

STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

In the Matter of:)
) Docket No. 08-GHG OII-1
Informational Proceeding on Methods for)
Satisfaction of California Environmental) RE: Written Comments Responding
Quality Act Requirements Relating to Greenhouse) to Questions and Conceptual
Gas Emission Impacts of Power Plants) Approaches Posed at the
November 19, 2008 Workshop.

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**COMMENTS OF THE
INDEPENDENT ENERGY PRODUCERS ASSOCIATION**

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Comments of the Independent Energy Producers Association

The California Independent Energy Producers Association¹ (“IEP”) is pleased to submit these comments regarding topics identified in the second workshop on Greenhouse Gas (“GHG”) Emission Impacts of Power Plants.² As stated at the November 19th workshop and in our prior comments, IEP supports the Commission’s effort to develop legally supportable and appropriate California Environmental Quality Act (“CEQA”) GHG policies that are consistent with the objectives and policies of the state’s overall GHG regulatory effort. IEP encourages the California Energy Commission (“CEC” or “the Commission”) to develop regulations that accurately inform the public of the GHG-related environmental impacts or benefits posed by the construction of a new power plant. To do so, however, the Commission will need to adopt policies that reflect the fact that most new power plants in California, and certainly new renewable power plants and the peakers needed to support them, in fact reduce GHG emissions from the electric system as a whole.

Introduction and Summary

IEP recognizes that global climate change is a serious problem and supports the Commission’s efforts to address the issue in the context of CEQA and power plant siting. There is no question that the state’s emerging GHG regulatory program will look to the electric system for significant reductions in GHG emissions. Indeed, the electric system is being directed by the state to mitigate significantly more than its proportionate share of GHG emissions under AB-32. The electricity sector is being called upon to provide approximately 40% of the emission reductions even though it represents only 25% of the total GHG emissions in California.³

IEP has two primary concerns regarding the Commission’s proposed program. First, the Commission’s proposed program should not create conflict, duplication, overlap or inconsistency with the state’s emerging AB-32 GHG reduction program. To this end, the integration of CEQA and AB-32 is extremely important, for both the public and private entities responsible for complying with these laws.

IEP’s second concern is that the Commission’s assessment of the impact of new power plants on the GHG emissions of the electric system must be accurate. The fundamental purpose of CEQA is to inform the public of the environmental impacts of proposed projects. To the extent that the Commission provides the public with information that is misleading, it will fundamentally violate CEQA. Furthermore, if the Commission’s program is misleading, the program will lead to policy decisions that may, in fact, have the unintended consequence of

¹ IEP is a nonprofit trade association, representing the interests of developers and operators of independent energy facilities and independent power marketers

² On November 7, 2008, IEP submitted its first written comments in this proceeding in response to the Order Instituting Investigation 08-GHGOII-1. IEP also presented extensive oral comments at the workshop through its attorney, Christopher Ellison.

³ See California Air Resources Board, Proposed AB-32 Scoping Plan, pp. 11 and 21 (Oct. 2008), available at: <http://www.arb.ca.gov/cc/scopingplan/document/psp.pdf>.

exacerbating the GHG emissions problem. The reason for this is simple. New power plants, even though they may emit GHG emissions, typically reduce the operation of existing power plants with even greater GHG emissions. Thus, to the extent that the Commission focuses only on the mitigation of emissions from new facilities, and ignores their beneficial impact on system-wide emissions, the program may discourage new facilities that should be a key part of the GHG solution.

At the November 19th workshop there was considerable discussion on how to address GHG emissions of new power plants before a systematic GHG assessment is conducted by the Commission. IEP supports the Commission addressing the GHG related impacts from projects that have already been proposed or will be proposed before the Commission is able to conduct a GHG assessment that evaluates impacts on a system-wide basis. The Commission should ensure that its GHG assessment for new projects does not discourage projects that cause a system-wide, net GHG emission reduction. In the longer term, this means developing a method of assessing the impact of new projects on system-wide emissions through an assessment of system dispatch protocols and the GHG emissions of the marginal units likely to be displaced. In the near term, the Commission should consider compliance with SB1368 as one basis for supporting a finding of no significant impact. Facilities that do not fall within the prescriptions of SB 1368, facilities that are needed to firm renewable generation, and repowering projects should all be considered categorically insignificant during the interim period.

To this end, IEP will discuss the four approaches and five questions posed in the CEC workshop handout titled “Conceptual Approaches for Evaluating GHG Emissions from Power Plants.” IEP does not completely support any of the 4 approaches; however, on a conceptual basis, some of these approaches may be said to achieve the Commission’s fundamental CEQA objective, which is the legal obligation to accurately inform the public.

The first approach (zero-threshold) is the furthest from achieving this objective. Below, IEP reiterates how the application of a zero threshold approach would lead to an inaccurate assessment of the environmental impacts posed by a project. The second approach (efficient power-plant system threshold) makes some progress towards providing a more accurate assessment of the cumulative impact posed by a new project. While IEP does not support the specific number posed in Approach #2, IEP does support the concept of determining the level at which a new project will likely lead to a net reduction in system-wide GHG emissions. IEP requests the Commission clarify its intention behind Approach #3 (System/LRA threshold). While reliability is a consideration in power plant siting cases, it is unclear to IEP how local reliability areas (“LRA”) could serve as a proxy for the Commission’s assessment of GHG-related impacts. Simply put, while reliability is critical, it is not a good proxy for environmental impacts. Finally, IEP does not support the specific numbers posed in Approach #4 (Mitigation by Technology). While using best available control technology is a sound basis for mitigation, the thresholds proposed in Approach #4 would preclude project proponents from siting many facilities that would be environmentally beneficial. IEP’s responses to the five questions are discussed below.

Discussion

Addressing GHG Emissions Before AB-32 Or A Systematic CEC GHG Assessment Are Implemented:

During the Interim Period, The Commission Should Address GHG Impacts By Allowing Compliance With SB-1368 To Support A Finding Of No Significant Impact. The Commission Should Also Endorse Categorical Findings Of Non-Significance Based On Certain Project Types.

How GHG emissions of new power plants should be addressed before AB-32 is implemented and a systematic GHG assessment is conducted (“the interim period”) is a pressing issue that should be addressed in this workshop. Pursuant to SB-97 and other legal developments in California, the Commission should be addressing GHG impacts in projects that are presently going through the siting process and those projects that will be proposed during the interim period. A few of the 4 Approaches discussed below could make some progress towards avoiding the discouragement of beneficial new projects. IEP encourages the Commission to engage a systematic assessment that determines the level at which the interconnection of a new project results in the displacement of less efficient generation. IEP’s vision for conducting a CEC systematic GHG assessment is discussed in greater detail below in the context of the 4 Approaches.

Unlike most other industries, power plants are operated and dispatched in real time to instantaneously match demand—there is no significant storage of electricity. Thus, it is not speculation that a new power plant will displace the emissions of a less efficient power plant. In fact, it is a certainty that a new power plant will displace less efficient generation from the very first moment it operates and for the duration of its lifetime operation thereafter. Standard operating procedures ensure that demand, at any given moment, *will* be met by the utilities pursuant to the utility obligation to serve. If a new power plant is not constructed, something else will be dispatched in its place to meet that demand. If a new, efficient power plant is constructed, whatever would have been dispatched last and on the margin will be displaced. The Commission’s program must reflect that new projects will displace less efficient generation with greater GHG emissions.⁴ As noted above, in the near term the Commission should consider compliance with SB-1368 as one interim basis for supporting a finding of no significant impact. As the investor owned utilities (“IOUs”) have pointed out in their initial comments, not all facilities will fall within the prescriptions of SB-1368. IEP concurs with the IOUs in their assessment that those facilities falling outside of SB-1368 should be considered categorically insignificant. In addition, facilities that are needed to firm renewable generation, provide peaking support, and repowering projects should all be considered categorically insignificant during the interim period. IEP cannot stress strongly enough that it is imperative for the Commission to avoid application of a significance threshold that does not account for the fact

⁴ Moreover, it is the developer, not the public, that assumes the risk that a proposed new project will not be more efficient and therefore will not be dispatched (i.e. that the new project is not needed). If such is ever the case, the new project will simply not be dispatched by the CAISO and will not operate. If it does not operate, there will be no emissions—and no revenue for the project owner. Accordingly, developers have an overwhelming market incentive to only propose power plants that are, in fact, more efficient than the marginal resources currently on the grid.

that new facilities will displace less efficient generation.

Approach #1: Zero Threshold – Mitigation for All Projects:

The Commission’s Application Of A Zero-threshold Approach Would Thwart The Fundamental Purpose Of CEQA, Which Is To Inform The Public Of What The Environmental Impact Will Be From Siting A New Power Plant.

As IEP has discussed in its initial comments and at the November 19th workshop, IEP does not support a zero threshold, project-by-project approach. GHG emissions are directly tied to the way the electric system operates. When plants do not operate or operate less, there is a reduction in GHG emissions. The electric grid operates as a single machine that is coordinated by system operators in real time. The system is dispatched in real time to meet whatever the consumers demand. That real time dispatch is what governs the operation of power plants and which in turn governs the system’s GHG emissions.

Generally, power plants that are dispatched last are the least efficient. Thus, the majority, if not all power plants that are being proposed today with the best available technologies will displace the less-efficient power plants. If this fundamental fact about the electricity system is not accurately represented, and instead, the Commission assumes that a new plant’s emissions are incremental, the Commission will be misinforming the public of what the environmental impact of a new power plant is. In addition to misinforming the public, the Commission will make the siting of new power plants more onerous for project proponents, and also disincentivize net GHG emission reductions.

As IEP has advocated before, the Commission should engage in some reasonable, systematic GHG assessment of what the system impact is when a new power plant is proposed. The Energy Commission has the staff and expertise to determine what the marginal effect (in terms of the system-wide GHG emissions) will be when a new power plant is constructed. That information should be used either in a programmatic EIR or in individual power plant siting cases to determine what the marginal impact of introducing a new power plant will be. Under a systematic GHG assessment approach, the Commission would avoid the primary pitfall of the zero-threshold approach. The zero-threshold approach would require mitigation from projects that do not have a significant impact, and in fact have a significant benefit. Application of a zero-threshold approach would be intellectually dishonest as to the environmental effects of projects, and thereby subject project siting determinations to legal attacks.

Approach #2: System Threshold – Mitigation for Some Projects:

IEP Supports The Application Of A Marginal Heat Rate As A Proxy For Determining Whether There Is A Significant Impact.

Approach #2 makes significant progress in addressing GHG emissions on a systematic basis. While IEP does not support the specific 7,577 Btu/kWh threshold proposed in Approach #2 (IEP’s rationale is discussed below), IEP does support the methodology suggested by Approach #2. The methodology underpinning Approach #2 is an identification of the heat rate at which a

new power plant will likely lead to a system-wide net emissions reduction. IEP supports such a methodology because it asks the right question and would best inform the public of the true environmental impact of a project. System heat rates of power plants correlate to GHG emissions and thus, heat rates may serve as an appropriate proxy for measuring the effect a new project will have on system-wide GHG emission levels.

If heat rate is used as the proxy for measuring a project's significance, the Commission should engage a study that determines the *marginal* heat rate at which a new project leads to a net GHG emissions impact. IEP does not support the quantities set forth by Approach #2 because those quantities appear to be estimates of the *average* 2004 system heat rate, not the marginal heat rate at which a new project leads to net-system GHG reduction. The marginal heat rate is a better proxy because it more accurately determines the marginal impact of a project on the system as a whole. To that end, by using the marginal rather than average heat rate as a proxy, the Commission would be providing a more sound and accurate assessment to the public of the environmental impact or benefit posed by a new power plant project.

Approach #3: Mitigation Based on Local Reliability Areas

LRAs Are Unrelated To the Assessment of A Significant GHG Related Impact.

IEP supports the Commission's attempt to assess GHG emissions on a system-wide basis, but is unsure how LRAs aid in the determination of GHG related impacts. Does Approach #3 suggest that LRAs should be used to simplify the determination of system-wide impacts by defining the "system" as a set of smaller systems defined by the geographical boundaries of the LRAs? While reliability is a consideration in siting cases, CEQA is an informational document of the environmental impacts. IEP's initial reaction to this proposal is that reliability is not an appropriate proxy for determining for determining GHG related impacts.

Approach #4: Best Available Control Technology – Mitigation by Technology:

IEP Members Currently Use Best Available Control Technologies, And Support the Use of BACT as a Proxy for Determining Significance; However, The Numbers Suggested In Approach #4 Are Problematic.

IEP members currently use the most best available and most efficient technologies, and IEP supports the use of best available control technologies ("BACT") as a foundation for a finding of no significant environmental impact. One form of mitigation is requiring the best available technology, which is a reasonable mitigation requirement in this context because there are no existing offset protocols or cost effective CO2 reduction technologies. If a project proponent is meeting emission standards, and also using BACT, what more can that proponent do to mitigate? Thus, conceptually, IEP supports this approach. However, just as IEP agreed with conceptual underpinnings but not the specific numeric thresholds in Approach #2, the specific numerical proposed thresholds under approach #4 are not appropriate. Many projects that may lead to net-emission reductions will not fall within these thresholds, and thus the Commission will ultimately be discouraging net emission reductions. Specifically, many of the most efficient peaker plants that are on the market would not fall within this threshold and would require mitigation. Requiring mitigation from these facilities would discourage their siting even though

they may support renewables development, grid reliability, and lower system GHG emissions by means of displacement. The State would thereby forego the environmental benefits created by adding new peakers. Since, renewable energy development is an integral part of the state GHG reduction vision, these peaker plants must be encouraged to the greatest extent possible to firm the capacity of renewable resources. Thus, while IEP supports the use of best available control technologies as a proxy for determining significance, the application of the proposed thresholds in Approach #4 would disincentivize projects that create net-system emission reduction and achieve other important state goals.

Question 1: Should Mitigation Liability Be Based On Permitted Or Actual GHG Emissions?

This question is troubling because it suggests consideration of additional mitigation beyond AB-32, SB-1368 and a system-based GHG assessment. As set forth above, IEP urges the Energy Commission to base its impact assessment of a project on a system-wide analysis rather than simply ignoring the system effects of the new generation.

That said, if the CEC requires mitigation beyond the compliance strategy called for in these comments, then IEP believes the CEC has little choice but to use permitted emissions to assess mitigation liability, even though they are a “worst case” projection and will always overstate real project impacts. Using permitted emissions for this calculation would allow for greater certainty in what is required of a project when that project is sited. While actual emissions allow for a better assessment of the real environmental impacts, IEP has not been able to envision how such a system could provide both the Commission and the project owner with certainty of what mitigation is required and necessary for both enforcement and project financing and development. Moreover, if the Commission requires yearly, mandatory reporting of GHG emissions under CEQA, the Commission will likely be duplicating the AB-32 reporting requirements. Annual reporting of GHG emissions to the CEC may not be what staff envisioned in formulating this question, but IEP nevertheless recommends the Commission carefully consider cohesion with AB-32 in this process. The potential for double regulation here underscores the need for cohesion between the State’s GHG programs.

Question 2: Should the Retirement Of An Existing Facility Result In A “Netting Out Of Emissions Liability? If So, How Should This Be Calculated?

IEP requests the CEC to clarify what it means by this question. Our interpretation is that this question is asking whether a repowering project should be able to take credit for the permanent retirement of the prior facility. In our first set of comments, IEP argued that repowering of inefficient power plants is in the State’s interest, and thus favorable treatment in a CEQA analysis is warranted. Moreover, it seems self-evident that the projects actual impact on the environment is the net difference between the emissions of the former facility and the repowered one. Thus, the Commission should absolutely net out the liability with regard to repowering projects.⁵ In IEP’s first written comments in this workshop, IEP discussed this issue in the

⁵ IEP appreciates that there is a potential here for double counting emission reductions. Double counting could occur when the repower project developer takes credit for an emission reduction created by the new project and the former owner of the original facility also possesses a cap-and-trade allowance distribution that was allocated to the facility’s

context of Question 3c., which asked whether certain generation technologies should be considered categorically less than significant. IEP argued that repowering projects should be treated as categorically exempt because of the net GHG emission reductions created by these projects. Repowering projects are in the state's interest and result in both GHG emission reductions and many other environmental and economic benefits. If however, repower projects are not treated as categorically exempt and mitigation liability is assessed, the party siting the project should be able to take credit for any reduction in emissions from the repower project.

This question reads as though the Commission will be calculating the emission or mitigation liability on a project specific basis. IEP stresses again that emissions should be addressed on a system-wide basis. Credit for reduction of system-wide net emissions should be addressed in the context of a system-based GHG assessment.

Question 3: Should Construction Emissions Be Held Significant Even If Best Practices Are Followed?

Emissions from construction activities should not be held significant if best practices are followed. Emissions from construction related activities will be addressed under AB-32 in the regulation of the transportation and industrial sectors. By requiring the proponent of a project to mitigate emissions from construction, an activity that is also regulated under AB-32, will again, create a disincentive for power plant construction by regulating the same activity in different regulatory regimes. This is another reason why cohesion with AB-32 should be a foundational goal of this proceeding. As an interim matter, construction emissions are both temporary and inconsequential in the context of global climate change.

Question 4: How Should the Energy Commission's CEQA Mitigation for Power Plant GHG Emissions Work in Concert with Developing Federal, State and Local GHG Rules and Programs?

In line with our comments above addressing the need for regulatory cohesion at the state level, the Commission should seek to encourage cohesion with federal and local programs. It is difficult to provide specific feedback without knowing exactly what a federal GHG program will require. However, the Commission should seek to avoid double counting of emissions and duplicate mitigation requirements that will discourage new facilities in favor of those already operating. As a foundational matter, IEP supports the Commission striving to create cohesion with the various GHG programs to the greatest extent possible.

former operations. This potential for double counting the same emission reductions across AB-32 and CEQA underscores the need for regulatory cohesion between CEQA and AB-32.

Question 5: If required To Mitigate GHG Emissions, How Would the Mitigation or Fee Amount (\$/Metric Tonne) Be Derived?

IEP believes that this is not the right time for the Commission to be asking this question. Without first determining how the Commission will define the circumstances (if any) when mitigation should be required, the Commission should not engage specific questions as to how mitigation should be derived.

Conclusion

IEP appreciates the Commission's consideration of its comments in this proceeding. In summary, IEP believes that above all else, the Commission should strive to create a GHG emission analysis under CEQA that is cohesive with AB-32 and SB-1368. The Commission should engage in a system-based assessment of impacts that assesses accurately the true impact a new project will have on the GHG emissions of the electric system as a whole. The Commission should then cite to this document in the GHG assessment for individual projects.

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Respectfully submitted,

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