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The Honorable Billy Tauzin Chairman, Committee on Energy and Commerce House of Representatives Washington, D.C. 20515

Dear Chairman Tauzin:

California is facing an unprecedented electricity crisis and I commend you and Subcommittee Chairman Barton for your willingness to address California's problems. The economic welfare of the state and indeed the West depends on whether we in Congress can devise an effective solution to California's problems.

California's current crisis originated from an ill-considered law. Now, if we are to succeed in providing relief to California, it is essential that we do not make the same mistake of acting without a thorough understanding of the facts and the consequences of our actions. For that reason, I have set out in this letter my understanding of how the state's problems arose and what I would do to mitigate those problems.

As we move to a full Committee markup, I would like to have the benefit of all relevant information. If you disagree with the facts as I understand them, or if you know of any additional information that contradicts the analysis set out in this letter, I urge you to share this information with all members of the Committee.

I. California's Deregulation Plan Was Flawed

As I indicated during the Subcommittee markup of H.R. 1647, I believe that the causes of California's energy crisis originated in the state's 1996 deregulation plan. Rep. Christopher Cox expressed his agreement with me on this point during the markup, and I know that many others also share this view. The fundamental problem with the 1996 deregulation plan is that it created a market that generators could manipulate to raise prices to exorbitant levels.

A. Background

For nearly a century, California's electricity industry was organized around three regulated, vertically integrated monopolies which owned and operated generation, transmission,

and distribution facilities to provide for the electricity needs of all consumers in their respective areas. These companies were Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SoCal Edison), and San Diego Gas & Electric Company (SDG&E). The prices, costs, and service obligations of these three private investor-owned utilities (IOUs) were regulated by the California Public Utilities Commission (PUC).¹

In 1996, California adopted Assembly Bill 1890, a state electricity restructuring plan allowing for retail competition. The major proponents of the bill were the IOUs and advocates of electricity deregulation. AB 1890 separated the major functions of electric service: generation, transmission, and distribution.

To address market power, AB 1890 created requirements and incentives for the IOUs to divest their generation capacity. AB 1890 also gave residential consumers and small commercial customers a 10% rate reduction that began on January 1, 1998. The law keeps rates for these consumers fixed until the service area's utility has recovered its "stranded costs," or until December 31, 2002. PG&E and SoCal Edison are still in this transition period, but SDG&E has recovered its stranded costs. As a result, beginning in June 1999, the service area of SDG&E was the first area in California to experience market-based consumer rates (these rates were again capped by the state in September 2000 and have been recently increased by the PUC). Additionally, the state law allowed municipally owned utilities to decide whether to enter retail competition on a later time frame than privately owned electric utilities.

AB 1890 created two new entities: the California Independent System Operator (Cal-ISO) and the Power Exchange (PX). Cal-ISO's mission "is to ensure the power grid is safe and reliable and that there is a competitive market for electricity in California." Essentially, Cal-ISO ensures that all generators have equal opportunity to send their electricity through the transmission system to their customers and that the transmission grid stays in balance and operational. The IOUs are required to release control, but not ownership, of their long-distance transmission lines to Cal-ISO. Cal-ISO controls 75% of California's power grid, and the Cal-ISO grid is connected to power plants that generate up to 45,000 megawatts of electricity.⁴

¹Paul Joskow, *California's Electricity Market Meltdown*, 1 (Apr. 6, 2001) (on line at http://web.mit.edu/pjoskow/www/CaliforniaElectricityMarch01R1.2.pdf).

²"Stranded costs" are those costs that were legitimately incurred under the former regulatory regime but that are not economically recoverable under the new deregulated regime.

³Cal-ISO (on line at http://www.caiso.com/aboutus/infokit/FAQ.html).

⁴Cal-ISO (on line at http://www.caiso.com/aboutus/infokit/PowerGrid.html).

The PX managed the electricity marketplace, with all sales taking place one day ahead or one hour ahead. In order to facilitate a transparent market with no secret deals, the Assembly required the three major IOUs to purchase all of their power through the PX. The PX suspended trading on January 30, 2001.

B. Flaws in the State Law

AB 1890 was adopted with bipartisan support. At the urging of the state's major utilities, the legislation was passed by a Democratic-controlled legislature and signed into law by a Republican governor. Unfortunately, the law turned out to have several significant flaws.

1. Prohibition on Long-Term Contracts

Because California's deregulation plan required the IOUs to purchase power through the PX's spot market, risks could not be hedged. Electricity cannot be stored, so distributors cannot stockpile when prices are low. That means that when supplies are tight -- whether because of withholding by generators or legitimate market reasons -- prices rise. California's utilities then have little choice but to pay that higher price. Furthermore, by encouraging spot-market sales, in which the utility purchasers have an immediate need for energy, deregulation gave energy suppliers additional bargaining power.

2. Market-Clearing Price

AB 1890 required that all generators were paid the highest price bid into the PX to meet electricity needs. Even if 98% of the electricity needed by the IOUs was bid at \$20 per megawatt hour (MWh), if the final increment cost \$100 per MWh, then all generators received \$100. While this market-clearing price approach can work effectively in properly functioning competitive markets, generators in the California market possessed sufficient market power that they could effectively bid up prices by physically or economically withholding energy and by running their most inefficient, expensive generating units. The latter would then set an inflated market-clearing price, providing windfall profits for more efficient generators.

3. Market Uncertainty

The state law created an uncertain investment climate. When the state legislature began to consider electricity restructuring, investments ended in the state's electricity system and did not resume until 1999. According to the California Energy Commission, "[n]o power plant applications were filed with the Energy Commission between 1994 and 1998 because there was so much uncertainty during the restructuring of the electricity industry."

⁵California Energy Commission (on line at http://www.energy.ca.gov/sitingcases/index.html).

4. Retail Price Caps

California's restructuring law fixed retail rates through March 31, 2002, or until the utility had recovered its stranded costs. When wholesale electricity costs were below the fixed retail rate, the utilities made money. In fact, by June 2000, PG&E and SoCal Edison had already collected \$12 billion and were ahead of schedule to pay down their stranded costs. However, as wholesale market prices rose drastically during the summer and fall of 2000, utilities were buying power at wholesale prices that averaged about \$200 per MWh and selling it at retail prices of about \$60.6 By mid-December, as wholesale prices soared to \$400 per MWh, the utilities were quickly approaching insolvency.

11. California Is Suffering from Exorbitant Prices Caused by Market Power

The flaws in California's deregulation plan have been exploited by a handful of out-of-state companies that operate sufficient generating capacity in California to allow them to exercise market power. The six largest nonutility energy generators in the state collectively own or market roughly 17,000 MW, or about a third of the state's overall capacity. The deregulated market encourages these generators to withhold electricity from the market as long as possible in order to drive up the price and therefore profits. In the words of the chairman of energy marketer Enron, "[t]he system invites gaming."

The ability of the energy generators to exercise market power has been enhanced by the recent drought in the Northwest. The driest winter in the region since 1976-77 has resulted in abnormally low runoff levels, ¹⁰ which in turn has severely limited hydropower generation. California gets over 40% of its electricity from hydroelectric sources, and more than 4,700 MW of hydropower generating capacity already have been lost this year due to the drought. ¹¹

⁶Paul Joskow, *California's Electricity Market Meltdown*, 5 (Apr. 6, 2001) (on line at http://web.mit.edu/pjoskow/www/CaliforniaElectricityMarch01R1.2.pdf).

 $^{^{7}}Id$.

⁸House Committee on Government Reform, Minority Staff, Special Investigations Division, *High California Energy Prices Resulted in Significant Profit Increases for Out-of-State Generators*, 1 (Apr. 25, 2001) (on line at http://www.house.gov/reform/min/pdf/energycaelectric.pdf).

⁹Kenneth Lay quoted in *Texas Power Suppliers Shun Bad Guy Label*, Los Angeles Times (Jan. 14, 2001).

¹⁰Washington State Department of Ecology (on line at http://www.ecy.wa.gov/programs/wr/drought/droughtscience.html#extent).

¹¹Northwest Drought Chokes Aluminum Industry, Natural Gas Week (Apr. 16, 2001).

A. The Exercise of Market Power

In March 2001, Cal-ISO issued a report concluding that over 30% of wholesale energy costs in California over the previous 12 months were attributable to market power, representing potential costs to consumers of about \$6.8 billion. The report arrived at this number by estimating the costs of the most expensive, least efficient generating unit needed to meet demand in order to determine a competitive baseline price, and then comparing actual market costs to this baseline. Contrary to FERC's assumption that market power is primarily exercised during stage 3 emergencies (when power reserves fell below 1.5%), Cal-ISO found that more than 80% of the \$6.8 billion in additional costs took place outside of hours classified as stage 3.

One way in which generators can exercise market power is by withholding generation. Historically, Cal-ISO has estimated that approximately 2,500 MW of generation can be expected to be out of service (e.g., either off-line or curtailed) in the Cal-ISO control area because of some sort of forced (unplanned) outage. However, in the words of one observer, "[a] rash of outages has kept the electricity market conveniently -- and very profitably -- short of supply even during periods of low demand, when there ought to be lots of excess capacity." 14

Statewide outage rates have increased markedly since last summer. Outage rates in March 2001 averaged nearly 14,000 MW, over four times higher than in March 2000.¹⁵ And in April 2001, outage rates averaged nearly 15,000 MW, nearly 4.5 times higher than in April 2000.¹⁶ When blackouts occurred on May 7, 2001, 12,558 MW of generation were curtailed, of which 4,822 megawatts (38%) were unplanned outages.¹⁷

Several studies have looked into the phenomenon of increased outages. A November 2000 FERC study found that "[a]n increased level of unplanned outages at generating plants is another key factor limiting available generation supply in 2000" and noted that "[c]ompared with 1999, outages in the Cal-ISO area increased as much as 2,900 MW.... [and] unplanned outages in May through August, particularly in July and August, were much higher in 2000 than in

¹²Cal-ISO, Further Analyses of the Exercise and Cost Impacts of Market Power in California's Wholesale Energy Market (Mar. 2001).

¹³Cal-ISO, *CAISO Summer 2001 Assessment*, 24 (Mar. 22, 2001) (on line at http://www.caiso.com/docs/2001/04/06/2001040615482125557.pdf).

¹⁴Paul Krugman, *The Real Wolf*, New York Times (Apr. 29, 2001).

¹⁵See California Energy Commission (on line at http://www.energy.ca.gov/electricity/1999-2001_monthly_off_line.html).

 $^{^{16}}Id.$

¹⁷Cal-ISO (on line at http://www.caiso.com/docs/09003a6080/0d/d3/09003a60800dd3e2.html).

1999."18 A January 2001 report by an MIT economist concluded:

wholesale electricity prices in California far exceeded competitive levels during the June, July and August of 2000. . . . [T]here is considerable empirical evidence to support a presumption that the high prices experienced in the summer of 2000 reflect the withholding of supplies from the market by suppliers (generators or marketers). ¹⁹

Last week, the Los Angeles Times reported that "[s]tate investigators have uncovered evidence that a 'cartel' of power companies shut down plants for unnecessary maintenance to ratchet up prices." According to the article, "the ongoing investigation has already produced enough evidence for the PUC and the attorney general to take legal action against the generators next month."²⁰

While these reports provide evidence of generation being physically withheld, a March 2001 Cal-ISO report indicated that economic withholding -- submitting bids significantly above marginal costs -- may be an even more serious problem than physical withholding. The report studied the period from May to November 2000 and concluded that economic withholding was used on average more than 60% of the time by five in-state energy suppliers, while physical withholding was used under 30% of the time.²¹

¹⁸Staff Report to the Federal Energy Regulatory Commission, Western Markets and the Causes of the Summer 2000 Price Abnormalities, 2-19, 2-1 (Nov. 1, 2000) (on line at http://www.ferc.fed.us/electric/bulkpower/section2.pdf). While observing that "[i]t is not clear exactly why these plants went out of service," the report speculated that "owners could be withholding by taking plants out of service at critical times to drive up prices." Id. at 2-19, 2-20. A subsequent FERC report, issued after Curt Hebert was installed as the Commission's chairman, "did not discover any evidence suggesting that the audited companies were scheduling maintenance or incurring outages in an effort to influence prices." Office of the General Counsel, Market Oversight & Enforcement, and Office of Markets, Tariffs and Rates Division of Energy Markets, Report on Plant Outages in the State of California,1 (Feb. 1, 2001) (on line at http://www.ferc.fed.us/electric/bulkpower/Public-Feb1.PDF).

¹⁹Paul Joskow and Edward Kahn, *A Quantitative Analysis of Pricing Behavior in California's Wholesale Electricity Market During Summer 2000*, 30 (Jan. 15, 2001) (on line at http://web.mit.edu/pjoskow/www/JK_PaperREVISED.pdf). The report was based on research commissioned by SoCal Edison.

²⁰PUC Chief Alleges Price Collusion, Los Angeles Times (May 18, 2001).

²¹Cal-JSO, Empirical Evidence of Strategic Bidding in California ISO Real Time Market, (Mar. 21, 2001).

B. <u>High Prices</u>

The net result of California's flawed deregulation plan, and the opportunities it offers energy suppliers to exercise market power, is obvious: a drastic increase in electricity prices over the past year. The wholesale cost of electricity for the state in 1999 was \$7 billion; in 2000 it was \$32 billion; and Cal-ISO estimates the cost for this year could rise to \$70 billion.²²

In February and March of this year, California's electricity prices have averaged around \$300 per MW -- roughly ten times their level in February and March 2000.²³ The maximum prices paid have been far higher. According to Governor Davis, on May 9, 2001, "a Texas energy company called Reliant charged us \$2,000 a megawatt hour for the last hundred megawatts of power necessary to keep the lights on. That is a dramatic increase over the \$30 per megawatt hour we paid a year ago."²⁴

The PUC has prepared a chart showing what has happened to wholesale electricity prices in California over time. In the first quarter of 2000, the average spot-market price was around \$25; in the third quarter of 2000, the price rose to around \$125; and by January 2001, the price exceeded \$300. See Figure 1 (attached).

These high prices are not limited to peak hours. They are occurring even during off-peak hours when energy demand is low. In December 1999, average off-peak electricity prices were around \$25 per MWh; in September 2000, the price rose to around \$60; and by January 2001, off-peak prices averaged over \$275. See Figure 2 (attached).

C. Profits of Generators

Due to their exercise of market power, the generators supplying California earned record profits last year. At the six largest nonutility energy generators -- Duke Energy, Dynegy, Mirant, NRG Energy, Reliant Energy, and Williams Energy -- operating income rose more than two-and-

²²Testimony of Ambassador Richard Sklar, House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on Electricity Markets: California* (May 3, 2001).

²³Cal-ISO, *California Power Crisis: Viewpoint of the System Operator*, 5, Presentation by Anjali Sheffrin, Ph. D., Director of Market Analysis, to the World Bank Group Infrastructure Forum (May 9, 2001) (on line at http://www.caiso.com/docs/2001/05/09/2001050910270717346.pdf).

²⁴Press Release Issued by Office of Governor Gray Davis (May 12, 2001).

a-half times from 1999 to 2000 on average, while operating revenues tripled on average.²⁵ At Dynegy, for example, profits more than tripled from \$152 million in 1999 to \$501 million in 2000, while NRG Energy's profits also more than tripled from \$57 million in 1999 to \$183 million in 2000.²⁶

The companies' subsidiaries or operating units doing business in California posted even larger returns. For example, at Williams Energy Marketing & Trading Co., a subsidiary of Williams Energy Services which sells energy from California facilities, profits increased nearly tenfold, from \$104 million in 1999 to over \$1 billion in 2000.²⁷ See Figure 3 (attached). And at Reliant's wholesale energy business segment, which provides electricity to California and other competitive markets, operating income rose over 17 times, from \$27 million in 1999 to \$482 million in 2000.²⁸

III. High Natural Gas Prices Have Compounded the Problem

A. Background

Because California produces only around 16% of its gas supply,²⁹ the state must import most of the natural gas it uses. The price of natural gas imported into California has two components: (1) the cost of the gas itself (also called the "wellhead" or "basin" price); and (2) the cost of transmitting the gas to California via pipeline, which is regulated by the Federal Energy Regulatory Commission (FERC). These components make up the California border price for natural gas. There is also an additional cost for transmitting the gas within California, which is regulated by the PUC and has remained largely unchanged.

The companies operating the Southwestern pipelines that bring gas to California can sell space or capacity on the pipelines to gas marketers at a rate capped by FERC. These gas marketers typically buy gas and transport it to California for their own use or for sale at wholesale. They also have the option of selling their right to transmit the gas in a secondary

²⁵House Committee on Government Reform, Minority Staff, Special Investigations Division, *High California Energy Prices Resulted in Significant Profit Increases for Out-of-State Generators*, 2-4 (Apr. 25, 2001) (on line at http://www.house.gov/reform/min/pdf/energycaelectric.pdf).

 $^{^{26}}Id.$ at 2-3.

²⁷*Id*. at 4.

²⁸*Id.* at 4.

²⁹California Energy Commission (on line at http://www.energy.ca.gov/naturalgas/natural gas facts.html).

market. Historically, if the gas marketers sold their right to transmit gas, this resale was also subject to the FERC cap. In February 2000, however, FERC experimentally removed price caps on the secondary market for a two-year period.³⁰

Prior to 2000, gas prices at the California border were low because of excess capacity in the pipelines serving California and competition among gas marketers. Beginning in March 2000, however, El Paso Natural Gas Co., which owns the pipeline system that transports Southwestern gas to the California border, arranged to sell 37% of its pipeline capacity to an affiliate, El Paso Merchant Energy. Observers have alleged that the affiliate then drove up gas prices by hoarding capacity.³¹ In fact, a study commissioned by SoCal Edison found that El Paso artificially inflated natural gas prices by \$3.7 billion over the 13 months ending March 31, 2001.³² While these allegations are still under investigation, one thing is clear: the California border price for gas has skyrocketed since last summer.

By the end of 2000, natural gas prices at the Southern California border had increased as much as twenty-fold over the previous year, rising from about \$3 per million BTU in December 1999 to almost \$60 per million BTU in December 2000.³³ The basin or wellhead price for natural gas had gone up in that time, but this only accounted for a fraction of the rise in border prices. On December 12, 2000, for example, natural gas was selling at the wellhead for around

³⁰Regulation of Short-Term Natural Gas Transportation Services and Regulation of Interstate Natural Gas Transportation Services, 65 Fed Reg. 10156 (issued Feb. 9, 2000).

³¹See, e.g., Suit Claims Firms Limited Gas Supply to Raise Prices, Los Angeles Times (Feb. 4, 2001); California Utility Says Prices of Gas Were Inflated, New York Times (May 9, 2001). The PUC and SoCal Edison have filed complaints with FERC accusing El Paso of withholding supply in a bid to raise prices. At a May 14, 2001, hearing investigating these complaints, a FERC economist provided written testimony stating that "[i]t is likely that El Paso Corp. had and exercised market power." Natural Gas: Expert Says Market Probably Fixed, San Francisco Chronicle (May 15, 2001).

³²California Utility Says Prices of Gas Were Inflated, New York Times (May 9, 2001). While an explosion at an El Paso pipeline in August 2000 further limited gas supplies temporarily, the Department of Energy's Energy Information Administration concluded that the explosion's effects were mitigated by a number of factors which "demonstrated the potential capability of the system to respond to supply disruptions." U.S. Energy Information Administration, A Look at Western Natural Gas Infrastructure During the Recent El Paso Pipeline Disruption (undated) (on line at http://www.eia.doe.gov/pub/oil_gas/natural_gas/feature_articles/2000/elpaso_disruption/elpaso.pdf).

³³Unless otherwise indicated, gas prices are from *Gas Daily* and represent large package deliveries into Southern California at Topock, Blythe, and Needles on the California-Arizona border.

\$10.50 per million BTU. The Southern California border price, however, hit nearly \$60 per million BTU -- nearly \$50 more than the wellhead price.

Although California border prices have moderated since their December peak, they continue to be far above historic rates. Furthermore, natural gas prices have been far higher at the California border than elsewhere in the United States. For example, on May 8, 2001, natural gas was selling at the Permian producing basin in Texas at around \$4.10.³⁴ This gas could be purchased in Chicago at around \$4.37,³⁵ reflecting a charge for transmission of around 27 cents. At the Southern California border, however, the same gas cost \$12.55,³⁶ reflecting a transportation charge of \$8.45 -- 31 times higher than the transportation charge to Chicago.

B. The Link Between Gas and Electricity Prices

The high price of natural gas delivered into California markets is one of the causes of the state's high energy prices. The state relies on natural gas to generate roughly a third of its power. As FERC Commissioner Massey explained in his dissent from the Commission's April 26 order:

The high cost of natural gas delivered into California is then used to justify high wholesale electricity bids into the ISO market. An inefficient, high heat rate, generator using a considerable amount of high priced natural gas then sets the market clearing price that all sellers are paid. . . [M]y attention was riveted on this issue by our recent staff order setting the so-called proxy price for electricity for the month of February. The proxy clearing price was \$430 per MWh, and roughly \$350 of that amount was the price of natural gas for an inefficient generator. I concluded that electricity prices in California would remain very high if based upon a very high price for natural gas. This issue has not gotten nearly the attention it needs, and I highlight it to urge more forceful Commission action in this area.³⁷

Lawyers for SoCal Edison estimated in filings with FERC that every ten-cent increase in

³⁴Natural Gas Intelligence's *Daily Gas Price Index* for May 8, 2001 (on line at http://intelligencepress.com).

 $^{^{35}}Id.$

 $^{^{36}}Id.$

³⁷Order Establishing Prospective Mitigation and Monitoring Plan for the California Wholesale Electric Markets and Establishing an Investigation of Public Utility Rates in Wholesale Western Energy Markets, 95 FERC ¶ 61,115 (Apr. 26, 2001) (Massey, Commissioner, dissenting) at http://www.ferc.fed.us/electric/bulkpower/el00-95-012.PDF.

the price of gas at the California border causes electricity costs to rise at least \$34.2 million per year.³⁸

IV. Misdiagnoses of California's Problems

California's energy crisis is primarily the result of a flawed deregulation plan that was exploited by out-of-state energy generators. The generators and the current Administration, however, have tried to pin blame on other factors. In my view, this is part of a calculated effort to deflect attention from the root causes of the California energy crisis.

A. Increased Demand Is Not the Problem

While electricity consumption has increased 11% in California from 228 million MWh in 1990 to 253 million MWh in 1999,³⁹ this is not the key factor in assessing whether energy demand exceeds supply. The key factor in determining whether outages occur is peak demand. In California, peak demand has not increased significantly. In fact, peak demand was lower in 2000 than it was in 1998. See Figure 4 (attached).

The blackouts that California experienced this year illustrate why it is wrong to attribute the cause of the blackouts to increased demand. These blackouts occurred during time periods when electricity demand in California was far below peak demand levels. On May 7, 2001, for example, when Cal-ISO ordered rolling blackouts, peak demand in the Cal-ISO control area was only around 33,130 MW.⁴⁰ This peak is roughly 12,000 MW below the area's peak demand in 2000 (45,494 MW).⁴¹ And it is 30% below the area's peak demand forecast for this summer (47,703 MW).⁴²

³⁸Suit Claims Firms Limited Gas Supply to Raise Prices, Los Angeles Times (Feb. 4, 2001).

³⁹California Energy Commission (on line at http://www.energy.ca.gov/electricity/consumption_by_sector.html).

⁴⁰Cal-ISO (on line at http://www.caiso.com/marketops/OASIS/ under "Market Information").

⁴¹See Cal-ISO, CAISO Summer 2001 Assessment, 26 (Mar. 22, 2001) (on line at http://www.caiso.com/docs/2001/04/06/2001040615482125557.pdf).

⁴² Id. at 4.

B. Environmental Regulations Are Not the Problem

There is widespread agreement among those directly involved in California's electricity system that clean air rules are not responsible for electricity shortages.

At a February 15 hearing of the Energy and Air Quality Subcommittee, Carl Wood of the PUC and Dr. Adrian Moore of the conservative Reason Public Policy Institute testified that clean air rules were not restricting the generation of electricity in California.⁴³ Michael Kenny, the Executive Officer of the California Air Resources Board, has stated that "[n]o essential electricity generation has been curtailed due to air emissions limitations."

On February 26, EPA Administrator Christie Whitman was publicly asked if environmental regulations in California had contributed to the state's energy crisis. She responded:

that's not the case. What's happening in California is due in large part to decisions made in California over a period of 10 years. . . . l asked our people to go back and to give me the environmental clean air regulations . . . that were hampering the ability of the utilities in California to provide power and we couldn't find any.⁴⁵

Additionally, the state and local air quality officials testified before Congress:

We have concluded with confidence that the Clean Air Act and related air pollution control programs and requirements bear no responsibility for the electricity shortage facing California. In fact, it is clear that neither the Clean Air Act nor related programs and requirements are interfering with the permitting and construction of ample new power generation in California or other parts of the country or the operation of existing electric generation units. Quite to the contrary, it is evident that under the current Clean Air Act and existing state and federal authorities, construction of new electricity generation capacity is currently thriving.⁴⁶

⁴³Testimony of Carl Wood and Adrian Moore, House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on Electricity Markets: Lessons Learned from California*, 107th Cong. (February 15, 2001).

⁴⁴Letter from Michael P. Kenny to Rep. Henry A. Waxman (Feb. 14, 2001).

⁴⁵Crossfire, CNN (Feb. 26, 2001).

⁴⁶Testimony of Ken Colburn, on behalf of the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials

Arguments that clean air regulations have inhibited electricity generation appear to be based on two situations. First, in areas outside of the South Coast Air Quality Management District, generators have proposed in their permit applications, and the state has approved, some restrictions in their hours of operation in order to avoid having to install modern pollution controls. In times of abundant supply of generation capacity, these restrictions have worked satisfactorily. But some assert that these restrictions are curtailing electricity production during the energy crisis.

In fact, however, these restrictions on hours of operation have already been modified where appropriate. As generation is needed beyond the permitted number of hours, California has worked with generators on a case-by-case basis to allow continued operation. In some cases, in exchange for increasing the hours of operation, the state has levied mitigation fees, which allow the state to achieve contemporaneous reductions through other air-pollution-control programs in order to protect public health. In other cases, the state has worked with generators to install pollution controls, so that hourly limitations are unnecessary.

Second, within the South Coast Air Quality Management District (SCAQMD), nitrogen oxides emissions are regulated through the Regional Clean Air Incentives Market (RECLAIM) program. Power generators had lobbied for the flexibility of this emissions trading program, which sets up a market in which NOx credits can be bought and sold. But now that investment in controls is actually required, they are lobbying Congress for waivers to the program.

Contrary to the generators' claims, however, SCAQMD has acted to prevent the RECLAIM program from substantially increasing the cost of energy production. On May 11, 2001, SCAQMD removed powerplants from the RECLAIM program until at least 2004. Instead, power plants will be put under plans to install pollution control equipment over the next two to three years. They will also pay into a mitigation fund for any excess emissions at a moderate fixed rate, generating funds that will be used to achieve permanent reductions in emissions of smog-forming pollution and cancer-causing diesel soot.⁴⁷

Although the RECLAIM program is not restricting energy production, it does illustrate how the generators try to use the power crisis to obtain unwarranted relief from environmental regulations. The generators originally supported the RECLAIM program as a way to avoid

⁽ALAPCO), House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on H.R. 1647*, "The Electricity Emergency Act of 2001," 107th Cong. (May 3, 2001).

⁴⁷ South Coast Air Quality Management District, *Proposal to Adopt Proposed Changes to RECLAIM* (agenda no. 35 at May 11, 2001 board meeting) (on line at http://www.aqmd.gov/hb/010535a.html).

installing NOx controls, using its flexibility to purchase NOx credits rather than install pollution control equipment during the program's early years.⁴⁸ Now, according to environmental advocates, they are "resorting to political appeals to relieve themselves from the consequences of their own inaction and irresponsibility."⁴⁹

Some industry entities have also urged that Clean Air Act requirements must be relaxed to protect them against citizen suits. This appears to be an excuse for weakening the Clean Air Act rather than a measured response to a genuine problem. California and the federal EPA have used "administrative orders" under the enforcement provisions of the Clean Air Act to provide the flexibility described above. No citizen suit has ever successfully challenged an administrative order in the history of the Clean Air Act. Moreover, the structure of the Act effectively precludes a successful challenge to an administrative order absent some evidence of dereliction of duty by state or federal regulators.⁵⁰

C. California's Energy Generation Has Increased

Some have suggested that California's energy crisis is a result of the state's failure to build new generation. It is correct that no new major generation has been built within the state of California during the last decade. But smaller plants were built during the 1990s. In fact, the total amount of electrical energy generated in California increased 19% from 1990 to 1999, from 190 million MWh to 226 million MWh. The increase in generation has exceeded the state's 14% population increase and 11% consumption increase over the same period. See Figure 5 (attached). Moreover, more generation capacity was added in California in the last decade than in any of the other ten Western states.

⁴⁸South Coast Air Quality Management District, *White Paper on Stabilization of NOx RTC Prices*, 4-5 (Jan. 11, 2001).

⁴⁹Testimony of David Hawkins, Natural Resources Defense Council, House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on H.R. 1647*, "The Electricity Emergency Act of 2001" (May 3, 2001).

⁵⁰Section 304 of the Clean Air Act precludes citizen suits if the parties have entered into a consent decree. The generators that received administrative orders were offered the option of obtaining consent orders, but rejected this approach. Presumably, they would not have rejected the consent decrees unless they believed that administrative orders provided adequate protection.

⁵¹See California Energy Commission (on line at http://www.energy.ca.gov/electricity/electricity_gen_1990-1999.html and http://www.energy.ca.gov/electricity/consumption_by_sector.html).

California's failure to build major new plants was not due to environmental regulations, which some claim have made it impossible to site power plants in the state. To the contrary, the failure to build new plants can be attributed primarily to market and regulatory uncertainty and inadequacies. Testifying before the Energy and Air Quality Subcommittee on March 22, 2001, the Chairman of the California Energy Commission stated:

While it is true that no major power plants were built in California from 1986 to 1998, the reasons had nothing to do with environmental regulations. The reality is that generation failed to keep pace with supply because of over-reliance on the market to determine additional need, as well as regulatory uncertainty associated with restructuring and deregulation.⁵²

Since the power crisis started, California has acted aggressively to build new generation. In the past two years, 14 major power plants with a generation capacity of over 9,373 MW have received siting approval.⁵³ Nine of these power plants are currently under construction, and four are scheduled to be on line or partially on line this summer or fall.⁵⁴ As of March 2001, there were 15 more projects (new sitings and expansions) under review with an additional 6,700 megawatts of capacity.⁵⁵ In addition to these major power projects, California has approved nearly 200 smaller power projects, such as small peaker plants.

While delays in the siting process occasionally occur, power generators themselves are often the causes of these delays. According to testimony from Dr. Alan Lloyd, Chairman of the California Air Resources Board, "power generators themselves have utilized the siting process to hold up the licensing of a competitor. Since 1997, competing companies have intervened in 12 of the 21 projects proposed for licensing. Their participation has slowed the process in at least four cases." ⁵⁶

⁵²Testimony of William Keese, House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on Electricity Markets: California*, 107th Cong. (Mar. 22, 2001).

⁵³California Energy Commission (on line at http://www.energy.ca.gov/sitingcases/backgrounder.html).

⁵⁴Gov. Gray Davis, More Than California's Problem, Washington Post (May 16, 2001).

⁵⁵Testimony of William Keese, House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on Electricity Markets: California*, 107th Cong. (Mar. 22, 2001).

⁵⁶Testimony of Dr. Alan Lloyd, House Committee on Energy and Commerce's Subcommittee on Energy and Air Quality, *Hearing on Electricity Markets: California*, 107th

V. California Desperately Needs Short-Term Price Relief

The energy crisis is having a devastating impact on California. The state's largest utility has filed for bankruptcy and the second largest may yet follow suit; the state's bond rating has been downgraded; the state has experienced its first statewide rolling blackouts since World War II; and wholesale energy prices have skyrocketed, resulting in what the Governor has called "one of the most massive transfers of wealth from the consumers of one state to companies located in another region of the country in our nation's history." 57

The long-term solution to California's problems will require building more supply, so that individual generators cease to be able to exercise market power. But in the short-term, immediate electricity price and natural gas price relief is needed.

These measures would not be necessary if FERC had fulfilled its duty under the Federal Power Act to ensure that wholesale electricity prices are just and reasonable. FERC recognized in both its November 1, 2000, preliminary order and its December 15, 2000, final order that wholesale electricity prices in California are unjust and unreasonable. However, FERC has failed to take action to rectify this situation, and its unwillingness or inability to enforce the Federal Power Act requires that Congress take immediate action.

A. <u>Electricity Price Relief</u>

California's energy market is sufficiently dysfunctional that cost-of-service based caps are needed on a temporary basis to rein in the state's runaway wholesale electricity prices. Under the "Price Gouging and Blackout Prevention Amendment," which I offered during the Subcommittee markup, generators would be paid for their costs of production and they would make a reasonable profit, but they would be prevented from driving up prices. The new rates would last for 18 months and would not apply to new power plants.

My proposal would provide significant price relief to California consumers and businesses. California Treasurer Phil Angelides has concluded that generators could cover costs and still achieve a robust 30% return on investment by charging \$110 to \$150 per MWh. Mr. Angelides's analysis suggests that under a cost-of-service approach, the average wholesale rates charged by generators would be less than half their current level. The amendment would save the

Cong. (Mar. 22, 2001).

⁵⁷Gov. Gray Davis, More Than California's Problem, Washington Post (May 16, 2001).

⁵⁸See Seizing Generators an Option, Treasurer Says, Los Angeles Times (May 12, 2001). Mr. Angelides's analysis assumes high natural gas prices. If natural gas prices returned to historical levels, generators could achieve 30% profits by charging just \$60 to \$70 per MWh.

state literally billions of dollars.

In addition to keeping wholesale prices in check, the amendment would remove the current incentives for generators to withhold energy. As economist Paul Krugman has stated, "in a market where 'exercise of market power' is a major factor, a wholesale price cap might actually increase supplies because power companies would no longer have an incentive to withhold electricity to drive up the price." The result of adopting the amendment would be to reduce current outage rates to more normal levels.

Moreover, there would be no disincentive for new construction under the amendment because new power plants would be exempted from the cost-of-service rate cap.

In essence the "Price Gouging and Blackout Prevention Amendment" would constitute a brief market "time-out," providing emergency rate relief to California. The new rates would last for only 18 months, by which time new supply will be on line, and a functional market can develop.

B. Natural Gas Price Relief

The second prong of any serious attempt to rein in electricity prices involves addressing California's inflated natural gas prices. To that effect, I strongly supported the proposal put forward by Rep. Boucher at the Energy and Air Quality markup, under which the maximum tariff rate on the secondary market for sales of natural gas into California would be reinstated.

Under Rep. Boucher's proposal, gas marketers would be prevented from evading the reinstated tariff rate through "grey market" or bundled transactions. This would be accomplished by ordering FERC to promulgate a regulation to ensure that when wholesale natural gas is imported into California, the transportation component of the price (whether it is directly stated or is implicit) does not exceed the amount allowed under the applicable maximum pipeline tariff rate. These provisions would remain in place for 18 months to provide an opportunity for new natural gas supplies for California to be established. In addition, FERC would be empowered to enforce these provisions through appropriate injunctions, refund orders, and civil penalties.

The Boucher amendment would prevent marketers from continuing to charge exorbitant prices for natural gas in bundled transactions at the California border. This in turn would drive down electricity prices in the state.

VI. Conclusion

If we are to be successful in providing relief to California, we must start with an accurate analysis of the causes of the current energy crisis. I have set forth my understanding of the

⁵⁹Paul Krugman, *The Price of Power*, New York Times (Mar. 25, 2001).

problem in this letter. I would appreciate knowing whether you agree with my understanding. And I would like to learn if you know of other facts that we should be considering.

I would also like to reiterate my appreciation of your efforts to address California's energy problems. I look forward to further discussing these matters with you and other members of the Committee.

Sincerely,

Henry A. Waxman

Ranking Minority Member

cc: Members of the Committee on Energy and Commerce

Figure 1: Average Spot Prices 1999 - January 2001

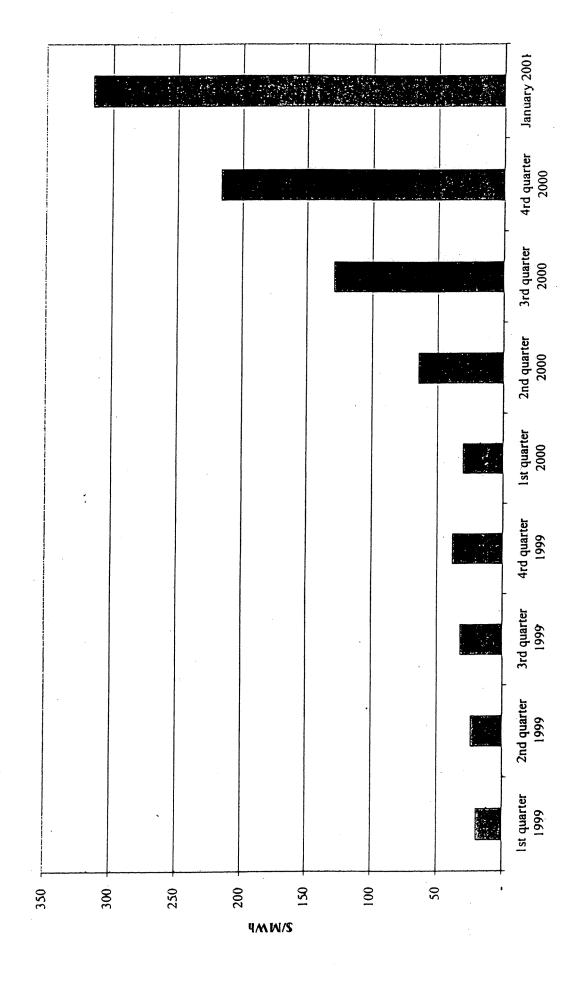
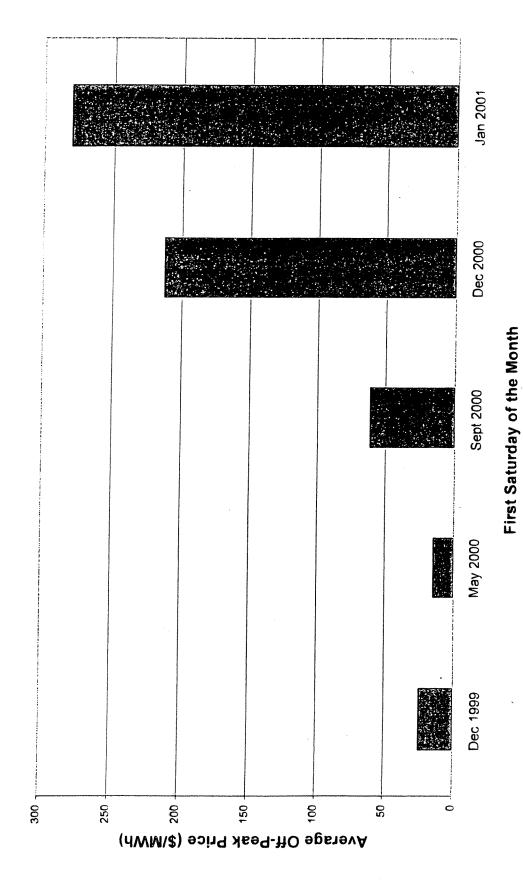
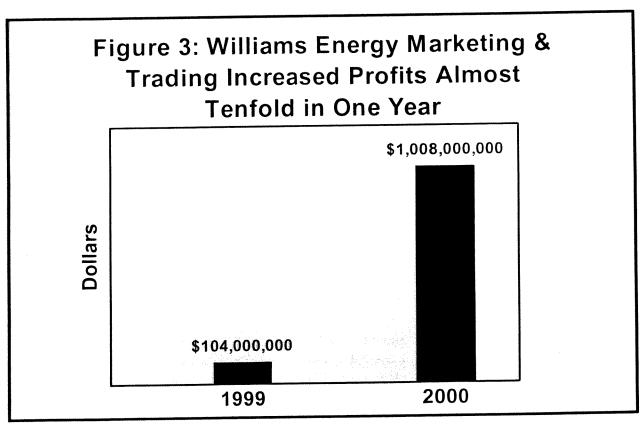
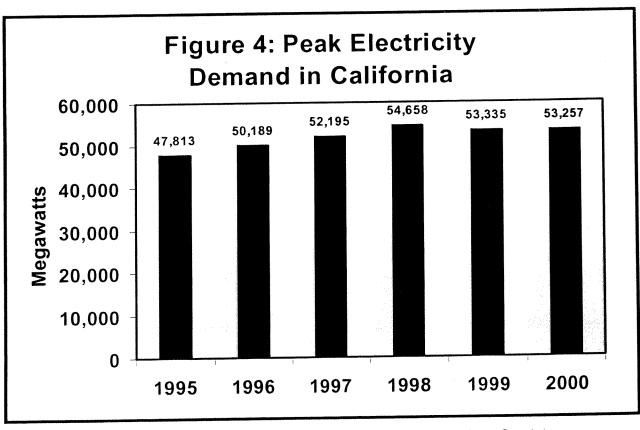


Figure 2: Prices Have Skyrocketed Even in Lowest Use Hours

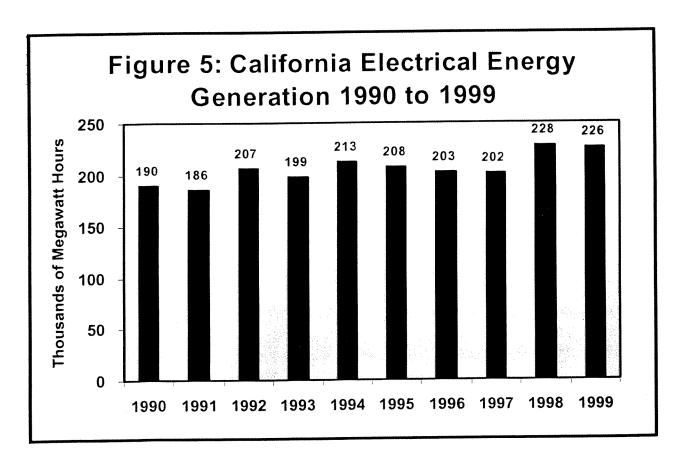




Source: House Government Reform Committee (Minority)



Source: California Energy Commission



Source: California Energy Commission