National Energy Plan
Resolution: 01-1
Sponsors: Nebraska Public Power District,
Wisconsin Public Power Inc., Sacramento Municipal Utility District,
Gainesville Regional Utilities

In Support of Specific Solutions to the Wholesale Electricity Market Crisis

The failure of electric utility industry restructuring in California has had and continues to have broad and far reaching adverse effects throughout the Western States Coordinating Council region. Electric utilities and their consumers in western states are experiencing unprecedented electricity prices. Utilities, both public and private, are near the financial edge and some are threatened by bankruptcy. The collapse of these utilities would challenge the financial stability of major banks, energy producers and marketers, as well as businesses and industries that provide products and services (and credit for such products and services) to the electric utility industry throughout the region. The magnitude of the problem is sufficient to disrupt the economy of the entire country. If left unchecked, the problems will become more severe. If addressed, the near brush with disaster should provide a sobering message that such problems cannot be allowed to arise in other regions.

There are two critical lessons that must be understood from this. First, electricity is the oxygen of our economy. While lip-service has been paid to this fact in the past, the reality of this proposition is now being driven home with frightening force. The electric utility industry is simply too important to the well-being of the entire nation to permit hasty “experiments” and unquestioning and untested reliance on the ability of “deregulated” retail markets without viable wholesale electric markets to provide reliable and adequate supplies (and sufficient reserves) of electric energy and capacity to all consumers at reasonable rates.

Second, and equally important, electric markets are interstate in nature. What is happening today is not simply a “California” problem. Consumers in Arizona, Utah, Oregon and Washington are directly affected, and there will be ripple effects throughout the economy. Regardless of its origin or cause, the solution requires Federal Congressional and regulatory action.

The problems encountered in the Western electric market, and incipient problems beginning to be seen in other regions, have three distinct characteristics: scarcity in terms of fuels as well as generating capacity; imperfect market structure particularly but not exclusively at the wholesale level; and abuses by various market participants capable of capitalizing on scarcity and imperfect markets. Each of these problems must be addressed.

NOW, THEREFORE, BE IT RESOLVED: That the American Public Power Association calls on the Bush Administration, the 107th Congress, and the Federal Energy Regulatory Commission to develop and implement a cohesive set of policies to address scarcity, wholesale market structure and abuse of the market at the expense of consumers; and

BE IT FURTHER RESOLVED: That the following policies, among others, should be included to deal with problems of scarcity:

- The use of all types and sources of electricity production must be encouraged while maintaining our national commitment to a clean environment.
- Production incentives for both renewable energy as well as environmentally acceptable means of using fossil fuels should be provided, and such incentives must be available to all entities, including not-for-profit publicly owned utilities.
• Regulatory policies, including but not limited to the hydroelectric relicensing process, that reduce the capacity of existing generating facilities without ensuring an appropriate balance of both energy and environmental needs, must be reviewed and modified as necessary.

• Our nation's dormant commitment to efficient use of energy must be renewed, and conservation become an essential component of the solution.

BE IT FURTHER RESOLVED: That properly structured and functioning wholesale electric markets remain the necessary prerequisite to properly functioning retail markets and the following policies, among others, should be included to deal with problems of market structure:

• The existence of an interstate transmission grid, properly sized, free from the influence of market participants, and, as a monopoly enterprise, properly regulated to ensure just and reasonable transmission rates, is the fundamental prerequisite to competitive wholesale markets, and Congress must direct, and FERC must implement, reforms necessary to achieve this result.

• Transmission is an interstate commerce matter within the jurisdiction of Congress. Regionally integrated planning and expansion of the grid is essential to create and maintain a structure that can sustain regional reliability and wholesale competition. Federal eminent domain authority to ensure reliability and competitive wholesale markets must be provided for construction of new transmission facilities, either to properly structured, independent regional transmission organizations, or in their absence to transmission builders pursuant to a FERC issued certificate of public convenience and necessity.

• Wholesale sales at market rates into improperly structured and dysfunctional markets will not produce just and reasonable rates for consumers. Congress must clearly define the fundamental characteristics of workable competitive wholesale markets, and FERC should permit wholesale sales at market rates in regional markets that are consistent with these characteristics and require sales at cost-based rates in those that are not.

• Repeal of the Public Utility Holding Company Act prior to the creation of a new market structure that can sustain effective competition would only make a bad situation worse and should not occur.

BE IT FURTHER RESOLVED: That public oversight of the market to ensure the enforcement of appropriate reliability standards, prevent abuses of the market when possible and provide remedies where abuses occur is required to protect the public interest. The following policies, among others, should be adopted.

• A national reliability organization with the authority to establish and enforce reliability standards, assure adequate generating capacity reserves in each relevant wholesale market, and oversee and coordinate maintenance outages, must be created.

• Complete and timely market information on capacity, transactions and prices must be available to regulatory agencies, public officials and all market participants.

• The Federal Energy Regulatory Commission must be directed to monitor the wholesale market, given the resources necessary to do so and the responsibility and the authority to provide remedies and impose penalties as appropriate.

Approved by the APPA Legislative and Resolutions Committee, February 5, 2001.

1503

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Summary: A confluence of events involving rising prices and supply shortages in several energy sectors has focused public and political attention on the need to update the nation’s energy policy and to provide for increased production of domestic energy sources. President George W. Bush made this central point in his campaign platform on energy issues and has designated an Administration team under the leadership of Vice President Cheney to develop specific recommendations in this regard. House and Senate leaders have similarly indicated that this will be a top priority for the 107th Congress, with Senate Energy and Natural Resources Committee Chairman Murkowski (R-AK) having introduced the National Energy Security Act of 2001 (S. 388 and S. 389), and the House Commerce Subcommittee on Energy and Air Quality is expected to consider these matters during the coming weeks.

APPA supports the concept of national energy policy legislation, and agrees that there are a number of areas where Congress could act to boost overall production of electricity, maintain or enhance the viability of traditional fuels used to generate electricity, promote the commercialization of new, alternative sources of electricity, increase energy conservation, and provide adequate energy assistance to low-income households. Whether or not all of these elements move together in a single piece of legislation is a not a critical issue, and APPA seeks to work with congressional leaders to implement a legislative strategy that would achieve results on each of these elements.

Background: Energy supply problems that started first in the oil sector last year, and resulted in high gasoline prices, have crossed over to other energy sectors including natural gas and electricity. A scarcity of supplies and transportation has increased home-heating costs this winter, a situation compounded by unusually cold weather in the South. These price increases in natural gas have also contributed to the expanding crisis in electricity. In the West, California’s rolling blackouts, and severe shortages in other regions, have served as a painful reminder that, among other factors, an imbalance exists between energy demand and supply.

While this situation has worsened sharply in the past few months, energy supply and deliverability problems have been under discussion on Capitol Hill since early last year. Both the House and Senate have begun to hold hearings on various aspects of energy supply policy. Today, these matters are receiving much-deserved attention both within the Administration and Congress, and recent energy events have generated public attention and thus increased political support to act on comprehensive energy legislation.
**Legislative Principles:** There is general agreement among consumers, producers, marketers and policymakers that certain fundamental elements should form the basis for comprehensive energy policy legislation. APPA concurs on these elements, particularly as they relate to energy supply and consumption:

- Legislation should emphasize fuel diversity. There is growing recognition that all traditional fuel sources for generating electricity need to be maintained and enhanced and that new sources should be encouraged.
- Comprehensive legislation should highlight as one of its major goals the need to increase domestic energy supplies and provide for energy security.
- Energy legislation should be current with today's environmental challenges and opportunities. Thus, decisions should be made that integrate energy, environment and economic goals.
- Policies, whether they are administrative or legislative, should treat all electricity generators and suppliers on a comparable basis. As consensus grows to spur the development of domestic energy supplies, including alternative renewable energy resources, incentives and credits must be developed on a basis that provides equal treatment to all stakeholders, regardless of their tax and financial structures.
- Taken alone or separately, most elements of previously drafted electricity restructuring legislation should not be included in energy legislation unless they serve to remove barriers to transmission and ensure reliability. This type of comprehensive energy policy bill should not include stand-alone repeal of the Public Utility Holding Company Act (PUHCA).

**Specific Issues to be Addressed in Energy Legislation:** APPA is less concerned as to whether important elements of an energy policy bill are addressed in a comprehensive measure or handled in a series of proposals. Of greater importance is ensuring that final approaches to creating and deploying a national energy strategy is done from an informed and consumer-based orientation. The critical issues APPA would like to see included in any legislative approach include, but are not necessarily limited to, the following:

1. Mobilize funds and deployment of clean coal technologies for existing and future coal-generation units. Incentives designed to spur the use of such technologies should provide comparable benefits and ease of administration to all electricity generators, despite their tax or financial structure.

2. Provide incentives, tradable tax credits or offsets to all electric generators or suppliers for electricity generated from eligible renewable energy resources including wind, solar, geothermal, hydropower, biomass, and landfill-gas-to-energy projects.

3. Fully fund, reauthorize and reform to provide certainty and multiple year funding for the U.S. Department of Energy Renewable Energy Production Incentive Program (REPI).
4. Reform the Federal Energy Regulatory Commission (FERC) process for licensing and relicensing hydroelectric power plants. Such reforms should create balance in the process without diminishing environmental standards; establish a consistent and objective review procedure for mandatory conditions; and codify existing FERC deadline authority for submission of such conditions.

5. Increase funding for the Low-Income Home Energy Assistance Program.

6. Enact nuclear waste storage legislation that would create a permanent repository for spent nuclear fuel and reauthorize the Price-Anderson Act addressing liability of nuclear power plants.

7. Increase supplies of natural gas and provide transportation of such supplies for electricity generation.

8. Increase investments in energy technology research and development of all domestic energy resources to ensure the development of a balanced portfolio of energy sources and fuels. Technologies should spur the development of the next generation of clean-burning technologies, improve energy delivery and ensure reliability.

9. Promote the increased development and commercialization of alternative vehicles, including electric vehicles.


**APPA Position:** APPA supports the development and implementation of a national energy bill or, alternatively, a package of energy proposals that promotes the increased production, supply, transportation, and conservation of domestic energy resources. Elements necessary to carry forward a balanced energy portfolio are described above. These provisions promote the development of traditional and alternative energy resources, use of energy production and investment incentives that provide comparable benefits to all electricity suppliers, improve energy delivery and ensure electricity reliability. Energy legislation, however, should not contain on a piece-meal basis select elements of previous electricity restructuring measures, particularly provisions that would repeal the Public Utility Holding Company Act on a stand-alone basis.
California
The Facts About Municipal Utilities' Participation In The California Electricity Market

The failure of retail electricity competition in California has multiple causes requiring corrective action at both the state and federal levels. The crisis in California resulted in exorbitant retail rates for residents of San Diego County and an unreliable supply of electricity for millions of customers throughout the state. At the same time, while millions of customers served by publicly owned utilities (municipal utilities and utility districts) continued to receive a reliable supply of electricity at low rates, other public systems faced rate increases of their own. In addition, publicly owned utilities sometimes had surplus electricity they were able to provide to the state's investor owned utilities and their customers.

In return for their foresight, good planning, efficient operations, customer responsiveness and ability to make surplus power available to other utilities and their customers, publicly owned utilities in California are coming under attack. Unsubstantiated charges of profiteering, illegal sales of federal hydropower, and other erroneous charges have surfaced. While these false charges are of concern, they are not surprising. Critics of public power and the federal power program find it difficult to acknowledge that these institutions have provided an invaluable service to their consumers and to all consumers in California and throughout the west.

This paper is designed to set the record straight about the performance of publicly owned utilities in the California market. It explains the status and level of participation by publicly owned utilities in the retail competition program and its related institutions. It also refutes the unfounded allegations that have been leveled recently against publicly owned utilities. More information is available on the American Public Power Association's (APPA's) website www.appanet.org, or by calling the APPA Legislative Department at 202-467-2900.

Public power participation in California restructuring (AB 1890)

In 1996 the California Legislature enacted its electricity restructuring plan, AB 1890, which fundamentally changed the state's electric utility industry. The law required California's three investor owned utilities (IOUs), all of whom are regulated by the state Public Utility Commission, to provide "direct access," that is, to offer their customers the ability to choose their own electricity supplier.

Throughout the debate over AB 1890 California municipal utilities - which are closely and carefully regulated by various locally elected utility boards and city councils - insisted on provisions that allowed them to retain local control over power purchases, construction of facilities, energy contracts, and all other decisions regarding conditions of
Recently, the state PX was shut down, and a new system is now in place. Due to several factors, the state’s electricity prices reflect changing conditions. For example, nothing in the Los Angeles Department of Water and Power’s pricing methodology has changed. When natural gas prices rise in the spot market, their costs increase commensurately. They do not, of course, sell energy to the state at a loss, but base their bids on their costs. Unfortunately, critics continue to make charges that public power is “profiteering” with this new system. The fact is those prices simply reflect the actual cost of providing electricity at that time. In addition to natural gas prices, which have recently quadrupled, other factors in pricing include the cost of purchasing additional pollution credits in line with air quality requirements, costs for transmission tariffs, unit start up costs, and labor and maintenance costs for each facility. Further, Los Angeles has maintained a policy of selling its excess generation to “California first” — during any Stage 1, 2, or 3 emergency alert called by the state ISO, the utility only sells its power to entities inside the state.

Public power, “preference power,” and California

Some have accused California’s municipal utilities of making large profits by re-selling “preference power” (federal hydropower that is sold on a right of first refusal to governmental units and non-profit cooperatives) into the state’s PX and ISO. This assertion is absolutely not true. Public power is, in fact, legally prohibited from doing so. All power that is received from federal hydro projects is required to serve the customers of the consumer-owned utility purchaser. This is true for the Western Area Power Administration, which serves California, and other power marketing administrations as well, including the Bonneville Power Administration, Southeastern, and Southwestern Power Administrations.

Under federal law all hydro resources are held in the public trust. Licenses are issued by the Federal Energy Regulatory Commission to operate hydro projects that generate power from water power resources that in fact belong to the public. Both PG&E and Southern California Edison have substantial federally licensed hydropower generation, enough to serve 17 percent and 6.5 percent of their total customers, respectively. Publicly owned utilities receive hydropower from federal facilities, including the Boulder Canyon Project (Hoover Dam). Federal hydropower also goes to other recipients, including military installations, federal labs, and universities, all in the “public good.”

While many municipal utilities in California do receive federal hydropower, it is a relatively low percentage of their electricity mix, or load. The Los Angeles Department of Water and Power, for example, receives roughly 500 MW of power from Hoover Dam. That sounds significant, but Los Angeles’ daily load is approximately 3,500 MW, with peak loads as high as 5,500 MW. Still, when it comes to the state’s electric grid, due to the physics of electricity it remains impossible to track these electrons from federal hydro projects when thrown on the grid. While you can’t trace the electrons, you can follow the financial benefits of this federal power. These financial benefits go directly to the intended beneficiaries — the citizens of Los Angeles.

Public power’s first and only purpose is to provide excellent, efficient electric service to its citizens. Unlike private power companies, public power systems do not have to serve stockholders as well as customers. Public power’s measure of success is how much money they can keep within their communities through low rates and reliable service, not how much can be taken out to send to distant stockholders who are not part of the community.

As California is learning, electric prices drive local economies. For years, public power has had a proven track record of providing customers with lower-cost electric rates than private power companies on a national average. For instance, residential rates for public power systems are nearly 18 percent lower than for private companies, while commercial rates are approximately nine percent lower for public power. Several factors help explain this product efficiency.
including local control, where public power systems are regulated by local, citizen-controlled boards. Public systems also operate in the sunshine and typically have much lower administrative costs, including management and other overhead costs.

But these factors explain only some of the advantages public power customers enjoy when it comes to low rates and better efficiency. A key factor is that public power utilities charge no profit – they are not-for-profit entities. As such, they pay no dividends to stockholders and pay no federal income taxes, since there is no "income." And since they are public service oriented, public utilities tend to be more responsive to the local community.

California's renewed interest in public power

Public power systems today serve one in four Californians. Their outstanding performance over the last few months has led many people to pursue the "public power option." Tired of price shocks and unreliable service, the San Marcos city council last summer approved a resolution to study further their options to create a municipal utility for the community. San Diego County has also moved forward and is reviewing city options through a Local Agency Formation Commission. In addition, some county supervisors have encouraged state elected officials to draft legislation in the Assembly that would amend state law to allow the county to establish a public utility district.

Other cities are similarly interested. For example, high prices have prompted the city of Berkeley to look at public power. A proposal to explore the possibility of creating a city-owned utility was suggested by the Berkeley Commission on Aging and presented to the city council in December. Most recently the San Francisco Board of Supervisors in February placed a measure on the November ballot that could create a municipal utility district for the entire city and the adjacent community of Brisbane, its neighbor to the south. The official move followed a grassroots effort that culminated in 24,000 signatures on a petition calling for the formation of a city-owned public utility. Other California communities continue to study their options.

Conclusion

California's flawed electricity restructuring experiment and a dysfunctional wholesale market have created serious problems for the West's consumers, utilities, regulators, and elected officials. No industry sector, including public power, has been unaffected. But the overall performance of publicly owned utilities has clearly shown that the traditional concept of "local control" works. Critics' earlier conclusions that public power would never survive seem absurd at this point. Today, renewed interest in public power is a testament to the solid performance of California's municipal utilities. Local control and community ownership remain viable options. Public power in California continues to do what it does best: provide low-cost, reliable electric service to their communities.

While attention has been focused on California and the West, this is clearly a national problem — and federal government action is required. Congress must take steps to not only address the scarcity problem, but must act to fix the market structure problem. The wholesale market structure as it currently exists is simply incapable of producing the results expected of competitive markets. Congress should direct FERC to create appropriately configured, independent regional transmission organizations that can ensure fair and nondiscriminatory access to the nation's transmission grid. Until they do, federal regulators need to implement cost-based rates on an interim basis to provide relief for all customers. The solutions are there, and the federal government has the tools.
Testimony of Richard Ferreira
on behalf of the
Sacramento Municipal Utility District
before the
United States Senate Committee on Energy and Natural Resources
January 31, 2001

Introduction and Summary

Mr. Chairman and Members of the Committee, thank you very much for the opportunity to appear before you today. The fact that you have convened this hearing shows that you understand how important resolution of the current energy crisis is for California, and the entire Western United States.

Frankly, the current situation is bleak. We are experiencing outages in the middle of January. Utility operators are dreading what might happen in a few months when we near our summer peak. We face razor-thin reserve margins on a daily basis, and routine plant or transmission line failures can trigger rotating outages. In the wholesale power markets, the apparent floor for spot market energy prices is higher than peak prices of the not-so-distant past. Manufacturers have already postponed planned expansions due to energy price and reliability concerns, adding to fears of an economic downturn. And there are no easy solutions. Based on our best estimates, it will take years to get the needed transmission and generation facilities built to support a competitive market.

The current situation in California has national import as well, as Federal Reserve Chairman Greenspan has already recognized. I was pleased to hear this week that President Bush has formed a Task Force under the leadership of Vice President Cheney to tackle what has become a regional problem. California will take certain steps to ameliorate the current crisis, but many of the problems must be addressed on a regional basis. Only the federal government can accomplish regional solutions.
By way of introduction, let me tell you a little about the Sacramento Municipal Utility District, or SMUD, on whose behalf I appear before you today. SMUD is a consumer-owned municipal utility that serves approximately 1.5 million persons in the greater Sacramento area. During debates on AB 1890, California's restructuring law, SMUD and other municipal utilities fought for and retained local control over our energy choices in the competitive market.

This local control has significant practical manifestations. Because of local control, SMUD retained its obligation to plan for and serve the electricity needs of our consumer-owners. It has never been SMUD's belief that competition relieved SMUD of its responsibility to ensure that its customers had sufficient electric supply at stable prices. As a consequence, SMUD and other municipal utilities retained their power plants dedicated to serve native load customers. This is in direct contrast to our investor-owned colleagues in California who, because of regulatory orders and business decisions, sold a high percentage of their generation assets and declined to build new generation. We have also not transferred away rights to use regional transmission facilities, built at great expense, to deliver economic energy from other parts of the Western region to our customers. This has given us further ability to mitigate market risk for our customer-owners.

All things considered, SMUD has been able to weather the market volatility and high prices relatively well as compared to our investor-owned neighbors. However, there is no escaping the market forces that have been unleashed. SMUD, like most businesses and consumers in California, is exposed to high market prices. Today, SMUD is about to commence a rate proceeding due to high market prices for both electricity, and the natural gas that powers our local power plants.

As I will discuss in more detail later in my remarks, there are steps California can take to help itself. A series of well-chronicled events, exacerbated by well intentioned but mistaken market experiments in California, have contributed to the current situation.
However, the solution will not arrive overnight, just as the problem did not arise overnight. Needed investments and market improvements will take some time to bear fruit. Further, the one overarching lesson from the California experiment is that a piecemeal, state-by-state approach to market development and market oversight will simply not work. A regional approach to markets is required, and only the federal government can make this happen. Therefore, SMUD believes that the federal government does have a role to:

- help stabilize the current regional wholesale market until needed investment in generation and transmission is made;
- act as the steward for regional market reforms that have the best chance to make the promise of competition a reality; and
- encourage investment in energy efficiency and supply through a reinvigorated national energy policy.

**Background - A Road Paved with Good Intentions**

As I stated above, we have a regional energy crisis on our hands. Actions taken by California have exacerbated the situation. You have no doubt read and heard much about California’s failure to build new generation and transmission in the face of growing demand. This is certainly true. What is also true is that investment in generation and transmission has not kept pace with demand throughout the West. Lack of facility investment is not a uniquely California phenomenon. What we did in California, however, is adopt market structures that laid the infrastructure inadequacies bare for market participants to exploit. I would make the following additional observations regarding the road to competition in California.

First, California opened up its markets at a time when reserve margins throughout the Western United States were dropping. It has been well chronicled that increased demand in the growing West has caused surpluses in regions such as the Pacific Northwest and Desert Southwest to diminish. California was already a net importer of electricity,
and it saw its traditional suppliers with less power to export to California during peak summer periods. At the same time, as California demand grew, less power could be returned from California to the Pacific Northwest during California's off-peak winter periods, as had been the traditional practice. Therefore, tighter reserve margins affected the entire Western region. On occasion this year, prices outside California have exceeded prices inside California, due to several factors. In a regional market, if the highest price in the West is in California, buyers in Portland and Phoenix will be forced to pay close to the California price. Likewise, if the price in the Northwest is the highest, that price is likely to prevail throughout the West.

The difference is that California adopted a market design that paid all bidders the highest, or marginal, price paid for electricity. This raised the overall amount paid for energy exponentially. Elsewhere in the region, markets worked the “old fashioned” way, and the highest price was only paid for that last increment of energy needed. Thus, the overall affect on consumers in California was much greater. The lesson that was reinforced over the past year is that California is not a “gated community” when it comes to electrical supply. What we have also learned is that no other individual state is likely to succeed in building a fence at its borders due to West-wide supply tightening and overall market forces. Price is a regional matter, and remedies for high prices must be regional in scope.

Second, California's road to restructuring can be characterized as a “Wait, Then Hurry Up” approach. This had an adverse affect on utility infrastructure investment. Serious restructuring discussions began in California in the early 1990's. Over a period of years, California regulators issued Yellow Books and then Blue Books after entertaining endless comments from stakeholders. The state legislature then joined the fray, and AB 1890 was signed into law in 1996. Already California had endured several years of regulatory uncertainty, contributing to the lack of investment in both needed generation and transmission facilities.
Once AB 1890 was enacted, however, it seemed things could not be done fast enough. The law directed that the entire industry, from trading of power to operation of transmission, be radically altered in less than eighteen months. Since the March 1998 start-up of the markets, there have been over forty filings at the Federal Energy Regulatory Commission making major or minor changes to market rules. Uncertainty due to regulatory inaction was, therefore, followed by instability of market rules, further dampening investment in a capital-intensive industry. Thus, California managed to combine the worst of regulatory delay and inaction, with the worst of hasty implementation. This approach exacerbated already poor market fundamentals of short supply.

Third, California implemented radical changes to the rules of wholesale power trading that ignored prevailing regional practices. Instead of the old model of an industry based on relatively predictable behavior by buyers, sellers, and operators of the Grid, California implemented a system that encouraged last minute trading of electricity in an effort to extract efficiencies from the market. Attractive on the chalkboard, it did not work when put into practice. The inability of customers to say “no” when prices were too high gave more leverage to suppliers in an already tight market, because buyers were looking to meet their needs in real time, rather than locking in supply months or years in advance, as had traditionally been done. The rest of the Western region also resisted California’s approach. The result is that rules governing trading and grid operation vary greatly between California and the rest of the West. In hindsight, this could have been easily avoided. It also points to the need for regional solutions.

Thus, California made several errors that contributed to the market dysfunction witnessed today. We not only have a crisis brought on by a supply/demand imbalance, but we unintentionally aided and abetted this fundamental imbalance by the manner in which we implemented restructuring, despite the best intentions of California stakeholders.
Avoiding California's Mistakes - Lessons Learned

Other states can try to avoid the mistakes of California. I would make the following observations on lessons learned from our painful experience.

First, competition in the electric utility industry will not just happen with a wave of the so-called “invisible hand.” Workable competition requires certain preconditions be met before markets can be relied on to reach competitive outcomes. There must be sufficient, and probably a surplus, reserve margin of supply in order to discipline price. In a tight market, because of the essential nature of the commodity and the inability to effectively store electricity, demand behavior is predictable and sellers can essentially name their price. Without adequate reserve margins, it may be virtually impossible to discipline prices charged by suppliers. Lesson Number One from California may be that, in a competitive era, we need much more generation on line ready to serve consumers than we built in a vertically integrated, regulated industry, in order to maintain price discipline in markets. This lesson must work its way into how we examine regional markets when determining the potential for the exercise of market power by suppliers.

Second, markets will not work if, no matter what the price level is, demand remains almost the same. Demand responsiveness is taken for granted in most other markets. Implementation of demand responsiveness in electricity markets presents a greater challenge. I have not seen great strides in this area in California or elsewhere. While regulators, including FERC, talk about customers bidding their demand into markets just like suppliers bid their output, these programs are in their infancy and are far from fruition. The California ISO continues to try to implement such programs, with limited success. We are a little closer to making demand responsiveness a reality today than before our troubles began. Yet everyone agrees that demand responsiveness is necessary to control prices, especially during periods of tight supply. Common sense would indicate that other regions contemplating a market approach should carefully consider whether they have meaningful demand-side approaches in place before they move forward.
Third, someone must be responsible for serving customers, and that responsibility must be well defined. I mentioned earlier that SMUD and other California municipals never wavered from the obligation to serve their customers, and they planned accordingly. We can argue about whether our investor-owned utilities were relieved of the legal obligation to serve; it was certainly hinted at. Many expected that new Energy Service Providers would be climbing over each other fighting for IOU customers. At a minimum, the existing IOUs were not given clear direction about whether or not their obligation to serve remained in full force. This mistake simply cannot be repeated.

Fourth, it is important to take the time necessary to ensure the fundamental components of a workable market, like those cited above, are in place before proceeding with full-fledged competition. Progress should be made in measured steps. In California, we turned operation of the utilities and wholesale markets inside out in less than eighteen (18) months. In retrospect, it should not come as a surprise that it did not work precisely as planned. We have spent the last three (3) years in a vain attempt to correct flaws in the system exposed by market participants. We learned that regulators and market makers couldn't keep pace with power marketers and brokers when it comes to closing loopholes in system design. Given the importance of the electricity industry to the well being of the nation, the final lesson to be learned from California is that a measured pace of change may be preferable to an overnight overhaul.

"California Only" Solutions Will Be Band-Aids

There are immediate steps that can be taken in California, without federal assistance. However, these will merely be band-aids until regional solutions are forthcoming.

First, California must take all practicable measures to lessen demand for the coming summers. The most promising means to ensure reliability and mitigate high prices in the immediate future is to reduce the demand for electricity. Frankly, it is our only
option, because generation planned to come on line in the next two years will allow California to keep up with demand growth, and little more. At SMUD, this week our elected Board will consider augmenting our demand-management efforts, including a more flexible and aggressive air conditioning cycling program that allow us to cut demand from our summer peak usage. We are also discussing how our largest industrial and commercial customers can change manufacturing process and work schedules to allow energy conservation during peak periods. In the very near term, demand side efforts such as these hold the most promise of reducing the threat of outages due to insufficient supply, as well as mitigating price spikes during periods of high usage.

Second, we must overcome the NIMBY (Not in My Back Yard) and NOPE (Not on Planet Earth) syndromes so that both generation and transmission can be built. I am hopeful this can be accomplished without abandoning environmental goals. New generation facilities have much smaller footprints than old units currently in place. Physically they are much smaller. They are more efficient, and their affect on air quality is much less than existing units that they would replace. New generating units would not only bring more supply to electricity markets, they would also improve air quality, and their relative efficiency would lessen demands on natural gas supply caused by older, less efficient units.

Transmission system improvements may be more difficult, but are no less necessary. The current transmission system was built to be part of a vertically integrated utility run as a cohesive whole. It was not built to support a disaggregated competitive industry, a so-called “interstate highway” approach to transmission access and competition. Not only is more transmission necessary to ensure reliability, but it is also necessary to ensure suppliers cannot exercise market power, or charge rates above competitive levels for sustained periods, because inadequate transmission limits access to supplies from competitors in localized areas.
One factor overlooked when examining siting reforms is that fellow competitors are often the most vocal opponents of siting new generation or transmission projects. A new generator may cut into profits of existing facilities, and will therefore be ardently opposed. Likewise, a new transmission line can reduce the monopoly power a generator has on serving customers in a constrained area of the grid, and therefore will also be opposed. We have seen both examples in California. It is simply not fair or accurate to lay frustrations of siting delays solely at the feet of environmentalists or intransigent residents.

Third, we must stabilize wholesale rates. As has been much publicized, suppliers and buyers, with the help of the State of California, are currently in the process of attempting to negotiate long-term contracts. If successful, these contracts have the promise of being able to avoid immediate rate shock for California consumers by locking in lower-than-spot-market prices through contracts with longer terms. I would caution, however, that long-term contracts and low prices for electricity are not necessarily synonymous.

Long-term contracts for electricity can ensure stable prices, but they cannot ensure low prices. In fact, the ability to enter into long-term contracts at reasonable rates is predicated on functioning short-term wholesale markets. One cannot be accomplished without the other. You can be sure that a supplier will only enter into a contract if it believes the return on the contract will be favorable as compared with spot market outcomes for the length of the contract. I cannot emphasize strongly enough that long-term contracts are not a substitute for properly functioning wholesale energy markets. They are a merely a “deodorant” to mask dramatic retail rate hikes.

**Regional and National Solutions Are Essential**

While California has received the bulk of the attention, it is merely the “canary in the coal mine.” California has its own unique set of problems, but California may be the
first indicator of a broader national energy crisis. As your hearing indicates, California market problems have already contributed to high prices and economic dislocation in the rest of the West. Other energy markets, such as those in New York, appear to be on the brink of supply inadequacy and price volatility, perhaps this coming summer. Thus, the energy crisis is a federal concern. Moreover, some things, such as regulation of wholesale energy markets, are exclusively federal. Here are things the federal government can do.

An Interim Regional Price Cap

First, and for the shorter term, the federal government, through FERC or Congress if necessary, can stabilize markets in the West with an interim regional price cap.

A regional price cap is necessary to stabilize market conditions and allow time for generation and transmission investment, and market improvements, to bear fruit. Today, prices in wholesale markets are persistently at levels that are 3-5 times what retail customers are used to paying for energy. A crisis mentality has developed, and this mentality does not allow constructive discussion on meaningful market reforms. SMUD is concerned that if prices don’t stabilize, political leaders in the West will simply end the move to competitive markets. We need help from leaders in Washington, D.C. to implement a regional approach to bring order to wholesale markets.

SMUD would be the first to admit that price caps are not an ideal solution. Managing competitive markets is exceedingly difficult. However, we must face facts; the alternative is run away high prices for a significant period of time. While additional generation is planned, only a small percentage will come online this year. There continue to be barriers to entry for new supply and transmission. Indeed, the entire planning process for the Western United States has eroded due to competitive pressures. Suppliers are much less willing to share information regarding planned generation that they regard as commercially sensitive, as compared to the close voluntary coordination that characterized the regulated industry. Meanwhile, demand continues to grow at a considerable rate.
Transmission additions are also needed, not only in regional transmission corridors that have been identified as bottlenecks, but also in highly populated areas to deliver the electricity to consumers. Even if permitting and related concerns were solved tomorrow, it will literally take years to build the necessary transmission. Until then, the ability of new supply to get to consumers will be thwarted.

Finally, we have learned that the ability of the consumer to say “no” to high prices is a prerequisite to a functioning competitive market. Facilitating demand responsiveness will take federal investment in technologies such as real-time metering and pricing, as well as changes in consumer behavior to become more attuned to when energy is consumed. These three things, new supply, new transmission, and demand responsiveness, are necessary for workably competitive markets. Yet they are not on the near-term horizon. The consequences of allowing unfettered price levels without meaningful competitive discipline are unconscionable consumer hardship, and economic dislocation to small and large consumers alike.

There are valid objections to price caps. For example, it is argued that caps will inhibit new supply, or will not fully compensate suppliers. SMUD believes a price cap can be fashioned to address this objection by allowing exemptions for certain higher priced suppliers that are necessary for reliability, and by implementing a flexible cap that allows for changes in input prices, such as increases and decreases in the price of natural gas.

Further, the cap can be designed so that marginal costs of new efficient units fall well below the cap, thus providing additional incentives for new generation to replace old. SMUD has advocated such a price cap before the Federal Energy Regulatory Commission. A more detailed description of the SMUD proposal is attached to my remarks.

Again, remedies such as price caps are not the ideal solution. However, we are long past ideal solutions. Interim price caps can be made consistent with the goal of
continuing to move the industry forward on the path toward real competition, while ameliorating the certain consumer hardship that will be felt if no action is taken and prices remain at record high levels.

*A New Look at Policing Market Behavior and Identifying Market Power*

Competitive markets still need policing. For the past decade, the electric utility industry, at the urging of regulators, has developed increasingly complex markets. With a market the size of California, tens of millions of dollars are now won or lost in hourly trading. A billion dollars can change hands in a week when market participants exploit market rules during periods of tight supply.

Complex markets require active monitoring and a vigilant policing. The old regulatory structure of months-long proceedings followed by after-the-fact refunds is not well suited for the new market. Traditional measures of market power may not suffice to protect consumers from the exercise of market power in product markets that were never contemplated as part of integrated utility operation.

Markets must be examined for the potential exercise of market power before they are implemented. FERC and other regulators must have the expert staff necessary to monitor energy markets and identify abuses, and regulators must have the authority to impose penalties if anticompetitive practices are uncovered. These reforms may or may not require changes to current law, but they certainly require increased attention from responsible regulators. Competitive markets cannot be relied upon to police themselves.

*Reform the Existing Hydroelectric Licensing Process*

Hydropower is critical to the entire West. SMUD strongly supports the efforts of the Committee to streamline the licensing process for hydroelectric facilities. SMUD recommends, at a minimum, the following legislative reforms in the relicensing process to ensure protection of existing, reasonably priced hydroelectric generating resources.
First, federal and state agencies should adopt least cost alternatives to meet environmental objectives identified in relicensing. Recognizing the value of existing hydro resources, federal and state agencies should avoid, where possible, imposing operating conditions through relicensing that would result in reductions of capacity. Second, environmental review of federal and state agencies under various statutory authorities should be coordinated and streamlined. Third, there should be a statutory requirement that all license conditions be supported by sound science and subject to appropriate administrative review.


There is a desperate need for a national energy policy. The nation has enjoyed a long period of relative energy surplus. During that period, we lost focus on investment in energy efficiency, conservation, and new supply technologies. SMUD is a leader in this area, investing considerably more than the national average. Yet, even at SMUD the fear of competitive pressures in California resulted in reductions in the level of funding for these activities. Aggressive financing programs for efficient appliances have been scaled back. Appliance standards have stagnated while technologies are available to improve energy efficiency. While high market prices have allowed certain existing renewable technologies such as wind energy to look more competitive, investment in other technologies such as fuel cells and solar has lagged.

Federal energy policy must provide incentives for investment in energy efficiency and new supply. We are losing fuel diversity. In California and elsewhere, natural gas is virtually the only fuel choice for new generation. As we saw in California, electricity prices have become dependent on the price of one commodity, natural gas. The lack of fuel diversity also jeopardizes reliability due to an over dependence on the delivery of natural gas to fuel electric generators. Right now in California, there are threats of disruption of gas supply to electric generators, due to a lack of pipeline capacity, or to the
inability of the utility to buy enough gas to keep pipelines full. Electric generators are near the front of the line when gas curtailments are necessary, which means the electric supply shortage will be exacerbated.

These are matters of national concern. Scattered state or local programs cannot generate enough momentum to move new technologies forward, or to make significant strides in energy efficiency. A cohesive national energy policy is the best way to make meaningful improvements in these areas.

Conclusions

California’s energy crisis has already caused significant economic dislocation in California, and has affected the entire Western region. Certain solutions are within California’s grasp and responsibility. Long-term and more effective remedies require Federal action. In the short-term, SMUD advocates adoption of a regional price cap on an interim basis in order to stabilize regional wholesale markets. A regional price cap will provide the breathing room necessary in order for new generation and transmission to come on-line, so that the goal of a workably competitive market can be realized. In the longer-term, Congress can use the attention generated by the current crisis in California to highlight the need for a national energy policy, with increased emphasis on energy efficiency, conservation, and development of alternative energy sources to ensure greater fuel diversity.

If we take the opportunity to learn from mistakes made in California, we can emerge from the current crisis in a stronger position than when we entered.