March 13, 2001

Hon. Darrell Steinberg, Chair
Assembly Subcommittee on Electrical
Energy Oversight
Room 5136, State Capitol
Sacramento, California 95814

Dear Assembly Member Steinberg:

This responds to the request of the Assembly Subcommittee on Electricity Energy Oversight on Monday, March 5, 2001, regarding California's electricity situation. Specifically, the subcommittee asked that we:

- Evaluate the data on electricity supply and demand provided to the committee by the California Energy Commission (CEC) and the California Independent System Operator (ISO) on the summer 2001 electricity outlook.

- Discuss any actions necessary for the estimates to be achieved.

Our main findings are summarized below. Appendix A provides additional detailed information on different individual supply and demand factors. Appendix B provides information about the authority granted to the Governor by the Emergency Powers Act and Appendix C provides a comprehensive listing of legislation addressing various aspects of the energy crisis. Appendix D discusses key air quality issues relating to both existing and new electricity generation capacity needed for the summer.

THE OVERALL ELECTRICITY OUTLOOK

The CEC's Outlook. Figure 1 summarizes the electricity supply-demand data previously provided to you by the CEC. Although four alternative scenarios were provided

based on different summertime temperatures, we have focused on the two that seemed to receive the most attention—a "once every other year" (or average) temperature scenario and a hotter "once-in-ten-year" scenario. These alternative scenarios differ solely in terms of the temperature's effect on electricity demand. They all assume the current retail price structure for electricity. Higher retail prices would lower demand, depending on their magnitude.

The data are on a "peak-load" basis, meaning that they represent the electricity situation during the peak hour of that one day during the summer when electricity demand will be at its highest. Thus, for example, they say nothing about electricity shortages that may occur during nonpeak periods due to such factors as low hydro availability or unplanned outages. In addition, because the CEC data are for the period beginning July 1, they do not address what would occur if the peak-load was experienced in June—before some of the various supply enhancements and demand reductions discussed below are in place.

No Shortage Predicted by the CEC. The CEC's view is that, on a peak-load basis, the state will not face an electricity shortage this summer, assuming various actions are taken. Although the CEC's "baseline" figures show a net peak-load shortage from 1,743 megawatts (MW) to 4,959 MW depending on the scenario, it believes that peak-load surpluses from 6,169 MW to 9,385 MW will result when various supply enhancements and demand-reducing actions are taken into account. In other words, a shortage of electricity is not anticipated by the CEC. It should be emphasized that the CEC's peak-load demand includes a 7 percent reserve, which is an operating cushion to cover unanticipated events (such as an unplanned plant shutdown).

Figure 1

California Energy Commission Peak-Load Electricity Forecast

Megawatts, Summer 2001

	1 in 2	1 in 10
Peak demand	57,909	61,125
Available resources	56,166	56,166
Baseline balance	**-1,743**	**-4,959**
Adjustments:		
New generation	4,978	4,978
Energy efficiency	598	598
Demand response	5,552	5,552
Balance, with adjustments	**9,385**	**6,169**

The Legislative Analyst's Office Assessment. We have reviewed the CEC's and ISO's data, met with both parties to discuss this information, and contacted other organizations and agencies with information relating to the electricity supply-demand factors at issue. Due to the limited time available, there were some cases where we were unable to verify figures. In these cases, for your planning purposes, we used our best judgment based on the information available to us. We have included estimates for both July 1 and late summer, to take into account the fact that some of the supply enhancements and demand reductions will materialize after July 1. Figure 2 summarizes our results. We find that:

- When looking at the baseline balance, the state faces a larger shortfall (either 3,918 MW or 7,134 MW) than portrayed by the CEC, due primarily to less available resources within the ISO control area.

- Supply augmentations this summer are likely to be significantly lower than reported, especially early in the summer.

- Energy efficiency and demand-responsiveness savings are likely to be significantly less than assumed.

Figure 2

Summary: The LAO Assessment of the CEC's Peak-Load Electricity Forecast

Megawatts, Summer 2001

	July 1		Late Summer	
	1 in 2	1 in 10	1 in 2	1 in 10
Peak demand	57,909	61,125	57,909	61,125
Available resources	53,991	53,991	53,991	53,991
Baseline balance	**-3,918**	**-7,134**	**-3,918**	**-7,134**
Adjustments:				
New generation	2,465	2,465	3,895	3,895
Energy efficiency	314	314	422	422
Demand response	3,805	3,805	3,879	3,879
Balance, with adjustments	**2,666**	**-550**	**4,278**	**1,062**
Reduced reserve	1,533	1,533	1,533	1,533
Balance, assuming reduced reserve	**4,199**	**983**	**5,811**	**2,595**

Taken together, these three factors make the electricity "surplus" significantly smaller than portrayed by the CEC. In fact, the state would be 550 MW short of what would be needed to both meet demand and maintain a 7 percent reserve if a high-temperature peak were to occur early in the summer. Even in this situation, however, a 6 percent reserve would still exist, which is well above the 1.5 percent level at which rolling blackouts are triggered. In fact, the 6 percent reserve is well above the 3.5 percent level the ISO says is needed for operational purposes. The bottom row in the figure shows that a 983 MW margin would exist with this smaller reserve.

Our estimates are subject to two important qualifications. First, like the CEC and ISO, we have had to make numerous assumptions about difficult-to-predict factors in arriving at our "bottom line" figures—such as levels of power outages, participation in interruptible programs, availability of out-of-state supplies, customer behavioral responses, and federal actions. Second, the supply data identified in Figure 2 represent only resources that are *potentially* available to California. Since roughly one-quarter of potential supply is produced by private generators, there is no guarantee that all of this amount will be sold for use within California.

In conducting our analysis**,** we reviewed the important issue raised in your hearing relating to whether the CEC had failed to count in its supply figures 900 MW of power that could be generated during peak-demand by the Department of Water Resources (DWR). This involves changing the timing of water releases from Lake Oroville for environmental management, so as to coincide with peak electricity demand. Based on our discussions with DWR and CEC, this 900 MW was already included in the CEC's baseline electricity supply figures.

ACTIONS BY THE GOVERNOR AND LEGISLATURE

You have asked us to identify and discuss any actions by the Governor and/or Legislature that would be required for California's projected electricity supply and demand needs to be met.

Actions by the Governor. The Emergency Services Act provides the Governor with broad authority during a state of emergency (descriptions of the relevant code sections are provided in Appendix B). For example, the act provides the Governor with authority to spend available state funds to deal with the emergency, allows the Governor to make and/or amend regulations, and suspend any regulatory statute if it is believed that such statutes would hinder the resolution of the emergency. To date, the Governor has issued 12 electricity-related emergency orders (EOs), including:

- Ordering local air quality management districts to modify existing emissions limits that affect power generators under contract with DWR.

- Directing the Department of Consumer Affairs to establish a public awareness campaign aimed at reducing electricity usage.

- Ordering reduced outdoor lighting by businesses and establishing fines for non-compliance.

- Ordering expedited certification for bringing plants shut down for maintenance back on-line.

The Governor could issue additional EOs to address many of the supply and demand estimates identified by the CEC. For example, this could be done to exempt the Department of General Services from the competitive bidding requirements needed to provide construction retrofits for state facilities. The Governor also could use EOs to redirect funds so as to achieve many of the energy efficiency savings identified, such as appliance rebates and weatherization programs. Such redirections, however, could create deficiencies in those program areas from which the funds were redirected.

Actions by the Legislature. Except in cases that truly require immediate action, the enactment of legislation is generally preferable to EOs for dealing with electricity-related issues. This is because legislation allows the Legislature to determine the structure, financial scope, and time frames for actions.

Within the discussion of individual factors in Appendix A, we identify the specific areas in which legislation would be appropriate. Appendix C provides a detailed listing of most of the electricity-related legislation that has been introduced and groups the measures into broad subject categories to facilitate their review. Given the tight time lines involved for taking action in time to meet summer needs, we believe that the Legislature should focus its efforts in those areas having the greatest potential for enhancing supplies or reducing demand. These include interruptible programs and accelerated siting of peaker plants.

Should you have question regarding the above information, please feel free to contact Brad Williams of my staff at 324-4942.

Sincerely,

Elizabeth G. Hill
Legislative Analyst

Enclosures

APPENDIX A

DISCUSSION OF INDIVIDUAL SUPPLY-DEMAND FACTORS

Peak Demand Factors

Demand Estimates Appear Reasonable

The California Energy Commission (CEC) estimates that peak demand (including a seven percent reserve) will range from 57,909 megawatts (MW) for an average one-in-two year summer peak, to 61,125 MW for a hot, one-in-ten year summer peak. (In addition, a one-in-forty year estimate also was provided as a worst-case scenario.) The estimates assume moderate growth in underlying demand compared to last year of about 2.5 percent on a temperature-adjusted basis. This is slightly less than recent increases, and reflects moderate growth in the state's economy. The CEC and California Independent System Operator (ISO) are in agreement on peak energy demand, although both note that there can be considerable demand variability related to the weather. *For planning purposes, we believe that the basic demand forecast is reasonable.*

Reducing Reserves Is a Possibility

As noted above, the CEC's demand forecast assumes a seven percent reserve. In actuality, however, the state has been operating with considerably less than a seven percent reserve in recent months, and could likely do so this during the summer as well. The ISO indicates that operationally a seven percent reserve is well above what is needed to protect against likely risks associated with an unexpected outage. The ISO currently has a proposal before the Western Systems Coordinating Council (WSCC) to change the state's reserve requirement from being a single percentage of total statewide supplies, to being the statewide sum of the "single largest contingency" in each individual region. The statewide reserve resulting from such a change would be equivalent to about 3.5 percent. Of course, reducing the state's electricity reserves would increase the risk of shortages under certain conditions.

Potential Action. Should a policy of lower reserves be adopted, peak-load demand would be reduced by roughly 1,500 MW. If the Legislature wished to encourage such a change, it could pass a resolution urging the WSCC to adopt the new standard as quickly as possible.

Existing Supply Factors

Before discussing the individual factors associated with electricity supply, it is important to note that many of them face potential air quality-related constraints. An example is the availability of air pollution offset credits. As discussed in Appendix D, the Governor's executive order (EO) addressees most of the constraints, although we identify areas where legislation should be adopted.

Existing ISO Control Area Resources (45,025 MW)—Overstated

The CEC estimates that 45,025 MW of generating capacity will be available in the ISO control area. This estimate may be overstated by around 1,000 MW due to a dispute about the total net energy supplied to the grid by qualifying facilities QFs. The CEC estimates that 7,700 MW has been supplied to the ISO grid by QFs; however, the ISO contends that no more than around 6,500 MW have been realized historically. *At this time, is prudent to assume a total supply of 43,800 MW*.

Net Imports to ISO Control Area (4,841 MW)—Estimate Has Risks

The CEC estimates that 4,841 MW will be available to California as net imports. It also indicates that these peak-load estimates are partly based on firm contracts that *do not* depend on substantial amounts of surplus electricity from the Pacific Northwest or Canada. The CEC does not believe that the current dry conditions in the Northwest will have a dramatic adverse effect on this peak summer supply estimate, although they could have major implications for power supply and demand conditions later in the year, when water supplies run low in the Northwest. The ISO's estimates for imports are consistent with CEC's forecast. Thus, for current planning purposes, we believe it is appropriate to use these estimates. However, we note that they could prove to be optimistic, given the continuing deterioration in hydro conditions in the Northwest.

We would also note that even if the overall estimate is achieved, the lack of imports from the Northwest could still result in regional problems in Northern California. Because of constraints related to Path 15 (the transmission line delivering electricity from Southern to Northern California), there may be circumstances in which it is not possible to compensate for shortfalls in Northern California with imports from the Southwest.

In-State Generation Resources Outside ISO Control Area (9,350 MW)—No Issues

In-state generation resources outside of the ISO control area total 9,350 MW and encompass the Los Angeles Department of Water and Power (LADWP) control area, the Imperial Irrigation District, and the northernmost part of California. This generation is currently adequate to service the respective geographic areas. This estimate is reasonable.

Potential Action. The LADWP estimate includes about 1,000 MW of excess capacity in the LADWP which, while available to use in California, could also end up being sold elsewhere.. *To the extent the Legislature wants to ensure that this electricity is available to Californians if and when needed, appropriate legislation could be enacted (this also could apply to power generated by other California municipal utilities).*

Expected Outages Estimate (3,050 MW)—Could Be Low

The level of electricity outages that will occur is probably the single largest unknown in the supply estimate for the summer. The CEC's peak-load outage assumption is moderately higher than last summer's actual average of about 2,500 MW. However, it is low relative to more recent experience where the level of both planned and unplanned outages have soared this winter—more than doubling from the prior winter. These recent increases have been partly attributed to the prolonged high levels of operations in the summer of 2000 which added to equipment wear-and-tear and restricted maintenance, although financial and economic factors may have also played a role.

Both the CEC and the ISO believe that generators will have powerful price incentives to stay in operation this summer, and that outages will return to levels that are near last year's rates. However, it is also the case that persistently high operational rates being placed on California's aged system of generators could continue to boost unplanned outages into the summer months. *Although any estimate of outages is subject to a great deal of uncertainty, we believe that—given recent experiences and the high demands likely this summer—it is appropriate for planning purposes to assume a somewhat higher outage rate than the CEC—perhaps in the range of 4,000 MW.*

New Generation Factors

Approved CEC Projects (1,261 MW)—Most Available by Start of Summer

The CEC is assuming that 1,262 MW of already approved generation projects will be on-line by July 1, 2001. At this time, it appears that the two larger projects—Sutter and Los Medanos—will be on-line by the target date along with Sacramento Municipal Utility District's (SMUD's) 44 MW Proctor and Gamble simple-cycle plant. It is uncertain that one project—the Sunrise project will be on-line by the July 1 target date. This project, however, is expected to be on-line later this summer. *Thus, we think that 1,050 MW is a more reasonable assessment of the generation to be on-line by July 1, 2001, with the remainder expected later in the summer.*

The SMUD McClellan CT Upgrade (22 MW)—No Issue

The CEC has estimated that the upgrade of the SMUD McClellan project should add around 22 MW of generating capacity to the grid. We understand this project is already on-line. *Thus, this estimate is reasonable.*

The ISO Summer Reliability Generation (1,133 MW)—Estimate Overstated

The CEC estimates that 1,133 MW will be available from these small gas turbines by July 1, 2001. However, this number appears to be overly optimistic given the target date. The ISO indicates that it is more likely that 600 MW will be on-line by July 1, with additional generation coming on-line over the course of the summer. *For planning pur-*

poses, we believe it is appropriate to assume 600 MW will be available on July 1 and another 200 MW by mid-summer.

New Renewable Energy Projects (80 MW)—No Issue

The CEC has estimated that new renewable energy projects will contribute 80 MW of additional generation to the grid's capacity. This estimate is less than the total capacity that these projects can potentially generate. *Thus, this estimate is reasonable.*

Restart of Existing Biomass Plants (137 MW)—No Issue

Many existing biomass plants have been idle over the past few years since their operation was often not economically feasible. However, the CEC has estimated that restarting around ten of these existing biomass plants may contribute around 137 MW to the grid. *This figure appears to be a low-range estimate and is reasonable.*.

Rerates Of Existing Thermal Plants and Other Non-CEC Projects (580 MW)—Dependent on Federal Energy Regulatory Commission (FERC) Waivers

The CEC has estimated that around 580 MW of new generation could be added to the grid from the rerating of existing thermal plants and other power projects with less than 50 MW of capacity. These designated rerates, which are tied to the upgrading of existing facilities, have already received upgrade permits by the state. However, about 450 MW of these upgrades are dependent on extensions of existing waivers from FERC of restrictions related to fuel use, efficiency, and total sellable generation. All of the existing waivers for these facilities expire next month. *For planning purposes, we believe it is reasonable to assume approval of the waiver extensions and include the full 580 MW.*.

Huntington Beach Return to Service (450 MW)—Qualified Inclusion

The CEC has estimated that the Huntington Beach power plant will return to service and contribute 450 MW of energy to the grid by July 1, 2001. At this point, we understand that the plant has the necessary water discharge permits, and is likely to receive both an air-quality permit and an operational permit from the CEC within the next several weeks. However, the plant faces considerable opposition from various members of the local community, and we understand that lawsuits are likely to be filed if the plant is approved. The opposition is primarily related to the accelerated permitting process involved and concerns about how the plant's warm discharges affects the ocean's water quality. *While for planning purposes we have included the 450 MW in our supply figure, the qualifications associated with it should be noted.*

New Peaking Power Plants (1,000 MW)—Overstated

The CEC originally estimated that 1,000 MW would be available during the summer from new peaking power plants around the state. Based on the number of sites that

have been identified to date, however, it appears that *250 MW is a more realistic estimate at this time (with most of this available after July 1).*

United Golden Gate (45 MW)—Pending Lease Issue

The CEC anticipates that this project will add 45 MW to the generating capacity of the grid. However, construction on this simple-cycle plant has not commenced due to complications associated with a lease. *Because the lease issue currently remains unresolved, we believe for planning purposes that this source should not be counted on until later in the summer..*

The LADWP's New Projects (267 MW)—No Issue

The CEC estimates that 267 MW of capacity will be added by LADWP by the end of the summer. *This estimate is reasonable.*

Energy Efficiency Factors

The PUC Summer Peak Initiative (67 MW)—No Issue

The California Public Utilities Commission (PUC) allocated $70 million in unspent funds from utility-administered energy efficiency programs to fund electricity savings project proposals for summer 2001. Identified projects include appliance rebates, replacing halogen with fluorescent lights, and installing light emitting diode traffic signals. We were unable to evaluate the 67 MW involved in the time provided, but have included it for planning purposes.

The CEC AB 970 (150 MW)—No Issue

Chapter 329, Statutes of 2000 (AB 970, Ducheny), provided $50 million to the CEC to implement specified energy efficiency grant programs, among other things. The estimated savings—150 MW—were identified in applications for grant funds, and according to CEC, a majority of these savings will be in place by June 1, 2001. *On this basis, the Legislature should consider these savings probable for summer 2001.*

State Government (100 MW)—Savings Overstated

This proposal is based on information from the Department of General Services (DGS). The department has preliminarily identified approximately 400 sites that could produce about 185 MW of savings. There is no information, however, on the type of conservation measures to be used, when the work could be accomplished, the basis for estimated electrical energy savings, or the costs to realize them. The Legislature would need to provide an appropriation to cover such costs. Senate Bill 5x includes $100 million for this purpose. Also, we understand that DGS believes the work cannot be accomplished by July 1, 2001 if the work is competitively bid. Exemption from competitive bidding to meet the summer 2001 time frame would require either a Governor's

EO or legislative action. The CEC included 100 MW in its forecast. *Given the lack of information and timing to implement many of these projects, we believe the Legislature should count on no more than 30 percent (30 MW) of the estimated savings for summer 2001.*

Potential Action. Legislative appropriation, and legislative or EO to provide exemption from competitive bidding.

Air Conditioner Incentives/Appliance Rebates (84 MW)—Timing Issue

If authorized, this would expand existing PUC programs that are carried out by the utilities. Senate Bill 5x includes $86 million to subsidize the purchase of more efficient residential heating, ventilating, and air conditioning (HVAC) equipment and appliances. *Given the time frame involved, we do not expect the entire 84 MW of estimated savings until late in the summer.*

Potential Action. Adoption of legislation to provide program funding. .

Low-Income Weatherization Program (8 MW)—No Issue

This would expand existing weatherization programs. Senate Bill 5x includes $20 million to augment existing funding for insulating and upgrading the homes of low-income persons to improve energy efficiency. We have been unable to verify this estimate in the time available. *For planning purposes, however, we have included the 8 MW.*

Potential Action. Adoption of legislation to augment existing program.

Cool Communities, Oil/Gas Pumping, Commercial Lighting Efficiency (187 MW)—Savings Uncertain and Requires Legislation

The cool communities and commercial lighting initiatives would expand existing programs, while the oil and natural gas proposal is new. SB 5x includes $177 million to implement programs and measures to (1) use low-energy usage building materials, (2) lower air conditioning usage, (3) retrofit pumps and motors for greater energy efficiency in oil and natural gas production, and (4) subsidize the cost of more efficient lighting. We have been unable to verify the validity of the estimated 187 MW savings in the time provided. *For planning purposes, however, we have included the estimated savings.*

Potential Action. Adoption of legislation to fund the identified programs.

Demand Responsiveness/Voluntary Reduction Factors

The CEC AB 970 (70 MW)—No Issue

Assembly Bill 970 provided $50 million to the CEC to implement, among other things, a grant program for large companies to install equipment that makes cooling and lighting systems automatically respond to signals from the ISO to lower energy use

when the wholesale price of electricity is high. These estimated savings of 70 MW were identified in applications for grant funds, and according to CEC, a majority of these savings will be in place by June 1, 2001. *On this basis the estimated 70 MW savings should be achieved by summer 2001.*

State of California (150 MW)—No Issue

In a test coordinated by DGS and ISO, several state entities reduced their energy use at a designated time, while ISO observed the load reduction to see how much electricity conservation this state effort generated. The ISO reports that it observed a 150 MW reduction in electricity use from this experiment. Departments who participated in this effort last year should be prepared to continue their efforts, and should achieve the same level of energy savings by reducing demand during summer peaks. *These savings appear reasonable*

The DWR Peak-Load Reductions(300 MW)—No Issue

On a few occasions in December 2000, Department of Water Resources (DWR) stopped pumping water through the State Water Project for a few hours to conserve electricity. *The estimated 300 MW savings from similar activity this summer is reasonable.*

Local Government/Feds (112 MW)—Estimate Achievable

Local and federal government agencies reportedly have a plan for electricity demand reduction in place. We cannot confirm the source of the federal government's participation in this item nor can federal participation ultimately be guaranteed. Consequently, we have been unable to verify the validity of the estimated 112 MW savings. *However, assuming participation by local agencies, we think this estimate is achievable.*

Demand Responsive Building Systems/ Innovative Peak-Load Reduction (220 MW)—Timing Issue

According to CEC, this proposal would expand the demand responsiveness program implemented pursuant to Chapter 329 for additional systems to be installed after June 1, 2001. Senate Bill 5x includes $160 million to (1) improve the demand responsiveness of HVAC systems, lighting, and real-time metering of electricity usage in buildings; and (2) subsidize "innovative peak-demand reduction measures." We have been unable to verify the estimate in the time provided. However, significant savings are likely but time is required for full implementation. *We would recommend for planning purposes that a two-thirds of the estimate be assumed for the start of the summer with the full amount by the end of the summer.*

Potential Action. Adoption of legislation authorize and fund the identified demand-response and peak-load reduction programs.

Public Outreach Activity Savings—Significantly Overstated

The CEC has assumed 2,000 MW in savings which it attributes to an electricity advertising campaign. Ten million dollars has been allocated for first-year costs from the utility-administered energy efficiency programs. In addition, SB 5x would appropriate another $10 million for this purpose. In our view, the savings associated with the advertising campaign per se are substantially exaggerated. However, we also believe that the increased public awareness associated with the electricity crisis generally will result in significant savings, depending on how serious conditions become this summer. *For planning purposes, we think a savings of 1,300 MW from the baseline demand is reasonable.* This is consistent with the maximum savings that the ISO was able to identify during the January Stage 3 alerts and rolling blackouts.

Potential Action. Adoption of legislation to support an electricity awareness campaign, dependent on evidence that such a program is effective and cost-beneficial.

New Demand-Side Response Initiatives—Overstated

The CEC has estimated that the state will achieve 2,700 MW of savings (1,225 MW for both Pacific Gas and Electric and Southern California Edison, and 250 MW for San Diego Gas and Electric) related to both (1) the extension of *existing* utility interruptible programs (where companies agree to a predetermined amount of cutbacks each year in return for a reduced rate) and (2) the development of *new* demand-reduction programs (these being a day-ahead and day-of program, each of which offers fixed rates per KW / hour to companies that voluntarily curtail their power loads). The specific programs involved are included in AB 31 X1 (Wright). The PUC is also considering various issues relating to demand-side response initiative, including how their costs would be distributed.

Both Southern California Edison and Pacific Gas and Electric indicated to us that it is unlikely they will be able to achieve the levels targeted by CEC. The companies indicated that they will likely lose many customers that have participated in their existing interruptible programs, due to concerns about the possibility of numerous power interruptions this summer. While the utilities also believe that they can attract customers into the *new* demand reduction programs, it will likely take some time to build participation in the new programs. *At this time, we believe a reasonable estimate for the total amount of savings is about 1,800 MW for the three utilities combined, or about two-thirds of the CEC estimate.*

Potential Action. Given the past importance of interruptible programs and the time that would be required to set-up new programs, the Legislature should consider quick action in this area.

APPENDIX B
EMERGENCY POWERS AND THE EMERGENCY SERVICES ACT

A. Definitions

☑ **Section 8558. Degrees of emergency.**

- Subsection (b) of this section defines "state of emergency" to mean conditions of disaster or of extreme peril to the safety of persons and property within the state caused by such conditions as air pollution, . . . , sudden and severe energy shortage, . . . , or other conditions, . . . , which conditions, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county or city and require the combined forces of a mutual aid region or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.

B. General Emergency Authority

☑ **Section 8565. Additional powers.**

- Declares that the Governor has additional powers granted in Article 3 during a state of emergency. Court decisions have given the Governor broad powers to deal with emergency situations.

☑ **Section 8566. Expenditures.**

- Gives the Governor the authority to expend any existing appropriation for the support of the state of emergency.

☑ **Section 8645. Expenditures.**

- From any fund legally available during a state of emergency.

☑ **Section 8572. Commandeering private property or personnel.**

- Authorizes Governor to commandeer or utilize any private property or personnel during a state of emergency if it is deemed necessary to deal with the emergency. The state shall pay the reasonable value for this property or these services.

☑ **Section 8629. Termination of state of emergency; proclamation.**

- States that a state of emergency can be terminated either by the Governor or by concurrent resolution of the Legislature declaring the emergency at an end.

C. Authority to Create, Amend, or Suspend Orders and Regulations

☑ **Section 8567. Orders and regulations.**

- Allows the Governor to make, amend, and rescind orders and regulations during a state of emergency. These orders and regulations should be in writing and shall take effect immediately upon their issuance. However, once the state of emergency is terminated, these orders and regulations will not be in effect. Any orders and regulations relating to the use of funds during a state of emergency shall be prepared in advance of any commitment or expenditures of these funds. This section also exempts these laws from the reviews of regulation regarding necessity, authority, clarity, consistency, reference, and nonduplication (Section 11340).

Continued

C. Authority to Create, Amend, or Suspend Orders and Regulations *Continued*

☑ **Section 8571. Suspension of statutes, rules, and regulations.**

- Allows the Governor to suspend any regulatory statute or statute prescribing the procedure for conduct of state business, or the orders, rules, or regulations of any state agency if it is believed compliance would in any way prevent, hinder, or delay the mitigation of the effects of the emergency. This includes laws of local governments.

☑ **Section 8665. Violations; punishment.**

- Allows the Governor to establish a fine for not complying with orders during a state of emergency. The fine cannot exceed $1,000 or six months imprisonment.

D. Other Provisions

☑ **Section 8614. Assistance to Governor and to Director of Office of Emergency Services (OES); emergency powers subordinate to power of Governor; continuation of ordinances and regulations.**

- Requires each department, division, bureau, board, commission, officer, and employee of each political subdivision of the state to assist the Governor and the Director of the OES in carrying out all orders during a state of emergency. Any power vested in a local public official shall be subordinate to the Governor during a state of emergency. Ordinances, orders, and regulations of a political subdivision shall continue to be in effect during a state of emergency except for any provision suspended or superseded by an order or regulation issued by the Governor.

☑ **Section 8628. Use of state personnel, equipment, and facilities.**

- Authorizes the Governor to direct all agencies of the state government to utilize and employ state personnel, equipment, and facilities for activities to prevent or alleviate threatened damage due to the emergency. They may also require the state agencies to provide supplemental services and equipment to political subdivisions to restore services which must be restored in order to provide for the health and safety of the citizens of the affected area. Any agency may expend money appropriated to their agency for these purposes regardless of the appropriated purpose.

☑ **Section 8649. Use of personnel, property, equipment, and appropriations by state agency with approval of Department of Finance.**

- Allows any state agency to use its personnel, property, equipment, and appropriations for carrying out actions during a state of emergency subject to approval by the Department of Finance (DOF). The DOF will also determine whether reimbursements shall be made to any state agency for expenditures made from any appropriation available for the OES, except funds that are subject to constitutional restriction which prohibit their use for such purposes. If determined reimbursable by DOF, the expenditures will be reimbursed and the original expenditure shall be considered a temporary loan to the General Fund.

APPENDIX C
LEGISLATIVE MEASURES RELATING TO THE ELECTRICITY SITUATION

Bill (Author)	Description
A. Measures to Stimulate Energy Supply	
AB 4x (Daucher and Rod Pacheco), AB 45x (Kelley), and AB 96x (B. Campbell)	Provides tax credit for generators.
AB 9x (Richman)	Requires local governments to identify sites for power plants.
AB 27x (Koretz and Horton), SB 1x (Soto), and SB 16x (Soto)	Provides tax credit for purchasing power generation equipment.
AB 28x (Daucher)	Relaxes air pollution controls on alternative liquid fuel generation.
AB 33x (Robert Pacheco)	Provides grants for renewable energy to supply public education facilities.
AB 37x (Frommer, Wiggins, Alquist, Migden, Keeley, Thomson, and Calderon)	Provides rebates for distributed generation technologies.
AB 38x (Jackson, Aroner, Pavley, and Keeley)	Underwrites loans to build power plants.
AB 59x (Robert Pacheco) and AB 97x (Canciamilla)	Relaxes air pollution standards during emergencies and creates an air credit bank.
AB 60x (Hertzberg)	Requires new power plants to sell at cost-based prices and requires maintenance schedules.
AB 68x (Firebaugh)	Grants priority siting for power plants that enter into long-term contracts.
AB 69x (La Suer)	Requires municipal utilities to sell at cost based prices in the state.
AB 71x (La Suer)	Provides low-interest loans to repower existing power plants and construct “peaker” projects.
AB 72x (La Suer)	Provides for the lease of state lands for electric generation and requires the power generated to remain in the state.
AB 75x (Calderon), AB 83x (Keeley and Pescetti), AB 98x (Calderon), AB 108x (Simitian), and SB 54x (Haynes)	Waives stand-by charges for qualified facilities.
AB 76x (Leslie) and SB 59x (Battin)	Accelerates specific power generation projects.
AB 81x (Zettel)	Expedites construction and operation of power plants on prison property.
AB 87x (B. Campbell)	Encourages large energy consumers to generate their own power.
AB 88x (B. Campbell)	Assures access to the grid for small generators.
AB 100x (Mountjoy), SB 38x (Oller), and SB 55x (McClintock)	Exempts back-up generators from air pollution controls during emergencies.
SB 15x (Alarcon)	Provides low-interest loans for public utilities with alternative energy generation sources in long-term contracts.
SB 21x (Machado)	Lifts market rates for usage beyond baseline and requires demand-metered customers to shift usage to off-peak times.

Continued

Bill (Author)	Description
A. Measures to Stimulate Energy Supply	***Continued***
SB 29x (Soto)	Provides grants for projects using methane gas to produce electricity.
SB 35x (Morrow, Alpert)	Promotes distributed generation electricity sources.
SB 39x (Speier)	Prevents market power and physical withholding of power from any divested power plant.
SB 47x (Battin)	Requires qualifying facility contracts to vary with natural gas prices.
SB 64x (Costa)	Extends biomass grant program to existing out-of-service plants.
B. Measures to Minimize Power Plant Outages	
AB 8x (Migden, Diaz, and Oropeza)	Requires coordinated schedule of transmission and generation outages.
AB 16x (Oropeza, Diaz)	Requires maintenance during off-peak energy use periods.
AB 70x (La Suer)	Allows only one generating facility at a time to schedule maintenance.
C. Measures to Amend Interruptible Programs	
AB14x (Havice)	Authorizes schools to opt out of interruptible contracts and participate in ISO demand reduction programs.
AB 31x (Wright), AB 52x (John Campbell), AB 77x (Robert Pacheco), SB 25x (Knight), and SB 60x (Perata)	Amends and extends interruptible contracts to provide more flexibility to customers.
AB 51x (Daucher)	Provides tax credit on the purchase of a generator if the business enters into an interruptible contract.
D. Measures to Promote Energy Conservation	
AB 15x (Rod Pacheco), AB 84x (B. Campbell), and AB 90x (B. Campbell)	Provides tax credit for electricity conservation.
AB 19x (Briggs)	Provides tax credit for diesel fuel used in farming activities reducing the use of electric equipment.
AB 22x (Koretz)	Requires all state occupied buildings to shutdown during emergencies.
AB 29x (Kehoe, Shelley)	Provides funds to install real-time meters, provides grants for energy efficient appliances and to retrofit refrigeration units.
AB 32x (Nation, Aroner)	Installs real-time meters and establishes new rate structure.
AB 40x (Steinberg, Oropeza, and Keeley) and SB 42x (Speier)	Provides grants to local entities to fund energy efficiency and conservation projects.
AB 41x (Lowenthal, Nakano)	Provides energy conservation loans to shopping centers.
AB 42x (Cedillo, Correa, and Keeley)	Establishes mobile energy efficiency brigade.
AB 43x (Kehoe, Keeley, Pescetti, and Jackson) and SB 51x (Polanco)	Provides no-interest loans and grants to school districts for energy conservation and efficiency projects.
AB 44x (Cohn)	Provides funds to install demand responsive technologies and energy-efficiency retrofits.
	Continued

Bill (Author)	Description
D. Measures to Promote Energy Conservation	***Continued***
AB 53x (Reyes)	Provides loan guarantees to businesses installing renewable energy systems.
AB 56x (Leslie)	Considers energy usage when evaluating state facility decisions.
AB 58x (Cox), AB 79x (Nakano), AB 86x (B. Campbell), AB 95x (B. Campbell), and SB 17x (Brulte)	Provides tax credit for installation of solar energy systems.
AB 64x (Strom-Martin)	Identifies state buildings to build cogeneration facilities.
AB 66x (Correa) and AB 67x (McLeod)	Weatherizes low-income homes.
AB 93x (B. Campbell)	Implements building standards requiring solar water heating.
AB 102x (Wayne)	Provides tax credit for purchasing energy efficient heating and cooling systems.
AB 103x (Keeley)	Establishes plan to allow community colleges to achieve energy independence.
SB 5x (Sher, Alarcon, Bowen, Burton)	Implements various energy conservation projects.
SB 6x (Burton and Bowen)	Develops new agency to issue revenue bonds and finance a variety of energy conservation projects.
SB 37x (Brulte)	Monitors building energy efficiency standards and develops new standards that address peak-load energy consumption.
SB 52x (Chesbro)	Implements incentives to install thermal energy storage technologies in commercial buildings.
SB 53x (Margett)	Installs real-time meters to bill large electricity consumers.
SB 63x (Perata)	Provides rebates to consumers that lower their energy usage.
E. Measures to Expedite Power Plant Siting	
AB 20x (Zettel)	Expedites permitting process and reasonableness review of long-term contracts.
AB 23x (Canciamilla), AB 49x (B. Campbell), AB 62x (Cohn), and SB 30x (Brulte)	Provides financial incentives for communities to approve siting of power plants in their jurisdiction.
AB 34x (La Suer)	Expedites local government approval of power plants and environmental reviews.
AB 36x (Wright) and AB 92x (B. Campbell)	Shortens permitting process for repowering existing plants.
AB 39x (Cardoza and Salinas)	Increases the power plant size that requires a permit through the Energy Commission.
AB 55x (Rod Pacheco, Cogdill, Daucher, Zettel)	Exempts repowering of existing power plants from environmental review.
AB 94x (B. Campbell)	Exempts qualified “clean” power plants from environmental impact assessments.
AB 106x (Frommer)	Waives requirement that emission credits be secured prior to certification of a power plant site.
SB 28x (Sher)	Expedites siting of power plants.

Bill (Author)	Description
SB 34x (Knight)	Expedites review of any proposal to site a power plant on an active or closed military facility.

Continued

Bill (Author)	Description
E. Measures to Expedite Power Plant Siting	***Continued***
SB 50x (Polanco)	Relaxes air emission rules and the certification processes for "ultra-clean" thermal power plants.
SB 56x (Battin)	Expedites siting procedure for converting a simple-cycle power plant to a combined-cycle power plant.
SB 57x (Battin)	Expedites decision on applications for all thermal power plants put into service before August 1, 2002.
SB 58x (Battin)	Deletes requirement to demonstrate to the air pollution control districts that the new generation produces fewer air emissions.
F. Measures Relating to the Electricity Transmission System	
AB 65x (Wyman)	Exempts any project involving the transmission path known as "Path 15" from environmental assessment reviews.
SB 33x (Burton and Sher)	Establishes California Transmission Authority to issue revenue bonds to purchase transmission grid for agreed-upon price.
SB 40x (Speier)	Requires feasibility study to construct transmission lines parallel to Path 15.

APPENDIX D
AIR QUALITY ISSUES

Federal and state air quality requirements impact the operation of existing power plants and the siting of new power plants. For example, new or expanding power plants may be required to offset the new emissions they generate with emission reductions located elsewhere. There are also requirements mandating the installation of particular pollution control technologies. These requirements are constraining generation from peaker power plants in particular. For example, a number of existing peaker plants are running short on available operating hours for the summer due to emission limitations in their permits. In a number of air districts, emission reduction credits available to offset the emissions of new peaker plants are in short supply.

Governor's EO Addresses Constraints

The Governor's Executive Order (EO) D-24-01 addresses the above constraints in a number of ways. First, air districts (upon payment of a mitigation fee) are required to modify emission limits in permits to ensure that power plants are not restricted in their ability to operate. Second, the Air Resources Board (ARB) is required to establish an emission reduction credit bank to provide a supply of emission offsets for new peaker plants. The ARB also intends to delay the installation of required pollution controls for new peaker plants.

Issues With EO; Need for Legislative Action

The ARB's plan to implement the EO raises the following issues:

- ***Federal Approvals Required.*** Since ARB's plan would modify a number of federally enforceable requirements, federal approvals are needed. It appears that these approvals are forthcoming.

- ***Potential Citizen Lawsuits.*** There is always the possibility that ARB's plan could give rise to citizen lawsuits initiated under federal clean air legislation.

- ***State-Operated Emission Reduction Credit Bank Should Be Established in Legislation.*** The plan for an emission reduction credit bank to generate emission offsets for peaker power plants raises policy and implementation issues that are best addressed in legislation. Legislation should address the generation and pricing of the emission reduction credits and the use of the funds from the state's sale of the credits. According to ARB, amendments to AB 46x (Calderon) are being proposed to establish the emission reduction credit bank planned by the administration. Assembly Bill 97x (Canciamilla) would also establish a similar bank for broader purposes. The Legislature will also be evaluating a *2001-02 Governor's Budget* proposal for $100 million to generate emission reductions to offset emissions from new peaker plants.