

FROM CRISIS TO BLIGHT

Although the electricity crisis itself was a short-term event, the policy actions—or inactions—during the challenge period and the crisis have left a continuing harmful legacy that threatens to remain for years or even decades to come. This legacy continues in terms of the fundamental financial problems with which investor-owned utilities are struggling, in terms of deep financial obligations incurred by the state in purchasing electricity, obligations the state intends to transfer to purchasers of electricity within the service areas of the two investor-owned utilities, and in terms of financial obligations ratepayers will be forced to meet if they wish to remain in California.

Pacific Gas and Electric (PG&E) remains in bankruptcy court. Its most recently proposed restructuring plan has been opposed by the State of California but is under consideration by the court and as such provides the possibility that PG&E will ultimately return to financial health. The second-largest utility, Southern California Edison (SCE), has agreed with the CPUC on a retail price structure that promises but does not guarantee that SCE will return to financial health, although not quickly. Although the peak of the crisis has passed for these two firms, they face a continued high risk.

The state has been purchasing electricity on behalf of the investor-owned utilities since January and has accumulated a short-term net financial shortfall exceeding \$6 billion as a result.

In addition, the state has signed long-term contracts to purchase electricity, with contractual commitments to pay prices around twice as high as the expected future market prices. These contracts together represent long-term financial obligations to pay more than \$40 billion to purchase electricity that is likely to be worth around \$20 billion. The difference between the contractual price and the value of the electricity represents an expected future net loss of roughly \$20 billion. Thus, because of its actions, the State of California has accumulated a combination of short- and long-term financial losses exceeding \$25 billion. These near- and long-term financial losses are the basis of the blight the state now faces.

However, who will pay these financial losses is still an issue. If these losses are added to the future retail prices of electricity in the service areas of the investor-owned utilities, retail electricity prices in those areas will be elevated for many years above prices in surrounding states or prices in parts of California served by the municipal utilities (Los Angeles and Sacramento are the two major locations). If these losses are paid by California taxpayers, taxes must be increased in California or state-supported public services must be diminished. Either allocation of the financial obligations would be damaging to the people of California.

The legislature and the governor have made their intentions clear that these financial losses must be paid, not broadly by the California taxpayers, but by the families and companies that will remain as or will become customers of the investor-owned utilities. These financial obligations were incurred by the state "on behalf of" those families and companies that were customers of the investor-owned utilities during the crisis. A large majority of these families and companies can be expected to remain as customers of the investor-owned utilities during the next decade or so. Thus, imposing the financial obligations on the future customers of the investor-owned utilities would result in a rough correspondence between those who would be forced to pay the costs and those on whose behalf the state incurred the obligations.

However, this allocation of the costs will not lead to anywhere near a perfect correspondence between those who would be forced to pay the costs and those on whose behalf the state incurred the obligations. Families and businesses moving into the service areas of PG&E and SCE would be required to pay costs of these past mis-

takes. Those moving out of the service areas, either to other parts of California or away from California, will avoid paying the costs.¹ This allocation of costs thus creates incentives for families and businesses to move out of areas served by the investor-owned utilities to other states or to areas served by the municipal utilities. In addition, it penalizes families moving into the service areas of investor-owned utilities.

Another perspective, one not adopted by the governor or the legislature, is that the financial obligations resulted not from the mistakes of the electricity ratepayers—either those purchasing electricity from the investor-owned utilities during the crisis or those that may be located in the service areas of the investor-owned utilities in the future—but rather from the decisions made by the governor, the CPUC, and the legislature prior to and during the crisis. The governor and legislators were elected by the voters; the CPUC members were appointed by governors. It was the entire electorate, or at least the majority voters of the electorate, who had empowered the governor and the legislature. Thus, the alternative perspective is that these costs should be distributed broadly among the California voters, and that these financial losses should be paid over a period of years through the State Treasury. To date, however, the governor and the legislature have definitely not adopted this perspective. Moreover, it is unlikely that the voters who purchase electricity from the municipal utilities would welcome a solution involving their paying for electricity they did not use. But this solution would not create the same incentives for families and businesses to move out of the service areas of the investor-owned utilities.

Which groups should or will ultimately pay the costs of these state obligations is a long-term issue that need not be fully resolved during the next year. Currently, the state has incurred the obligations and is taking steps to delay payment in the short term and ensure that the financial obligations are ultimately paid by future customers of the investor-owned utilities.

In the short run, perhaps California has no choice but to defer the payments. Because of the economic slowdown, California is

¹To some extent this will be mitigated. The future obligation may reduce the value of real estate in the service areas of the investor-owned utilities, decreasing the price of real estate and imposing costs on those leaving the area. But one cannot expect this capitalization process to be perfect.

now facing a State budgetary deficit exceeding \$10 billion, not counting any financial shortfalls from electricity purchases. Unless the state can find a way to recover the electricity-related shortfalls from the retail electricity consumers or can find a way to defer payment for years, the State budgetary deficit will increase sharply, perhaps to untenable levels. Thus, the state has little choice but to ensure that the financial shortfalls from electricity purchases will not become short-term obligations for the State Treasury.

The California Legislature has authorized the state to defer payments of the shortfall and to shift obligations to ratepayers in the service areas of the investor-owned utilities. First, the state has authorized the issuance of \$12.5 billion of revenue bonds, which would be financial obligations not of the state, but of retail electricity purchasers within the PG&E, SDG&E, and SCE service areas.² The retail electricity purchasers in California would be obligated to pay back the principal and interest on those bonds through increased retail prices of electricity. In addition, the state requested that the CPUC provide long-term guarantees that the retail electricity price will be kept high enough to ensure that ratepayers will pay the entire cost of the long-term electricity contracts plus the costs of repaying any revenue bonds the state is able to market. Until recently, the CPUC was unwilling to make such a commitment, citing very legitimate concerns that the various obligations made by the state “on behalf of” electricity purchasers could result in unreasonably high retail prices over many years.

Absent the guarantee, the state plan to sell revenue bonds was in limbo. The long-term electricity purchase contracts include clauses that obligate the state to pay for that electricity ahead of all bonds, notes, or other indebtedness. Therefore, if the state were to issue revenue bonds, the payment of their interest and principal would be subordinated to payments for the long-term contracts. This subordination would not create particular risks if the CPUC guaranteed that the retail electricity prices would always be kept high enough to adequately cover both obligations. However, until the CPUC agreed to the guarantee, it was highly unlikely that the bonds could have been issued as investment-grade instruments.

²Under current plans these bonds would not be obligations of anyone purchasing electricity within the service areas of the municipal utilities because electricity was not purchased on behalf of these consumers.

The state had financed its electricity purchases using a short-term bridge loan, anticipating that it would be able to market long-term bonds. Because the bonds have not yet been sold, however, the bridge loan rolled over to become a medium-term loan at a higher interest rate. It remains an obligation of the State of California. Now that the CPUC has agreed to keep retail rates high enough to ensure payment of the long-term contractual commitments and assure the bond repayments, the state should be able to market the bonds as investment-grade instruments and repay the medium-term loan.

These continuing financial ramifications of the dual crisis are major components of the blight that threatens California, but they do not encompass all long-term adverse consequences of the state's policy choices.

One of the important provisions of AB 1890 was direct access for electricity consumers to wholesalers, generators of electricity, or other electricity aggregators so consumers would have the ability to bypass utilities. Although the option of going directly to generators was unlikely to be taken, at least at first, by residential consumers, the option could be important for commercial or industrial users. The option promised to create legitimate retail competition that, over the course of years, could be expected to reduce retail markups and increase the range of electricity supply services available to all consumers.

But the California Legislature has voted to repeal provisions allowing direct access: companies and individuals are precluded under State regulation from entering into contracts to purchase electricity except from their local utilities, which are obligated to pass revenues on to the state to cover the state's financial obligations. The legislation repeals direct access during the time that the state continues to purchase electricity on behalf of utilities. The purchase contracts extend for the next twenty years and the legislative intent seems to be that direct access would be abolished during that entire time. Thus, unless the current legislation is changed, meaningful retail competition will not be a reality in California for a very long time.

Although elimination of retail competition is a restrictive step backward, the state's financial obligations provide a strong motivation for such a step, since the governor and legislature have decided that the financial obligations of purchasing electricity through increases in the retail electricity prices are to be paid by

future customers of the investor-owned utilities. That allocation of costs provides strong incentives for customers, particularly large customers, to stop purchasing electricity from these utilities. The easiest alternative for most would be to bypass the utilities, thereby avoiding payment of some portion of the state-incurred financial obligations.³

Since the total amount of the obligations is fixed, the more customers are able to avoid paying a share of these obligations, the greater will be the remaining share to be paid by the rest of the customers. Such a restriction therefore helps to ensure that the state's financial obligations for electricity purchases will be borne broadly within the service areas of the investor-owned utilities.

In addition, California has created a State Power Authority that would develop and operate new electric-generating plants, selling state-generated electricity in competition with private sector generators. This agency has the potential for moving California even further down the path to becoming a public power state and pressuring consumers to purchase the state-generated electricity in preference to possibly lower-cost electricity generated by private sector firms.

Collectively, these long-term consequences of State actions threaten to leave California with more severe versions of the problems that motivated restructuring in the first place—high retail prices, no consumer choice, and pervasive government control in electricity supply. This, then, is the blight toward which California is being led.

LONG-TERM ELECTRICITY PURCHASE CONTRACTS

At the height of the electricity crisis, Governor Davis announced that the state would not limit its wholesale electricity purchases to the quantities needed during the crisis period but rather would enter long-term contracts to buy electricity over the next two decades. The state subsequently requested bids to sell large quantities of electricity to California through long-term contracts. This was the first of several policy actions under which the state would start becoming a long-term direct participant in

³For most large firms the other two alternatives—move to areas of California that will not face these high prices or move out of California—are more difficult and may not be economically viable.

the electricity markets, substituting direct state control for private sector control. Ironically, entering long-term contracts was one of the actions proposed by the utilities but precluded under State regulations.

As had been pointed out in the “Manifesto on the California Electricity Crisis,” the height of the crisis was not the time to lock the state into long-term contracts. Long-term contracts, negotiated by even the utilities, could have been expected to result in many years of high electricity prices. Yet the governor chose a time shortly after the peak wholesale prices to start negotiating the long-term contracts. Rather than the state entering long-term contracts at that time, several alternatives were available.

First, the state could have waited until the crisis had subsided and negotiated long-term contracts only after spot prices had fallen significantly, which would have left the state vulnerable to even higher wholesale prices during the crisis and to even larger budgetary deficits. In hindsight it would have avoided many years of elevated wholesale prices, although at the time the state entered the contracts it could not have known with certainty whether spot prices would increase or decrease.

Alternatively, the state could have encouraged the investor-owned utilities to negotiate medium- or long-term contracts appropriate for their needs, which would have left the long-term control of these purchases with the private sector, not with the State. However, once the utilities were not creditworthy, sellers would have been unwilling to enter such contracts or, at best, would have required very large risk premiums. To counter that problem, the state could have provided guarantees to the sellers for those obligations. In that way, the state could have reduced the risk without taking on the purchase obligation itself.

The state could have waited until the crisis had subsided and allowed the utilities, once they were again creditworthy, to themselves negotiate medium- and long-term contracts. This solution, however, depended on the state allowing increased retail electricity rates so that the utilities could have become creditworthy within a reasonable time. However, during early 2001, the governor was still opposing any retail price increases beyond the \$10/MWh temporary surcharge. Thus, given the governor’s opposition to retail price increases, this option was not realistic, although the state could have still guaranteed payment of the financial obligations under the contracts and thus could have facilitated private sector contracting.

In short, at the peak of the crisis there were no good alternatives for California to ensure lower wholesale prices. The time for the state to sign long-term contracts or to let the utilities sign those contracts was gone by the end of the year 2000.

However, Governor Davis continued on the path of establishing the state as the direct buyer of electricity, rather than following the other alternatives. He chose to do so at the peak of the electricity crisis, authorizing a team to negotiate long-term contracts for the state to buy electricity, and the team did so.

During the negotiations, both the generators and the state were well aware that there were many generating units under construction. Therefore, the governor could rationally expect that the negotiated long-term contractual prices would be well below the then current spot prices. This expectation made it possible for Governor Davis to assure the voters that, although the contract negotiations and terms would be confidential, the contracts would specify electricity prices well below the spot prices they were hearing about daily. In fact, the negotiated prices are lower than the then current spot prices but much higher than the wholesale prices that could reasonably be expected during the life of these contracts.

Figure 5.1 shows the total MW under these contracts for each month up to the year 2011. One contract continues beyond this

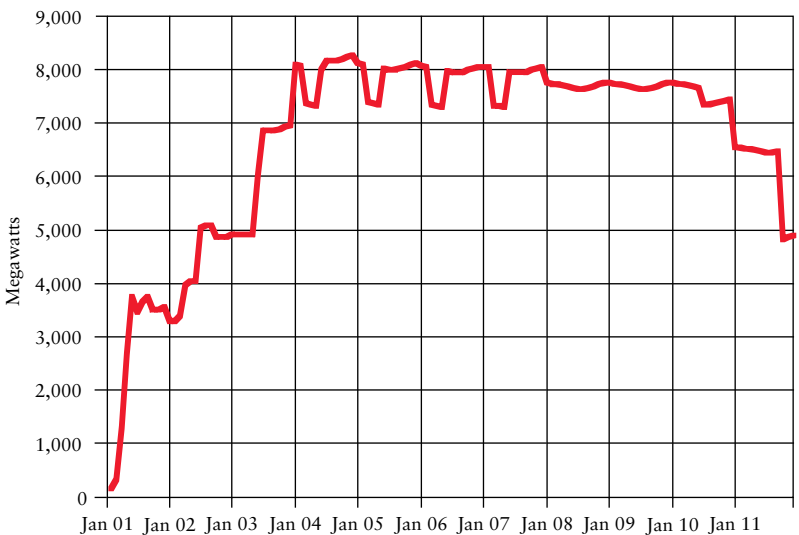


FIGURE 5.1: Total MW under Long-Term State Contracts

point to the year 2021, providing 1,000 MW of electricity. These long-term contracts obligate the state to purchase roughly 8,000 MW over the peak usage times each month (typically sixteen hours per day, six days per week) for each year between 2004 and 2010, about 20 percent of the total generating capacity in California.

Some of the contracts specify the source of the electricity. In each such case, the source is electricity from California plants that already had been under construction before the challenge period or crisis had developed.

The total contract quantity does not reach its peak until January 2004. Fully half of the contracts do not promise to deliver electricity until after January 2002, more than seven months after the end of the crisis, and some do not begin delivering electricity until January 2004. Thus, the governor's justification for the contracts—that they were used to solve the crisis—seems inconsistent with the timing of several contracts. Since observers at that time generally believed that the biggest difficulty would be during summer 2001 and that California would be past the crisis by fall 2002, long-term contracts that do not begin until January 2004 are not consistent with the goals announced by the governor.

These contracts are consistent with California moving along the path to becoming a public power state, with fundamental control of electricity supply resting with the state government, rather than with the private sector. Thus, the timing of these contracts suggests that part of their purpose may have been to help transform California into a public power state.

It would be easier to justify the contracts if the contractual prices were low, but they are not. Figure 5.2 graphs the contractual prices under these contracts to the year 2011 if there are no natural gas price adjustments. For 2001 and 2002, the price varies on a month-to-month basis but averages over \$90/MWh.⁴ During 2003, the prices decline from an initial \$90/MWh to \$75/MWh. The price from the year 2004 through the end of the contracts averages slightly above \$70/MWh.

These prices are significantly higher than the expected market-clearing prices for electricity once the new generating plants come on-line. Figure 5.2 illustrates an estimated range of average electricity prices that could be expected to characterize the market

⁴These prices include not only the price stated in the contract but also the capacity payments obligated under these contracts.

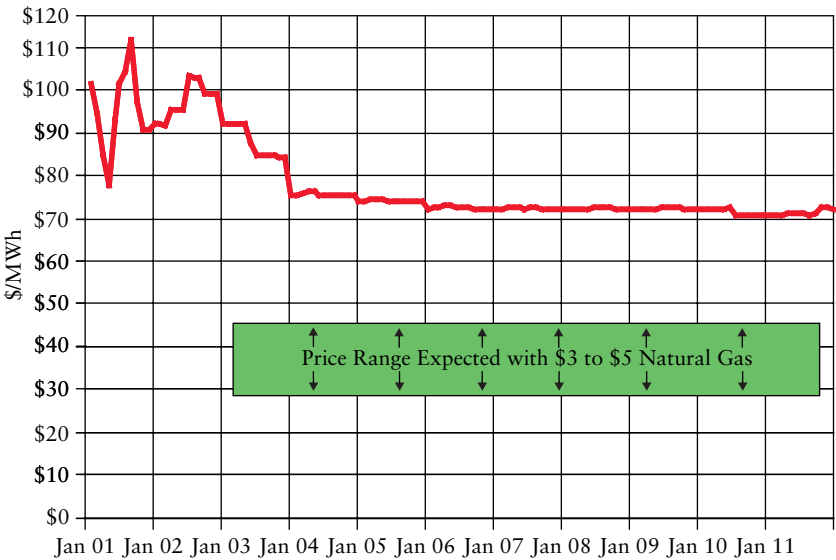


FIGURE 5.2: Prices in State-Negotiated Long-Term Contracts versus Expected Future Wholesale Prices

once new electric-generating capacity comes on-line, under the assumption that delivered natural gas prices range between \$3/mcf and \$5/mcf.⁵ These natural gas prices would result in wholesale electricity prices ranging between about \$30/MWh and \$45/MWh. Though these are simply predictions about an expected range, they would have been very reasonable projections at the time the long-term contracts were being negotiated. Such predictions suggest that the contracts negotiated by the state will require California to pay between \$25/MWh and \$40/MWh higher than the market prices that could have been projected at the time the contracts were negotiated. This additional cost applies to roughly 20 percent of California’s electricity supply during the next ten years and 10 percent over the subsequent ten years.

In addition to the high contractual prices are more subtle problems of delivery location and risk-bearing provisions of the contracts. Each contract includes a firm guarantee that the state will purchase the contractual quantities. For the most part, they are take-or-pay contracts in which the state guarantees to pay for the

⁵This calculation assumes new generating plants have a heat rate of 8.6 MMBtu/MWh plus a fixed cost of \$3/MWh.

contractual quantities whether or not it actually takes the quantities. The risk-bearing issues were examined by California State Auditor Elaine Howle, who, on December 20, 2001, reported that the contracts did not include adequate protection from price spikes and outages. Most of the contracts provide little or no penalties to suppliers if they fail to deliver the contractual quantities.

Some defenders of the contracts have argued that the prices in the long-term contracts should not be criticized without taking into account the short-term contracts that were tied to the long-term contracts. The assertion is that the state agreed on prices higher than fair-market prices for the long-term contracts in exchange for receiving electricity during spring and summer 2001 at a price lower than the market price.

Sempra Energy Resources is one of the sellers cited as agreeing to contracts that would exchange future costs in place of costs during 2001. In a November 5 article in *Utility Spotlight*, Sempra Energy Resources CEO Stephen Baum was quoted as saying: "To complete the long-term deal and to help stabilize prices during the state's energy crisis, (we) sold this summer's power to California at a discount-to-market basis, creating a loss in the second and third quarters. . . ." Sempra in fact did contract to sell California 250 MW of power for peak periods in the four months from June 2001 through September 2001 at \$80/MWh. This sale occurred at a time when futures prices for electricity during summer 2001 were around \$400/MWh. Thus, for Sempra, it may be true that the state agreed on prices higher than fair-market prices for the long-term contracts in exchange for receiving electricity during spring and summer 2001 at a price lower than the market price. However, in the same contract, Sempra agreed to sell California electricity for the six-month interval, April 2002 through September 2002, at high prices. The contract committed California to buy 300 MW of power during peak periods in those six months at a price of \$160/MWh and 150 MW during all hours (peak as well as off-peak) for those six months at a price of \$100/MWh, which helped to compensate Sempra for sales at below market levels, leaving very little justification for substantial increases in the long-term contractual prices. The long-term contractual quantities vary from 1200 MW to 1900 MW from June 2003 through September 2011, at prices averaging \$67/MWh.⁶

⁶All the Sempra prices, including the year 2001 prices, are included in Figure 5.2.

On the other hand, some firms, such as Calpine, did not have any short-term contracts with the State of California and thus could not have reduced the short-term prices in exchange for above-market long-term prices.

Thus, it is possible that some energy generators did link the prices for short-term sales to the terms for long-term sales. To the extent that did happen, the long-term contracts should be evaluated in the context of linked short-term sales. However, the state was ordered by the court to release the terms of the long-term contracts, which it did. If low prices in linked short-term contracts were part of the considerations the state received for signing the long-term contracts, the state was obligated to release information about those linkages. Since the state did not release such information, it is reasonable to conclude that there were no linkages other than those embedded in the contracts released by the state and whose prices are summarized in Figure 5.2.

Figure 5.3 estimates the financial obligations to be paid by the State of California for these long-term contracts. For the years between 2004 and 2010, California will be obligated to pay somewhat more than \$4 billion per year.

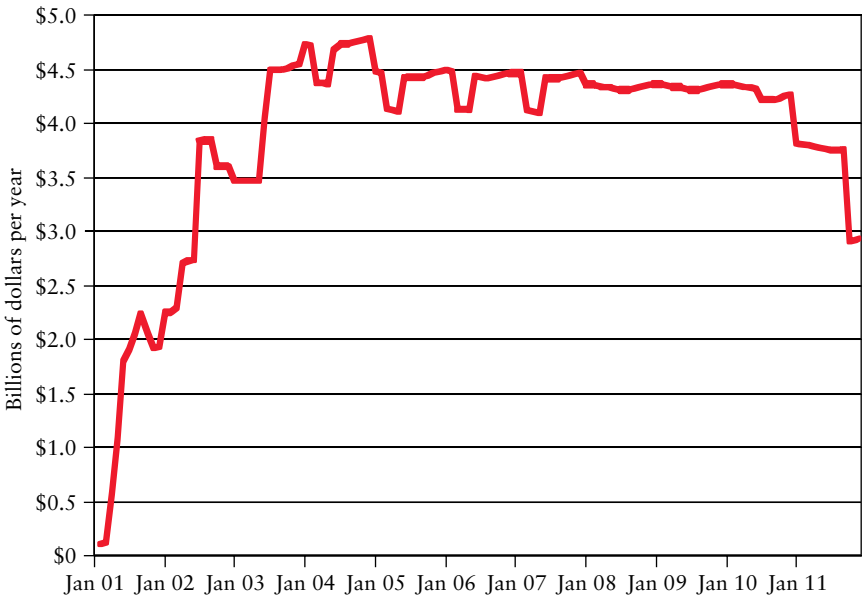


FIGURE 5.3: State Financial Obligations for Long-Term Contracts

Currently, the State of California does not sell retail electricity directly to customers but only through the utilities on whose behalf the state purchases the electricity. In doing so, it could choose either of two very different options about the pricing of this electricity.

First, it could charge the utilities a price for this electricity consistent with the market price, under a belief that the market price will be much less than the contractual price the state has negotiated; it would lose money on each such transaction. The difference would come directly from the State budget, which would then be burdened by about \$2 billion per year for the next ten years. Under such a pricing policy, the costs of contractual mistakes would be distributed broadly among the California voters, as suggested in the introduction to this chapter. Retail electricity prices would not be elevated and these contracts would not lead to incentives for families and businesses to move away from service areas of the investor-owned utilities.

This has not been the announced intention of the state. Rather, it has announced that the utilities would be required to purchase the electricity from the state at a price equal to the contractual prices that it negotiated. This would imply that for the next ten years the utilities would face an annual \$4 billion financial obligation based upon decisions made by the state “on their behalf.” This financial obligation would provide electricity worth about \$2 billion annually. If the investor-owned utilities were to pass that cost on to their customers, the financial loss would increase their retail prices of electricity by about 10 percent for the next ten years and perhaps 5 percent for the subsequent ten years.⁷

The CPUC initially voted against guaranteeing that the DWR would be allowed to cover all of these costs from future retail electricity rates. However, the CPUC has now agreed that all state-negotiated contractual costs will be charged to consumers through electricity rates.

There is now a broad recognition in California that entering into these contracts was a mistake, or at least that the terms negotiated by the state were so unfavorable that it was a great mistake to agree to them. This recognition has led to efforts by the state to “renegotiate” the contracts. The state has been in or has scheduled

⁷These calculations assume that the revenues these utilities receive during the next ten years will be about \$15 billion per year.

contract revision discussions with at least five holders of major contracts (Calpine Corp., Coral Power, Dynegy, PacifiCorp, Sempra Energy, and Williams) and has brought legal actions as well, requesting the FERC to invalidate the contracts or to reduce the prices in them.

The position taken by the electricity generators is well summarized in a statement by Williams Co.'s spokeswoman Paula Hall-Collins: "Our position has been clear from the very beginning. We do have a contract and we feel it was fairly negotiated. But as with any of our long-term deals, we're interested in developing a relationship."⁸

The state's position is summarized by two statements, one by Loretta Lynch, President of the CPUC—"We can do it easy or we can do it hard, but it will be done"⁹—and one by state senator Richard Alarcon (D-San Fernando)—"Everything short of extortion that we can do . . . we should."¹⁰ The state seems to be pursuing a wide variety of approaches to the renegotiation that go beyond attempting to find mutually advantageous contractual changes. The attorney general has continued the investigation to find improper actions in the wholesale electricity markets and appears to be trying to make that investigation a component of the renegotiation talks. The CPUC has challenged several of the contracts in complaints to the FERC and has recently filed a comprehensive complaint to that body.

ELECTRICITY REVENUE BONDS

As discussed in the previous chapter, central to the governor's plan to buy wholesale electricity on behalf of the investor-owned utilities' customers was the plan to issue bonds, also on behalf of those customers, to finance the purchase of that electricity. The bonds, currently proposed to total \$12.5 billion, would be sold as DWR revenue bonds, not as State general obligation bonds.¹¹ The \$12.5 billion would cover, after discounts and other costs of marketing the bonds, about \$6 billion borrowed from the California

⁸Quoted from article by Carrie Peyton, *The Sacramento Bee*, Jan. 10, 2002.

⁹Ibid.

¹⁰Statement from hearing by the Joint Legislative Audit Committee.

¹¹Under the California Constitution the State cannot issue bonds backed by the full faith and credit of the State of California unless the voters of California vote to do so. However, neither the ratepayers nor the California voters need to vote on these revenue bonds.

general fund and the \$4.3 billion bridge loan the state negotiated during the electricity crisis. If the sale were successful, it would be the largest government bond sale in U.S. history.

Under the current plan, the revenue bonds, when (and if) sold, would represent an obligation to the future buyers of electricity in California, in particular the customers of the investor-owned utilities. This obligation would be in addition to the obligation stemming from the state's long-term electricity purchase contracts.¹²

If they were sold as fifteen-year bonds with an interest rate between 4 percent and 5 percent, they would require an annual payment of roughly \$1.2 billion per year over the next fifteen years, which would correspondingly increase the average price of electricity sold by the investor-owned utilities. Annual payment on the bonds would increase the price of electricity to these consumers by about 6 percent,¹³ in addition to the price increase associated with the long-term contracts signed by the state.

However, whether these bonds would be marketable as investment-grade instruments was, for a long time, questionable. As revenue bonds, the guarantee of repayment would be based only on revenues from future sales of electricity. The state's long-term contracts to purchase electricity obligate it to pay for the electricity it purchases using monies collected in the DWR's Electric Power Fund (the Fund) established in the California State Treasury. These contracts have clauses that state: "payments under this agreement shall constitute an operating expense of the Fund payable prior to all bonds, notes or other indebtedness." Therefore, if bonds were issued as obligations of the Electric Power Fund, payment of the interest and principal of these bonds would be subordinated to payments for the long-term contracts.

¹²This obligation is particularly ironic in light of the governor's statement on February 16: "Believe me, if I wanted to raise rates I could have solved this problem in 20 minutes. But I am not going to ask the ratepayers to accept a disproportionate burden." This obligation seems to have been part of the governor's intention from January 19 when he first authorized the DWR to start buying electricity. He apparently planned even then to require ratepayers to accept the entire burden, since he never formally proposed any alternative means of paying the interest and principal on the revenue bonds other than asking the ratepayers to pay the entire amount.

¹³In 1999, investor-owned utilities sold 153 million MWh of electricity (see Table 2.1). If that electricity were to sell at a bundled average price of \$130/MWh (including distribution services), total revenues of the investor-owned utilities would be \$20 billion per year. Six percent of \$20 billion is \$1.2 billion.

Thus, the principal and interest might not be paid unless retail prices for electricity sold by the investor-owned utilities will be high enough to pay costs of the state-issued long-term electricity purchase contracts and the continued electricity purchases, in addition to the debt service on the bonds.

As discussed in the chapter introduction, subordination would not create risks if the CPUC guaranteed that the retail electricity prices would always be kept high enough to cover both obligations adequately. Initially, however, the CPUC explicitly rejected such a guarantee. Therefore, absent changes in the CPUC decision, it seemed likely that the bonds could not be issued as investment-grade instruments.

If the bonds were not issued, the state could continue with its current \$4.3 billion loan, which it would be obligated to pay back over several years, unless it is refinanced. The State budget would remain in deficit from its past electricity purchases, but ratepayers would not necessarily face the additional 6 percent increase in the retail electricity price over the next fifteen years. In any event, the State of California currently has incurred a debt that it will be obligated to pay. Either it will cause a long-term drain on the electricity ratepayers or it will cause a shorter-term drain on the State Treasury. Either adds to the blight.

On January 31, 2002, the CPUC announced that it had reached a tentative agreement with the DWR and was negotiating with the offices of the governor and the treasurer about the amounts and provisions of a bond issue. The agreement would make it possible for the state to sell the revenue bonds as investment-grade instruments. The bond proceeds, after marketing costs, would repay the \$4.3 billion short-term loan, and the remainder would replenish the state's general fund. Under the agreement, the DWR would put in best-faith efforts to renegotiate the long-term contracts and would allow the CPUC to take legal actions to try to overthrow the contracts.

INCLUSION OF THE UTILITIES' PAST CRISIS COSTS IN FUTURE ELECTRICITY RATES

Retail electricity prices can be expected to remain elevated above wholesale electricity costs for a third reason. The utilities incurred massive losses during the challenge and crisis periods, and there remains a legal argument that they be allowed to recover some significant share of those losses. The CPUC has made such an agree-

ment that would allow SCE to earn back in the future some portion of losses incurred during the challenge and crisis periods. As part of the agreement, SCE agreed to drop its “filed rate doctrine” lawsuit. The PG&E is still proposing that it be allowed to recover some share of the losses. Whether such an option will be allowed for PG&E is not clear, but the decision is likely to be part of the final plan to allow PG&E to emerge from Chapter 11 bankruptcy proceedings.

The SCE agreement with the CPUC would allow it to recover much of its losses over the next several years. In particular, the agreement would allow SCE to keep charging its customers the current level of retail electricity prices even though the wholesale price has decreased to pre-challenge period levels. The current price includes an average increase in retail electricity rates of \$40/MWh. This is an average increase of 33 percent above the historical average retail prices charged by SCE. Thus, if wholesale prices of electricity remain at their current levels, then, because of the need to recover the past losses, the retail price of electricity purchased from SCE will be 33 percent higher over the next several years than it otherwise would be.

Whether the 6 percent increase in electricity prices associated with the electricity bonds plus the 10 percent increase associated with the state long-term contracts would be added to the 33 percent increase associated with SCE recovering its past losses is not clear. What is clear, however, is that customers of SCE will be paying a significant increase in electricity prices over and above the wholesale cost of electricity and over and above the price of electricity in other states.

PAYING SUNK COSTS THROUGH FUTURE ELECTRICITY PRICES

There is little doubt that—absent very large refunds from the electricity generators and complete renegotiation of the long-term contracts—the state faces many billions of dollars of electricity purchase costs beyond the future wholesale costs. These are sunk costs that have already been incurred (although they may not have to be paid until some future time) and whose magnitudes will not depend on whether Californians buy much or little electricity in the future.

There is no easy way to pay these large sunk costs; however, some ways of paying them are likely to be more damaging than

others. The current state plan—increasing retail electricity prices for many years in the future—is likely to be one of the more damaging options. The damage will come about because the elevated prices of electricity will motivate consumers to take actions that would not be economically justifiable given the future wholesale electricity costs and the costs of distributing electricity. Those actions can increase the blight facing California.

The introduction to the chapter has discussed how elevated prices may distort locational decisions of businesses and families both within California (from the service areas of investor-owned utilities and to the service areas of municipal utilities) and between California and other states. For businesses, the locational distortions may be more subtle than decisions to move away from areas with high electricity prices. Rather, firms may simply shift some fraction of their electricity-intensive activities away from California or away from service areas of the investor-owned utilities. They may compensate by moving back the same fraction of their non-electricity intensive activities or they may choose not to compensate at all.

Businesses will face incentives to self-generate electricity since self-generation will allow them to avoid paying some share of the sunk costs. This incentive to self-generate will remain even if self-generation costs exceed costs of electricity delivered by investor-owned utilities. This will occur if the inclusion of sunk costs makes the price of electricity delivered by investor-owned utilities higher than the per-unit cost of self-generation. Businesses will look for ways of substituting other energy, such as natural gas or petroleum, in place of electricity.

In addition, there may be incentives for municipalities, such as San Francisco, to municipalize their utilities if the sunk-cost allocation rules are written so that the newly created municipal utility can avoid paying its share of sunk costs. This possibility seemed to be part of the debate in 2001, when San Francisco residents were voting whether to create a municipal utility and take over PG&E distribution assets.¹⁴

¹⁴This proposal was defeated by a very narrow margin. During the debate, S. David Freeman, head of the California State Power Authority, speaking to a rally of those supporting municipalization, promised that the State Power Authority would sell the new municipal utility electricity at a low cost. Perhaps he meant that the electricity would be sold at a low cost but that San Francisco would still pay the same share of the sunk costs, but newspaper reports of his speech never suggested that caveat.

The inclusion of sunk costs in future electricity prices can also distort capital investment decisions by businesses and families. Electric vehicles currently represent only a very tiny fraction of the personal passenger vehicles on the road today. With the advance of hybrid electrics and technologies needed for dedicated electric vehicles, it is likely that more dedicated electric vehicles will be introduced into California markets. However, elevated electricity prices would create incentives against purchase of these vehicles. At a less esoteric level, elevated electricity prices would provide incentives for families to buy clothes dryers and water heaters fueled by natural gas rather than those powered by electricity. Although these individual distortions are each unlikely to be important to the California economy, their cumulative impacts can add to the blight.

ELIMINATION OF DIRECT ACCESS

One of the important and very positive elements of the restructuring under AB 1890 was a provision for direct access by users of electricity to electricity generators. Electricity users and generators were allowed to negotiate bilateral contracts directly for the purchase and sale of electricity. Although it is not reasonable to expect that small users would negotiate such contracts, the ability for large users to do so is a step toward creating retail competition.

In addition, direct access created the possibility for retail aggregators to compete with one another and with the utilities. A retail aggregator could enter agreements with many users of electricity to supply their electric needs and possibly additional energy needs, contracting with generators to supply electricity that it would in turn provide to its customers. The opportunity for such aggregators to enter the market potentially provides an element of retail competition, although it is most likely that such aggregators would initially participate only in niche markets. Direct access is a potentially useful step toward retail market competition, although, in itself, it is far from sufficient to create that competition.

However, direct access would conflict with the intention of the state to pay for the sunk costs through increased future electricity prices. The price elevation is creating an incentive for large users to enter bilateral contracts directly with generators to provide the electricity, rather than purchasing electricity through investor-owned utilities. Whenever a large electricity user bypasses utilities,

or otherwise avoids purchasing electricity from the utility, more of the sunk costs fall on the remaining customers, further increasing the retail price of electricity.

Members of the California Legislature understand this phenomenon and have voted, as part of Assembly Bill 1X (AB 1X) to eliminate direct access. It adds Section 80110 to the Water Code:

After the passage or such period of time after the effective date of this section as shall be determined by the [Public Utilities] commission, the right of retail end use customers . . . to acquire service from other providers shall be suspended until the department [the Department of Water Resources] no longer supplies power hereunder.

The CPUC most recently ruled that the suspension shall begin as of September 20, 2001, but kept open the possibility of setting that date retroactively to July 1, 2001. The DWR has entered contracts to purchase power extending until the year 2021. Thus, under AB 1X, direct access would be suspended for the next twenty years, absent legislative or contractual changes.

STATE POWER AUTHORITY (CALIFORNIA CONSUMER POWER AND CONSERVATION FINANCING AUTHORITY)

The most recent and explicit step toward turning California into a public power state was the creation of the new State Power Authority, established by Senate Bill 6X (SB 6X). This authority, headed by S. David Freeman, has broad power to construct new electric-generating facilities and to acquire existing facilities by use of eminent domain procedures.

Governor Davis first proposed creating a state power authority during his January 8, 2001, State of the State speech, when he proposed “. . . either a joint power authority among the State and our thirty municipal utilities to develop the additional power we need, or a California public power authority that can buy and build new power plants.” Passed in May 2001, SB 6X created the State Power Authority, more formally known as the California Consumer Power and Conservation Financing Authority.

The State Power Authority has broad powers to construct, own, and operate electric generation and power facilities and finance energy conservation programs. It “will be able to finance natural gas transportation or storage projects; issue up to \$5 billion in

bonds; have the power of eminent domain; and make loans and grants.”¹⁵ The State Power Authority “will be authorized to build, own and operate new power plants on behalf of consumers.”¹⁶ Although the State Power Authority currently has a \$5 billion limitation on its bond-issuing authorization, the authorization may increase once the initial \$5 billion has been spent.

The Authority initially signed¹⁷ forty-eight letters of intent with nineteen separate bidders, allowing it to begin negotiations to have 2,271 MW of renewable energy constructed. As of October 4, 2001, it had signed thirty-one letters of intent from sixteen separate bidders for 3,214 MW of natural gas-fired peaker units to be on-line for next summer.

Had the State Power Authority continued on this path, it would have spent large amounts of State money without achieving any long-term increase in California generation capacity. To the extent the State Power Authority were to build new generating units, these units could be expected to substitute explicitly for generation, transmission, and contractual activities by private corporations.

The expected displacement of private investment is most obvious for gas-fired peaker units that would be owned by the Authority. Peaker units can be constructed rapidly by private sector firms; however, corporations will do so only if such construction is profitable. The State Power Authority has indicated that it will sell electricity from its peakers at “cost”; thus, no profit margin would be included in the wholesale prices of electricity generated by these units. Private sector owners of peaker units would expect some profit margin. Thus, if the State Power Authority generates electricity as efficiently as private sector firms, the Authority would be willing to sell electricity for a lower price than private sector firms. This would not reduce the equilibrium price of electricity (that would be set by overall supply/demand balance), but it would ensure that the State Power Authority operates its peaker plants for a greater fraction of the time than private sector firms. For every MWh of electricity the State Power Authority generates, some private sector firms will generate one MWh less. With less opportunity to sell power, private sector firms will invest in fewer peaker units. In general, then, it can be expected that the investments by

¹⁵Press release issued by Governor Davis, 05/16/2001.

¹⁶*Ibid.*

¹⁷See: www.capowerauthority.ca.gov/projectlist/main.asp.

the State Power Authority would displace private sector investment on a one-for-one basis.

In addition, California Power Authority projects would be exempt from franchise fees and property taxes, even though they would impose as much cost on cities and counties as would equivalent private sector projects. This subsidy to California Power Authority projects implies that even if the State Power Authority generates electricity less efficiently than would private sector firms, the Authority could still sell electricity for a lower price than private sector firms, with cities and counties bearing financial losses. Thus there would be less pressure for the California Power Authority to manage its projects efficiently, even though its projects would displace more efficient private sector generators.

Now that it is becoming clear that California is likely to have sufficient capacity before next summer, the California Power Authority has been backing away from its intention to build new gas-fired peaking plants, issuing a draft request for bids for microturbine, solar photovoltaic, and fuel-cell projects. Its current investment plan emphasizes renewable forms of energy, such as wind, biomass, and solar. Currently, there is very little private sector investment in these emerging technologies, and thus there is little private sector investment to be replaced. As such, the current investment plan of the California Power Authority can be expected to increase the number of plants in California that use renewable energy to generate electricity.

Thus, the creation of the State Power Authority and its initial activities were moving California down the road toward public power generation. However, that path seems to have changed somewhat with the emphasis on harnessing renewable energy for public power generation. Whether the Authority will revert to its initial direction of investment or remain on its current path is not obvious at this juncture, but will be very dependent on the policy options encouraged by the next California governor and legislature.