, but also allow PG&E to share its knowledge and some costs.	Yes in summary
Page	Comments on Fuel Pool. Each commercial nuclear station has a "time	No

161	to boil calculation" and should have a procedure and training in place to address this issue. The utilities should respond to this issue as it is a potential public safety concern.	
Page 161	Dry Cast Issues. The state of California needs to consider why each commercial nuclear station has had to build its own ISFSI's and not studied and tried to find more global solutions that would be safer and more cost effective for the State and rate payers.	No
Page 167	Age-related Degradation. The consultants report should have looked at the various programs each utility has in place. While it is true that forced outages can, and have been, caused by older equipment, this is more of a management oversight in performance issue than a true equipment age-related degradation. As I stated in my oral comments, this issue can be significant but the commercial nuclear industry has many programs and processes in place to address these issues. Peer plant benchmarking should be performed by each utility and shared with the CEC and other stakeholders to discern each commercial nuclear station's performance against their peers.	No
Page 169	Cooling Tower Collapse at Vermont Yankee being an example of a reactor coolant system failure is simply wrong, as pointed out by the Union of Concerned Scientists (see letter dated September 19, 2008). The CEC needs to hire consultants who have experience in commercial nuclear industry.	No
Page 185	Diablo Canyon Independent Safety Committee. The consultants draft report and public comment during the workshop by both commissioners and both PG&E and SCE pointed out some significant differences in the way each IOU handles oversight. What was missing is by having an independent safety review committee, it affords the employees and contractors a vehicle that each nuclear plant supervisor and manager is aware of to identify and mitigate/solve problems that could be or are, detrimental to safety, quality or economic performance. PG&E clearly could not identify or articulate the value of its' independent safety review committee. And SCE, as both commissioners pointed out, does not have one. The CEC should consider establishing one independent safety review committee for both plants with the utilities having a member from their plant overseeing the other plant (which may also result in peer improvements and better communications) as well as more consistency for the stakeholders in California. Even though PG&E has an independent safety committee, its management does not often allow it to challenge or probe or verify and validate findings. This should be encouraged. One way to do this is to make it a requirement. As commissioner Boyd stated, we can trust each utility but it also helps to validate and verify (paraphrase).	No
Page 187 – 189	Plant Staffing and Training. The consultants report ignores some basic issues in regard to the challenges facing PG&E at Diablo Canyon and SCE at SONGS in regards to plant staffing and training. The issues are not limited to the effectiveness of the processes and people as well as the age of the plant staff. They are more directly related to the paradigm shift that has occurred in the ownership/operation of commercial nuclear power plants. Most of the peer plants of Diablo Canyon and SONGS are owned by corporations that own multiple stations and multiple commercial nuclear power plants. Owner/operators such as Exelon, Entergy, Constellation, Duke, and Florida Power and Light can effectively address safety, quality, and economic issues much quicker and more effectively as well as mobilize industry support due to their	No

	size. CEC should consider evaluating the option to have SCE and PG&E sell their nuclear assets (as was the case in New York state and New England) and evaluate if long term stakeholder benefits could be realized. PG&E is aware of this possibility as well as SCE. Their stockholders should have also insisted that this study be performed, as a long regulatory or equipment outage would be devastating to their stockholders, not to mention the rate payers in California. Again, this could be accomplished by having an option study process in place and setting forth some standard variable criteria for PG&E and SCE. This would allow transparency and make the stakeholders aware of the real material significance of this issue.	
196-200	The conclusions on prolonged shutdowns of Diablo Canyon and SONGS need to be re-visited in light of the work shop comments on both PG&E, SCE and CAISO and others. The emphasis and overall reserve margins appear to be grossly over stated, that is if either nuclear plant was to be shutdown for a prolonged period of time, the reserve margin and PRICE would be dramatically and adversely impacted. CEC should put together a State wind committee charged with a MITIGATION Plan and drills for both PG&E, SCE and the CAISO and be staffed with third party and company representatives as well as CEC staff.	Yes
202	Table 6 needs to be re-visited based on workshop comments.	No
205	The CEC and the consultant should review PEER nuclear plant performance and compare to SONGS and Diablo Canyon.	No
208	Table 6 needs to be re-visited based on workshop comments.	Yes
209	The extended outage costs cited by the consultant in the Draft report, that range from \$136m for Nine Mile 1 to over \$702m for Rancho Seco, are NOT characterized by the consultant correctly. These outages had combinations of regulatory and capital (equipment) work performed and need to be reviewed and compared to both Diablo Canyon and SONGS in light of this. Neither SONGS nor Diablo Canyon has had a lengthy regulatory outage or design basis outage as compared to many of the Pre-TMI plants. A few post TMI nuclear units, namely Millstone and Perry, have had extensive regulatory outages which were due to OVERSIGHT more than equipment or natural events such as earthquakes. Had the regulatory bodies and operating ultites been as diligent as the IOU's in California, neither of these outages would have lasted as long nor cost as much money. The cost was NOT ALL CAPITAL, in fact, not much of it was, and only a portion was rate payer incurred.	No
216-239	Nuclear Waste Issues, ISFSI and Spent Fuel. The focus here lacks any upside. Spent nuclear fuel has economic value if it is reprocessed. France has done this for years. The CEC should look into the alternatives to utilize the spent nuclear fuel that is generated from SONGS and Diablo Canyon as well as the spent fuel that is stored at Humboldt Bay and SONGS Unit 1. This should include looking for a site within California. The CEC should attempt to work with DOE and the stakeholders to study future applications such as re-processing nuclear fuel. This could create jobs and a tax base for the stakeholders. The CEC should also re-visit the new commercial nuclear plant moratorium by creating a life cycle Option study and making the stakeholders of California aware of the risks and benefits of commercial nuclear power. This should include utilizing spent fuel in future applications as compared to renewable options such as geothermal, solar, wind and bio-mass and hydro generation.	No