

M e m o r a n d u m

Date: April 16, 2008

To: The Commission
(Meeting of April 24, 2008)

From: Pamela Loomis, Deputy Director
Office of Governmental Affairs (OGA) — Sacramento

Subject: **AB 2404 (Salas) - Energy efficiency: water efficiency programs.**
As amended: April 9, 2008

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: SUPPORT WITH AMENDMENTS

SUMMARY OF BILL:

AB 2404 would make legislative findings and declarations concerning water-related energy savings. It would declare that if the California Public Utilities Commission ("CPUC" or "Commission") finds that water efficiency improvement programs can achieve cost-effective energy efficiency savings, electrical corporations and gas corporations should consider potential energy savings that could be achieved through water efficiency improvements and, where cost effective, incorporate those programs into their energy efficiency programs. The bill would further declare that because water may be transported from or through one electrical utility's service territory and used in the service territory of a different electrical utility, an electrical utility should be authorized to partner in water efficiency programs outside their service territory if the CPUC or the local publicly owned electric utility's governing board finds that by partnering, the utilities would optimize energy efficiency programs and result in energy savings within their service territory.

The legislative findings state that in Decision 07-12-050,¹ the Public Utilities Commission approved pilot programs for the state's largest electrical and gas corporations through which they will develop partnerships with water agencies to undertake specific water conservation programs and will measure the results and fund studies necessary to understand more accurately the relationship between water savings and the reduction of energy use and the

¹ Available at http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/76926.pdf.

extent to which those reductions would vary for different water agencies. The bill would require the CPUC to report to the Legislature by August 1, 2009, on the results of the pilot programs approved in Decision 07-12-050. It would further require the Commission to provide conclusions drawn from the pilot programs and make recommendations as to whether the electrical and gas corporations would or could achieve cost-effective energy efficiency improvements through water conservation programs.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

- The requirement that the CPUC report to the legislature on August 1, 2009, with recommendations as to whether energy/water programs are cost effective, would be impossible to meet because the evaluation of the pilot programs will not be submitted to the CPUC until January 1, 2010. Therefore, the reporting date should be changed to allow the CPUC sufficient time to review the evaluation report and draw the necessary conclusions.

SUMMARY OF SUGGESTED AMENDMENTS:

The bill should be amended to change the date on which the CPUC would be required to report to the Legislature to March 1, 2010.

DIVISION ANALYSIS (Energy Division):

- The bill would establish the Legislature's support for the inclusion of water efficiency savings in utility energy efficiency portfolios. In proceeding A. 07-01-024, the CPUC has been working with the utilities and interested parties to determine whether water conservation programs can deliver verifiable, cost-effective energy efficiency savings and therefore should be included in the utilities' future portfolios. In D. 07-12-050, the Commission approved pilot programs and studies to be carried out by the IOUs, in partnership with water agencies, over an 18-month period commencing January 1, 2008, with a total budget of \$6.4 million. The CPUC directed that the pilots be designed to explore the potential for a water embedded energy savings program by examining, in sequence, the: (1) technical potential; (2) economic potential; and (3) programmatic potential for carrying out an effective water embedded energy savings strategy.
- Whether water efficiency programs can be cost effective is an issue that is being addressed in the utilities' pilots and studies, and whether the water efficiency programs should be included in the utilities' portfolios is a question that is being determined by the CPUC in its energy efficiency proceedings, taking into consideration the results of the pilot programs and studies. In addition, the calculation of cost-effectiveness is being addressed by the CPUC. In order to arrive at more accurate estimates of cost-

effectiveness of water efficiency programs, Energy Division consultants developed the Water Energy Calculator, which is patterned after the E3 calculator used to determine cost-effectiveness of commission-funded energy efficiency measures.² Like the E3 energy efficiency calculator, the water energy calculator produces a total resource cost number to determine cost-effectiveness. This number is created by comparing costs and benefits, with benefits represented by avoided costs. The utilities are using the Water Energy Calculator to estimate the cost-effectiveness of their pilot programs.

- The CPUC will consider the results of the pilots and studies in adopting methods and protocols for the verification of energy savings from water efficiency programs.

PROGRAM BACKGROUND:

- In D. 07-12-050, the Commission approved pilot programs and studies to be carried out by the IOUs in partnership with water agencies over an 18-month period commencing January 1, 2008, with a budget of \$6.4 million. The CPUC directed that the pilots be designed to explore the potential for a water embedded energy savings program by examining, in sequence, the: (1) technical potential; (2) economic potential; and (3) programmatic potential for carrying out an effective water embedded energy savings strategy.
- The objectives of the pilot programs are:
 - Reduce energy consumption related to water use in a manner that should prove to be cost-effective for all of the customers of the sponsoring energy utilities;
 - Create a methodology for calculating cost-effectiveness and evaluating water-derived energy efficiency programs;
 - Determine if, in fact, it is cost-effective to save energy through programs that focus on cold water;
 - Better understand how energy is used in the California water system;
 - Test a diverse set of water energy programs and measures, with particular emphasis on new technologies and low-income customers;

² The Water Energy Calculator is available at <http://doe2.com/download/Water-Energy/WaterSavingMeasures-Calculator-v3.pdf>.

- Better understand what programs and measures are likely to save water and energy;
- Provide the basis for meaningful *ex-post* project assessment;
- Stimulate new partnerships; and
- Better understand the potential benefits of pursuing the following strategies:
 - Conserving water;
 - Switching to less energy-intensive water sources; and
 - Increasing the energy efficiency of current water delivery.
- In addition, the Decision approved four studies, including two embedded energy foundational studies to address information required to perform cost-effectiveness calculations:
 - A Statewide/Regional Water-Energy Relationship Study designed to establish the relationship between annual climate and hydrology variation, regional and statewide water demand variations and statewide energy use by the water system; and
 - A Water Agency/Function Component Study which includes a redefined Load Profile Study designed to establish detailed annual and daily profiles for energy use as a function of water delivery requirements for a full range of local, regional, state and federal water agencies within the California water system.
- These studies will provide the information basis for a meaningful *ex-post* assessment following the completing on the pilots to inform the Commission in determining whether future embedded energy in water programs should be added to the energy efficiency portfolio.
- The information developed in the studies will provide an understanding of how energy is used in the California water industry. These studies should provide the missing link between water use changes and energy use changes that is required to evaluate utility water savings proposals. Combining the results of these studies with information on measure water use reductions will allow the Commission to use the results of the water-energy pilot activity to redirect future water-energy energy efficiency portfolio additions towards water agencies or components of the water system that are likely to have the largest energy savings, and measures that provide cost effective energy savings.

LEGISLATIVE HISTORY:

None.

FISCAL IMPACT:

None.

STATUS:

AB 2404 is awaiting a hearing date before the Assembly Appropriations Committee.

SUPPORT/OPPOSITION:

Support: Green Plumbers USA
 San Diego County Water Authority (sponsor)

Opposition: None on file.

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Date: April 18, 2008

BILL LANGUAGE:

BILL NUMBER: AB 2404 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY APRIL 9, 2008
AMENDED IN ASSEMBLY APRIL 1, 2008

INTRODUCED BY Assembly Member Salas

FEBRUARY 21, 2008

An act relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 2404, as amended, Salas. Energy efficiency: water efficiency programs.

Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including electrical corporations and gas corporations. Existing law requires the commission to require electrical corporations to identify a separate rate component to fund programs that enhance system reliability and provide in-state benefits. This rate component is a nonbypassable element of local distribution and is collected on the basis of usage. The funds are collected, in part, to support cost-effective energy efficiency and conservation activities. Existing law establishes a surcharge on all natural gas consumed in the state to fund certain low-income assistance programs, cost-effective energy efficiency and conservation activities, and public interest research and development. Existing law requires a public utility gas corporation, as defined, to collect the surcharge from natural gas consumers, as specified. The money from the surcharge is deposited in the Gas Consumption Surcharge Fund and is continuously appropriated to specified entities, including to the commission, or to an entity designated by the commission, to fund low-income assistance programs, cost-effective energy efficiency and conservation activities. An existing decision of the commission approved pilot programs for the state's largest electrical and gas corporations through which they will develop partnerships with water agencies to undertake specific water conservation programs and will measure the results and fund studies necessary to understand more accurately the relationship between water savings and the reduction of energy use and the extent to which those reductions would vary for different water agencies.

This bill would require the commission, by ~~August 1~~
December 31 , 2009, to report to the Legislature
on the results of the pilot programs ~~and~~ ,
provide conclusions drawn from the pilot programs ,
and make recommendations as to whether the electrical and gas
corporations would or could achieve cost-effective energy efficiency
improvements through water conservation programs.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. The Legislature finds and declares all of the following:

(a) The Department of Water Resources concluded in the most recent California Water Plan that the largest single new supply available for meeting the state's growing demand for water over the next 25 years is water use efficiency.

(b) In the report titled "California's Water-Energy Relationship" prepared by the State Energy Resources Conservation and Development Commission (Energy Commission) as part of its 2005 Integrated Energy Policy Report proceeding, the Energy Commission concluded that water-related energy use consumes 19 percent of the state's electricity, 30 percent of the state's natural gas, and 88 billion gallons of diesel fuel each year.

(c) It may be possible to obtain significant energy savings by reducing the use of water and developing and treating water more effectively.

(d) If the Public Utilities Commission finds that water efficiency improvement programs can achieve cost-effective energy efficiency savings, electrical corporations and gas corporations should consider potential energy savings that could be achieved through water efficiency improvements and, where cost effective, incorporate those programs into their energy efficiency programs.

(e) Because water may be transported from or through one electrical utility's service territory and used in the service territory of a different electrical utility, an electrical utility should be authorized to partner in water efficiency programs outside their service territory if the Public Utilities Commission or the local publicly owned electric utility's governing board finds that by partnering the utilities would optimize energy efficiency programs and result in energy savings within their service territory.

(f) In Decision 07-12-050 the Public Utilities Commission approved pilot programs for the state's largest electrical and gas corporations through which they will develop partnerships with water agencies to undertake specific water conservation programs and will measure the results and fund studies necessary to understand more accurately the relationship between water savings and the reduction of energy use and the extent to which those reductions would vary for different water agencies.

(g) Pursuant to Decision 07-12-050, the electrical and gas corporations are to design their programs beginning January 1, 2008, and are to implement the programs for one year, beginning July 1, 2008, or by an earlier date if the Energy Division of the Public Utilities Commission is able to obtain certain consultants.

SEC. 2. The Public Utilities Commission shall by ~~August 1~~
December 31, 2009, report to the Legislature on the results of the pilot programs approved in Decision 07-12-050. The commission shall provide conclusions drawn from the pilot programs and make recommendations as to whether the electrical and gas corporations would or could achieve cost-effective energy efficiency improvements through water conservation programs.