

August 21, 2007
Hon. Edmund G. Brown Jr.
Attorney General
1300 I Street, 17th Floor
Sacramento, California 95814

Attention: Ms. Toni Melton
Initiative Secretary

Dear Attorney General Brown:

Pursuant to Elections Code Section 9005, we have reviewed the proposed initiative File No. 07-0027, Amdt. #2-S, the California Energy Independence and Zero Carbon Dioxide Emission Electrical Generation Act of 2008.

BACKGROUND

California's "Moratorium" on New Nuclear Power Plant Development

Since 1976, state law has conditioned the permitting of new nuclear power plants in the state upon the finding by the California Energy Resources Conservation and Development Commission (the "California Energy Commission" or "CEC") that the federal government has identified and approved a demonstrated technology for:

- The construction and operation of nuclear fuel rod reprocessing plants.
- The permanent disposal of high-level nuclear waste.

In effect, these two conditions have created a moratorium on the construction of new nuclear power plants in California as neither of these conditions has been met. The federal government has not approved a demonstrated technology for the reprocessing of nuclear fuel rods. And, while the federal administration has recommended to Congress the Yucca Mountain site in the Nevada desert as a potential permanent disposal site for nuclear waste, there remain political and legal obstacles to use of the site for this purpose. These obstacles include, among others, concerns expressed by the state of Nevada about adverse groundwater impacts. Accordingly, no new nuclear plants have been constructed in California in more than 30 years.

Despite the statutory conditions that have prevented new nuclear power plant development, nuclear power provides 15 percent of California's electricity supply. The statutes that in effect created California's moratorium specifically "grandfathered" two preexisting nuclear power plants—the Diablo Canyon Power Plant near San Luis

Obispo and the San Onofre Nuclear Generating Station in San Clemente—and both facilities continue to operate today. In addition, a third plant near Phoenix, Arizona—the Palo Verde Nuclear Generating Station—supplies California with electricity and is partially owned by several California public utilities. Without access to a permanent disposal site for nuclear waste, these facilities temporarily store their nuclear waste on site, either in water or in “dry case” cement casings.

Regulation of Nuclear Power Plants in California

Both the federal and state governments regulate nuclear power plants. In order to operate, nuclear power plants must have a license from the federal Nuclear Regulatory Commission (NRC). In setting standards for these facilities, NRC focuses on safety issues, including seismic safety and prevention of radiation hazards. Case law has established that while states are preempted by the federal government from regulating the safety aspects of nuclear power plants, states have the authority to regulate such plants based on economic and environmental concerns.

In California, several state agencies and local governments have regulatory authority over particular aspects of nuclear power plant development and operation. The CEC, as the state’s primary energy planning agency, is responsible for permitting the siting and operation of nuclear power plants. Other relevant state agencies can include—largely depending on the location of the plant and the nature of pollution created—the Regional Water Quality Control Boards, which issue permits for the discharge of pollutants into the state’s waters; the California Coastal Commission, which regulates coastal development and issues development permits relative to coastal energy plant siting which the CEC generally must adopt; the California Public Utilities Commission, which advises CEC on nuclear plant siting and allocates a plant’s costs among ratepayers when an investor-owned utility is the plant owner; the California State Lands Commission, which issues permits for private use of the state’s public resources; the state Department of Fish and Game, which regulates matters related to endangered species; and the Department of Toxic Substances Control, which regulates hazardous materials storage and release. In addition, local governments, in exercising their local land use authority, regulate matters relevant to nuclear power plant development, such as transmission line placement.

State and Local Emergency Planning and Preparedness

Nuclear power plants present potential safety and security risks generally not associated with other types of energy-generating facilities. Unlike other types of power plants, each nuclear power plant contains large quantities of radioactive material which, if released—through natural disaster, human error, or malicious intent—may cause widespread public harm.

California state and local governments spend money to plan for and respond to potential radiation releases. At the state level, the Governor's Office of Emergency Services Radiological Preparedness Unit (RPU) assists, trains, and conducts exercises with other state and local agencies and with nuclear power plant operators to prepare to respond to a radioactive release. The RPU also plans emergency response to an accident resulting from the transportation of radioactive materials, such as nuclear waste. In addition, counties in which active nuclear power plants operate—San Diego County (the San Onofre Nuclear Generating Station) and San Luis Obispo County (Diablo Canyon Power Plant)—maintain emergency preparedness plans in case of radioactive release from the plants.

PROPOSAL

The measure has three major sets of provisions:

Repeals Existing Statutory Moratorium on Nuclear Power Plant Development.

First, the measure repeals the two above-noted statutory conditions that have, in effect, created a moratorium on the construction of nuclear power plants in California since 1976.

Provides New Conditions for Nuclear Power Plant Development. Second, the measure establishes new siting requirements for nuclear power plants to be administered by CEC. The measure specifically prohibits CEC from certifying a site for a nuclear power plant if the site is seismically active, as defined by the measure. The measure also prohibits CEC from certifying a site for a plant that uses a "once-through" cooling system, if the site either is within five miles of a coastal area of biological significance as determined by the State Water Resources Control Board or if the coolant outflow is to a navigable river.

Makes Declarations About Methods to Store Nuclear Waste. Finally, the measure also specifies that CEC is to consider any cement casing or other "dry-cask" storage system approved by NRC an appropriate method for storing nuclear waste for up to 100 years.

FISCAL EFFECT

State and Local Regulatory Costs

To the extent that the measure results in new applications to construct and operate new nuclear power plants in California, the state would face administrative costs connected with the regulation of the plants. As would be the case with any application to develop a power plant under the jurisdiction of CEC (namely, thermal power plants of 50 megawatts or greater), CEC would need to review the siting of each proposed nu-

clear power plant and decide whether to license the plant for construction and operation. On average, it currently costs CEC \$700,000 to \$800,000 for each power plant siting and licensing review it conducts, and roughly \$15,000 in annual costs to monitor compliance at a single power plant. The CEC's costs to review a proposed nuclear power plant could exceed these average costs because, for example, of the greater public comment and legal challenges potentially associated with developing nuclear power plants. In any case, CEC has the authority to recoup its administrative costs through siting fees and a ratepayer-funded special fund that funds the majority of its state operations. The CEC currently receives no General Fund for support of its operations.

Largely depending on the proposed location of the nuclear power plant under consideration, there may be additional administrative costs at several other state agencies to process environmental-related permits that must be obtained by an applicant proposing a new nuclear power plant and to enforce those permits during operation. It is likely that the administrative costs of any other affected agency would be less than CEC's administrative costs, given the narrower scope of review and oversight of those agencies. In addition, most of these agencies have authority to recover through fees much, if not all, of their administrative costs for permitting and enforcement activities. To the extent that administrative costs to these other agencies are not recouped from fees, the state General Fund could face pressure to fund some of these costs.

Similarly, local governments would face unknown administrative costs associated with their regulation of land use as it relates to the proposed siting of a nuclear power plant within their geographic area of jurisdiction. These costs are at least partially recoverable through fees.

The *total* state and local administrative costs that would result from the measure is unknown and would depend on the number of new nuclear power plants that would be proposed for development as a result of the measure. It is uncertain how many applications for new nuclear power plants would be triggered by the lifting of the current statutory conditions on the permitting of such power plants. This is due to a number of other potential obstacles. These potential obstacles include difficulties obtaining financing for construction costs that can easily exceed \$5 billion for a typical plant. Other potential hurdles include the multiple state and federal regulatory approvals that would be required; the local political support for a plant siting that would be needed; and the transmission infrastructure to connect a power plant to the state's transmission grid that might need to be developed. Given these significant potential hurdles, it is possible that there would be only a few, if any, applications over the next several years for new nuclear power plants, should the measure pass.

State and Local Emergency Planning and Preparedness Costs

Both state and local governments would face increased emergency preparedness costs, to the extent additional nuclear power plants were built as a result of the measure. Any local county government, however, would face increased costs related to emergency preparedness only if a nuclear power plant were constructed within or adjacent to a given county. Costs to the state would depend on the extent to which new plants were built in areas currently not receiving nuclear power-related emergency preparedness assistance from the state. In any event, existing state law requires that a utility—including a municipally-owned utility—operating a nuclear power plant provide state and local authorities with funding for facility-related emergency planning to the extent those costs are not covered by federal funds. Therefore, any additional state or local emergency preparedness costs resulting from the measure would be recovered from the plant operator(s).

State Financial Exposure

The state may face two significant fiscal pressures related to the measure. First, as is the case with other facilities that generate pollution, there will need to be active management of the pollution generated by any nuclear power plant developed as a result of the measure, both during the plant's operation and after its closure. The state could be exposed to substantial costs to clean up radioactive contamination or other pollution at operating or closed nuclear power plants should the plant operators not have the resources to pay the cleanup costs. At a single site, these cleanup costs could be in the millions of dollars, based on the federal experience with such costs at a federal facility.

Second, the state could be exposed to substantial costs as a result of a major release of radiation from a nuclear power plant resulting from a natural disaster, accident, or malicious intent. While federal law requires operators of nuclear power plants to pay into an insurance pool to cover some of the costs resulting from a radioactive incident, this insurance is estimated to provide only about \$10.8 billion in coverage per radioactive incident. Congress maintains responsibility to determine how to pay for damages beyond this amount and federal law provides nuclear power plant operators immunity from liability beyond the insurance requirements. Absent subsequent action by Congress, the state might be exposed to substantial financial risks, potentially in the billions of dollars, should a major radioactive release occur at a nuclear power plant.

Economic Impacts

To the extent the measure spurs investments in nuclear power production in the state, there are several types of economic impacts that could result. These would include both impacts directly associated with the investment activities themselves and impacts relating to the effects of such investments on power production, availability, and prices.

Direct Effects. With regard to impacts associated with nuclear investments per se, such activity will generate jobs, capital purchases, and other economic activities which in turn will potentially increase state and local revenues through increased personal income, corporation, sales, and property taxes. This is especially so, given the large up-front capital costs required to build nuclear power facilities. The magnitude of these effects will depend both on the total amount of nuclear investments undertaken and whether such investments merely substitute for other types of energy-related investments or represent a net increase in such investments. Although nuclear investments will be attractive if they are deemed to have a sufficiently high expected economic rate of return, both the nature and timing of the nuclear investments that would occur is difficult to predict, given the complexities of the technology involved, the many years that it takes to plan and build power plants, and the myriad of factors that would be involved in making investment decisions. These would include projections about future-year supplies and costs of competing energy sources and, given the large volumes of capital funds that would have to be borrowed, future financial conditions such as interest rates. Given this, the likely amount and impacts of such investments that would occur is unknown.

Other Effects. To the extent that nuclear investments occurred and had the net effect of increasing the amount and reliability of power, and/or lowered its price (such as due to its effects on energy supplies and nuclear power generation's lower operating costs), this would have positive economy-wide effects in such areas as lower production costs, higher output, more jobs, and increased corporate profits. These, in turn, would potentially increase state and local revenues through increased personal income, corporation, sales, and property taxes. In addition, these factors could directly reduce costs incurred by the state and local governments for their own operations. The likely magnitude of these various other effects, however, is unknown.

Summary

- Potential, unknown state and local administrative costs, largely paid for by fees, for review of new power plant applications and for regulatory enforcement and emergency planning related to new power plant construction and operation.
- Potential, unknown financial exposure to the state in the long term, potentially in the millions of dollars in environmental cleanup costs at each new nuclear power plant site, and potentially in the billions of dollars in the event of a major radioactive release.
- Potential, unknown increase in state and local revenues in the long term, to the extent the measure generates new investment in the state in the nuclear

Hon. Edmund G. Brown Jr.

7

August 21, 2007

power industry that is not fully offset by decreased investment in other energy sectors.

Sincerely,

Elizabeth G. Hill
Legislative Analyst

Michael C. Genest
Director of Finance