

Ratepayers for Affordable Clean Energy

April 6, 2007

Mr. Dwight Sander
California State Lands Commission
100 Howe Ave. Suite 100 South
Sacramento, CA 95825-1900
e-mail: sanderd@slc.ca.gov

Subject: Comments by Ratepayers for Affordable Clean Energy (RACE) on “Need” Discussion in FEIS/EIR for the BHP Billiton Cabrillo Port LNG terminal

Dear Mr. Sander:

Thank you for this opportunity to comment on the Final Environmental Impact Statement/ Environmental Impact Report (FEIS/EIR) prepared for the Cabrillo Port LNG project. This comment letter focuses exclusively on the discussion of the need for LNG imports described in the FEIS/EIR. The FEIS/EIR overstates future natural gas demand in California and incorrectly characterizes domestic natural gas supply as insufficient in asserting a need to import LNG. Actual conditions are quite different:

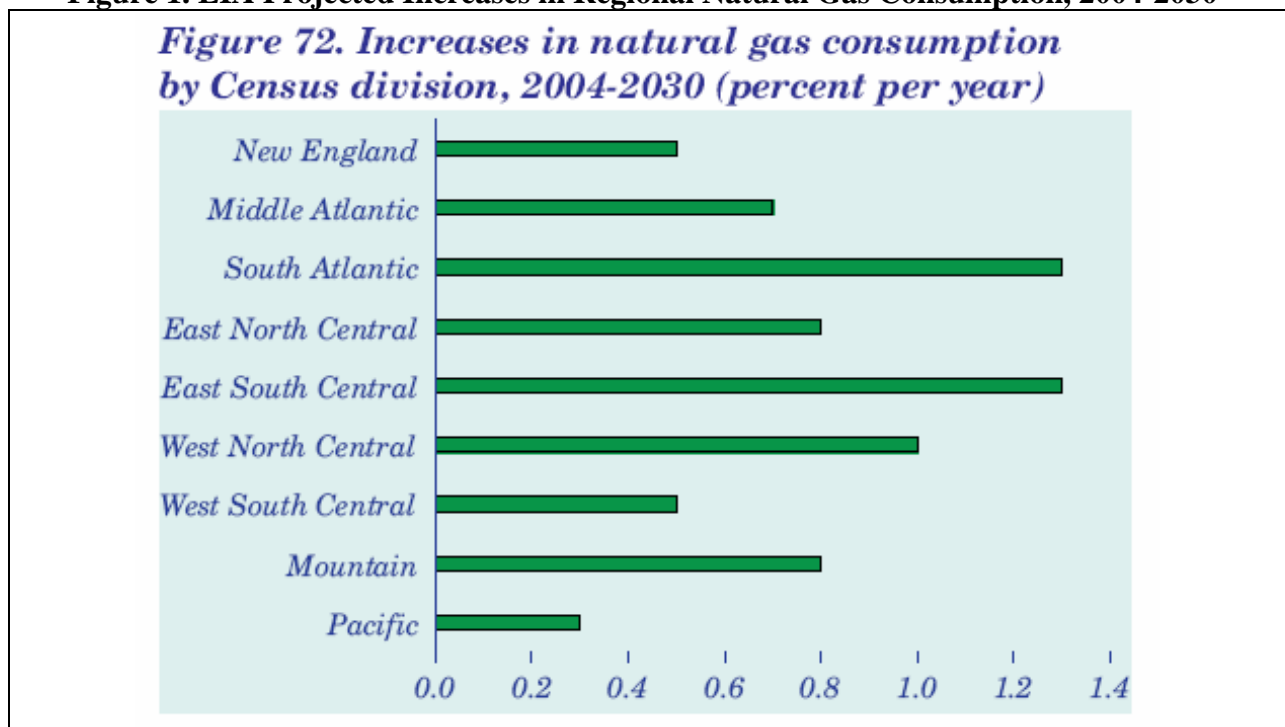
- Gas demand in California has declined by nearly 8 percent since 2000.
- The process for permitting LNG terminals is, by the admission of the state’s Permitting Working Group, ad hoc in nature, and without a clear process.
- Importing LNG for core gas supply will expose a portion of California’s natural gas supply to geopolitical risk and create the potential for greater energy insecurity than continued reliance on domestic supply sources.
- There are adequate supplies of natural gas in North America to meet California’s declining natural gas demand.
- High and volatile natural gas prices are the result of a lack of effective regulation of U.S. natural gas commodity trading markets and do not reflect a physical shortage of domestic natural gas.

The FEIS/EIR cannot pass the minimum sufficiency threshold required by the California Environmental Quality Act (CEQA) as a result of: 1) failure to accurately characterize the California and U.S. natural gas supply-demand, 2) erroneously attributing high natural gas prices to a domestic supply shortage, and 3) failure to properly characterize the fundamental geopolitical risks of shifting critical core customer supply contracts from domestic pipeline sources to imported LNG. The FEIS/EIR must be held to be inadequate as submitted.

I. California’s Natural Gas Demand is Declining: The FEIS/EIR (Section 1.2.2) cites the Energy Information Administration’s (EIA) analysis of long-term need for natural gas in the United States as increasing at an annual rate of 1.3 percent nationwide from 2004 to 2030. In the

next section (1.2.3), the FEIS/EIR cites the California Energy Commission's (CEC) Integrated Energy Policy Report (IEPR) projected increase of 0.7 percent per year in California. However, what the FEIS/EIR fails to mention is that according to the same EIA report it cites for national figures, the projected increase in demand in the Pacific region is only 0.3 percent, or less than half of what the CEC projects. The 0.3 percent figure is the slowest growth rate forecast by EIA for any region of the United States (see Figure 1). The FEIS/EIR also fails to note that California's natural gas utilities are forecasting a slight decline in California's natural gas demand through at least 2015, with demand declining from 6,173 million cubic feet per day (MMcfd) in 2006 to 6,099 MMcfd in 2015.¹

Figure 1. EIA Projected Increases in Regional Natural Gas Consumption, 2004-2030²



What these projections miss is the decline in natural gas usage that California has undergone since 2000. The FEIS/EIR assertion³ that “demand is growing” in California provides a completely misleading picture of the actual situation. Total natural gas consumption in California has *decreased* by 8 percent since 2000, despite a growing population. Figure 2 clearly shows this downward trend in natural gas demand. The decline is even more pronounced on a per capita basis as shown in Figure 3.⁴ Each Californian in 2006 used on average 12.3 percent less natural gas than in 2000.

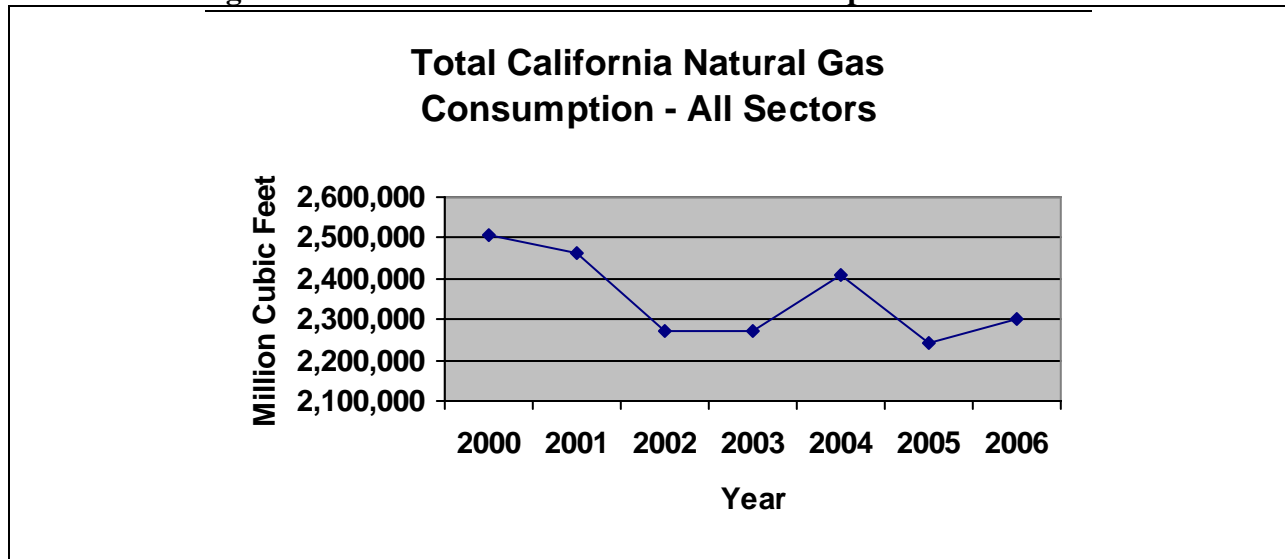
¹ 2006 California Gas Report, prepared by California's gas and electric utilities, Executive Summary, p. 13.

² EIA, *Annual Energy Outlook 2006 with Projections to 2030*, Figure 72.

³ Cabrillo Port Liquefied Natural Gas Deepwater Port Final EIS/EIR, Page 1-10, Section 1.2.2.

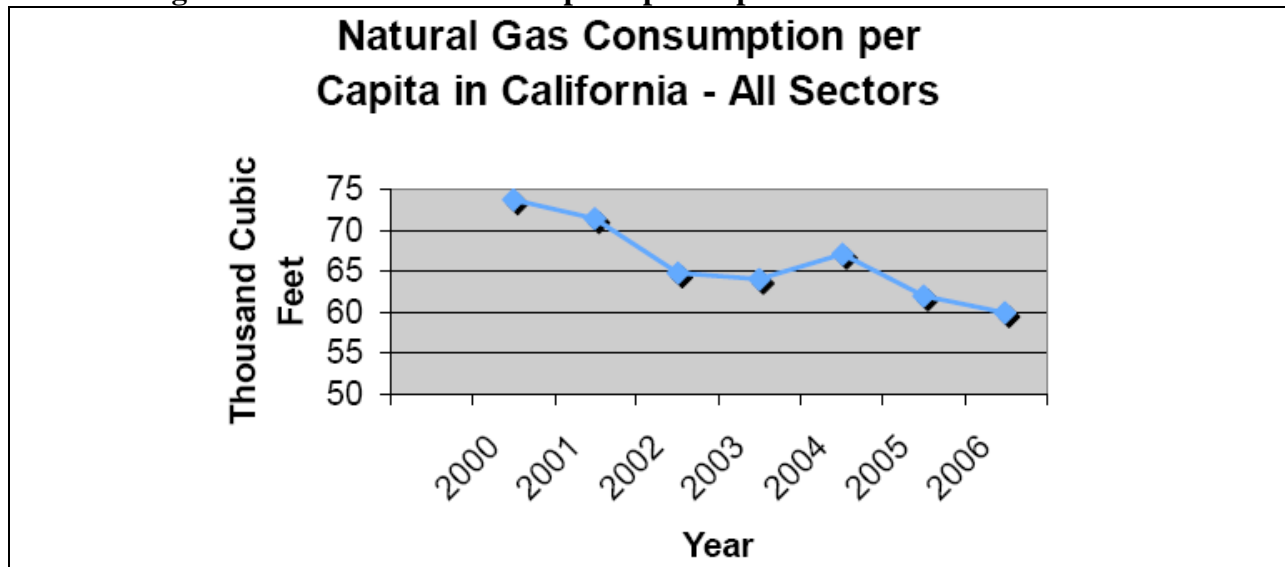
⁴ Current and historic data are available at http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcu_nus_m.htm

Figure 2. Total California Natural Gas Consumption – All Sectors



Source: EIA, http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcunus_m.htm (for 2006 commercial consumption is assumed to be 250,000 MMcf and lease & plant fuel and pipeline & distribution use to be 50,000 MMcf)

Figure 3. Natural Gas Consumption per Capita in California – All Sectors

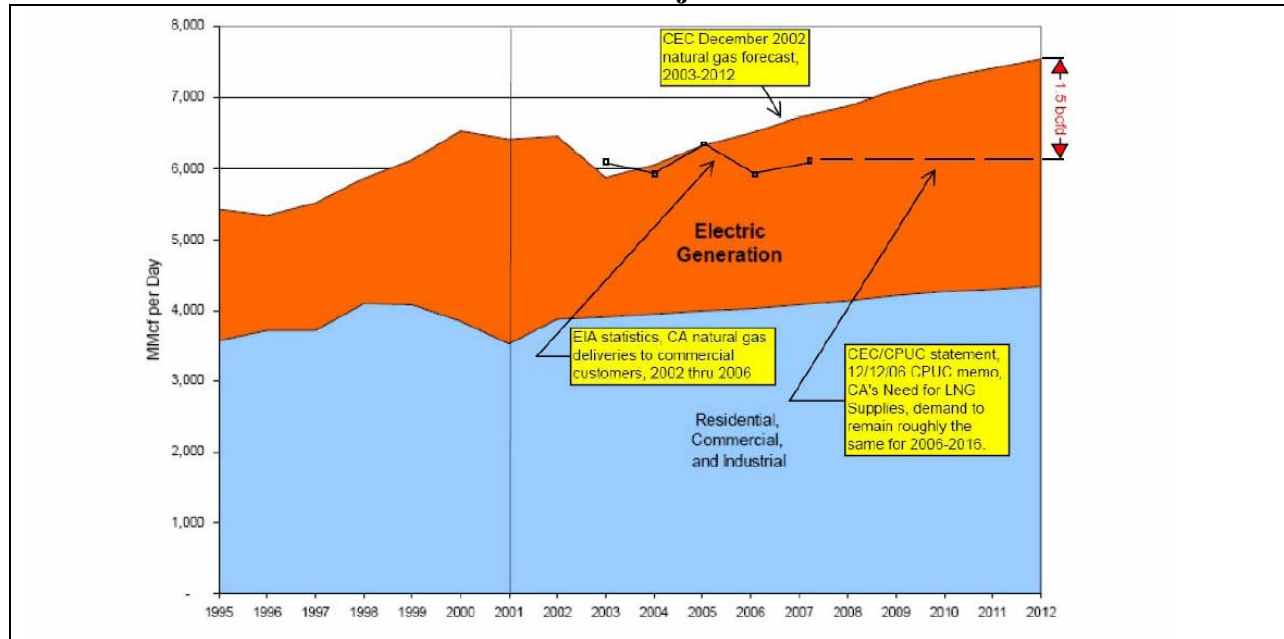


Source: EIA, http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcunus_m.htm, U.S. Census Bureau, <http://www.census.gov/>

This reduction in demand for natural gas has occurred even though new California renewable energy generation sources have come online at a slower rate than the state had anticipated, and with many of the state's fleet of aging, inefficient coastal boiler plants still operating (although at low usage rates).

The difference between the CEC's historic assertion of steadily growing natural gas demand and the reality of flat demand is illustrated in the Figure 4. The colored fields represent the demand growth that was projected by the CEC in 2002. This CEC graph was used to justify the need to allow California's natural gas utilities to enter into long-term LNG supply contracts during the CPUC's long-term natural gas supply proceeding.⁵ The solid black line overlaid on the 2002 CEC demand forecast in Figure 4 represents actual California natural gas consumption from 2002 to 2006.⁶ The dashed black line reflects the 2006 forecast of California's natural gas utilities that natural gas consumption will remain essentially unchanged from 2005 through 2015.⁷ The discrepancy between the CEC 2002 forecast and reality, for the year 2012, is approximately 1,500 MMcfd (1.5 billion cubic feet per day) of natural gas. This is approximately twice the expected average throughput for the Cabrillo Port terminal.

Figure 4. CEC 2002 Demand Forecast, 2002-2006 Actual Consumption, and 2006-2016 Future Projection



Additional EIA statistical data and information in dialogue boxes added by Bill Powers, PE.

California's natural gas utilities, the CEC, and the California Public Utilities Commission (CPUC) are in apparent agreement that California's natural gas demand will remain essentially unchanged through 2015.⁸ However, these entities currently use the very conservative "worst case" assumption that California utilities will meet the "20 percent by 2010" renewable energy supply mandate and then remain at 20 percent through 2017. This is a highly unlikely scenario.

⁵ CPUC R.04-01-025, Order Instituting Rulemaking to Establish Policies and Rules to Ensure, Reliable, Long-Term Supplies of Natural Gas to California, January 22, 2004. This proceeding began informally in December 2003 with a natural gas supply workshop and concluded in September 2004 with the final rulemaking.

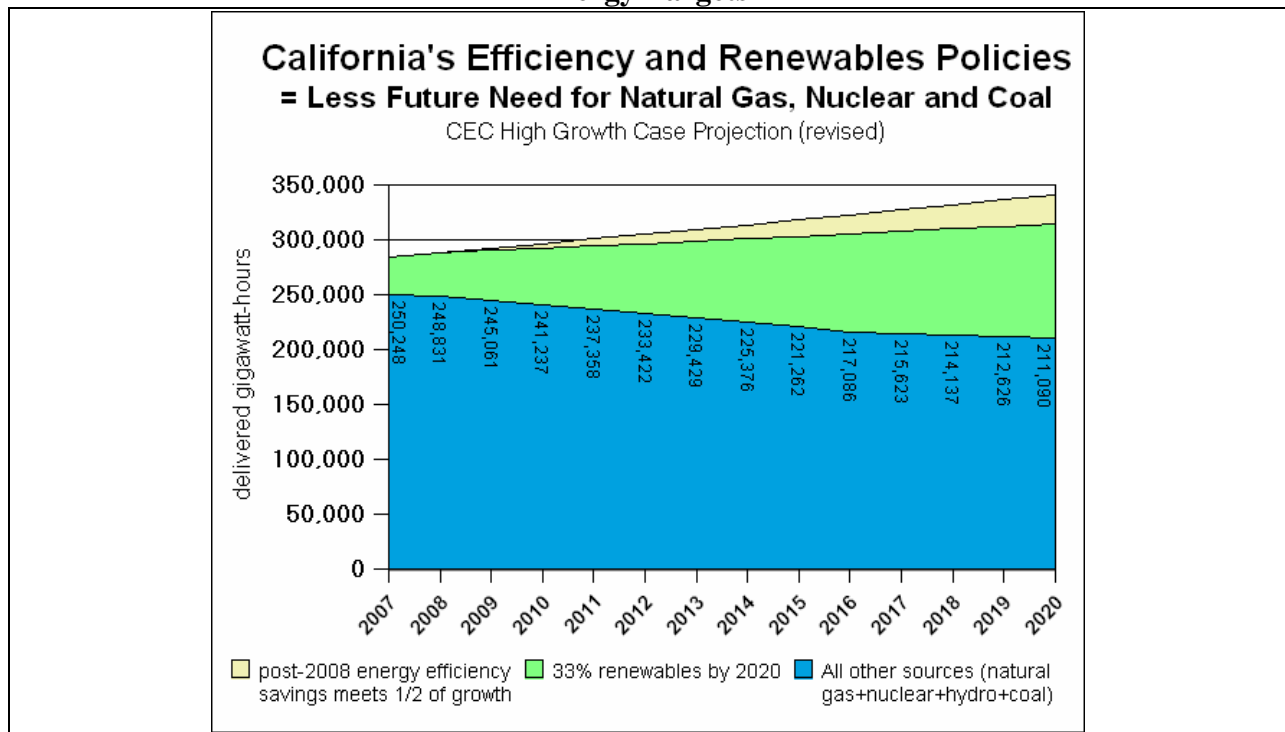
⁶ EIA, http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcunus_m.htm

⁷ 2006 California Gas Report, p. 13.

⁸ R. Myers, H. Morris, California's Need for LNG, CPUC memorandum, December 12, 2006. p. 3.

A mandate of 33 percent of electricity demand met by renewable energy by 2017 or 2020 is almost a certainty. The governor has expressed support for the 33 percent renewable target, and legislation to require 33 percent by 2020 has been proposed. Mandating 33 percent renewable energy by 2020 has a dramatic downward impact on the need for conventional power generation. This effect is shown in Figure 5. There is absolutely no basis for asserting that the demand for natural gas for electric power generation in California will grow over time given the political will in California to reach 33 percent renewable energy by 2017 or 2020. It is also highly probable that ever increasing political pressure to reduce greenhouse gas emissions will spur California to accelerate even further its renewable energy and energy efficiency targets in coming years.

Figure 5: Projected Decline in Power Production from Fossil Energy Plants Serving California, 2007 – 2020, Assuming Probable Mandated Energy Efficiency and Renewable Energy Targets⁹



II. No Process for LNG Siting: Section 1.2.3 of the FEIS/EIR notes the CEC’s reliance on the State’s LNG Interagency Permitting Working Group to develop “a process to facilitate the prompt and environmentally-sensitive evaluation and siting of needed LNG facilities.” However, the description of this working group from its own web page describes a loosely structured, ad hoc group of representative from many different agencies that do not have a clear process.

⁹ R. Cox, R. Freehling, “Collision Course: Liquefied Natural Gas versus Clean Energy in California’s Fight Against Global Warming.” Report currently in draft form. Pacific Environment, April 2007.

According to the Group's web page, "*The Working Group was created administratively, although not by rulemaking or other written process, and has no legislative charter. There are no 'members' as such; rather, there are various state, local, and federal agencies which have elected to participate in this group. Most agencies select one attorney, and one or more technical staff, to serve as their representatives in the Working Group. The level of participation varies, ranging from simply being placed on an email distribution list to receive documents or other information, attending (either in person or by telephone) monthly meetings of the Working Group, to drafting documents.*"¹⁰

From this description, and from documents filed on the web page, it is difficult to see how this constitutes any sort of informed process for LNG terminal siting or other policy making. There is nothing on the web page that explains exactly what siting process this working group has developed. This ad hoc informal working group without authority can not substitute for the informed analysis and public process of review and consideration that is mandated by CEQA.

In 2006, the California legislature considered SB426, a bill that would have mandated a transparent and methodical assessment and ranking of different LNG proposals. This was a golden opportunity to conduct a comprehensive assessment of LNG projects. However, this bill did not make it out of the Assembly Utilities and Commerce Committee. BHP Billiton spent over \$2 million lobbying California legislators and agencies in 2006. A portion of this lobbying budget was used to defeat SB426.

III. Geopolitical Risk: According to the FEIS/EIR, LNG is necessary to ensure a "*reliable alternative energy source.*" Yet the Cabrillo Port project will voluntarily place California in a scramble for tight and expensive LNG to meet long-term core utility natural gas contract supply requirements when domestic natural gas supplies are at hand to meet the same need. Geopolitical fuel supply risk is something that California should accept only when it has no credible alternative. The alternative is less expensive and more reliable – domestic natural gas.

Consultants to the CEC have been clear on the geopolitical risks of LNG imports in technical workshops hosted by the CEC. Mr. John Jensen is a recognized expert in LNG worldwide supply and trade. He is under contract to the CEC to analyze worldwide LNG trade as an input to the 2007 Natural Gas Assessment the CEC is currently preparing. His representative summarized Mr. Jensen's current LNG research at the March 26, 2007 workshop hosted by CEC in Sacramento.¹¹ Key points include:

- Early 2000s euphoria about LNG has given way to serious concerns about supply.
- High energy and LNG prices have raised doubts about the rapid growth of imported LNG for power generation.
- This has led to a significant reduction in demand forecasts of LNG trade.

¹⁰ California Energy Commission website: http://www.energy.ca.gov/lng/working_group.html

¹¹ Mr. Jensen's March 26, 2007 CEC workshop presentation is available online at: http://www.energy.ca.gov/2007_energy_policy/documents/2007-03-26_workshop/presentations/.

Mr. Andy Weissman is a national-recognized corporate energy advisor that advises major firms on energy strategy. Mr. Weissman was a speaker at the CEC's June 1-2, 2005 workshop on LNG deliverability.¹² Key comments by Mr. Weissman include:

- LNG is a potentially high cost, very high risk strategy.
- Could create ingredients for repetition of 2000 crisis.
- Potential supply interruptions due to strikes, political unrest, equipment failures or delays in shipping.
- By contrast, loss of production from a single domestic well almost always is too small to materially affect the market.
- It also now appears increasingly likely that LNG delivered into the U.S. market often will be priced on a basis similar to oil or in some instances potentially at **the higher of** market clearing price for oil or the price for natural gas. This may reduce significantly the potential attractiveness of importing LNG into the U.S. market.
- At the same time, even though the future attractiveness and availability of LNG remains uncertain, the perceived **potential** that LNG might "flood" the U.S. market has become a powerful factor deterring many U.S. and Canadian developers from undertaking new exploration & development projects with an extended lead time for completion.
- This in turn threatens to create the "worst of both worlds," in which U.S. production may start to rapidly decline due to a lack of adequate investment in new development, leaving natural gas and electricity purchasers in California with no alternative other than to pay high prices for LNG, as the only available source of supply in a chronically undersupplied market.

A casual reader of these comments might – appropriately – conclude that there are a number of serious downsides to relying to any extent on LNG imports to meet California's natural gas supply needs. Yet none of these downsides are addressed in the FEIS/EIR. What are the benefits of importing LNG that would outweigh these real or potential disadvantages? The exercise of weighing strategic costs and benefits is absent.

This failure of the FEIS/EIR to weigh the pros and cons of importing LNG is also a failure at the CPUC and CEC. President Peevey of the CPUC, when asked by the chair (Sen. Martha Escutia) of the Senate Utilities, Commerce, and Telecommunications Committee at a committee hearing in February 2006 if the CPUC was developing a strategic natural gas plan for the state, answered

¹² Mr. Weissman's June 2, 2005 CEC workshop presentation is available online at: http://www.energy.ca.gov/lng_docket/documents/2005-06-01_workshop/presentations_2005-06-02/Weissman_2005-06-02.pdf.

that the CPUC is not equipped to develop such a plan. The following exchange occurred at the hearing:¹³

Escutia also wanted to know what guidance Peevey would provide to help protect ratepayers from high natural gas bills.

The senator urged the development of a state master plan on natural gas to provide a clearer picture of future demand and costs, including which liquefied natural gas projects are needed and preferred. "We don't want to be an LNG colony," she warned. "I am concerned about fake crisis," she said, adding that now was the time to ask questions about projected need in a growing state.

Instead of developing a blueprint for natural gas policy and planning, Peevey said, he preferred to let the market decide the matter. He added, "We are not equipped to do an analysis." A surprised Escutia shot back, "If you aren't, who is?"

The state has an obligation to its citizens to assure that market participants are not "working the system" to maximize their financial benefits at the expense of the citizens. The lack of any coherent strategic involvement by the state in evaluating the need for importing LNG has allowed the largest players, specifically Sempra and BHP Billiton, to position themselves to protect the financial viability of their LNG projects through long-term utility ratepayer contracts. Instead of the citizens being protected from the risks of LNG imports, they are being offered as collateral.

A case can be made that use of LNG imports to provide some spot market "gas-on-gas" competition with domestic natural gas, as is typical of existing East Coast LNG terminals, makes some economic sense. However, what the LNG developers sought, and what the CPUC granted, was access to long-term utility ratepayer contracts. These are known as "anchor" contracts in the project finance community. These contracts will "anchor" the financial viability of the LNG project regardless of the relative cost-competitiveness of LNG with domestic natural gas over time. The CPUC granted this contract access in the 2004 long-term natural gas supply rulemaking, citing a critical need to import LNG as counter to declining domestic natural gas production.¹⁴ The CPUC performed no serious analysis before simply accepting LNG proponents at their word that LNG imports were critical to assuring California's natural gas supply.

The CPUC rulemaking left unanswered how great a price premium is acceptable to obtain the supposedly critical "*supply diversity*" represented by LNG. The CPUC also granted the utilities the authority to discontinue reserving capacity on domestic natural gas pipelines that serve California when the current round of pipeline capacity contracts begin to expire in 2009. Domestic pipeline companies serving California commented that these arrangements were

¹³ California Energy Circuit, *Legislators Combs Regulatory Energy Plans*, February 24, 2006, p. 8.

¹⁴ CPUC R.04-01-025, final rulemaking, September 2, 2004.

counterproductive to the stated goal of the CPUC long-term natural gas supply proceeding, stating:^{15,16}

El Paso: "If utilities decline to hold EPNG capacity now, it may be unavailable to California in the future. Given the Commission's overarching goal of promising price stability and supply diversity/security, the Commission should consider requiring the utilities to continue to hold this capacity as a prudent hedge against an uncertain future."

Transwestern: "Important that utilities not sacrifice long-term supply reliability in the pursuit of supply diversity."

There is no question that BHP Billiton wants utility natural gas contracts as a financial foundation for the proposed project. BHP Billiton joined with the CPUC as a co-respondent to fight-off a March 2006 legal challenge by RACE over the CPUC's failure to hold any evidentiary hearings before authorizing California's natural gas utilities to contract for long-term LNG supplies.¹⁷ BHP Billiton claimed in its brief to the appellate court that the importation of LNG was essential to avoid another energy crisis in California. BHP's attorneys were apparently unaware that even the CPUC had conceded in the order instituting the long-term natural gas supply proceeding that the 2000-2001 California "energy crisis" was an entirely artificial event wholly attributable to market manipulation.¹⁸

The collective impact of these regulatory actions may create what Mr. Weissman identified as the "worst of both worlds" for California: dependency on high priced LNG subject to supply interruptions for a variety of reasons, and lack of access to the domestic natural gas alternative for 1) failure to continue to reserve capacity on existing pipelines serving California, and 2) failure to construct adequate pipeline infrastructure to growing natural gas production regions in the West (Rocky Mountains).

IV. Domestic Natural Gas Is a Viable Alternative: The FEIS/EIR cites CEC estimates that while "*North America has ample natural gas resources today, it notes that Western Canadian and Southwestern sources are maturing, that production is declining from these areas, and that today's high natural gas prices reflect declining supplies, increased competition from other*

¹⁵ CPUC R.04-01-025, *Joint Comments of El Paso Natural Gas Company and Mohave Pipeline Company, comments on Order Instituting Rulemaking and Phase I comments by SoCalGas, SDG&E, and PG&E*, March 23, 2004.

¹⁶ CPUC R.04-01-025, *Comments of Transwestern Pipeline Company on Phase I (utility) Proposals*, March 23, 2004.

¹⁷ Court of Appeal for the 4th Appellate District – State of California (Division One), Case No. D046994, RATEPAYERS FOR AFFORDABLE CLEAN ENERGY, *Petitioner*, v. CALIFORNIA PUBLIC UTILITIES COMMISSION, *Respondent*, and BHP BILLITON LNG INTERNATIONAL INC., *et al.*, *Real Parties in Interest*, Petitioner's Consolidated Reply Memorandum of Points and Authorities in Support of Petition for Writ of Review of California Public Utilities Commission Proceeding no. R04-01-025, March 13, 2006, p. 2.

¹⁸ CPUC R.04-01-025, *Order Instituting Rulemaking to Establish Policies and Rules to Ensure, Reliable, Long-Term Supplies of Natural Gas to California*, January 22, 2004.

*states to satisfy the regional natural gas demand, and the dominant effect the U.S. natural gas market has upon California prices.”*¹⁹

However, this projection ignores that fact that the Department of Energy (DOE) estimates that there are decades of natural gas supply remaining in North America. To quote the DOE, “*At current rates of consumption, the Nation has at least 60 years worth of natural gas supplies that are recoverable with current technology. Moreover, as our knowledge of resource characteristics and the potential of new technology increases, estimates of the size of the resource base grow.*”²⁰ Natural gas demand has actually decreased nationwide since the DOE report was issued.

A glaring omission in the FEIS/EIR is lack of any mention of increasing supplies from the Rocky Mountains as a viable “no project alternative” to the importation of LNG. According to the DOE, there are almost 7,000 trillion cubic feet (Tcf) of natural gas in the Rocky Mountains. As the report details, more than 300 Tcf of gas-in-place is currently technically recoverable, though several different estimates done by organizations such as the National Petroleum Council and the EIA demonstrate that the recoverable rates are increasing, and the potential is great.²¹ By way of comparison, California consumes approximately 2 Tcf per year of natural gas.²²

Annual production from Rocky Mountain States has risen from 2.3 Tcf in 1990 to over 3.5 Tcf in 2001. According to the DOE, “*Assuming ongoing investment in expanding the geologic knowledge base and technology progress, upward trends in resource assessment and recovery are expected to continue...The National Petroleum Institute projects technically recoverable tight-gas sands resources in the Rocky Mountain States to grow from 105 Tcf in 1998, to 137 Tcf in 2010, and to 151 Tcf in 2015.*”²³ “Tight sands” is one of several classifications of natural gas deposits in the Rockies.

The DOE report goes on to describe one of the most serious barriers facing natural gas producers in the Rocky Mountain States: lack of access to markets. The report states, “*Severe pipeline constraints have contributed to two decades of depressed natural gas prices in the Rocky Mountain States. In recent years, price volatility, in large part due to limited pipeline infrastructure and market access, has discouraged investments in natural gas production in the region.*”²⁴ There are no current known plans for additional market access to the Pacific states from the Rockies.

However, there is a high-capacity gas pipeline currently under construction, called “Rockies Express Pipeline,” being built by Sempra Energy, parent company of SoCalGas, and Kinder Morgan Pipeline Company. This pipeline, over 1,600 miles long, will run east to terminate in

¹⁹ Cabrillo Port LNG Deepwater Port Final EIS/EIR. Page 1-12, Section 1.2.3.

²⁰ U.S. DOE, “*Natural Gas Fundamentals: From Resource to Market*,” DOE/FE-0457, June 2003, p. 4.

²¹ U.S. DOE, *Rocky Mountain States Natural Gas - Resource Potential and Prerequisites to Expanded Production*, DOE/FE-0460, September 2003, p. 5.

²² Energy Information Agency: http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcu_nus_m.htm

²³ U.S. DOE, *Rocky Mountain States Natural Gas - Resource Potential and Prerequisites to Expanded Production*, DOE/FE-0460, September 2003, p. 5.

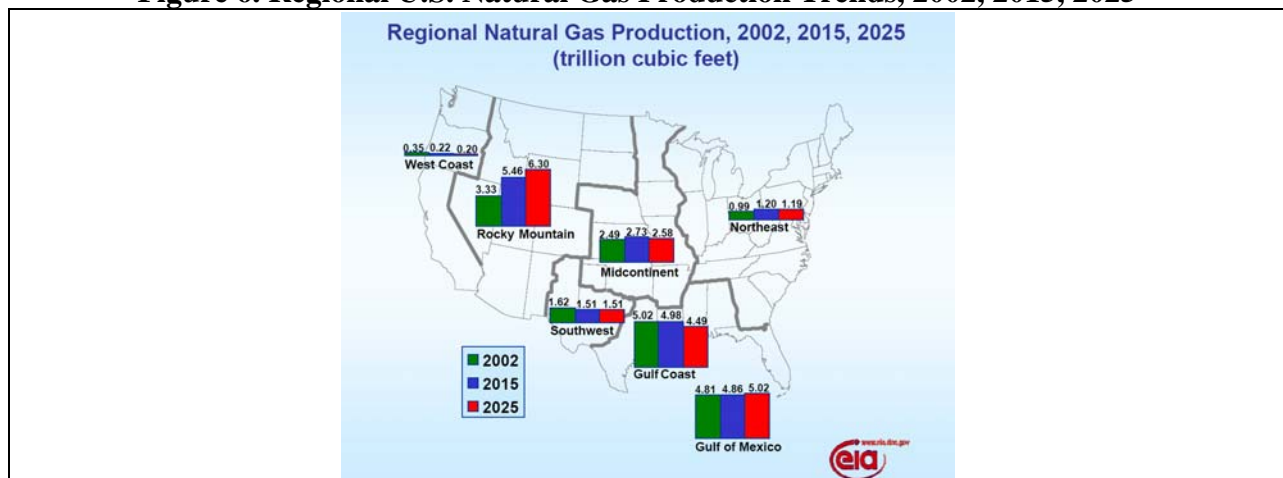
²⁴ *Ibid.* p. 3.

Clarington, Ohio. It will deliver up to 1,500 MMcf per day of domestic natural gas to customers throughout the Midwest. This pipeline goes in the opposite direction of SoCalGas/Sempra utility customers in Ventura County (to be potentially served by the Cabrillo LNG project). The distance between Ventura County and the Wyoming gas fields is approximately 800 miles, about half the distance from these same Wyoming gas fields to Ohio.²⁵

It is baffling that new pipeline capacity from the Rockies to California is not considered a “no project alternative.” The price of gas traded at Henry Hub on April 2, 2007, which is the benchmark for domestic natural gas pricing, was \$7.62 per MMBTU. The price for natural gas traded at the Opal, Wyoming hub on the same day was \$2.67 per MMBTU.²⁶ On April 5, 2007 the spot price at Henry Hub averaged \$7.52/MMBTU while the average at Opal was \$3.77/MMBTU. The typical spread between the Henry Hub and Opal spot prices is more on the order of \$2/MMBTU. The price is low at Opal due to the current lack of pipeline access to markets.²⁷ In addition to the DOE, the Wyoming Pipeline Authority identifies both California and the Midwest as potential destinations for the region’s growing natural gas production.²⁸ Increasing natural gas supplies from the Rockies should clearly be evaluated as a cost-effective and reliable project alternative to importing LNG.

The EIA regional natural gas production trends shown in Figure 6 indicate robust supply growth in the Rockies, and steady production in other major production regions around the country through 2025.

Figure 6. Regional U.S. Natural Gas Production Trends, 2002, 2015, 2025²⁹



²⁵ http://www.kindermorgan.com/business/gas_pipelines/rockies_express/

²⁶ Daily Opal and Henry Hub natural gas spot market prices are available online at: http://intelligencepress.com/features/intcx/gas/intcx_gas_point.emb?pointcode=ICERMTOPAL

²⁷ Wyoming Pipeline Authority, fact sheet on need to expand natural gas pipeline export capacity from Wyoming: <http://www.wyopipeline.com/mission/GasOnGas.pdf>

²⁸ DOE report, *Rocky Mountain States Natural Gas - Resource Potential and Prerequisites to Expanded Production*, DOE/FE-0460, September 2003, p. 18.

²⁹ Dana Van Wagener, EIA, *Domestic Natural Gas Supply: A Large Resource Base Does Not Guarantee Low Long-Term Prices*, presentation given at NEMS/AEO Conference, March 23, 2004, p. 18.

V. Canadian Is Likely to Maintain or Increase Natural Gas Exports: The FEIS/EIR states that natural imports from Canada are declining. The CEC is cited as the source of this information.³⁰ The CEC (and CPUC) state that natural imports from Canada will decline 45% over the next 15 years, citing the EIA as the source.³¹ The agencies are basing this assertion on Figure 77, “*Net U.S. imports of natural gas by source, 1990-2030*,” in the EIA’s 2007 Annual Energy Outlook, which shows a 45% decline in Canadian exports to the U.S. by 2020. Figure 77 shows Canadian exports in slight decline in the 2005-2015 period, followed by a much steeper decline in the 2015-2020 period. The steeper decline in the 2015-2020 period accounts for most of the overall 45% decline in the 2005-2020 period.

It appears that the EIA may be taking the “worst case” Canadian National Energy Board (NEB) supply-demand forecast scenario and adopting it as the only Canadian forecast. NEB forecasts include multiple supply-demand scenarios. The NEB is currently updating the *2003 Canadian Gas Supply, 1980-2025* forecast. The 2003 forecast looked at two scenarios, one (“Supply Push”) where exports gradually decrease through 2015 and then go into a much steeper export decline curve, and the second (“Techno-Vert”) where natural gas exports increase through 2015 and return to 2005 levels in 2025.

The NEB is currently working on an update to the *2003 Canadian Gas Supply, 1980-2025* document that will be published in October 2007. The update will include three scenarios: 1) “Fortified Islands,” 2) Sustainable Economic, Environmental, and Energy – “EEE”, and 3) “Continuing Trend.”³² The term “Fortified Islands” means Canada puts more emphasis on developing its own natural gas resources and reducing internal demand, and less emphasis on imports to satisfy energy needs. The EEE scenario assumes abundant cheap LNG is available and development of domestic resources is de-emphasized in favor of imports. The “Continuing Trend” is a business-as-usual scenario that assumes no national commitment to increasing domestic natural gas production and reducing domestic demand.

The NEB “Fortified Islands” scenario matches well with the Techno-Vert scenario included in the 2003 report.³³ In this scenario Canadian exports increase from approximately 8,000 MMcfd in 2005 to 10,000 MMcfd in 2015 and then return to 8,000 MMcfd in 2025. It is reasonable to assume that the “Fortified Islands” scenario is more likely to occur than a scenario that presumes cheap and abundant LNG will cause Canada to put less emphasis on developing its own natural gas resources. LNG is neither cheap nor abundant.³⁴ Supply uncertainty and the willingness of major Far East LNG consumers such as Japan, Korea, and China to link the price they pay for LNG to the price of oil make it highly unlikely that “cheap” LNG will ever be available on the West Coast of Canada or the U.S.

³⁰ R. Myers, H. Morris, *California’s Need for LNG Supplies*, CPUC memo, December 12, 2006, p. 3.

³¹ Ibid.

³² Telephone communication between B. Powers and K. Martin Canadian NEB natural gas specialist, April 3, 2007.

³³ Ibid.

³⁴ J. Jensen, *Progress Report on Worldwide LNG Trade*, presented at CEC Staff Workshop on the Inputs, Assumptions, and Issues for the Natural Gas Assessment Report, March 26, 2007.

VI. Volatile Pricing Not Caused by Shortages: The CEC's assertion, repeated in the FEIS/EIR, that "today's high natural gas prices reflect declining supplies" is incorrect. Lack of natural gas commodity market regulation and attendant gaming of these markets is a primary cause. This phenomenon was highlighted in a recent report commissioned by the attorney generals of four midwestern states.³⁵ These attorney generals were investigating why their constituents paid exorbitant prices for natural gas in the winter of 2005 – 2006. The study concluded that despite the damage to natural gas production from Hurricane Katrina, the price increases had much more to do with energy deregulation schemes than any shortages.

Among the report's findings:

- Nationwide demand for natural gas has not been surging. For the last ten years, it has been relatively flat, even declining in the last three years.
- The price of producing gas is far below the price being paid for natural gas.
- Supply and demand are about where they were two years ago. Gas storage rates are now at record levels, and were quite high throughout the winter, in spite of hurricanes.
- The laws of supply and demand would suggest that prices should be similar, or even a little lower, than they were over the past two years, yet prices were up over 60 percent.
- The last 15 years of energy deregulation has led to an increase in the amount of trading. This gas markets vulnerable to price manipulation.
- This is compounded by the fact that these over-the-counter markets, reported in unaudited, unregulated indices, are a major factor in setting the price of natural gas. These markets have behaved very poorly in recent years, with numerous instances of misreporting of prices.

LNG import proponents attribute much of the alleged domestic supply shortage on tightening supplies and weather (hurricanes). Natural gas commodity market failures and price manipulation are much more arcane issues. The LNG industry claim of domestic supply shortages has been accepted with little questioning in the mainstream press. For example, in the fall of 2005 many stories were published about impending energy price spikes due to the impact of Katrina and Rita on Gulf of Mexico natural gas production. This fed into the market's hysteria, resulting in historically high prices despite a relatively sound physical supply and demand balance.³⁶ Yet any reporter could go to the EIA website and corroborate in a matter of minutes a decline in natural gas consumption nationally in the last several years, and corroborate EIA's forecast increase in domestic natural gas production over the next 25 years.

The Midwest attorney generals are not alone in asserting that market irregularities and a nearly complete lack of regulatory oversight are playing dominant roles in the pricing of domestic natural gas. Similar conclusions were reached by industry consultants and reported in *Natural Gas Intelligence* in February, 2005:³⁷

³⁵ Cooper, Mark. *The Role of Supply, Demand and Financial Commodity Markets in the Natural Gas Price Spiral*. Prepared for Attorneys General Natural Gas Working Group. March 2006. Available at:

http://www.state.ia.us/government/ag/latest_news/

³⁶ Ibid.

³⁷ *Natural Gas Intelligence*, February 18, 2005. *Analysts Assail Hyped Gas Market, See Prices Falling*.

“High oil prices, political hype, lack of adequate market information on either the supply or demand side and “bullish” media influence are among the key factors that have been propping up the price of natural gas....(According to a report by James R. Choukas-Bradley, a principal with the firm Miller, Balis & O’Neill), “What is propping up current prices is...current prices,” the report states, explaining that the natural gas future on Nymex “continues to be dominated by technical trading, with the result that in a period of stability in market fundamentals, the market will tend to see prices remain at high levels if they start at high levels, just as they would remain at moderate levels if they started at moderate levels.”

The technical dominance occurs because producers are risk-takers and tend not to hedge, preferring to capture the upside. That leaves the futures market to speculative traders with an incentive to support price volatility and volume liquidity, and it means that when prices fall they will fall hard....

Another prop for high prices has been the media, with the trade press ‘dominated by the interests of producers, with a bias in favor of higher prices that can support development of incremental supply for growth in consumer demand.’....

It’s not actual costs that have pushed up the gas prices, the report maintains. Costs are way below current prices. For the most expensive domestic production, deep water Gulf of Mexico, the full-cycle replacement costs may be as high as \$3.25-3.50/MMBtu, the report says. Imported LNG falls near that range also at \$2.75-3.75. Other North American full-cycle production costs are: overall Gulf of Mexico \$2.75-3.00/MMBtu; onshore Gulf Coast \$2.50-2.75; Canadian \$2.25-2.75; and Rockies \$2.00-2.25....

Meanwhile, “projections of increasing demand are overstated,” with electricity generation being ‘the elephant in the room’ that no one can measure.”....

For the long term, however, the authors are concerned over the behavior of the majors and large independents in investing some of their “windfall” profits from domestic production in overseas projects, “largely owned by foreign national oil companies that they believe offer better investment opportunities, perhaps with payout in two-three years. In contrast companies would see a lower, longer-term return from incremental domestic production.

According to the authors this means “*the American consuming public is financing international projects,*” and the lack of investment at home is driving up domestic prices. The report also notes that the multinational companies have an interest in developing the LNG market for their foreign-produced gas.³⁸

Both industry and government sources describe a trading and investment regime that is poorly regulated, and where pricing and valuation are based on a variety of factors and complexities that have little to do with supply. The CEC has avoided any assessment of the role natural gas market irregularities are playing in artificially elevating the price of domestic natural gas. Yet the

³⁸ Ibid.

FEIS/EIR takes the CEC assertion of the need for LNG at face value. CEC advocacy for LNG imports is not supported by the facts nor is it the result of a rigorous and comprehensive analysis of all substantive factors affecting the price and availability of domestic natural gas.

VII. Revolving Door at CEC Casts Doubt on Neutrality Regarding Need for LNG Imports.

The CEC has highly capable analysts on its staff. However, the abrupt movement of key upper tier CEC staff to LNG industry positions continues to cast doubt on the neutrality of the CEC in assessing the need for LNG imports. Notable are former CEC Chairman Joe Desmond, now employed by Northern Star LNG, and Dave Maul, the former manager of natural gas and special projects, now an executive with Esperanza Energy LNG. While these career changes are legal, they create the appearance of a conflict of interest and call into question the advisability of presuming the CEC is acting as an honest broker in evaluating the question of LNG imports.

VIII. Conclusion: California can continue reducing natural gas usage by simply following through with the clean energy legislation and regulatory initiatives that the state already has in place. We find that the FEIS/EIR does not adequately or accurately address actual natural gas consumption trends or forecasts. Instead the FEIS/EIR makes selective use of CEC and EIA data that is dramatically overstated when compared to currently available California utility natural gas forecasts. The inferences and assumptions regarding the need for LNG made in sections 1.2.2, 1.2.3, 1.2.4, and 1.2.5 of the FEIS/EIR, based primarily on selectively chosen CEC and EIA data, are wrong. The FEIS/EIR should be considered fatally flawed due to the fundamentally inaccurate characterization of the need for imported LNG in the document.

About Ratepayers for Affordable Clean Energy (RACE)

RACE is a partnership of over 20 organizations working towards a clean energy future for the West Coast. RACE works to analyze state and local energy trends and interacts with policymakers to develop progressive energy policies.

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

Mr. Dwight Sander

April 6, 2007

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Northcoast Environmental Center

Pacific Environment

Public Citizen

Rivervision

Saviors Road Design Team

Vallejo Community Planned Renewal (VCPR)

Ventura LNG Task Force

Wildcoast

Women's Energy Matters

Sincerely,

Rory Cox

Lead Facilitator, RACE

California Program Director, Pacific Environment

Bill Powers, P.E.

Chair, Border Power Plant Working Group