

**3 December 2006**

**Docket Number 06-OIR-1  
Docket Unit, MS-4  
California Energy Commission  
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<b>DOCKET</b>	
<b>06-OIR-1</b>	
DATE	Dec 3 2006
RECD.	Dec 5 2006

**Comments from Ratepayers for Affordable Clean  
Energy regarding Implementation of SB1368 Emission  
Performance Standard**

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The comments below are written on behalf of the coalition Ratepayers for Affordable Clean Energy (RACE). We represent over 20 community groups and public interest organizations who believe that the best energy policy for the Western states is one that reduces the demand for fossil fuels through efficiency and renewable energy development.

**RACE's partner organizations include:**

Amazon Watch  
Border Power Plant Working Group  
California Alternative Energies Corporation  
Californians for Renewable Energy - CARE  
Central Coast Alliance United for a Sustainable Economy (CAUSE)  
Center for Biological Diversity  
Coalition for a Safe Environment  
Environment California  
Environmental Protection Information Center (EPIC)  
Greenpeace  
Local Power  
Long Beach Citizens for Utility Reform  
Marin Clean Alternative Energy Now  
Northcoast Environmental Center  
Pacific Environment  
Public Citizen  
Rivervision  
Saviers Road Design Team  
Vallejo Community Planned Renewal (VCPR)  
Ventura LNG Task Force  
Wildcoast  
Women's Energy Matters

The RACE Coalition respectfully submits the following comments in accordance with the Order Institute Rulemaking issued on October 30, 2006. RACE enthusiastically embraces the opportunities brought by the passage of landmark legislation intended to reduce California's contribution to the emissions of greenhouse gases. The scientific evidence for both the causes and the impacts of greenhouse gas emissions is overwhelming, and the action that needs to be taken is quite clear: a dramatic reduction in the global emissions of greenhouse gases.

**Liquefied Natural Gas and Greenhouse Gas Emissions**

We believe that California is now taking the beginning steps in the process of reducing GHG's, but we are concerned that other policies may have the effect of cancelling out these steps.

RACE strongly supports the intent of SB1368. However, we are concerned that the state's current energy policy is at odds with the goals of the bill. The same agencies that are

working to implement SB1368 are also openly embracing the importation of foreign Liquefied Natural Gas (LNG) for the first time in history. Currently, there are over a dozen proposals for LNG terminals on the West Coast to be sited from Baja California, Mexico, to British Columbia. Most of the developers of these projects are counting on providing a substantial portion of their throughput to California. It is therefore our fear that LNG imports will substantially increase the greenhouse gas emissions from electricity generation when the full lifecycle emissions are taken into consideration.

There is a growing consensus that the LNG process adds substantial volume of greenhouse gases into the atmosphere, far over and above that produced by a combined cycle natural gas power plant. Given the possible substantial dependence the state's IOUs may have on LNG imports, we therefore believe it is imperative that the SB1368 performance review include the lifecycle emissions of LNG.

First, a report ("Heede study") commissioned by the Environmental Defense Center, a Santa Barbara-based environmental law firm, found that the proposed BHP Billiton LNG import terminal (offshore from Oxnard and Malibu) will likely have 26 percent more GHG emissions than the equivalent domestically produced natural gas.<sup>1</sup> This is the case because LNG has a much longer supply chain than domestic natural gas and requires significant energy for liquefaction, transportation, and gasification prior to further transportation and combustion in power plants. When LNG export plants supplying California are on the other side of the Pacific Ocean (Australia, Indonesia), or in the Persian Gulf (Qatar), rather than from Western Hemisphere sources such as Trinidad & Tobago, the additional GHG emissions become even more pronounced. The report concludes that when life-cycle emissions are accounted for, the BHP Billiton project will emit about 25 million tons of greenhouse gases per year.

Second, a draft report from a team at Carnegie Mellon University<sup>2</sup> has found that lifecycle emissions from US-based LNG import terminals may reach the level of coal emissions – a much more alarming result than the EDC-commissioned study.

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<sup>1</sup> Report on file with author. The report itself does not compare LNG GHG emissions with emissions from domestically produced natural gas. However, Rick Heede, the report's author has calculated the approximate 26% higher emissions based on estimates for domestic natural gas GHG emissions compared to the CO<sub>2</sub> and methane emissions projected for the BHP Billiton project.

<sup>2</sup> Presentation based on report available by request from author.

Third, an analysis by Powers Engineering demonstrates greenhouse gas penalty of between 18 and 40 percent of LNG over the use of natural gas in electricity production, as shown in the table below.

<u>Process Step</u>	<u>Additional Gas Use (Percent)</u>
Domestic Natural Gas	Basecase
Liquification	9 – 10
Transport	7 – 9
Regasification	2 – 3
Carbon Dioxide in Gas	0 – 18
<b>Total Additional Gas Consumed</b>	<b>18 – 40</b>

Source: Powers Engineering 2004, June 1, 2004 Global LNG Summit presentation.

**Table 1. Transportation and processing of liquid natural gas to California significantly increase greenhouse gas emissions.**

According to the language of SB1368, “California’s investor-owned electric utilities currently have long-term procurement plans that include proposals for making new long-term financial commitments to electrical generating resources over the next decade, which will generate electricity while producing emissions of greenhouse gases for the next 30 years or longer. New long-term financial commitments to zero- or low-carbon generating resources should be encouraged.”

By encouraging LNG development, the state’s regulatory agencies are violating the spirit of SB1368’s intent of reducing greenhouse gas emissions, as detailed in this and other sections of the law.

Given that just one LNG terminal has the potential to import up to 1 billion cubic feet of natural gas per day, or about 15 to 20 percent of California’s gas needs, the issue of life-cycle GHG emissions is a critical one. For that reason, RACE believes that in creating a performance standard review for the implantation of SB1368, it is imperative that the life-cycle emissions of any energy source, and particularly that of LNG, be taken into account. Ignoring this substantial volume of emissions will clearly abrogate the spirit of the law, as well as the public’s trust and faith in California leading the nation in reducing greenhouse gas emissions.

### **The Case for Urgency**

California is both a key contributor to, and stakeholder in, the development of global warming. The roughly 550 million metric tons of green house gasses (GHG) that California discharged into the atmosphere in 2005 would, if California were a country, rank it as the 10<sup>th</sup> largest emitter of GHG in the world. Costs associated with global warming have already begun to accrue, and future models of climate change expose threats to virtually every sector of the state’s economy.<sup>3</sup> According to a recent report by former World Bank economist Sir Nicholas Stern, the costs of the impacts of global

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<sup>3</sup> Moore, Lisa and Douglas, Karen. “Global Warming and the Golden State: A Call to Action.” Environmental Defense. 2006.

warming could shrink the global economy by 20 percent. Yet Stern concludes that the world's economies can avoid this economic calamity by dedicating only one percent of their gross domestic product to reducing greenhouse gas emissions.<sup>4</sup>

Nationwide, the Department of Energy (DOE) is projecting an increase in fossil fuel usage of 1.1 percent per year until 2030. 88 percent of this increase of this will come from fossil fuels, most of which (53 percent) will come from coal-fired power plants. The DOE anticipates that only a small percentage of growth in electricity generation, less than seven percent, will come from renewable sources.<sup>5</sup> Given California's immense energy market, it's evident that the state has the opportunity to lead the nation in reversing this trend towards more fossil fuel dependence.

**Meanwhile, the Planet Warms:** In the backdrop of these projections is the reality of global climate change. The planet's vital signs are demonstrating an urgent need to reverse course away from fossil fuel use. In the last few decades, the global mean temperature has increased by 1 degree. That change is widely attributed by scientists to a plethora of global impacts, including melting polar ice caps, increasing severity and length of droughts, more extreme storms, species die-offs, and deadly heat waves.

According to a broad scientific consensus, it is critical that humans quickly reduce the amount of greenhouse gases (GHG's) emitted worldwide. In 1995, the Intergovernmental Panel on Climate Change (IPCC) recommended a 70 percent reduction within 100 years. However, the effects of climate change are occurring sooner than the IPCC projected. Because of that, a new consensus is emerging that the best chance to stabilize the climate lies in reducing the same percentage of emissions within a much shorter timeframe. Rajendra Pachauri, head of the IPCC, now says we need to achieve that goal in 10 years (by 2016) "...if humanity is to survive."<sup>6</sup>

The RACE Coalition believes that the time for half-measures is long over. It is long past time that the state's regulatory agencies put off the necessary steps to dramatically reduce GHG's, and certainly it's time to stop investing in new, large-scale fossil fuel infrastructure.

Respectfully submitted,

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California Program Director  
Pacific Environment  
(Pacific Environment is the facilitating organization for of the RACE Coalition)

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<sup>4</sup> BBC News. "Climate Change Fight Can't Wait." 31 October 2006.  
<http://news.bbc.co.uk/2/hi/business/6096084.stm>

<sup>5</sup> Energy Information Administration. Annual Energy Outlook 2006 with Projections to 2030.  
<http://www.eia.doe.gov/oiaf/aeo/demand.html>

<sup>6</sup> Gelbspan, Ross. "Why We Need to Worry About Global Warming." San Jose Mercury News. April 9, 2006.

