

May 18, 2007

Ms. Raquel Rodriguez
California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET 06-AFC-7	
DATE	MAY 18 2007
RECD.	MAY 18 2007

Re: **HUMBOLDT BAY REPOWERING PROJECT'S
PRELIMINARY AIR QUALITY & PUBLIC HEALTH ISSUES
DOCKET NO. (06-AFC-7)**

Dear Ms. Rodriguez:

Enclosed for filing with the California Energy Commission is one original and 12 (Twelve) copies of a letter from Greg Lamberg, Pacific Gas and Electric to John Kessler, California Energy Commission entitled **HUMBOLDT BAY REPOWERING PROJECT'S PRELIMINARY AIR QUALITY & PUBLIC HEALTH ISSUES**, dated May 18, 2007. Please docket this in the Humboldt Bay Repowering Project (06-AFC-7).

Sincerely,



Marguerite Cosens
Administrative Assistant

May 18, 2007

Mr. John Kessler
Project Manager
California Energy Commission
1516 9th Street
Sacramento, CA 95814

Subject: Humboldt Bay Repowering Project – Preliminary Air Quality & Public Health Issues

Dear Mr. Kessler:

This letter is in response to your letter dated May 11, 2007, that was referenced in the HBRP staff status report #3, also issued on May 11, 2007.

PG&E appreciates staff's review of the Humboldt Bay Repowering Project (HBRP) Application for Certification (AFC). PG&E's air quality modeling and public health risk assessment was completed by Sierra Research, arguably the most experienced and respected air quality consulting firm in California. Sierra's modeling that was completed as part of the AFC showed no significant impacts and no violations of any Laws, Ordinances, Regulations and Standards (LORS). As an environmental leader, PG&E would not have submitted an AFC if we believed that our air quality and public health impacts were anything but less than significant.

The workshops that have been held to date have been very productive and have precipitated a number of design enhancements, many of which PG&E has incorporated into the project's design. We acknowledge that a candid dialogue with staff and a willingness on both of our sides to examine all of the issues, challenge assumptions, and be open to change will ultimately yield the best result for our customers on the North Coast.

While collectively we have made great progress and are essentially in agreement in the areas of Biological Resources, Cultural Resources, Geological Hazards and Resources, Hazardous Materials Handling, Land Use, Noise, Paleontological Resources, Socioeconomics, Soils and Agriculture, Traffic and Transportation, Visual Resources, Waste Management, Water Resources, Worker Health and Safety, and Electric Transmission, unfortunately we have failed to converge in the areas of Air Quality and Public Health.

Your letter suggests that staff is "giving up" on these issues. For the record, we are committed to working cooperatively with staff, ARB, and the NCUAQMD to resolve these issues. The HBRP represents a 30% efficiency improvement vs. the existing plant,

significantly reduces greenhouse gas emissions, eliminates up to 2 billion gallons per month of once through ocean water cooling, and is superior environmentally to the existing facility. As such, we believe it would be a great disservice to our customers on the North Coast to not work diligently to resolve the issues outlined in your letter.

With regards to the issues outlined in your letter:

PM2.5 – The national ambient air quality standard for this pollutant was reduced from $65\mu\text{g}/\text{m}^3$ to $35\mu\text{g}/\text{m}^3$ in December 2006, approximately one month after the CEC deemed the HBRP AFC Data Adequate and more than two months after it was filed by PG&E. This, combined with inconsistent guidance from the ARB and written EPA policies interpreting the new standard, has created challenges for the project. PG&E is committed to demonstrating that the project will not cause or contribute significantly to violations of this new federal standard and believes it will be able to do so.

Health Risk Assessment – The Health Risk Assessment completed by PG&E for the project was prepared in accordance with guidelines issued by the California Air Pollution Control Officers Association and Office of Environmental Health Hazard Assessment, using techniques that have been accepted by the ARB and CEC Staff in other regulatory proceedings. Nonetheless, PG&E remains committed to work with the CEC Staff to address their concerns and show conclusively that the project is in compliance with all LORS.

Air Dispersion Modeling – The air quality modeling for the project was performed in a manner consistent with written US EPA guidelines and demonstrated compliance with all LORS. PG&E is committed to work with ARB and the District to understand discrepancies between the various modeling efforts and ensure that their concerns are addressed.

Lack of specific emissions factors – PG&E has responded fully to all data requests by the CEC Staff regarding emission data for the engines proposed for the project. In addition, PG&E has facilitated a meeting between CEC Staff and the engine manufacturer, Wartsila, for the purpose of ensuring complete and open communications. PG&E will continue to work with the CEC Staff to ensure that these issues are addressed.

Inconsistency with the project description – The Staff's analysis of project impacts has been performed in a manner that is consistent with the project description contained in the AFC, applicable regulatory requirements, and the CEQA requirement that reasonably foreseeable environmental impacts be addressed. PG&E is committed to working diligently with Staff to reach consensus on this issue.

We appreciate the alternatives you have suggested in the letter. We have examined all of these in detail, many early on during the project definition stage and determined that most of these were not feasible within a reasonable period of time to support the needs of the North Coast energy demand.

With regards to establishing a reliable natural gas supply to eliminate the need for diesel as a backup fuel, you have made some excellent suggestions. Many of these suggestions were examined early on in the process and then revisited per your recommendation during the third Air Quality Workshop held on March 12.

In all candor, we are surprised to see you re-iterate the request to review these options two months after it appeared that we were in agreement that they were not feasible.

The Wärtsilä 18V50DF internal combustion engine-generators were selected for the HBRP to meet the specific needs for baseload power supply in this region. The benefits of this technology include high reliability and efficiency, significant turn-down capability, and quick start-up and shut-down. These advantages are essential in meeting the complex operational requirements needed to maintain adequate reliability for this transmission constrained area.

This objective must be kept in the forefront of any discussion regarding backup fuel supplies for the proposed project. While gas storage may minimize the use of diesel fuel, it will not eliminate it. Some diesel fuel use will be required for emergency equipment, e.g. diesel firewater pump and black start generator. Further, the Wärtsilä 18V50DF requires diesel pilot fuel (0.7% of the gas fuel heat input) even when on natural gas as the primary fuel.

Reinforcing all or a portion of the natural gas supply pipeline from its source in the Sacramento Valley or from the Tompkins Hill gas field located in Humboldt County will not alleviate reliability concerns in the event of an emergency. The area is geologically and seismically highly active. The aforementioned stretch of pipe traverses some of the most challenging and unstable terrain in PG&E's service territory.

Any remote location of a storage facility, such as Tompkins Hill gas field, will likely necessitate the crossing of an active fault by the pipeline (as is the case presently), negating the value of a backup fuel in the event of earthquake or landslide, which are regular occurrences. For example, a curtailment took place on August 19, 2006, when Unit 2 was switched to backup fuel for a short period due to a rupture of the spur gas transmission line that supplies the Eureka area. The rupture was due to a sudden ground subsidence in the immediate vicinity of the rupture. Temporary repairs were completed in less than 24 hours. Permanent repairs required the existing plant to run on liquid fuels for a full week. Had PG&E not had a back-up fuel supply during this emergency, there would have been significant blackouts in the County with significant potential public health and environmental impacts to be considered. Obviously this is not a desired result for our customers or the environment (numerous emergency diesel generators would have been started and run if there had been an extended outage).

As discussed above, from a reliability perspective, the back-up fuel, irrespective of the selected fuel, would have to be stored on site. The presence of surface faults at the site in conjunction with storage of nuclear fuel on site may well preclude the addition of a CNG or LNG storage facility at the site. In addition, LNG has tremendous negative connotations in the community, as evidenced by the public response to Calpine's proposed Samoa LNG project. Further, following a seismic event or a more common event similar to that which occurred in August of 2006, liquid fuel can be delivered to site by truck, provided roads are open; there would be no way to replenish CNG or LNG.

PG&E has made it clear that the project will never burn CARB ultra low sulfur beyond that required for pilot fuel and testing of emergency standby equipment, unless there is a bona fide emergency. We have proposed a very stringent definition of "emergency" to CARB, which would govern such uses.

As has been confirmed to Staff by the California ISO, the Humboldt load pocket, from an electrical perspective, functions like an island with limited import capability. Had PG&E not had a back-up fuel supply during August 2006 emergency, there would have been significant blackouts in the County. Because PG&E has a responsibility to provide electrical service to our customers under all circumstances, as such a back-up fuel must be utilized to ensure public safety and health.

We must keep in mind that the HBRP technology and configuration were selected in a publicly reviewed and exhaustive RFO process. The configuration was found to be superior to both simple cycle and combined cycle gas turbine solutions. The project has been approved by the California Public Utilities Commission (CPUC) and has been issued a Certificate of Public Need and Convenience (CPCN). The HBRP is enjoying tremendous public support, represents a superior environmental solution when compared to the existing plant, and is in a unique position to firm and backstop the numerous intermittent renewable resources we expect to see in this unique load pocket. PG&E appreciates many of your suggestions as to the fact that we examined them in detail during the early planning stages of the project. To step backwards now is not in the best interests of the project, our customers or the reliability of the North Coast.

PG&E intends to work diligently with staff, CARB, and the NCUAQMD to expeditiously resolve the issues staff has raised, all of which are modeling related. We are submitting a revised modeling protocol, per your suggestion, to CARB and the NCUAQMD. At the same time we are evaluating other project enhancements.

We are confident that the combination of the revised modeling and project enhancements will demonstrate that the HBRP will comply with all LORS and provide clean and reliable power for the North Coast for years to come.

Very truly yours,



Greg Lamberg
Manager, Project Development

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE
STATE OF CALIFORNIA**

**APPLICATION FOR CERTIFICATION FOR THE
HUMBOLDT BAY REPOWERING PROJECT
BY PACIFIC GAS AND ELECTRIC COMPANY**

**Docket No. 06-AFC-7
PROOF OF SERVICE
(Revised 5/1/07)**

INSTRUCTIONS: All parties shall 1) send an original signed document plus 12 copies OR 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed OR electronic copy of the documents that shall include a proof of service declaration to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 06-AFC-07
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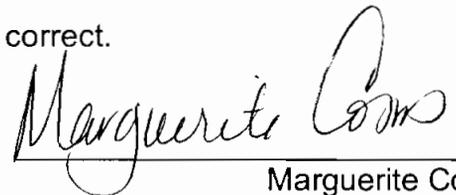
Declaration of Service

I, Marguerite Cosens, declare that on May 18, 2007, I deposited the required copies of the attached **HUMBOLDT BAY REPOWERING PROJECT'S PRELIMINARY AIR QUALITY & PUBLIC HEALTH ISSUES** in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above. I declare under penalty of perjury that the foregoing is true and correct.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.



Marguerite Cosens