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*Via: E-mail and U.S. Mail*

California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 08-GHG OII-1  
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<b>DOCKET</b>	
<b>08-GHGOII-1</b>	
DATE	<u>DEC 12 2008</u>
RECD.	<u>DEC 12 2008</u>

Re: Docket # 08-GHG OII-01: GHG Emission Impacts of Power Plants

Dear Commissioners and Staff:

We appreciate the opportunity to comment on this important issue. We commend the Commissioners and Staff for taking action to address the how GHG emissions from power plants should be addressed under CEQA. We believe that you can develop a reasonable approach which will meet the requirements of the law while taking into account the complex system planning necessary to ensure electricity reliability while also meeting California's GHG emission reduction goals.

## **I. PROGRAM EIR**

### **A. The CEC should utilize a Program EIR to evaluate the GHG emission impacts of power plants.**

The CEC should create a Program EIR for the state's electricity system, and allow individual power plants to tier off of the Program EIR.<sup>1</sup> Evaluation and mitigation of GHG impacts of electricity at the individual project level introduces unacceptable uncertainty. The state has committed to substantial GHG reductions and a low-GHG emissions future. In the electricity sector, this low-GHG future will be achieved through

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<sup>1</sup> A program EIR is an EIR prepared for a series of actions that can be characterized as one large project and are related. 14 Cal. Code Regs §15168(a). Power plant construction or modification are part of the project of providing reliable electricity to Californians.

aggressive energy efficiency efforts, effective integration of renewable resources and reduced generation from dirty fossil fuels. California already has made legally binding commitments in these areas, and any future capacity additions or changes must be evaluated in light of the system-wide accomplishments and potential to increase energy efficiency and renewable energy.

Global warming is clearly a threat to California's environment, economy, and the health and safety of Californians.<sup>2</sup> We must take aggressive action now to reduce this threat, and we can not afford to lock in now to unnecessary sources of GHG emissions that will continue emitting for years. At the same time, we must maintain electricity system reliability to ensure that the lights stay on for Californians. A project-by-project approach could result in a GHG-emitting power plant being built for system reliability reasons even though a more systematic analysis would have revealed other, lower GHG options. A project-by project approach could also block an individual GHG-emitting power plant because of its emissions, even though a more systematic approach would have revealed that the emitting plant was necessary in order to integrate renewables as part of a low GHG future. We must use a system-wide approach with a Program EIR that analyzes the whole electricity system is the best option.

**B. The Program EIR should include analysis of alternative scenarios and feasible mitigation options.**

The Program EIR should clearly identify the CEC's underlying purpose and objectives in licensing power plants,<sup>3</sup> These objectives should include not only maintaining a reliable electricity system in the state and minimizing costs to electricity consumers, but also building the infrastructure necessary for a low-GHG future.<sup>4</sup> The Program EIR should evaluate the GHG impacts of several alternative system-wide scenarios that meet these objectives.<sup>5</sup>

Each scenario should incorporate existing policies to reduce GHG emissions in the electricity sector, i.e., each scenario should comply with California's loading order, assume aggressive energy efficiency savings, a 33% RPS by 2020, the emission performance standard established by SB 1368, and a GHG reduction program under AB32. Each scenario should describe a potential resource portfolio that, in keeping with California's existing policies and objectives, attempts to minimize total cost and total GHG emissions. The scenarios should clearly identify the different system needs that

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<sup>2</sup> California Climate Center, *Our Changing Climate: Assessing the Risks to California* (2006); see Health and Safety Code §38501.

<sup>3</sup> [Cal.Code Regs., tit. 14, § 15124\(b\)](#) ("A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.")

<sup>4</sup> See Cal. Health & Safety Code §38501(h)

<sup>5</sup> [Cal.Code Regs., tit. 14, § 15126.6\(f\)](#) (The EIR "need examine in detail only the [alternatives] that the lead agency determines could feasibly attain most of the basic objectives of the project.")

must be met (i.e., base-load, peak-load, reliability and integration services) and identify the lowest-GHG resources available to meet those particular needs.

Specificity around the different electricity system services required will help clarify the feasible mitigation options within each scenario. For example, intermittent renewable resources can not be used to meet peak demand, so adding wind resources would not be a “feasible” mitigation option within a scenario that includes one or more natural gas peaker plants. The more detailed the discussion of alternatives and mitigation options in the Program EIR, the easier it will be to use it as the basis for future projects.<sup>6</sup>

The CEC should work closely with CARB, the CPUC, and CalISO to ensure that these scenarios are consistent with CARB’s plan under AB 32, and with the CPUC’s Long Term Procurement Planning (LTPP) process for the IOUs, and with existing system-wide data. In particular, the CPUC’s LTPP process should be the source of useful information to serve as a starting point for the scenarios analysis, and the CEC should provide information about POU’s to complete the picture. This statewide plan should help in identifying renewable integration opportunities that occur across utility service areas.

**C. Projects that fall within the Program EIR should be tiered.**

If a new power plant falls within a scenario analyzed in the Program EIR, then that project’s EIR should be tiered under the Program EIR for purposes of evaluation of GHG impacts. Individual power plant projects that are inconsistent with the scenarios evaluated in the Program EIR, and thus inconsistent with a low-GHG future, would have to undergo a complete CEQA analysis and mitigation of GHG emissions. As discussed below, the CEC would have to update the Program EIR regularly in order to reflect ongoing changes in the state’s electricity sector. This will ensure that, at any point in the future, a proposed new power plant is consistent with California’s then-current trajectory towards a low-GHG future. If the Program EIR has sufficiently evaluated this trajectory and the associated feasible mitigation options, and the project is consistent with that path, then its GHG emissions would be considered evaluated and mitigated.

**D. Tiering under a Program EIR evaluating GHG impacts should in no way obviate the need for analysis of other environmental impacts.**

A Program EIR analyzing system-wide GHG impacts would only support tiering of analysis of an individual project’s GHG impacts. Each project would still have to complete analysis of other environmental impacts, including impacts on local habitat, water supply, criteria pollutants, etc.

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<sup>6</sup> See CEQA Guidelines §15168(c)(5): “A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.”

## II. INTEGRATED ENERGY POLICY REPORT (IEPR)

### **A. The CEC should expand the scope of the 2009 IEPR to include scenarios analysis for the next 20 years, as well as updates to the scenarios in each subsequent IEPR, to serve as the basis for a Program EIR.**

The IEPR is the obvious place to complete a system-wide scenarios analysis that can serve as the basis for a Program EIR. The scope for the 2009 IEPR already includes many relevant categories, such as:<sup>7</sup>

- “Evaluation of supply adequacy.
- “Assessment of infrastructure and system availability, reliability, and efficiency.
- “Continued evaluation under the scenario analysis effort undertaken in the 2007 IEPR of trade-offs of various resource portfolios under various greenhouse gas regulatory outcomes.
- “Evaluation of the Energy Commission’s siting process, including potential additional power plant efficiency requirements, how greenhouse gas emission concerns should be addressed, the impact of NOx requirements on the ability of generators to ramp up and down quickly, and continued evaluation of potential environmental impacts associated with siting large renewable projects.
- “Update of the 2007 *Strategic Transmission Investment Plan*.
- “Evaluation of displacement or reduction of operation of existing facilities, and associated effects.
- “Evaluate progress toward the state’s existing Renewables Portfolio Standard goals and discuss system changes needed to support higher targets, including transmission additions or upgrades, operational changes, and the use of advanced energy storage.
- “Evaluation of efforts to reduce statewide greenhouse gas emissions and address the impacts of climate change on California, stimulate energy-related business, and protect and enhance the environment.”

Each of these points lends itself to an analysis of the complete supply and demand scenario in California (including load-reduction through energy efficiency efforts, as well as potential load increases due to port electrification and electric vehicles), the GHG impacts of necessary new supply, and alternatives which could reduce the GHG impacts of power supply while continuing to maintain grid reliability. The CEC should develop, from a range of scenarios, an action plan for California to comply with current state policies and meet its GHG reduction goals under AB32 and Executive Order S-3-05 (requiring 80% GHG emissions reductions by 2050). California already has in place aggressive demand-side and supply-side policies that should reduce the carbon footprint of the electricity sector, including its progressive loading order, strong energy efficiency

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<sup>7</sup> CEC Docket No. 08-IEP-1, *Notice of Committee Hearing* (June 3, 2008), Attachment A, p.A-1-A-3.

programs, an RPS, and an EPS. The IEPR should incorporate these existing policies as part of its plan for a low-GHG future.

Although the CEC is only responsible for licensing plants of 50MW, the scenarios analysis in the IEPR should include peaker plants that are less than 50MW but nonetheless crucial to the grid's overall functioning, and especially to the integration of increasing amounts of renewable required to meet the 33% RPS. The CEC should work with CARB to ensure that these smaller plants are able to tier off of the CEC's Program EIR for purposes of GHG impacts analysis, even though they are outside the CEC's licensing authority.

Scenario planning for electricity grids is notoriously complicated. However, by creating several scenarios, all of which include California's existing programs to reduce GHG emissions, and by updating these scenarios every two years with every new IEPR, the CEC should be able to capture a reasonable estimation of the activities that will be consistent with a low-GHG future. Updating the scenarios is crucial in order to keep track of how the system is actually evolving, and make sure that new projects that wish to tier off of the Program EIR are consistent with the state's current path to a low-GHG future, in light of other recent projects.

Therefore, NRDC urges the CEC to expand the scope of the 2009 IEPR to also include a detailed scenarios analysis of the supply and demand of electricity in California for the next 20 years to serve as the base document for a Program EIR. We further recommend these analyses be updated every two years and included in subsequent IEPRs.

### **III. INTERIM PERIOD UNTIL PROGRAM EIR IS DEVELOPED**

Until the 2009 IEPR and the accompanying Program EIR are completed at the end of 2009, the CEC should evaluate the GHG impact of new GHG-emitting power plants as part of its existing licensing process. Proposed plants that must complete the licensing process before the end of 2009 (when the Program EIR will be available) should conduct an abbreviated analysis similar to that which will be included in the Program EIR.

As with the Program EIR, the CEC should provide a clear statement of its purpose and objectives in licensing new power plants. One of these purposes should be creating the energy infrastructure that will drive California towards a low-GHG future.<sup>8</sup> The CEC should work with the CPUC and CalISO to provide information about the current state of California's electricity system, including trends in demand, peak demand, and dispatch order. By stating clear objectives and providing this information, the CEC can clarify how individual power plants fit in to the state's plan for the electricity sector, including its plan to dramatically reduce GHG emissions from that sector by 2050.

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<sup>8</sup> See Cal. Health & Safety Code §38501(h)

The analysis of GHG impacts from a proposed new power plant should be relatively straightforward, comprising information about the plant's expected fuel, expected efficiency, and expected lifetime. The more difficult part of the analysis will be identifying feasible alternatives and mitigation options. As with the Program EIR discussed above, "feasible mitigation" should include all actions that would meet the same needs while reducing GHG emissions.<sup>9</sup> For example, if cost-effective energy efficiency is available to meet base-load, it could be used to mitigate some or all of the GHG impacts from a proposed new fossil fuel base-load plant by replacing the plant or reducing the capacity of the plant that is licensed.<sup>10</sup> If a new plant has reason to believe it will replace more carbon-intensive power on the grid, it should provide information about the GHG-intensity of the existing dispatch order and where its power will fit in terms of cost and GHG emissions, in order to bolster its claim that it is a low-GHG option. As discussed above, intermittent renewables can not be used to meet peak load, so that would not be a feasible mitigation measure for a proposed new peaker plant and the plant would not have to analyze that alternative in its application.

Proposed new power plants should not be required to purchase carbon offsets in order to mitigate their GHG impact. Carbon offsets take the focus away from the state's goal of transforming the electricity sector. Proposed power plants should be focused on meeting electricity needs in the least-GHG intensive manner possible. They should not be required to invest money in projects in other sectors that may or may not result in real GHG reductions.

#### IV. CONCLUSION

We look forward to working with the Commissioners and Staff and other parties throughout 2009 to create system-wide scenarios analysis in the 2009 IEPR and an accompanying Program EIR.

Sincerely,



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<sup>9</sup> See Pub. Rec. Code §21002.1(a), 21100(b)(3); 14 Cal Code Regs §15126.4(a)(1)

<sup>10</sup> 14 Cal Code Regs §15370 ("Mitigation" includes: (a) Avoiding the impact altogether by not taking a certain action or parts of an action. (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.")