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**California's Electricity Market:
The Need for Orderly Procurement
Working Draft Report
November 2, 2005**



MRW & Associates, Inc.
1999 Harrison Street, Suite 1440
Oakland, CA 94612

November 7, 2005

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1. Introduction – Why Procurement Matters

With growing demand for electricity, an aging fleet of power plants, and substantial increases in fuel prices, California's citizens and businesses could face another round of rate increases and power system failures as early as 2006. With the painful experience of the electricity crisis of 2000-2001 behind us, it's time to examine why the state hasn't done a better job of stabilizing electricity supplies and protecting consumers from price spikes and increases in electricity costs. Over the past twenty years, the way that power is bought for the state's consumers has played a central role in the failures and successes of the state's electricity system. Failures in procuring power today could force the state to be confronted with soaring wholesale power prices and rolling blackouts.

The 1980's saw the emergence of a new breed of electric generation: the independent power producers. These new market participants used new generation technologies: efficient natural gas turbines, combined heat and power plants, and renewable technologies using wind, geothermal, and solar energy. Unfortunately, these new market participants were hamstrung by the existing investor-owned utilities. California utilities, struggling to define a role in a world where integrated utility monopolies were no longer needed to own and operate power plants, worked to impede the growth of the new independent energy industry. Unable to keep pace with the emerging competitive energy market with its lower cost and more environmentally advanced power supplies, the utilities instead turned to "investments" in the political and legal process to shield them from change and inhibit the growth of the independent power industry.

As a result of the utilities' actions, California, instead of reaping the benefits of timely investment in new generation produced from the state's own abundant clean energy resources, has instead been witness to 20 years of floundering, stop-and-start attempts to bring a rational and open resource procurement and development process to its electricity supply industry. Needed investment in new, clean generation and related transmission facilities has been delayed or frustrated. It is now the time to move ahead by completing open and transparent competitive power solicitations, signing long term contracts with independent power producers, and constructing needed transmission to maximize access to new resources.

Californians face these difficulties for one simple reason: The state still has no efficient, transparent process by which the major utilities procure power supplies. Legislation was passed in 2002 establishing a power procurement framework, and regulators continue to craft and fine tune implementation rules based on that legislation.¹ But progress has been slow and often thwarted by the utilities' own actions (or inactions).

The state cannot afford to waste precious time either revisiting old issues already settled by the legislation or in "trying out" new policies. In the four years since the electricity crisis, the state's major utilities have dithered over competitive solicitations and ultimately signed mostly short-term contracts for power supplies. As a result of these actions, California faces looming shortages of power supplies. Tight supplies translate into high prices and the possibility of rolling blackouts.

The state's utilities should be directed to procure power supplies from a diversity of sources through open, transparent competitive solicitation processes using the procurement framework that was defined by the Legislature and is now being implemented by the by the California Public Utilities Commission. Moreover, the solicitations should yield long-term agreements with suppliers to ensure that California does not again face a supply shortage in two or three years. In addition, the utilities should procure power from a diverse range of resource types using a variety of fuels. Long-term supplies from resources that have a diversity of fuel sources, sizes, and ownership interests is the best way to ensure affordable and reliable electricity to California's citizens and businesses.

These are not new proposals – they are crucial elements of the state's Energy Action Plan, prepared and adopted by the California Energy Commission and the California Public Utilities Commission and endorsed by Governor Schwarzenegger. In transmitting the 2005 Integrated Energy Policy Report to the CPUC, the CEC noted again the importance of a stable contracting process, transparency in planning, and the need to meet environmental goals through conservation and the development of renewable resources and combined heat and power plants.

¹ The California Public Utilities Commission established formal procurement guidelines in Decision 04-12-048 issued on December 16, 2004.

These are the goals of an effective procurement policy for California; the challenge is to ensure that the policy is carried out by the front-line actors – the state's utilities.

2. A Troubled History

The 1980's heralded the promise of a new era in electric generation with the advent of electricity generation technologies based on efficient natural gas turbines, combined heat and power plants, and renewable technologies using wind, geothermal, and solar energy. Unfortunately, this promise has not been fully realized.

2.1 Before 1980: Utility construction

Historically, utilities were vertically integrated monopoly suppliers of generation, transmission, distribution, and customer services to all customers in their franchise service territory. Utilities had an implicit obligation to serve all customers in their service territory. To meet this obligation to serve, utilities developed and built power plants to meet their own internal planning requirements for reserves. Typically, but not exclusively, all power supply for the customers in the utility's service territory was supplied by the utility.

This business model resulted in increasingly large generating facilities as the utilities recognized economies of scale in their generation facilities. As a result, utilities started to construct larger and larger central station power plants fueled by oil, coal, water, or nuclear power.

2.2 1980-1990: The independent power industry forms

In the early 1980's, California followed the direction of federal law and required the utilities to sign contracts with independent energy producers (often called "qualifying facilities", or QFs). These QF contracts led to a boom in construction of new, efficient power plants, including cogeneration and renewable projects. There were controversies and problems in the development of the QF industry. But today, independent power producers, or QFs supply nearly 25% of California's electricity, including nearly all of its renewable power, and have become the backbone of California's electricity supply portfolio.

Early in this time period, some utilities embraces independent power producers as these third parties were able to construct new facilities at times when some utilities were facing cash flow problems resulting from cost overruns associated with nuclear power plant construction. However, later in the decade, most utilities took active measures to slow or halt the independent power industry. These efforts included extensive litigation of QF pricing, “tough but fair” contract interpretation and administration, and suspension of standard offer power sales agreements.

2.3 1990-2000: The utilities respond

In the early 1990's, as the state's economy and population continued to grow, there was heightened concern with the environmental impacts of electric power generation, especially from the aging fleet of utility-owned power plants built in the 1950's and 60's. There was also growing recognition that renewable energy from wind, geothermal, and solar should be encouraged. Legislation was signed into law by Governor Wilson that directed the CPUC to include environmental impacts in determining the need for new power plants and required a portion of new generation to be provided from renewable energy resources.

Despite the clear direction from the Legislature and the Governor, two of the state's largest investor-owned utilities, Southern California Edison and San Diego Gas and Electric, fought the direction of the CPUC, the Governor, and the Legislature to sign long term contracts for cost-effective and environmentally sound power projects chosen through a competitive bidding process. They took that fight to the Federal Energy Regulatory Commission (FERC) alleging that they didn't need the new power plants to serve their customers' load and that the state of California couldn't make them buy power at a price that exceeded “avoided costs.”

FERC responded to these petitions in 1995 by issuing a narrow and much disputed decision finding that California's solicitation, by failing to include “all sources” of power, conflicted with federal law. This decision resulted in California consumers being denied the benefit of long-term supplies of renewable resources and high-efficiency natural gas power at prices far below today's costs. An opportunity to put California on a track toward stable, clean power had been lost. The decision of SCE and SDG&E to challenge the state of California's authority was rooted

in their desire to avoid long term commitments from which they could not profit and a fear of locking in commitments in a deregulated world. But their decision to put their self interest ahead of their customer's need for a clean, efficient, low cost and sustainable power supply would contribute to the electricity deregulation disaster of 2000-2001.

2.4 2000-2002: The California Energy Crisis

Much has been written about the causes and consequences of California's failed experiment in electricity deregulation. Memories have faded with time, and the collective responsibility of all of those who were parties to the deal that created the deregulated system has been replaced by blaming all of the problems that transpired on Enron traders and the merchant generators. The damaging effects of the market manipulation, however, were made possible in the first instance by the utilities' decision to divest all of their generation and turn their customers over to the mercy of the spot market.

This decision was part of a deregulation scheme founded on the premise that the generation of electricity was no longer a natural monopoly and that a competitive wholesale market for electric power would increase efficiency and lower costs. Industrial customers wanted access to cheaper power from lower cost producers, and the leadership of the business community argued that electricity should follow the natural gas and telecommunications industries, which had made the transition from monopoly to competition.

The result of a contentious debate was the introduction of a patchwork scheme for deregulation, in which utilities would continue to sell power to their retail customers over monopoly utility-owned and controlled transmission lines and distribution systems. In fact, the only "deregulated" aspect of the electric energy industry was that the utilities would no longer hold a monopoly position with respect to power plant ownership, but would buy power for their customers, from the California Power Exchange, which was created as part of the deregulation scheme as an unregulated wholesale spot market, into which power producers would bid in their supplies. Customers would also have the "choice" to purchase their power from an independent supplier.

In exchange for breaking up this generation monopoly, California investor-owned utilities were allowed to “cash out” their power plant investments. All told, they received more than \$20 billion in accelerated cost recovery and asset sales, and sold all of their power plants, except for their nuclear, hydroelectric and a few fossil-fired plants.

Among the many other miscalculations by the framers of California's deregulation plan was the notion that there was surplus of electric power in the West. In fact, electric demand had been growing steadily throughout the region, and new power plants hadn't been built since the last QFs came online, in part because of uncertainty over the future of the industry. When a dry winter reduced the amount of hydroelectric power available for import into California, the stage was set for power shortages and unprecedented wholesale power prices throughout the West.

As the crisis deepened in the summer of 2000, the utilities refused to sign long term contracts with independent power producers (e.g., merchant generators), without guarantees from the PUC that they would be immune from any after-the-fact review of those contracts for prudence or reasonableness. Governor Davis and his PUC appointees, under strong political pressure from TURN and other ratepayer advocates, refused to let the utilities raise rates to pay for the skyrocketing costs of wholesale power, arguing that the retail rate freeze included in the original deregulation deal must remain in place in spite of rapid increases in wholesale prices.

As a result of these critical errors, made worse by a sudden run up in the price of natural gas, the utilities slid into financial chaos, unable to pay for the power they purchased out of the California Power Exchange to serve their own retail customers. In early 2001, the state of California had to use its credit to buy power for the state's electric customers, in order to keep the lights on.

In early 2001, Governor Davis signed a series of short- and long-term power purchase contracts, PG&E put itself into bankruptcy, and Southern California negotiated a bail out that allowed them to recover all of their costs of power purchases. The wholesale power market in California collapsed and Wall Street investors retreated from the power sector, resulting in a loss of tens of billions of dollars in equity, eliminating the principal source of investment funding for new power plants.

2.5 2002-2005: Utility procurement?

In the aftermath of the crisis of 2000-2001, California faced billions of dollars in utility cost recovery, high cost power contracts, and risk premiums from financial markets, who were now leery of doing any kind of business or investment in California. More importantly, despite the billions of dollars which California electric customers had paid and would be paying for years to come for utility stranded costs, and the power contracts signed by Governor Davis under duress, there had been relatively little investments in new power plants.

Everyone agreed that the utilities should return to their previous job of being the exclusive power purchaser for utility consumers. Because Wall Street had turned its back on the power market, the so-called “merchant model” for developing power plants was no longer viable and power purchase contracts from the utilities were the only available means of financing new power plants. But the utilities were reluctant to assume the role of procuring new power supplies without ironclad guarantees that they would be able to recover the costs incurred from new power purchase agreements.

The Legislature responded to this problem with the passage of Assembly Bill 57, which restored the utilities' obligation to buy power for their customers, guaranteed that their costs would be fully recovered, and ensured that they would not be second-guessed by the CPUC in their purchasing decisions, if the CPUC had approved their procurement plans. However, as discussed in greater detail below, even these assurances have led to little new generating capacity being built in the state.

While “keeping the lights on” became the watchword of the post-crisis debate, the electricity problem facing California was deeper than simply having enough electricity to meet peak energy supplies on hot summer days. Because the state's aging fossil-fueled power plants were relatively inefficient and many of these plants required expensive pollution control retrofits to remain online, and because North American production of natural gas was beginning to decline, the state decided to rapidly expand renewable power generation, and replace the older fossil fuel

plants with highly efficient, low emission new ones. This policy was deemed necessary if electricity costs were going to be stabilized.

The Legislature responded to this need by passing a bill, SB 1078, requiring utilities to purchase increasing amounts of renewable power. This requirement has been supplemented through state policy, encouraging even greater levels of renewable resource procurement by the utilities. Unfortunately, this mandate was coupled with a complex procurement scheme that, among other things, required renewable power costs to be compared to the market cost of power and failed to guarantee funding for needed transmission infrastructure to connect remotely sited renewable resource to the grid. In addition, the complexities of this law, coupled with continued resistance by utilities to this independent source of clean power, have only served to create new hurdles for achieving a clean, sustainable energy future for California.

The uncertain and complex structure of the renewable procurement scheme has given some utilities ample scope to delay and frustrate renewable development. SB 1078, enacted in September 2002, just celebrated its third anniversary with no renewable generation in the ground to show for its stated intentions. This circumstance will only be exacerbated by an initiative like Proposition 80 that serves to restore and further the adverse stranglehold that utilities have on California procurement decisions.

2.6 Conclusion: Orderly, open, transparent procurement needed

Since the early 1980s, the only periods in which significant amounts of new generating capacity came online was when independent power producers developed new projects in response to clear market or regulatory signals.² In order to get more “steel in the ground”, it will be necessary to provide clear price signals and power contracts that contain commercially reasonable terms against which power projects can obtain financing. Absent this, California's energy market will continue to stumble in its efforts to bring on new power projects, as it has done since 2002. This will ultimately results in episodes of high prices and poor reliability, at great cost to consumers and businesses.

² This does not include the utilities' efforts to complete their nuclear power plants, which started construction in the 1960s and 1970s.

3. Poor Procurement Practices Could Well Cause Power Shortfalls

Because of the lack of a consistent procurement program over the past several years, Southern California faces a shortfall in power supply in the next two years. This shortfall is caused by two key factors:

- residents' and businesses' demand for power is growing every year; and
- a large fleet of aging power plants, which are polluting, inefficient and costly to operate, is expected to go out of service in the near term.

The failure to procure adequate supplies to address this situation is the root cause of this expected shortfall.

3.1 Loads are growing

The California Energy Commission predicts statewide electricity consumption will grow between 1.2% and 1.6% annually over the period from 2003 to 2016.³ Peak demand for electricity could increase by as much as 2% annually during the same period. At that rate of growth, California's peak demand will reach 71,800 MW by 2016, up from just over 55,000 MW in 2003.⁴ In other words, California's peak demand grows about 1,300 MW per year. This means that when the state is in supply-demand balance, California will need to add generating capacity equivalent of PG&E's Diablo Canyon Nuclear Generating Station every two years.

3.2 Aging power plants are going offline

In addition to meeting rising demand for electricity, California's utilities must also plan for and procure resources to offset generation capacity that will be lost due to the retirement of aging power plants. The combination of peak demand growth, power plant retirements, and expiring power contracts will result in a loss of 24,000 MW that California's utilities will need to replace with new power supplies.⁵

³ California Energy Commission. *2005 Integrated Energy Policy Report, Committee Draft Report*, September 2005, CEC-100-2005-007-CTD, p.34.

⁴ *2005 Integrated Energy Policy Report, Committee Draft Report*, p.35.

⁵ *2005 Integrated Energy Policy Report, Committee Draft Report*, p.42.

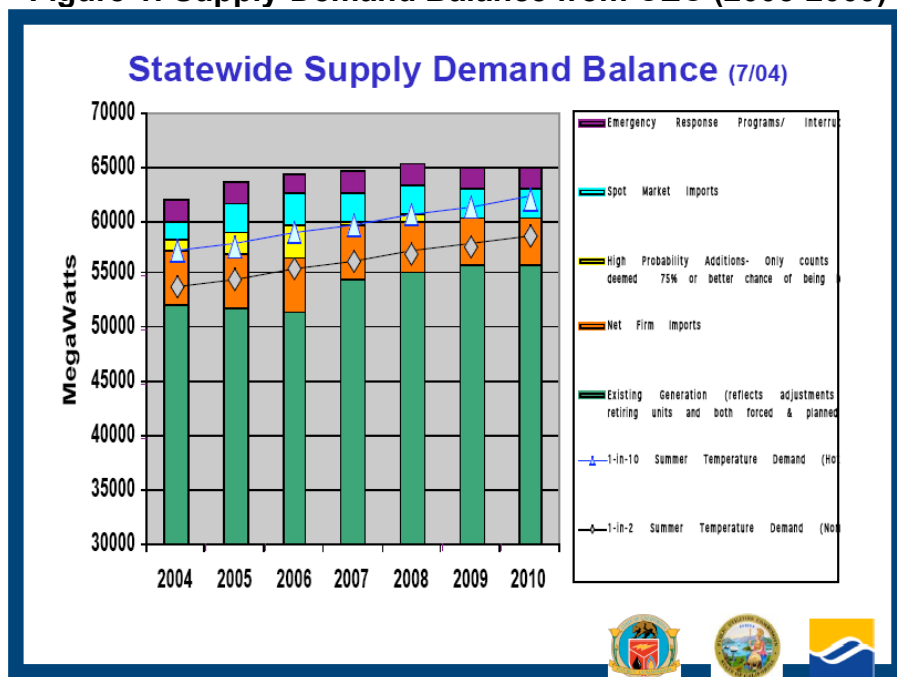
3.3 High demand growth plus loss of supply equals shortages

The California Energy Commission concluded this past summer that the state continues to face serious shortages of power in the near future:

“California could face severe shortages in the next few years. Of particular concern are the potential impacts of hotter-than-average summer temperatures, which can drastically increase the state’s electricity demand, as well as potential shortages resulting from decreased hydroelectric supplies if there is lower-than-average snowfall. Either of these circumstances could result in dangerously low reserve margins and potential supply disruptions.”⁶

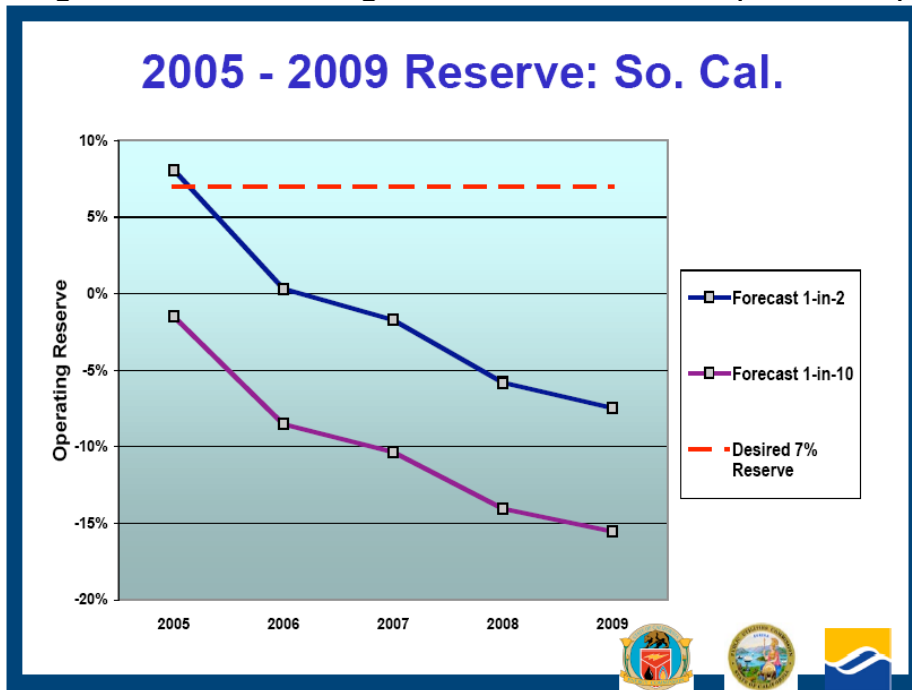
Figures 1 and 2 illustrate the precarious supply situation that California faces over the next several years.

Figure 1: Supply-Demand Balance from CEC (2005-2009)



⁶ 2005 Integrated Energy Policy Report, Committee Draft Report, p.E-2

Figure 2: Reserve Margin Estimates from CEC (2005-2009)



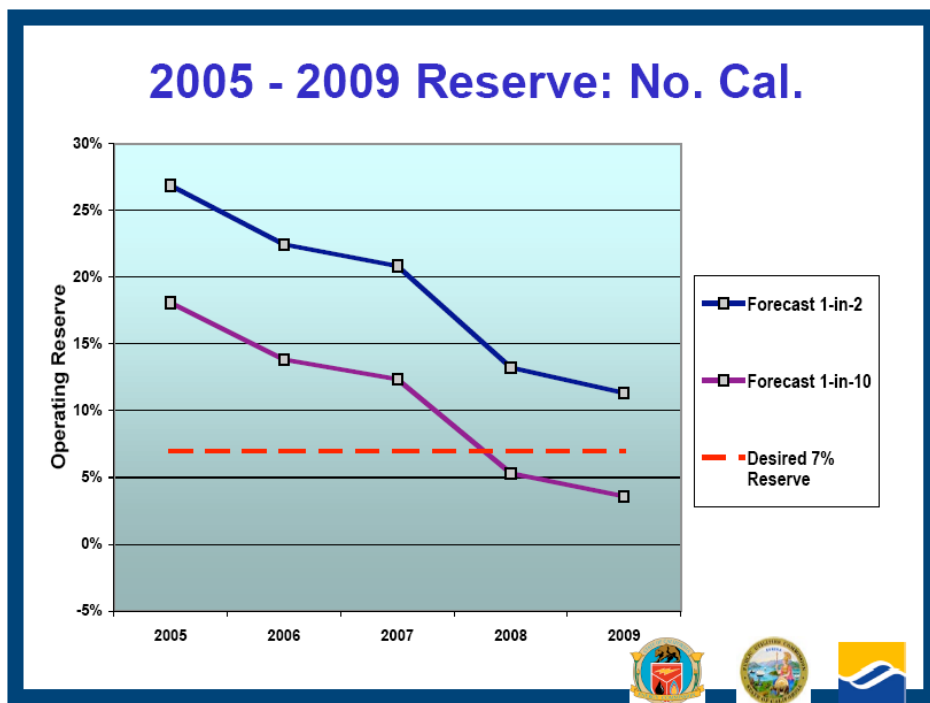


Figure 1 presents the various supply options available to serve load in California and compares those to the peak demand under two different temperature assumptions: normal demands (i.e., 1 in 2 summer temperatures) and high demands (i.e., 1 in 10 summer temperatures). Figure 2 recasts the information from Figure 1 into reserve margins. As can be seen in Figure 2, the desired operating reserve margins are 7 percent of loads but that in Southern California, the CEC expects that there will be inadequate supplies to meet that reserve target in 2006 under both normal and extreme weather conditions.

The expected shortfall in Southern California is due primarily to the expected shutdown of aging power plants. A 2004 study by the California Energy Commission identified a number of power

plants in California that are at risk of shutting down.⁷ Nearly two-thirds of those plants deemed at “high risk” of being shut down are located in southern California.⁸ In 2005 the California Energy Commission concluded:

Beyond 2006, if aging power plants retire and are not replaced, California's electricity system will not be able to maintain the required 7 percent operating reserve margin during high-demand periods of very hot weather. Beyond 2005, if aging power plants retire and are not replaced, most of Southern California will be unable to maintain this margin even under normal temperature conditions.⁹

Others have predicted similar tight supplies. Heading into this past summer, the California Independent System Operator was predicting that even under average or expected conditions southern California could be in trouble with a razor-thin capacity surplus of just 400 MW. The surplus would quickly become a deficit under extreme weather conditions or if transmission or generation outages occurred.

Even Southern California Edison was aware of the potential for power shortages in the southern part of the state. Southern California Edison was not unaware of the potential for power shortages in the southern part of the state. In February 2004 Edison International Chairman John Bryson raised the specter of impending power shortages in Southern California in a highly-publicized address given at a Cambridge Energy Research Associates conference. According to reporting by the Los Angeles Times, Bryson's message was clear: severe power shortages in Southern California were imminent if action that would allow SCE to construct, acquire, and operate a new power plant wasn't taken immediately (see text box).¹⁰

⁷ California Energy Commission. *Resource, Reliability, and Environmental Concerns of Aging Power Plant Operations and Retirements*. Staff Report.

⁸ California Energy Commission, *Revised California and Western Electricity Supply Outlook Report*, July 2005, p.16.

⁹ California Energy Commission, *Revised California and Western Electricity Supply Outlook Report*, July 2005, p.4

¹⁰ Excerpts from “California Could See Power Shortfall,” Los Angeles Times, February 13, 2005.

Expectations for 2006 and beyond are equally dismal. Southern California alone needs an additional 6,700 MW within three years to avoid blackouts and other consequences of inadequate supplies. The California Energy Commission has approved applications to construct power plants that would add 8,000 MW of new capacity in California. Many of these plants could be operational by 2008 "if contracted by utilities and construction is not delayed."¹¹

In summary, the reserve margins for the next few years are predicted to be very tight. These tight reserve margins could result in high wholesale power prices, which would translate into higher retail rates for customers. In addition, in the event of transmission line outages or the unexpected shutdown of large power plants, these tight reserve margins could require rolling blackouts to maintain the integrity of the generating and transmission systems.

Southern California Edison Predicts Shortfalls

It is important to raise the alarm bells because there is literally the risk that there will be insufficient power in the state," Bryson said. "We've been through that before. People don't see it coming.

Bryson cited a worst-case forecast by the California Energy Commission that suggested that the state could run short of electricity as soon as 2006, even if several pending power plants are completed and come online...

The warnings help make the case for a pending project by Southern California Edison, the Rosemead-based firm's utility arm, which hopes federal regulators will allow the company to build its first power plant in decades.

"California needs a law, it needs a policy framework ... there needs to be new state legislation that sets out how California will provide power," Bryson said. "There needs to be clarity — and this is absolutely unclear — as to which customers will be served by what means in California."

Without such clarity, he said, companies will be reluctant to risk millions of dollars to build generating facilities. Bryson did not discuss it Thursday, but his company is said to be helping state lawmakers craft energy legislation aimed at establishing new rules.

4. Recent Procurement Efforts: Wasted Time, Limited Results

Since the breakdown in 2000 and 2001 of California's ambitious plan to restructure its electricity market, the state's legislators and regulators have wrestled with the question of how to meet a growing economy's power requirements while simultaneously pursuing environmental

¹¹ California Energy Commission, *Revised California and Western Electricity Supply Outlook Report*, July 2005, p.19.

objectives and ensuring the reliability of the electric grid. Central to this challenge is how the state's utilities should procure electricity supplies.

For all its problems, the industry restructuring effort was a response to the fact that the traditional approach of allowing regulated monopoly utilities to make electricity procurement decisions was causing high electricity prices because the utilities had little or no incentive to keep their generation costs under control. Under the restructured market, the intent was to allow "market forces" and the needs of consumers shape the procurement of electricity supplies in order to provide adequate supplies at reasonable costs. In other words, the market would dictate how much capacity would be built and would provide adequate price signals to developers of new power projects.

As discussed above, legislators attempted to fix the flawed "let the market decide" approach that was adopted as part of California's electric industry restructuring efforts with the passage of Assembly Bill 57. This law requires the state's utilities to procure electricity generated by a diversity of resources through a competitive process. By defining how the utilities should conduct their power procurement, AB 57 ensures that the public policy goals of cost-effectiveness, reduced environmental impacts, grid reliability, and fuel diversity are met.

4.1 Even with assurances of cost recovery, there has been little or no contracting for new capacity

Despite the AB 57 framework and regulatory guidelines for a competitive and transparent procurement process, California's utilities have made only marginal progress toward acquiring new electricity supplies. The California Energy Commission points to the lack of long-term contracts as a primary reason why power supplies are falling short of what's needed:

The lack of available long-term power contracts has stalled construction of more than 7,000 megawatts of plants already permitted, and sharply curtailed the amount of capacity seeking new permits.¹²

¹² 2005 *Integrated Energy Policy Report, Committee Draft Report*, p.E-2.

According to data compiled by the California Energy Commission, SDG&E, PG&E, and SCE have signed about 80 contracts with power suppliers. Only one-quarter of these contracts are for terms of greater than five years and 50 contracts have terms of three years or less. The long-term contracts account for only 16% of the total contracted capacity (in terms of megawatts).

The CEC clearly spells out the need for the CPUC to take action immediately to compel the utilities to enter into long-term contracts:

In sum, the most important action the CPUC can take in the 2006 procurement proceeding is to compel the IOUs to enter into long-term contracts, particularly contracts with renewable facilities. Long-term contracts will encourage development of new conventional and renewable resources, both reducing reliance on aging, less efficient plants and providing important gas-price hedging advantages. The result will be a more reliable market, with environmental and economic benefits accruing to all utility customers.¹³

California Energy Commissioner John Geesman blamed the utilities (as well as state and federal energy policymakers) for the lack of progress on the procurement front:

Pat Wood, former head of (the Federal Energy Regulatory Commission) gave the state, and I believe he was including himself and FERC in this assessment as well, a D+ for response to the crisis, largely on infrastructure grounds. I think in light of the return this past summer ... of the outages in Southern California, if anything, he may have been guilty of grade inflation. Joe Kelliher, Pat's replacement and current chair of FERC, more diplomatically describes Southern California as the single most serious electricity supply situation in the United States. I think those are both pretty stark assessments and I agree with them.... We need to move forward now with investments in new efficiency, new renewables and new conventional supplies. That requires long-term contracts. Those projects don't seem to materialize without long-term commitments that ultimately the government is responsible for approving.¹⁴

Moreover, the solicitations have been marred by delays and controversy that continue even now. The efforts (or lack thereof) by the utilities in Southern California are detailed below.

¹³ *Committee Draft Transmittal of 2005 Energy Report Range of Need and Policy Recommendations to the California Public Utilities Commission*, p. 11.

¹⁴ Excerpts from "Geesman Pulls no Punches on Energy," *Contra Costa Times*, October 16, 2005.

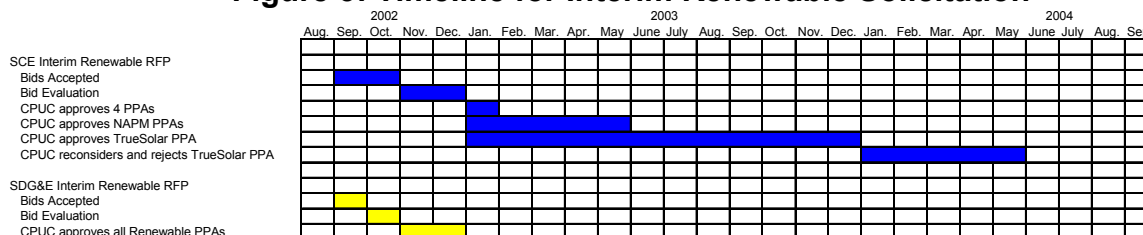
4.1.1 The “Interim” Renewable Solicitation

In August 2002 state regulators approved Southern California Edison’s proposal to allow expedited solicitations for intermediate and long-term renewable and non-renewable resources. Regulators directed the state’s three largest utilities to implement expedited solicitations so that contracts with suppliers would be in place before the end of December 2002. This date was critical because the state’s obligation to purchase power on behalf of PG&E and SCE—an obligation arising out of the 2000-2001 electricity crisis—expired then.

4.1.1.1 SCE takes 21 months compared to 4 months for SDG&E

SCE did not ultimately conclude its “interim” solicitation until the middle of 2004. In contrast, SDG&E executed contracts for approximately 240 MW of power supplies in December 2002 in accordance with the regulators’ directives. The actual timelines associated with SCE’s and SDG&E’s solicitations are illustrated in the figure below.

Figure 3: Timeline for Interim Renewable Solicitation



As can be seen from Figure 3, SDG&E was able to solicit proposals, sign contracts, and get CPUC approval in 4 months while SCE’s process took 21 months from beginning until the final rejection by the CPUC of one of SCE’s selected winning bidders.

4.1.1.2 SCE solicitation results in much controversy but few projects

SCE’s interim solicitation was beset by controversy, protests, and failed projects.

- The Procurement Review Group protested the proposed winning projects.¹⁵

¹⁵ Each of the three major utilities has its own Procurement Review Group that monitors certain technical aspects of the utilities’ procurement practices. The group is comprised of so-called “non-market participants” such as ratepayer advocates and state agency representatives. This group is allowed to see confidential information about the solicitations that is not provided to market participants.

- The Public Utilities Commission threatened SCE with sanctions for delaying submission of the winning bids and chastised the utility for changing bid evaluation criteria during the solicitation of bids.
- The solicitation required that winning bidders be capable of delivering power in 2003, but only three of the SCE's winning bids met this criterion.
- SCE selected one project, a retired PG&E plant that the bidder proposed converting to burn biomass, as a winning bidder, but the project never materialized because the bidder ultimately didn't acquire the power plant from PG&E.
- SCE selected as a winning bidder a 5 MW photovoltaic project that was proposed by a company that had affiliations with a sitting commissioner of the Public Utilities Commission. With a cost for power from the project in excess of 40 cents per kWh, the project was not among the low-cost bidders in the solicitation.

4.1.1.3SDG&E solicitation goes relatively smoothly and gets results

SDG&E's winning bids, on the other hand, drew no protests, and the selected projects received regulatory approval in December 2002. SDG&E's solicitation yielded contracts for power supplies equivalent to about 4% of the utility's 2003 load and about 7% of its 2004 load. In short, SCE's solicitation relative to SDG&E's took longer to arrive at a list of winning bidders, was subject to significantly more protests by ratepayer advocates, environmental groups, and even SCE's own Procurement Review Group, took much longer to obtain approval from the CPUC because of the controversial nature of the projects that were selected, and resulted in only 60 percent of the projects being viable.¹⁶

¹⁶ This is not to say that SDG&E's procurement efforts are the benchmark against which all other procurements should be measured (see the discussion below of the 2003 All-Source solicitations below). Instead, the comparison between SCE and SDG&E is drawn to highlight SCE's approach to other solicitations in a region facing long-term power shortages.

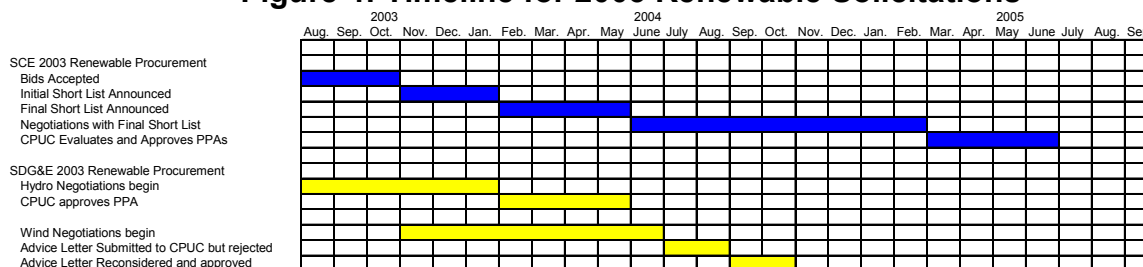
4.1.22003 Renewable Procurement

California’s Renewable Portfolio Standard program was established through legislation passed in 2002. Initial implementation and procurement guidelines were established by the CPUC in June 2003; however, many issues remained under discussion and are awaiting final rulings by the CPUC.¹⁷ In order to permit the utilities to move ahead with procurement of renewable energy during the interim period when the final RPS program rules were established, the CPUC permitted the utilities either to sign bilateral agreements or issue competitive solicitations for renewable energy. These negotiated agreements nevertheless would be required to “abide by the terms of” the CPUC’s June decision. SDG&E chose to negotiate directly with two renewable energy suppliers while SCE issued a solicitation for bids.

4.1.2.1Very long timelines to complete solicitations

Although it would be tempting to congratulate the CPUC, SCE, and SDG&E for moving expeditiously to add renewable energy projects to the utilities’ supply portfolio, the results are less than stellar. The following figure presents the timeline associated with these negotiations for SCE and SDG&E.

Figure 4: Timeline for 2003 Renewable Solicitations



As can be seen from Figure 4, it took SDG&E almost 14 months to complete negotiations and obtain approval for the projects that it ultimately selected. SCE’s results were even worse: SCE needed about 22 months to complete negotiations and obtain CPUC approval for the projects that SCE selected as winning bidders from its solicitation.

¹⁷ Decision 03-06-071.

4.1.2.2 Very small capacity additions given time expended

Even after taking between 14 and 22 months to negotiate agreements with its selected suppliers, the utilities had little to show for their efforts:

- From an initial selection of 25 winning bidders, SCE ultimately signed contracts with only six suppliers.
- SDG&E's bilateral negotiations yielded only two contracts for a total of less than 60 MW. SCE's solicitation yields six contracts for less than 150 MW.
- Power supplies resulting from SCE's contracts will meet between 0.9% and 2.9% of SCE's RPS requirements. SDG&E's two projects will supply only about 1% of SDG&E's RPS requirements.¹⁸
- Although the CPUC gave the utilities approval to sign contracts with renewable energy suppliers in 2003, power from any of the projects will not flow into the grid until 2006 at the earliest.

The RPS legislation was intended to overcome a key barrier developers of renewable energy projects face: the lack of long-term commitments for the projects' energy prevents developers from securing the necessary financing to develop and construct their projects. Yet, the efforts by the CPUC to jump-start renewable energy procurement by permitting interim bilateral negotiations and competitive solicitations yielded less than 200 MW of new renewable generation.

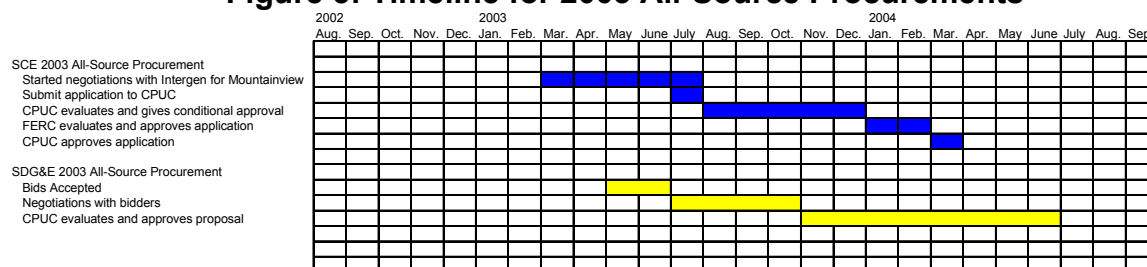
4.1.3 2003 All-Source Procurements¹⁹

Both SCE and SDG&E initiated major efforts to procure generating capacity in 2003. SCE's approach involved acquisition of a distressed power project from Intergen (the Mountainview project). SDG&E's approach, on the other hand, consisted of an all-source solicitation, which resulted in contracting for two turnkey power projects (a combined cycle plant and a peaking plant) and also contracting for power purchases from two entities (a combined cycle plant and a unique aggregation of small generators). The following figure presents the timing for these solicitations/acquisitions.

¹⁸ The utilities are supposed to increase their net supply of renewable resources by an amount equal to 1% of bundled retail sales per year.

¹⁹ An "all-source" solicitation allows bids from all different types of generation, not just renewable or fossil-fired projects.

Figure 5: Timeline for 2003 All-Source Procurements



As can be seen from Figure 5, the SCE and SDG&E procurement efforts took 13 and 14 months, respectively. Both approaches engendered significant opposition, although the opposition was from different parties and for different reasons.

4.1.3.1 SCE Does Not Use Market Test

In SCE’s procurement (i.e., the Mountainview proceeding), SCE did not issue an open, transparent solicitation. Instead, SCE negotiated directly with the owners of Mountainview. This caused a firestorm of opposition from the independent power community, which believed that the bilateral “unique, fleeting opportunity” should be rejected unless and until SCE put the project to a market test against other bidders. Consumer advocates were not happy with SCE using a bilateral negotiation but felt that there were ways to mitigate the problems with SCE’s proposal. As a result of the unusual structure for the project, it took quite some time to obtain CPUC approval.²⁰

4.1.3.2 SDG&E changed solicitation rules mid-stream

Even though SDG&E used a solicitation for its all-source procurement, this did not insulate its efforts from controversy. In the CPUC proceeding evaluating the results of SDG&E’s solicitation, consumer advocates strenuously advocated against approval of Palomar and Otay

²⁰ Mountainview is owned by a subsidiary of SCE. The subsidiary is not subject to CPUC regulations. The subsidiary sells power to SCE on a cost-of-service basis pursuant to a 30-year power sales agreement.

Mesa.²¹ The opposition to Palomar stemmed from the development of Palomar by Sempra Generation, an affiliate of SDG&E, and the perception that Palomar was a high cost resource that would be utility owned. The Otay Mesa project would sell to SDG&E under a ten year contract. The contract was opposed on the basis that Otay Mesa is unable to deliver to the SDG&E load pocket without expensive transmission upgrades, and therefore was not eligible for the solicitation. The contract with Otay Mesa was executed only after intervention by Commissioner Peavey in the negotiations. The controversy surrounding these projects extended the CPUC approval process, with a rehearing of the decision still outstanding at the CPUC.

4.1.3.3 Neither procurement effort was well-regarded

In summary, both SCE and SDG&E took unusual approaches to procurement in their all-source solicitations in 2003. The major complaint about the SCE approach was the lack of a market test. SDG&E's solicitation suffered from a failure to abide by the terms and conditions of the solicitation when selecting the winning bidders. However, both procurement efforts had the same inherent flaw: the procurement efforts were not handled as open, transparent solicitations in which there was no possibility for manipulation of the results.

4.2 AB 2006: A new approach?

As noted previously, SCE recognized the expected capacity shortfalls in Southern California. However, rather than making a concerted effort to procure additional supplies, SCE's solution to looming energy shortages in its part of the state came in the form of proposed Assembly Bill 2006.

4.2.1 Turning back the clock

The legislation included a provision which would have required the CPUC to reinstate the pre-restructuring regulatory compact between the utility and the regulator. This regulatory compact essentially would have obligated the utility to provide adequate electricity at reasonable rates to the utility's customers. But in recognition of that obligation, the utility would be allowed to construct its own power plants and other infrastructure and earn a rate of return on the investments. AB 2006 permitted California's utilities to side-step the competitive solicitation

²¹ The consumer advocates opposing SDG&E's actions also were members of SDG&E's Procurement Review Group, which had been a party to the negotiations associated with the SDG&E solicitation.

process established by AB 57 and construct power plants and recover the costs of building and operating new plants as long as the costs were reasonable.

The sponsor of AB 2006, Assembly Speaker Fabian Nunez, described the objective of the legislation as follows: “The goal of AB 2006 is simple: We will never again allow Californians to be held hostage by unregulated power companies who believe Californians should pay whatever price the market will bear for the luxury of turning on the lights.”²²

4.2.2 Tilting the scales toward utility-owned generation

If AB 2006 had become law, privately developed and constructed power projects would have faced nearly insurmountable hurdles for regulatory approval vis-à-vis utility-owned projects. Essentially, privately owned projects would have had to meet three criteria before the CPUC could reject a utility-owned power plant proposal in favor of a private project. These three criteria were as follows:

- Same or superior local area and system wide reliability than the utility’s proposed plant;
and
- Same or superior environmental benefits than the utility’s proposed plant; *and*
- Lower cost to ratepayers than the utility’s proposed plant.

Thus, even if a privately developed project was superior to a proposed utility-owned plant in two of these three characteristics, AB 2006 would have required the CPUC to approve the utility’s proposed plant over the independent power project.

4.2.3 Vocal opposition to SCE-sponsored legislation

The fight over AB 2006 was bruising. Contrary to the claims of SCE, customers and other utilities opposed passage of this legislation. For example, the California Manufacturers and Technology Association declared that AB 2006 would undermine the existing electricity procurement process and delay efforts to add much-needed new power supplies:

²² <http://democrats.assembly.ca.gov/members/a46/opeds/a46oped2004006.htm>

AB 2006 undermines AB 57 by duplicating and adding a new layer of requirements to the procurement planning process... The requirement for a new and additional planning process will impede and delay resolution of critical resource adequacy proceedings and undermine the goal of bringing new resources on line as soon as possible... AB 2006 would give the investor-owned utilities the ability to build power plants outside a competitive process. There will be upward pressure on rates if utilities are not required to buy only the lowest cost power.²³

Even PG&E ultimately decided to oppose AB 2006:

Pacific Gas and Electric Company (PG&E) respectfully requests that you return Assembly Bill 2006 (Nunez) to the Legislature without your signature. This measure discourages utility investment in new generation resources, requires a burdensome new process that will undermine the California Public Utilities Commission's (CPUC's) ability to approve settlements, and fails to provide a comprehensive proposal for resource adequacy, the foundation of a sustainable energy market structure.²⁴

4.2.4 Governor vetoes AB 2006

Governor Schwarzenegger vetoed AB 2006 for several reasons. First, he described the legislation as creating a “redundant and burdensome energy procurement process” by including provisions that mirrored existing statutes and policy decisions.²⁵ Second, AB 2006 would open the door to monopolistic practices by the utilities without adequate consumer safeguards. Finally, Governor Schwarzenegger expressed concern that by adding new mandates for utility procurement of power supplies power plant construction in the state would be adversely affected.

4.2.5 End result: Diverted attention from real procurement problems

Even though the Governor vetoed AB 2006, the end result of the effort to pursue this legislation was that parties had to divert their limited resources from addressing the true issues facing California, namely the looming shortfalls in Southern California in 2006-2008, to devote time and effort to ward off this unnecessary and harmful piece of legislation that would have impeded rather than assisted in addressing California's supply shortages.

²³ California Manufacturers & Technology Association website, <http://www.cmta.net/billsample.php?bill=224>.

²⁴ Letter from Daniel D. Richard to Governor Schwarzenegger, September 3, 2004.

²⁵ See Governor Schwarzenegger's letter to the California State Assembly at http://www.governor.ca.gov/govsite/pdf/vetoes/AB_2006_veto.pdf.

4.3 Other SCE actions or inaction exacerbate the problem

Actions, and in some cases inaction, by Southern California Edison have also contributed to the current situation where the southern part of the state could experience power outages in the next several years.

4.3.1 Etiwanda shutdown

A case of inaction by the utility led to the shutdown of Reliant Energy's Etiwanda power plant. In 2003 Reliant Energy retired 824 megawatts of capacity (Units 3 and 4) at the Etiwanda plant. Prior to retiring the two units, Reliant requested proposals for offers to contract for the capacity. No prospective purchasers submitted offers to Reliant. Reliant retired the two units because without contracts, Reliant could not cover the units' operating costs and certain capital investments.

The Etiwanda plant is located near Rancho Cucamonga in Southern California Edison's territory. During a California Energy Commission workshop in June 2004, a representative of the utility explained that the utility did not submit a bid because the utility's "procurement plan...that the [Public Utilities Commission] adopted did not provide [SCE] the ability to participate in a [generator]-initiated RFO." The representative stated that the utility received the necessary regulatory approval only later. However, Southern California Edison needed only to file an advice letter requesting the approval from the Public Utilities Commission. Commissioner Geesman of the California Energy Commission apparently considered the explanation to be weak: "If [SCE] lack[s] adequate authority to participate in the [RFO], I think [there is] a problem at the state level...and if [SCE] failed to point that out to [its] appropriate regulator, I think that's a problem...within [SCE]...At some point the consequences of...continuing to...stay behind the eight ball are pretty severe."

4.3.2 Recently withdrawn all-source solicitation

Southern California Edison also has held solicitations that appear to be good faith efforts to procure new generating resources but ultimately yield no tangible results. For example, SCE

recently issued an all-source solicitation for new capacity. A condition of this solicitation was that the costs of the power contracts procured as a result of the solicitation would be allocated to all Southern California entities, not just to SCE's customers. Not unexpectedly, this created a firestorm of opposition to this solicitation. SDG&E indicated that it had procured adequate capacity to meet its own requirements and did not need SCE to procure power on its behalf. SCE ultimately withdrew this RFP.

4.3.3 SCE claims it cannot procure from third parties even with assurances in AB 57

SCE acknowledges that there is a significant risk of capacity shortfalls. But then SCE (and other utilities) claim that it is essentially impossible to procure power for its retail customers because of regulatory uncertainties. These uncertainties include the core-noncore market, a return of Direct Access, and Community Choice Aggregation. "Given the wide array of possible outcomes related to core/non-core and Community Choice Aggregation, SCE's bundled customers are best served by these short-duration options as they will not lock in long-term resources that may not be required to serve...bundled service customers."²⁶

Such a position is inconsistent with the assurances outlined in AB 57 as well as recent CPUC policy regarding assignment of exit fees to customers that depart the utility's system.

4.3.4 Ironically, SCE is able to procure resources that it owns or controls

That is not to say that SCE has not taken steps to obtain new generation. Even while saying that uncertainty makes it impossible to procure power from third parties, SCE is willing to proceed with the development of its own project or with life extension of existing SCE resources. As discussed above, SCE has acquired the 1,054 MW Mountainview plant from Intergen. SCE has also proposed to replace the steam generators in its 2,200 MW San Onofre Nuclear Generating Station. Most recently, SCE stated that it is now even considering extending the life of its 1,580 MW Mohave coal plant in Nevada, despite its claims for the past two years that this plant would have to be shut down. Only the Mountainview project has a chance to be online prior to the

²⁶ Southern California Edison Company's 2004 Long-Term Procurement Plan Testimony, Volume 1, in R.04-04-003, July 9, 2004, pp. 9-10.

expected capacity shortages in Southern California. It should be noted that none of these resources has been subjected to a market test in which third parties can offer to sell power to SCE in place of SCE's own project.

4.4 Conclusions

The passage of AB 57 should have, in theory, broken the logjam in procurement. However, this does not appear to have happened, at least with regards to SCE. For whatever reasons, the potential capacity shortfall in Southern California hasn't pushed SCE to take any particularly extraordinary actions. This is seen by SCE's relatively slow procurement efforts, its failure to lock in supplies, and its overall regulatory stance regarding procurement. On the other hand, SCE in particular has been willing to make long-term procurements as long as the resources are owned by the utility, rather than by a third party.

5. Final Thoughts: Keeping the Procurement Promise

Utilities will no doubt continue to take the lead role in procuring power for their customers. While the state stepped in to acquire power on behalf of consumers during the electricity crisis, that experience and the continuing burden of paying the costs of long-term contracts executed at the height of the market spurred a rapid return to utility procurement. And while third party providers continue to serve ten to fifteen percent of the California electricity market, a broadened direct access market will likely depend on a stable and regulatory system and resolution of utility fears for their customer base. Thus, the primary burden of acquiring new resources will continue to fall to the state's utilities.

But recent experience does not suggest that the utilities need greater leeway or more autonomy to perform that role. The framework adopted in AB 57 and SB 1078 provides clear goals for the state in how to obtain new power resources and the types of resources that are preferred. Regulators, though often struggling with implementation details, have laid out a relatively clear system of solicitations, benchmarks, and resource targets to achieve those goals in a cost-effective manner. That system could be improved, particularly in reducing the complexities of the renewable portfolio standard process, but a solid foundation has been laid. The increased

cooperation between the state's lead regulatory agencies, evidenced by the Energy Action Plan and Energy Action Plan II, is encouraging. The challenge is to encourage the utilities to work within that framework to meet the goals set by the state's policy makers.

Recent attempts to revamp that regulatory framework yet again would not contribute to the creation of the stable and consistent regulatory environment that is needed to bring new investment in generation into the state. AB 2006 would have reset the ground rules for the utility industry just as the state emerged from the debris of the events of 2000-2001. Proposition 80 would likewise set aside the progress that has been made in putting a rational regulatory framework into place, and overturn the past four years' efforts to rebuild the state's utility industry and allow needed new investment. In fact, the attempt to return to more traditional regulation embodied in Proposition 80 would not only undo the progress that has been made in the past four years, but would result in less oversight by state authorities than existed prior to the AB 1890 restructuring. In other words, the proposition would result in more loosely-regulated utility monopolies than the past.

Clearly, an orderly, open and transparent process for buying power and encouraging new generation construction is a key element – perhaps the most important single factor – in a utility system that delivers cost-effective and reliable power to the state's consumers. With many stops and starts, and in a sometimes crisis-driven environment, the state's legislators and regulators are constructing such a process. In that part of the state most threatened by potential power shortages, one of the state's largest utilities has failed to work within that framework to realize the promise of clean, cost-effective power for California citizens.