

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

DOCKET

08-GHGOII-1

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In the matter of:

Docket No. 08-GHG Oil-1

Order No. 08-1008-11

Order Instituting Informational Proceeding)
(Oil) on Methods for Satisfying California)
Environmental Quality Act Requirements)
Relating to Greenhouse Gas Emissions)
Impacts of Power Plants)
_____)

**WRITTEN COMMENTS OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT TO
THE INITIAL QUESTIONS OUTLINED IN THE ORDER INSTITUTING INFORMATION
PROCEEDING ADOPTED ON OCTOBER 8, 2008**

I. INTRODUCTION

The Sacramento Municipal Utility District ("SMUD") appreciates the opportunity to submit written comments to the California Energy Commission ("Commission") Siting Committee on the initial questions outlined in the Order Instituting Information ("Oil") proceeding adopted on October 8, 2008. Through these comments, SMUD encourages the Commission to implement a programmatic approach that addresses greenhouse gas ("GHG") emissions from proposed new power plants subject to its jurisdiction on a statewide level.

II. COMMENTS

- 1. GHG emissions have a cumulative impact on climate change that is global by nature. Are such global impacts appropriate subject to CEQA?**

Yes, GHG emissions from proposed new power plants have cumulative global impacts and thus are subject to analysis under the California Environmental Quality Act ("CEQA"). As the California Attorney General noted in *The People of California. v.*

County of San Bernardino,¹ “the California Legislature has found that ‘[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California.’”² CEQA requires that public agencies identify the potentially significant effects on the environment of projects they intend to carry out or approve.³ Additionally, public agencies shall consider the project’s individual effects as well as when individual effects considered with other projects compound or increase environmental impacts.⁴ Since the Legislature has determined that GHG emissions can cause significant adverse impacts to human health and the environment, the Commission’s CEQA-equivalent process should include an assessment of the cumulative impacts of GHG emissions.

2. Assuming CEQA does apply, what should be the CEQA “threshold of significance” for GHG emissions from a given project?

SMUD agrees with the Governor’s Office of Planning and Research (“OPR”) that the most difficult part of the climate change analysis is the determination of significance.⁵ CEQA provides that “[a] threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which normally means the effect will be determined to be less than significant.”⁶ Rather than a quantitative “threshold of significance” for each specific project, SMUD supports a statewide threshold of significance for GHG

¹ April 12, 2007 (Case No. CIVSS 700329).

² Cal. Health and Safety Code § 38501(a).

³ Cal. Pub. Res. Code § 21000, et seq.

⁴ 14 Cal. Code of Regulations § 15355.

⁵ OPR, Technical Advisory, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review (June 19, 2008).

⁶ 14 Cal. Code of Regulations § 15064.7(a).

emissions that takes into account other applicable laws, ordinances, regulations, and standards.

- A. CEQA requires that a cumulative impact be “cumulatively considerable” for it to be significant, and air districts typically set quantitative thresholds for criteria pollutants based on the concept. What GHG emission levels are less than “cumulatively considerable?”**
- **Power Plant construction emissions?**

The emissions of GHG from the construction of large thermal power plants emanate, almost exclusively, from mobile sources. Such mobile sources include off-road vehicles and equipment (such as tractors and construction equipment), and heavy-duty on-road vehicles (such as diesel trucks). The California Air Resource Board (“CARB”) has recently adopted regulations to reduce nitrogen oxides (“NO_x”) emissions (an important GHG) from existing, off-road heavy-duty vehicles, and adopted new emission standards for NO_x to implement the U.S. EPA’s Clean Air Nonroad Diesel Rule in California.⁷ CARB is also implementing a number of regulatory programs to reduce NO_x and other GHG emissions in existing on-road, heavy-duty vehicles (such as the Statewide Truck and Bus Rule and the AB 32 Truck Efficiency Rule). In addition to such vehicle efficiency improvements, CARB’s Proposed Scoping Plan proposes a number of measures to reduce GHG emissions from medium and heavy-duty vehicles, including the Low Carbon Fuel Standard (“LCFS”) that will reduce the carbon intensity of transportation fuels (including diesel).⁸ Moreover, CARB has proposed to regulate GHG emissions from transportation fuels as those fuels enter the stream of commerce,

⁷ Article 4, Chapter 9, Division 3, Title 13, California Code of Regulations (CCR), beginning at section 2420.

⁸ CARB Proposed Scoping Plan, at pp. 46-47, 53-54

beginning in the second compliance period, through California's Cap-and-Trade Program.

OPR's Technical Advisory recommends a programmatic review of mitigation programs as a way of analyzing and mitigating GHG emissions impacts of specific projects. CARB's programmatic measures are designed to work together to force reductions in GHG emissions from trucks and other heavy-duty construction equipment that would be used in the construction of industrial facilities, including large thermal power plants. These programs will target the manufacturers of diesel engines, distributors of transportations fuels, and the owners and operators of mobile sources in California for compliance, which is a more systematic way of determining and mitigating the cumulative impacts from the construction of individual projects, including power plants. SMUD believes that the impacts from such mobile sources are addressed more effectively through CARB's statewide programs than through site-specific requirements for mobile sources. Therefore, to the extent that GHGs are already regulated by CARB for determination of significance and mitigation, such GHG emissions from sources that are in compliance with applicable laws, ordinances, regulations, and statutes, should be deemed less than cumulatively considerable for the CEC process.

- **“peaking” gas-fired power plants (however defined)?**

To the extent that any gas, bio-gas or bio-liquid fired peaking plants are operated to enable a source of energy that is a mitigation measure, resultant GHG emissions should not be cumulatively considerable. These plants, as defined by the efficiency standards under Senate Bill (“SB”) 1368, play a vital role in system reliability and in balancing non-dispatchable renewable resources. It runs counter to logic to find GHG

emissions from these plants as significant and requiring mitigation when the purpose of construction of the plant is to increase efficiency and potentially offset the use of older, less efficient sources of energy that emit more GHG emissions. To find GHG emissions from these types of plants to be cumulatively considerable, and to require mitigation, would have a chilling effect on their construction and could result in the purchase of out-of-state energy without similar constraints. In addition, finding that GHG emissions from new peaking plants are significant and requiring mitigation could interfere with the Cap-and-Trade program being instituted under AB 32.

- **Emissions from power plants that do not exceed limits set by SB 1368 regulations?**

The GHG emissions from all plants that conform to the adopted emissions performance standard (“EPS”) under SB 1368 should be considered less than significant. For those plants that exceed the EPS limits, the GHG analysis should evaluate the project’s contribution to total statewide emissions, both natural and those created by human activity, to determine significance on a statewide scale.

B. Have other agencies adopted thresholds of significance for GHG emissions?

Not to our knowledge. While other agencies have prepared proposals and white papers on the subject, no resource agency has yet adopted a threshold of significance for GHG emissions. At present, the only guidance is OPR’s Technical Advisory.⁹

3. What is the proper CEQA “baseline” for determining the significance of GHG emissions?

CEQA provides that the proper baseline or “environmental setting” is the physical environmental conditions in the vicinity of the project, as it exists at the time that the

notice of preparation for the environmental document is published or at the time environmental analysis is started.¹⁰ For purposes of GHG emissions, the proper baseline should be the statewide, or regional area, baseline established by CARB, which includes conditions that have been recognized as GHG impacts, such as declines in water availability, abnormal temperatures, crop or agricultural impacts, infectious diseases, etc.

A. Are all new power plant projects with emissions that exceed some threshold level “cumulatively considerable” (so called “zero baseline”)?

SMUD agrees with CARB staff that for certain project types, non-zero thresholds can be supported with substantial evidence.¹¹ Specifically, CARB staff “believes that zero thresholds are not mandated because (1) some level of emissions in the near term and at mid-century is still consistent with climate stabilization and (2) current and anticipated regulations and programs apart from CEQA (e.g., AB 32 and Pavley vehicle regulations, the Renewables Portfolio Standard, the California Solar Initiative, and the commitment to net-zero-energy buildings by 2020 (residential) and 2030 (commercial)) will proliferate and increasingly will reduce the GHG contributions of past, present, and future projects.”¹² Therefore, since power plant projects must comply with the above referenced regulations even if the projects exceed some GHG threshold level, they should not automatically be cumulatively considerable.

- **If so, would the zero baseline apply to solar facilities that burn some natural gas for startup or for generation augmentation?**

⁹ OPR, Technical Advisory, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review (June 19, 2008).

¹⁰ 14 Cal. Code of Regulations § 15125.

¹¹ California Air Resource Board, Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act (October 24, 2008).

¹² Id.

For the reasons discussed above, the zero baseline should not apply to solar facilities that burn some natural gas for startup or for generation augmentation. In addition, renewable facilities reduce total emissions from fossil-fuel power plants since the marginal costs are effectively zero due to operation during peak periods. Therefore, even though a solar facility burning gas adds to GHG emissions, the net impact is not significant since it reduces overall emissions.

- B. Alternatively, should the baseline be the current GHG emissions of the entire electric generation “system” comprised of all in-state generation and all out-of-state- imports? In other words, if the new power plant reduces the State’s overall GHG emissions, would this make the impact less than significant? If this “system” perspective has merit, what analysis might be required to demonstrate, to the degree appropriate, that there is no significant “system” impact from a facility?**

The baseline should be the current GHG emissions of the population of GHG emissions within the established GHG emissions region. If the baseline did not include all GHG emissions within the established region, this could potentially increase the burden of in-state generators such that compliance could be more costly than purchasing out-of-state generation. The Commission should seek to advance well designed, efficient power plants that reduce the GHG emissions for the State. If the Commission finds that a new power plant reduces the statewide overall GHG emissions by displacing more dirtier, existing plants this should be treated as a less-than-significant impact.

The Commission has all of the information and tools at hand to be able to directly quantify whether a net reduction or increase in statewide emissions will result from the addition of a new plant. The Commission is responsible for the state’s electricity load

growth forecast. The Commission is responsible for or has access to information on each utility's progress on renewable energy and energy efficiency implementation. Finally, the Commission has already demonstrated the capabilities it has for economic dispatch modeling, which can be used to show which plants will operate given their heat-rate characteristics and fuel price projections. With all of these data sources in place, the Commission is best positioned to make a determination as to whether a new plant will displace existing natural gas fired generation or imports possibly from coal. If such a finding is made, California experiences a net societal reduction in emissions as a result of the new plant construction, and even a zero threshold of significance would not trigger mitigation requirements for such a project.

C. Should certain generation technologies be considered categorically less than significant?

- **Solar or other renewable facilities?**
- **Gas-fired peakers that help integrate renewable?**
- **Re-powered costal gas-fired facilities that are more efficient than existing facilities and eliminate once-through cooling impacts on the marine environment?**
- **Gas-fired plants found needed to protect system reliability?**

Yes, certain generation technologies should be considered categorically less than significant. A categorical exemption under CEQA requires a finding by the Secretary for Resources that the class of projects does not have a significant effect on the environment.¹³ The Secretary for Resources has made such a finding for similar projects as those considered in this question. Specifically, Categorical Exemption Class 29, Cogeneration Projects at Existing Facilities, provides that the "installation of cogeneration equipment with a capacity of 50 megawatts or less at existing facilities ... which result in no net increases in air emissions or will produce emissions lower than

the amount that would require review under the new source review rules applicable in the county, and comply with all applicable state, federal, and local air quality laws...” are categorically exempt from the provisions of CEQA.¹⁴ Likewise, GHG emissions from power plants subject to the Commission’s jurisdiction, which employ generation technologies that are efficient or that firm renewable sources should be categorically exempt from CEQA.

In addition, since CARB has taken a programmatic approach to regulating the electric sector, which will result in a 22 percent decrease in GHG emissions over 2005 levels by 2020, State GHG emissions are being reduced by other programmatic measures in order to meet State targets. Even if a non-zero approach were taken to the threshold issue, and emissions from a particular project were to be considered cumulatively considerable, implementing statewide programmatic measures under AB 32 will reduce emissions from each project covered by the program to a “less than significant” level. Heaping additional mitigation measures on top of the statewide program would complicate and potentially distort the economic assumptions of CARB’s Cap-and-Trade Program.

In addition, because newer, cleaner power plants are non-emitting (thermal solar), renewable enabling (gas-fired peakers), or more efficient (re-powered coastal gas-fired), categorical exemptions should apply. Under the CEQA Guidelines, there is an exception to the exemption for successive projects of a similar type that result in a cumulatively significant impact.¹⁵ However, if the project proponent can show that mandatory state GHG reduction measures that would apply to the project’s emissions

¹³ 14 Cal. Code of Regulations § 15354.

¹⁴ 14 Cal. Code of Regulations § 15329.

are consistent with those broader GHG reduction goals (e.g., AB 32), then the project's contributions should not be considered cumulatively considerable.¹⁶ SMUD's entire GHG emissions inventory is subject to the State's AB 32 emission targets and implementation program. Thus, no exception should apply to the use of a categorical exemption for new solar and renewables, renewable-enabling gas-fired peakers, and re-powered coastal gas-fired plants.

4. If an individual power plant is found to have a significant cumulative impact due to GHG emissions, is it feasible to mitigate this cumulative impact?

Yes, if the impacts from such a project were considered to be cumulatively considerable, it is still feasible to mitigate any cumulative impact. Mitigation may be tailored to correspond to the specific project's impacts taking into account mandatory state or local GHG emission reduction efforts.¹⁷ For the Commission's consideration, SMUD already has programs covering ten of the "Examples of Mitigation Reduction Measures" listed in Attachment 3 to the Technical Advisory.¹⁸ If an impact is found to be significant, SMUD implements all reasonable mitigation, above and beyond compliance requirements under AB 32.

A. Must mitigation meet the standards that apply to criteria pollutants – e.g. that such mitigation must be certain, enduring, and not duplicative of other measures.

No. Global Warming is an altogether different animal because of the immensity of system impact. In addition, a project applicant should not be required to mitigate an impact that has been addressed by another agency (e.g., CARB, local air district, etc.).

¹⁵ CEQA Guidelines, § 15300.2(b).

¹⁶ California Air Pollution Control Officers Association (CAPCOA), "CEQA and Climate Change, p. 29 (Jan. 2008).

¹⁷ See 14 Cal. Code of Regulations § 15370.

The mitigation (e.g., offsets) provided to that agency should be taken at face value that the impact has been mitigated and is consistent with applicable laws, ordinances, regulations, and statutes.

B. Must mitigation be “pound-for-pound?”

Mitigation need not be applied on a “pound-for-pound” basis since the effect of a pound-for-pound offset of GHG emissions on Climate Change is too speculative to quantify. OPR takes a sound approach of recommending a suite of possible mitigation measures in Attachment 3 to the Technical Advisory.¹⁹ The Commission’s regulations should be flexible enough to ensure that the field for selection of mitigation is robust enough to be cost-effective to project proponents of all sizes. Commission regulations should also avoid the trap of seeking to quantify the GHG emissions from particular mitigation measures because the cost and time involved could be counterproductive.²⁰

C. What feasible mitigation should be required for power plants?

No specific mitigation should be required for power plants. It would be best to use the guidance provided by OPR in shaping the particular mitigation of a project. Project proponents require the ability to choose from various mitigation measures to select those that best meet the impacts of a project, taking into account location, scope, magnitude, feasibility, economics, and technology.

D. If the Commission were to find a power plant’s cumulative impact to be significant, and if impacts cannot feasibly be mitigated to a less than significant level, what if any basis should support CEQA “override” findings to allow project approval?

¹⁸ OPR, Technical Advisory, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review (June 19, 2008).

¹⁹ *Id.*

²⁰ An example of this is a mitigation measure that would be a program to educate the public through schools and businesses on reducing GHG emissions. The impact in terms of actual decrease in emissions would be impossible to quantify, although policy makers would still feel confident that such measures are needed to effectuate a change in societal behavior..

The Commission could use the findings required in the CEQA Guidelines to support approval of a project that has impacts that cannot be mitigated.²¹ The Commission must “balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered ‘acceptable.’”²² For example, a CEQA finding of overriding considerations should be supported for plants that provide a critical reliability function as established by the Balancing Authority to which it is interconnected.

5. CEQA provides for the use of programmatic approaches for addressing cumulative impacts, such as for air quality criteria pollutant reduction plans, or water quality emission plans. Is it more appropriate to mitigate power plant GHG emissions case-by-case or with a more encompassing program?

SMUD supports a more encompassing program similar to California’s implementation of Section 110 of the federal Clean Air Act through its State Implementation Plan (SIP), which more readily accounts for criteria pollutants and reduces potential duplicative mitigation. Since climate change is a global concern, it begs for a consistent, comprehensive approach, rather than an ad hoc, project-by-project approach.

A. Could CARB’s AB 32 program be such a programmatic approach?

Yes.

²¹ See 14 Cal. Code of Regulations § 15093.

²² Id.

B. If a power plant is consistent with an adopted programmatic approach, should the Commission find that the GHG impacts from such a facility are less than “cumulatively considerable?”

Yes, if a power plant is consistent with an adopted programmatic approach, the Commission should find that the GHG impacts from such a facility are less than “cumulatively considerable.”

C. If CARB should require a “cap and trade” program pursuant to AB 32, should the adoption of such a program change or negate Commission project-by-project mitigation?

If CARB were to require a “cap and trade” program pursuant to AB 32, the adoption of such a program would negate the Commission’s project-by-project mitigation. It would be consistent with established statewide policy and would provide a clear policy to developers of power plants in the State.

D. Should programmatic mitigation require GHG reductions from “load serving entities” such as utilities rather than from individual power plants?

Yes. In its Scoping Plan, CARB has proposed a Cap-and-Trade Program that will cover GHG emissions from facilities by placing the emissions from all such facilities under a statewide cap. The Commission and California Public Utilities Commission (CPUC) have jointly recommended that the obligation to meet the cap will be placed on Deliverers of electricity, which may have one covered facility or many. By placing the compliance obligation on the responsible entity rather than the facility, the Joint Commissions have correctly provided flexibility to reduce emissions at facilities that are most cost-effective. The Commission should defer to this approach when considering mitigation measures.

E. Are there other programs that should be considered?

6. **The commission is authorized to certify a facility (Public Res. Code 25525) even if it does not conform to applicable state, local or regional standards, ordinances or laws if it determines that the facility “is required for public convenience and necessity.”**

- A. **Should this general provision of law be understood to allow override of unmitigated GHG emissions if the Commission believes the facility is “needed.”**

Yes, as discussed in our response to Q4 above, there are several conditions that may apply to an individual power plant that should be taken into consideration for necessity and the public good, not the least of which is system reliability and integrity and the furtherance of public policy that is fundamental to a larger statewide perspective, such as increased renewable generation.

- B. **If “need” becomes a rationale for certification of unmitigated facilities, is there a limit on the amount of capacity “needed?”**

The necessity of an individual power plant would require a case-by-case analysis by the Commission, Balancing Authorities and others who have this responsibility. An absolute limit cannot be established as future conditions will change so to must the determination of necessity.

- C. **If there is a quantitative limit on need, how might such a limit be established and periodically updated?**

A quantitative limit should not be established due to changing future needs as described in part B above.

7. **The Commission has licensed numerous power plants that have not yet been constructed, some of which have had licenses expire and others have been surrendered voluntarily. To what extent should “failure” to construct and operate a licensed facility be taken into account in determining whether a power plant’s emissions are significant?**

Changes to the evaluation of a power plant’s emissions should apply only to new projects, such as future power plant applications and those currently undergoing review.

Retroactive evaluation of licenses should not be considered. For those existing licenses and projects the CARB programmatic statewide process should be considered the compliance requirement for these projects.

III. CONCLUSION

SMUD appreciates the opportunity to provide its written comments to the California Energy Commission Siting Committee.

Respectfully submitted,

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November 7, 2008

PROOF OF SERVICE

I declare that on November 7, 2008, I submitted WRITTEN COMMENTS OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT TO THE INITIAL QUESTIONS OUTLINED IN THE ORDER INSTITUTING INFORMATION PROCEEDING ADOPTED ON OCTOBER 8, 2008 | **Docket No. 08-GHG OII-1** by electronic-mail and deposited the original in the United States mail in Sacramento, California, with first class postage and addressed to the following:

docket@energy.state.ca.us

Portable Document File [SMUD Comments Greenhouse Gas]

California Energy Commission
Dockets Office, MS-4
RE: Docket No. 08-GHG OII-1
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(Original)

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

Dated: November 7, 2008

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