

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: August 12, 2014

To: The Commission
(Meeting of August 14, 2014)

From: Lynn Sadler, Director
Office of Governmental Affairs (OGA) – Sacramento

Subject: **AB 2581 (Bradford) – Energy: appliance standards: public domain computer program: home energy rating: energy efficiency program for appliances.**
As amended: June 30, 2014

RECOMMENDED POSITION: OPPOSE UNLESS AMENDED

SUMMARY OF BILL

This bill would propose requirements for Appliances and Building Standards rulemaking, under the purview of the State Energy Resources Conservation and Development Commission (CEC). In addition, this bill would establish requirements for Energy Efficiency program for plug-in appliances implemented by the Investor Owned Utilities (IOUs) with oversight of the CPUC and related evaluation challenges of such programs. Specifically, this bill:

Part 1 (Sections 1-3 applicable to the CEC)

- Authorizes the CEC to consider or recognize voluntary agreements in lieu of regulation of energy- and water-efficient appliances and to take voluntary agreements into account in its planning.
- Requires the CEC to consider adopting a process for the repeal or suspension of enforcement of appliance standards if the CEC finds the standard inconsistent or duplicative of federal or state law.
- Requires the CEC to allow manufactures to use appliances electronic labeling if appropriate.
- Requires the CEC to consider the most current data possible and, whenever feasible, to consider data no older than one year prior to the commencement of a rulemaking proceeding to adopt or amend appliance standards.
- Requires the CEC to approve and make publically available a public domain computer program to determine compliance of buildings with the building standards six months prior to the standards effective date. The CEC should perform preliminary tests of the computer program and make results publicly available.

- Requires the CEC to ensure that energy assessment tools used in its home energy rating program be routinely adjusted, that consumers receive a notice of the output of the assessment tools and are notified of how results may differ from their usage patterns.

Part 2 (Section 4 applicable to the CPUC)

- Requires CPUC to include an energy efficiency program that provides incentives to an electrical corporation that adopts an energy efficiency program to reduce electrical demand from indoor appliances.
- The program shall address challenges and minimize barriers that may limit or inhibit achievement of energy savings goals, which shall include: a) evaluation and attribution of energy savings; and, b) long-lasting, sustainable increases in energy efficiency technology adoption via structural changes in the market and in behaviors of market actors for indoor appliances that receive electricity through power outlets.
- Ties incentives to a proposed codification of a minimum net-to-gross ratio (.80)¹ that should be maintained for 36 months, after which time the CPUC may evaluate the energy efficiency program and adjust the net-to-gross ratio on a prospective basis.
- Requires the CPUC to update cost-effectiveness tools to account for long-term benefits and costs that accrue from the proposed program.

CURRENT LAW

- Existing law requires the CEC to prescribe, by regulation, standards for minimum levels of operating efficiency, and authorizes the commission to prescribe other cost-effective measures, to promote the use of energy-efficient and water-efficient appliances whose use requires a significant amount of energy or water on a statewide basis.
- Existing law requires the CEC to prescribe, by regulation, lighting, insulation climate control system, and other building design and construction standards that increase the efficiency in the use of energy and water for new residential and new nonresidential buildings. Existing law also requires the commission to prescribe, by regulation, energy and water conservation design standards for new residential and new nonresidential buildings.
- Under Public Utilities Code Section 454.5(b)(9)(C) utilities are required to first meet their “unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible.”
- Title 20 encompasses California’s Appliance Efficiency Regulations, which are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Many of the plug-in devices described in the proposed bill are addressed in the Title 20 process, including: refrigerators (consumer and commercial); room air conditioners; dishwashers; clothes washers

¹ Net-to-gross is a measurement of the influence of the program by understanding who would have taken the energy efficiency action or installed a technology in the absence of the program (free-ridership) and who is taking action without an incentive (spillover). The net-to-gross ratio is calculated after collecting and analyzing data collected from the market regarding the influence of the program.

and dryers; televisions and consumer audio/video equipment; room and space heaters; pool pumps; and, residential and commercial cooking devices.

AUTHOR'S PURPOSE

Author's statement—"The CEC prescribes energy efficiency regulations governing energy usage of homes, businesses, appliances, heating and air conditioning systems, and more. The tools approved by the CEC that are used to estimate energy usage are not accurate enough and consistently overestimate energy usage. This bill requires the CEC's public domain software that estimates energy usage to be routinely adjusted. It would also make consumers aware of potential differences between the model and their actual energy use patterns by providing them with a notice explaining the caveats. Furthermore, when standards are adopted or updated, the CEC software is not always fully tested and ready to go. This bill would require the testing and approval is completed six months before standards go into effect. Finally, this bill would add voluntary agreements to the list of actions the CEC may take to promote water and energy efficient appliances, ensure the CEC uses the most current data when enacting energy efficiency standards for appliances, and authorize them to repeal an appliance standard that is duplicative or inconsistent."

DIVISION ANALYSIS (Energy Division)

Requirements directed to the CEC are not included in this analysis.

The proposed energy efficiency program to address plug-in appliances is already in place. The Home Energy Efficiency Rebate program provides rebates to customers who purchase energy efficiency appliances (clothes washers, refrigerators, etc.). The IOUs and CPUC staff are working to expand the product mix and address challenges associated with energy consumption by plug-in appliances for future program years. Additionally, as worded, the bill looks to provide incentives to the IOUs for implementing such a program. This would represent a marked shift from current program design. Currently, incentives go to the customer making the purchase.

Incentives. The CPUC Standard Practice Manual (SPM) defines incentives as dollar benefits paid by the utility to customers participating in their programs. There are two types of incentives—rebates and rate incentives (monthly bill credits). The rebate type of incentive has the result that the net price to the participant of a program-sponsored device is reduced. A rate incentive is a payment made to reward a participant for his or her behavior. The SPM states that the incentive that it is defining is paid directly to the participating customer (also called a "rebate" or a "calculated incentive"). In the demand-side vernacular, though, the utilities and many stakeholders use the term "incentive" much more broadly to include not only rate incentives and direct rebates to customers (which are referred to as "downstream" incentives), but also other types of payments that can be made to a variety of entities involved in implementing demand-

side programs, such as payments to retailers (midstream incentives) and payments to manufacturers (upstream incentives).²

As part of evaluating the impact of incentive programs the CPUC calculates a Net-to-gross (NTG) ratio. NTG is a measurement of the influence of the program by understanding who would have taken the energy efficiency action or installed a technology in the absence of the program (free-ridership) and who is taking action without an incentive (spillover). The net-to-gross ratio is calculated after collecting and analyzing data collected from the market regarding the influence of the program.

The bill asserts that evaluation and attribution of savings is a barrier that either limits or inhibits achievement of energy savings goals without presenting supporting evidence for these claims. The bill also describes the need to address “market transformation”, a goal that the IOUs and CPUC staff are already working towards under current program design.

The bill codifies a specific NTG of .80 to be applied to the programs under this bill for 36 months. A NTG ratio of 1 means the program was responsible for 100% of the savings that occurred (that is, if the program did not exist that savings would not have happened). A NTG ratio of 0.8 means that about 20% of the savings would have happened without the program; and 80% of the savings were a result of the program being there. Codification of a net-to-gross (NTG) ratio of .80 for the proposed energy efficiency program is problematic, as it would lock-in a performance metric without an analytical basis.

Codifying a .80 NTG value for a program would establish a set estimate of program influence, even when evaluation may show that it may be lower (say, .51), or higher based on the evidence from the field.

Lastly, the need to update cost-effectiveness tools is asserted without supporting evidence. Current cost-effectiveness tools account for long-term benefits and costs related to energy efficiency programs.

² <http://www.cpuc.ca.gov/NR/rdonlyres/58129C08-C0EC-4C0F-926C-327F1A710537/0/ClarificationofSeveralCostConceptsinCPUCDemandSideCostEffectivenessTestsFinal.pdf>

Pilot Projects

The Commission has determined that in a limited number of cases, and on a pilot basis, it is appropriate to include the savings up to code as a benefit, either because the program is inducing measure adoption in existing buildings that are not required to come up to code unless triggered by a renovation (as is the case for the Energy Upgrade California program) or because data has indicated that standard practice is far below the legally required code (as is the case for residential HVAC, in which case the Commission is proposing that low compliance rates to permit requirements is an indicator of below-code installations).³

Southern California Edison has a set-top-box pilot under implementation currently and results are expected in late 2014/ early 2015. It is understood that Section 4 of this bill should be for targeting set-top-boxes. Establishing a program with a codified NTG value before the results of the pilot are known is problematic because it pre-judges the outcome of the program, normally based on field analysis.

SAFETY IMPACT

By addressing a broader range of inefficient plug-in equipment in the home, it may be the case that in some homes, certain household appliances and other plug-in devices that are beyond their useful lives and not covered by an existing ratepayer funded energy efficiency program, present a safety problem. The bill, as written, broadens the category of plug-in devices, and may help reduce safety issues for consumers, although possible safety issues related to plug-in equipment have not been documented in CPUC proceedings, nor are they discussed in the bill as an issue integral to the proposed broader category of plug-in equipment.

RELIABILITY IMPACT

Relaxing regulatory oversight of program proposals may result in offerings that would not minimize reliability impact.

In addition, the bill may result in voluntary agreements in lieu of regulation, which could arguably be less stringent than regulation stemming from the public process. If the agreements result in less than ideal efficiency minimum standards, the loads would not be optimally reduced. This may cause potential reliability problems in the long run.

RATEPAYER IMPACT

Part 1 (effect of sections 1-3 of the bill on the CPUC)

The IOUs prepare CASE (Codes and Standards Enhancement) reports to support the code proposals the CEC entertains at each OIR. The cost of a CASE report for the utilities range between \$100,000 to 150,000 per study. Having to redo analyses, because the data is either over one year old or to react to other data that may or may not be relevant, would imply either redoing the entire study or a portion of it. This

³ <http://www.cpuc.ca.gov/NR/rdonlyres/58129C08-C0EC-4C0F-926C-327F1A710537/0/ClarificationofSeveralCostConceptsinCPUCDemandSideCostEffectivenessTestsFinal.pdf>

process may potentially increase the IOU program costs by about 50%. Depending on the amount of studies, the IOUs expect to prepare about 25 CASE studies for the Phases I-III of this Appliances OIR, it may potentially increase the cost of the program by as much as \$1.5million (I used \$125,000 as average cost per study).

The entire codes and standards budget is \$28 million for 2013-2014 cycle, therefore an increase of about 5-6%.

Part 2 (effect of section 4 of the bill on the CPUC)

There may be costs associated with implementation and evaluation of an energy efficiency program that aims to reduce electrical demand from indoor/plug-in appliances. In 2010-2012, for example, IOU expenditures were approximately \$115 million (in ratepayer money) to administer the Home Energy Efficiency Rebate program, which provided rebates to customers who bought energy efficient appliances (clothes washers, refrigerators, room ACs, etc.). Without further information on which appliances would be targeted in the program proposed in the bill, this figure may be generally used as a base estimate for future costs on a 3-year basis. Evaluation costs are more difficult to estimate, as they are dependent on which appliances are included in the program and the rigor of evaluation that would ensure ratepayer money is producing cost-effective energy savings.

FISCAL IMPACT

The CPUC estimates fiscal impacts associated with section 4 of the bill. Specifically a limited-term full-time Administrative Law Judge II for one year and a ½ Legal Assistant support position (\$200,735 for the one-year term). Subsection a results in ALJ time to establish a new program (“include a program”) to “reduce demand from indoor appliances” – also-known-as reducing ‘plug-load’. The utilities currently have a plug-load energy efficiency program in place, but this subsection requires a new program.

Historically, ALJ Division has found that each ALJ position requires an average of one position spread over supporting groups such as docket, process, hearing reporter, and legal typist. The docket office currently has a queue of documents awaiting review for filing, so the establishment of a procedural schedule with short deadlines would require that a legal assistant in the docket office triage all documents related to this proceeding for expedited filing. Accordingly, the ALJ Division concludes this piece of legislation will require additional support staff based on quantitative work conducted as part of our Zero Base Budgeting exercise. The support position is 1/2 of a full-time position, denoted as a full-time position for 6 months of the year.

Analyst positions are associated with section 4, subsections b, c, and d of the bill for work that includes attribution and application of the specific net to gross ratio. Specifically, 1.5 full-time Public Utility Regulatory Analyst IV positions (for a total of \$177,626 annually). Further, application of these changes will need to be addressed on a program (with respect to individual programs in the energy efficiency proceeding) and on a portfolio (by utility) basis. To the extent the bill requires updating the cost-effectiveness tools to account for long-term benefits— historically contentious work with

potentially wide-ranging effects on other CPUC proceedings and programs—the bill will require analyst time at a relatively high level (PURA IV) in order to exercise judgment with respect to discussions on cost-effectiveness affecting other proceedings.

ECONOMIC IMPACT

No anticipated economic impacts.

LEGAL IMPACT

No anticipated legal impacts.

LEGISLATIVE HISTORY

The CPUC establishes energy efficiency goals based on legislative requirements set in SB 1037 (Kehoe, Statutes 2005).

PROGRAM BACKGROUND

History of Goals: Provides background of Commission decisions that have established the structure and application of goals.⁴

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION

This bill should be Opposed Unless Amended for the following reasons:

- The bill codifies evaluation processes that may result in a poor investment of ratepayer funds in programs that otherwise would not have been approved by the CPUC.

SUMMARY OF SUGGESTED AMENDMENTS

Sections 1-3

Appliances Voluntary Agreements: Staff recommends deletion of this provision.

CEC already considers voluntary agreements and has done so in the case of Set Top Boxes⁵. Voluntary agreements are normally set at the national level and provisions may not meet California's needs. Statutory requirement that the CEC 'consider' such agreements may provide undue weight for such arrangements and dilute the regulatory process. In addition, voluntary agreements should not be considered in lieu of regulation.

⁴ <http://www.cpuc.ca.gov/NR/rdonlyres/E1E38C4A-5E56-4ACB-B0C9-AFD69656BFA0/0/goalsdecisionssummary.pdf>

⁵ <http://aceee.org/press/2013/12/us-energy-department-pay-television->

Repeal or Suspension of Duplicative State Appliance Standards: Staff recommends deletion of this provision.

The CEC already adjusts the appliances regulations for inconsistencies with federal regulations. Duplicative standards at state level serve as a backup for California in case of changes in federal political environment that may cause regulations to be repealed.

Appliances Labeling: Staff recommends deletion of this provision.

This request hinders the ability of the CEC to enforce appliance standards requirements as they rely on checking physical labels on store. This requirement could potentially make non-compliance easier, compromising California's goals.

Current Data in Appliances Rulemaking: Staff recommends deletion of this provision.

Staff is particularly concerned with this requirement. The IOUs, as part of the energy Efficiency Codes and Standards program, prepare most of the technical information supporting the codes. Each study costs around \$100,000 to \$150,000. This requirement will increase cost to ratepayers as data may need to be refreshed periodically, even if not necessary, as not always the most current data is the best data available. Requirement unnecessary and potentially costly to ratepayers.

Building Standards: Staff has no concerns with these requirements.

Section 4

Energy Efficiency program for plug-in appliances and related challenges: Staff recommends deletion or modification of this provision to avoid creating a new program per subsection (a), a specific net to gross ratio per subsection (c), and revisiting the cost-effectiveness methodologies as in subsection (d).

The proposed energy efficiency program to address plug-in appliances is already in place. The Home Energy Efficiency Rebate program provides rebates to customers who purchase energy efficiency appliances (clothes washers, refrigerators, etc.). The IOUs and CPUC staff are working to expand the product mix and address challenges associated with energy consumption by plug-in appliances for future program years. Additionally, as worded, the bill proposes to provide incentives to the IOUs for implementing such a program, which would represent a marked shift from current program design, which requires that incentives go to the customer making the purchase.

Additionally, the bill asserts that evaluation and attribution of savings is a barrier that either limits or inhibits achievement of energy savings goals without presenting supporting evidence for these claims. The bill also describes the need to address "market transformation", a goal that the IOUs and CPUC staff are already working towards under current program design. Codification of a net-to-gross ratio of .80 for the proposed energy efficiency program is problematic, as it would lock-in an unrealistic performance metric without an analytical basis. Lastly, the need to update cost-

effectiveness tools is asserted without supporting evidence. Current cost-effectiveness tools account for long-term benefits and costs related to energy efficiency programs.

STATUS

AB 2581 is on the Senate Appropriations Suspense File and scheduled to be heard on August 14, 2014.

VOTES

Date	Location	Ayes	Noes	NVR
6/23/14	Sen Energy, Utilities and Communications	7	3	1
5/29/14	Assembly Floor	79	0	0
5/23/14	Asm Appropriations	17	0	0
4/21/14	Asm Utilities and Commerce	13	0	2

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BILL LANGUAGE:

AMENDED IN SENATE JUNE 30, 2014
AMENDED IN SENATE JUNE 16, 2014
AMENDED IN ASSEMBLY MAY 28, 2014
AMENDED IN ASSEMBLY APRIL 21, 2014
california legislature—2013–14 regular session

ASSEMBLY BILL

No. 2581

Introduced by Assembly Member Bradford

February 21, 2014

An act to amend Sections 25402, 25402.1, and 25942 of the Public Resources Code, and to add Section 454.58 to the Public Utilities Code, relating to energy.

legislative counsel's digest

AB 2581, as amended, Bradford. Energy: appliance standards: public domain computer program: home energy rating: energy efficiency program for appliances.

(1) Existing law requires the State Energy Resources Conservation and Development Commission to prescribe, by regulation, standards for minimum levels of operating efficiency, and authorizes the commission to prescribe other cost-effective measures, to promote the use of ~~energy~~ *energy-efficient* and water-efficient appliances whose use requires a significant amount of energy or water on a statewide basis.

This bill would instead authorize the commission to prescribe or adopt other cost-effective measures. The bill would authorize the commission to consider or recognize voluntary agreements in lieu of regulation described above and to take voluntary agreements into account in its planning. The bill would ~~authorize the commission to repeal a standard~~

~~of minimum levels operating efficiency for an appliance if it finds that the standard is duplicative or inconsistent with federal or state law. require the commission to consider adopting a process for the repeal, or suspension of enforcement, of a standard for minimum levels of operating efficiency for an appliance that the commission finds to be duplicative or inconsistent with federal or state law.~~ The bill would require any labeling requirement prescribed by the commission to allow a manufacturer to use electronic labeling as appropriate. The bill would require the commission to ~~rely on~~ *consider* the most current data possible and, whenever feasible, to ~~rely on~~ *consider* data no older than one year prior to the commencement of a rulemaking proceeding to consider adoption or amendment of a standard for an appliance.

(2) Existing law requires the commission to prescribe, by regulation, lighting, insulation climate control system, and other building design and construction standards that increase the efficiency in the use of energy and water for new residential and new nonresidential buildings. Existing law also requires the commission to prescribe, by regulation, energy and water conservation design standards for new residential and new nonresidential buildings. In order to implement these requirements, existing law requires the commission to develop a public domain computer program that enables contractors, builders, architects, engineers, and government officials to estimate energy consumed by residential and nonresidential buildings and requires the commission to establish a formal process for certification of compliance options for new products, materials, and calculation methods, as prescribed.

This bill would require the commission to approve and make publicly available, not less than 6 months prior to the effective date of adopted or updated efficiency standards, the public domain computer program. The bill would require the commission, before approving the public domain computer program, to perform preliminary tests of the public domain computer program using common examples of residential and nonresidential buildings and building systems to ensure the usability of the program by users of the program. The bill would require the commission to make the results of those preliminary tests publicly available.

(3) Existing law requires the commission to establish criteria for adopting a statewide home energy rating program for residential dwellings.

For existing single-family residential dwellings and multifamily residential dwellings with up to 4 units, the bill would require the

commission, in administering the statewide home energy rating program, to ensure that energy assessment tools used by the commission are routinely adjusted to improve modeling accuracy and to ensure that consumers receive a notice with the output of the energy assessment tools explaining the assumptions used in the energy assessment tools and how they may differ from actual usage patterns.

(4) Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including electrical corporations, as defined. The Public Utilities Act requires the Public Utilities Commission to review and accept, modify, or reject a procurement plan for each electrical corporation in accordance with specified elements, incentive mechanisms, and objectives. The act requires that an electrical corporation's proposed procurement plan include certain elements, including a showing that the electrical corporation will first meet its unmet needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible.

This bill would require the Public Utilities Commission, no later than January 1, 2016, to include in its energy efficiency portfolio program, a program to provide incentives to an electrical corporation that adopts an energy efficiency program to reduce electrical demand from indoor appliances. In order to receive incentives from the program, the bill would require the Public Utilities Commission to require an energy efficiency program for indoor appliances adopted by an electrical corporation to be established and maintained at a net to gross ratio of 0.8 for 36 consecutive months. After 36 months, the bill would authorize the Public Utilities Commission to evaluate the energy efficiency program and adjust the net to gross ratio on a prospective basis.

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

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 25402 of the Public Resources Code is
- 2 amended to read:
- 3 25402. The commission shall, after one or more public
- 4 hearings, do all of the following, in order to reduce the wasteful,
- 5 uneconomic, inefficient, or unnecessary consumption of energy,
- 6 including the energy associated with the use of water:

1 (a) (1) Prescribe, by regulation, lighting, insulation climate
2 control system, and other building design and construction
3 standards that increase the efficiency in the use of energy and water
4 for new residential and new nonresidential buildings. The
5 commission shall periodically update the standards and adopt any
6 revision that, in its judgment, it deems necessary. Six months after
7 the commission certifies an energy conservation manual pursuant
8 to subdivision (c) of Section 25402.1, a city, county, city and
9 county, or state agency shall not issue a permit for a building unless
10 the building satisfies the standards prescribed by the commission
11 pursuant to this subdivision or subdivision (b) that are in effect on
12 the date an application for a building permit is filed. Water
13 efficiency standards adopted pursuant to this subdivision shall be
14 demonstrated by the commission to be necessary to save energy.

15 (2) Prior to adopting a water efficiency standard for residential
16 buildings, the Department of Housing and Community
17 Development and the commission shall issue a joint finding
18 whether the standard (A) is equivalent or superior in performance,
19 safety, and for the protection of life, health, and general welfare
20 to standards in Title 24 of the California Code of Regulations and
21 (B) does not unreasonably or unnecessarily impact the ability of
22 Californians to purchase or rent affordable housing, as determined
23 by taking account of the overall benefit derived from water
24 efficiency standards. This subdivision does not in any way reduce
25 the authority of the Department of Housing and Community
26 Development to adopt standards and regulations pursuant to Part
27 1.5 (commencing with Section 17910) of Division 13 of the Health
28 and Safety Code.

29 (3) Water efficiency standards and water conservation design
30 standards adopted pursuant to this subdivision and subdivision (b)
31 shall be consistent with the legislative findings of this division to
32 ensure and maintain a reliable supply of electrical energy and be
33 equivalent to or superior to the performance, safety, and protection
34 of life, health, and general welfare standards contained in Title 24
35 of the California Code of Regulations. The commission shall
36 consult with the members of the coordinating council as established
37 in Section 18926 of the Health and Safety Code in the development
38 of these standards.

39 (b) (1) Prescribe, by regulation, energy and water conservation
40 design standards for new residential and new nonresidential

1 buildings. The standards shall be performance standards and shall
2 be promulgated in terms of energy consumption per gross square
3 foot of floorspace, but may also include devices, systems, and
4 techniques required to conserve energy and water. The commission
5 shall periodically review the standards and adopt any revision that,
6 in its judgment, it deems necessary. A building that satisfies the
7 standards prescribed pursuant to this subdivision need not comply
8 with the standards prescribed pursuant to subdivision (a). Water
9 conservation design standards adopted pursuant to this subdivision
10 shall be demonstrated by the commission to be necessary to save
11 energy. Prior to adopting a water conservation design standard for
12 residential buildings, the Department of Housing and Community
13 Development and the commission shall issue a joint finding
14 whether the standard (A) is equivalent or superior in performance,
15 safety, and for the protection of life, health, and general welfare
16 to standards in the California Building Standards Code and (B)
17 does not unreasonably or unnecessarily impact the ability of
18 Californians to purchase or rent affordable housing, as determined
19 by taking account of the overall benefit derived from the water
20 conservation design standards. Nothing in this subdivision in any
21 way reduces the authority of the Department of Housing and
22 Community Development to adopt standards and regulations
23 pursuant to Part 1.5 (commencing with Section 17910) of Division
24 13 of the Health and Safety Code.

25 (2) In order to increase public participation and improve the
26 efficacy of the standards adopted pursuant to subdivisions (a) and
27 (b), the commission shall, prior to publication of the notice of
28 proposed action required by Section 18935 of the Health and Safety
29 Code, involve parties who would be subject to the proposed
30 regulations in public meetings regarding the proposed regulations.
31 All potential affected parties shall be provided advance notice of
32 these meetings and given an opportunity to provide written or oral
33 comments. During these public meetings, the commission shall
34 receive and take into consideration input from all parties
35 concerning the parties' design recommendations, cost
36 considerations, and other factors that would affect consumers and
37 California businesses of the proposed standard. The commission
38 shall take into consideration prior to the start of the notice of
39 proposed action any input provided during these public meetings.

1 (3) The standards adopted or revised pursuant to subdivisions
2 (a) and (b) shall be cost-effective when taken in their entirety and
3 when amortized over the economic life of the structure compared
4 with historic practice. When determining cost-effectiveness, the
5 commission shall consider the value of the water or energy saved,
6 impact on product efficacy for the consumer, and the life-cycle
7 cost of complying with the standard. The commission shall consider
8 other relevant factors, as required by Sections 18930 and 18935
9 of the Health and Safety Code, including, but not limited to, the
10 impact on housing costs, the total statewide costs and benefits of
11 the standard over its lifetime, economic impact on California
12 businesses, and alternative approaches and their associated costs.

13 (c) (1) (A) Prescribe, by regulation, standards for minimum
14 levels of operating efficiency, based on a reasonable use pattern,
15 and may prescribe or adopt other cost-effective measures, including
16 incentive programs, fleet averaging, energy and water consumption
17 labeling not preempted by federal labeling law, and consumer
18 education programs, to promote the use of energy and water
19 efficient appliances whose use, as determined by the commission,
20 requires a significant amount of energy or water on a statewide
21 basis. The minimum levels of operating efficiency shall be based
22 on feasible and attainable efficiencies or feasible improved
23 efficiencies that will reduce the energy or water consumption
24 growth rates. The standards shall become effective no sooner than
25 one year after the date of adoption or revision. A new appliance
26 manufactured on or after the effective date of the standards shall
27 not be sold or offered for sale in the state, unless it is certified by
28 the manufacturer thereof to be in compliance with the standards.
29 The standards shall be drawn so that they do not result in any added
30 total costs for consumers over the designed life of the appliances
31 concerned.

32 (B) In order to increase public participation and improve the
33 efficacy of the standards adopted pursuant to this subdivision, the
34 commission shall, prior to publication of the notice of proposed
35 action required by Section 18935 of the Health and Safety Code,
36 involve parties who would be subject to the proposed regulations
37 in public meetings regarding the proposed regulations. All potential
38 affected parties shall be provided advance notice of these meetings
39 and given an opportunity to provide written or oral comments.
40 During these public meetings, the commission shall receive and

1 take into consideration input from all parties concerning the parties'
2 design recommendations, cost considerations, and other factors
3 that would affect consumers and California businesses of the
4 proposed standard. The commission shall take into consideration
5 prior to the start of the notice of proposed action any input provided
6 during these public meetings.

7 (C) The standards adopted or revised pursuant to this subdivision
8 shall not result in any added total costs for consumers over the
9 designed life of the appliances concerned. When determining
10 cost-effectiveness, the commission shall consider the value of the
11 water or energy saved, impact on product efficacy for the
12 consumer, and the life-cycle cost to the consumer of complying
13 with the standard. The commission shall consider other relevant
14 factors, as required by Sections 11346.5 and 11357 of the
15 Government Code, including, but not limited to, the impact on
16 housing costs, the total statewide costs and benefits of the standard
17 over its lifetime, economic impact on California businesses, and
18 alternative approaches and their associated costs.

19 (D) Any labeling requirement prescribed by the commission
20 pursuant to subparagraph (A) shall allow a manufacturer to use
21 electronic labeling as appropriate. The use of electronic labeling
22 does not alter requirements to submit data to the commission's
23 appliance efficiency database.

24 (2) A new appliance, except for any plumbing fitting, regulated
25 under paragraph (1), that is manufactured on or after July 1, 1984,
26 shall not be sold, or offered for sale, in the state, unless the date
27 of the manufacture is permanently displayed in an accessible place
28 on that appliance.

29 (3) During the period of five years after the commission has
30 adopted a standard for a particular appliance under paragraph (1),
31 an increase or decrease in the minimum level of operating
32 efficiency required by the standard for that appliance shall not
33 become effective, unless the commission adopts other cost-effective
34 measures for that appliance.

35 (4) Neither the commission nor any other state agency shall
36 take any action to decrease any standard adopted under this
37 subdivision on or before June 30, 1985, prescribing minimum
38 levels of operating efficiency or other energy conservation
39 measures for any appliance, unless the commission finds by a
40 four-fifths vote that a decrease is of benefit to ratepayers, and that

1 there is significant evidence of changed circumstances. Before
2 January 1, 1986, the commission shall not take any action to
3 increase a standard prescribing minimum levels of operating
4 efficiency for any appliance or adopt a new standard under
5 paragraph (1). Before January 1, 1986, any appliance manufacturer
6 doing business in this state shall provide directly, or through an
7 appropriate trade or industry association, information, as specified
8 by the commission after consultation with manufacturers doing
9 business in the state and appropriate trade or industry associations
10 on sales of appliances so that the commission may study the effects
11 of regulations on those sales. These informational requirements
12 shall remain in effect until the information is received. The trade
13 or industry association may submit sales information in an
14 aggregated form in a manner that allows the commission to carry
15 out the purposes of the study. The commission shall treat any sales
16 information of an individual manufacturer as confidential and that
17 information shall not be a public record. The commission shall not
18 request any information that cannot be reasonably produced in the
19 exercise of due diligence by the manufacturer. At least one year
20 prior to the adoption or amendment of a standard for an appliance,
21 the commission shall notify the Legislature of its intent, and the
22 justification to adopt or amend a standard for the appliance. The
23 commission shall ~~rely on~~ *consider* the most current data available
24 and, whenever feasible, shall ~~rely on~~ *consider* data no older than
25 one year prior to the commencement of a rulemaking proceeding
26 to consider adoption or amendment of a standard for an appliance
27 pursuant to this subdivision. Notwithstanding paragraph (3) and
28 this paragraph, the commission may do any of the following:

29 (A) Increase the minimum level of operating efficiency in an
30 existing standard up to the level of the National Voluntary
31 Consensus Standards 90, adopted by the American Society of
32 Heating, Refrigeration, and Air Conditioning Engineers or, for
33 appliances not covered by that standard, up to the level established
34 in a similar nationwide consensus standard.

35 (B) Change the measure or rating of efficiency of any standard,
36 if the minimum level of operating efficiency remains substantially
37 the same.

38 (C) Adjust the minimum level of operating efficiency in an
39 existing standard in order to reflect changes in test procedures that
40 the standards require manufacturers to use in certifying compliance,

1 if the minimum level of operating efficiency remains substantially
2 the same.

3 (D) Readopt a standard preempted, enjoined, or otherwise found
4 legally defective by an administrative agency or a lower court, if
5 final legal action determines that the standard is valid and if the
6 standard that is readopted is not more stringent than the standard
7 that was found to be defective or preempted.

8 ~~(E) Repeal a standard for a particular appliance adopted under~~
9 ~~paragraph (1) if it finds that the standard is duplicative or~~
10 ~~inconsistent with federal or state law.~~

11 ~~(F)~~

12 (E) Adopt or amend any existing or new standard at any level
13 of operating efficiency, if the Governor has declared an energy
14 emergency as described in Section 8558 of the Government Code.

15 (5) Notwithstanding paragraph (4), the commission may adopt
16 standards pursuant to Commission Order No. 84-0111-1, on or
17 before June 30, 1985.

18 (6) (A) The commission may consider or recognize voluntary
19 agreements in lieu of regulation pursuant to paragraph (1).

20 (B) The commission may take voluntary agreements into account
21 in its planning.

22 *(7) The commission shall consider, as part of the rulemaking*
23 *proceeding instituted by Commission Order No. 12-0112-06,*
24 *adopting a process for the repeal, or suspension of enforcement,*
25 *of a standard prescribed by paragraph (1) that the commission*
26 *finds is duplicative or inconsistent with federal or state law.*

27 (d) (1) Recommend minimum standards of efficiency for the
28 operation of a new facility at a particular site that are technically
29 and economically feasible. A site and related facility shall not be
30 certified pursuant to Chapter 6 (commencing with Section 25500),
31 unless the applicant certifies that standards recommended by the
32 commission have been considered, which certification shall include
33 a statement specifying the extent to which conformance with the
34 recommended standards will be achieved.

35 (2) Whenever this section and Chapter 11.5 (commencing with
36 Section 19878) of Part 3 of Division 13 of the Health and Safety
37 Code are in conflict, the commission shall be governed by that
38 chapter of the Health and Safety Code to the extent of the conflict.

39 (e) The commission shall do all of the following:

1 (1) Not later than January 1, 2004, amend any regulations in
2 effect on January 1, 2003, pertaining to the energy efficiency
3 standards for residential clothes washers to require that residential
4 clothes washers manufactured on or after January 1, 2007, be at
5 least as water efficient as commercial clothes washers.

6 (2) Not later than April 1, 2004, petition the federal Department
7 of Energy for an exemption from any relevant federal regulations
8 governing energy efficiency standards that are applicable to
9 residential clothes washers.

10 (3) Not later than January 1, 2005, report to the Legislature on
11 its progress with respect to the requirements of paragraphs (1) and
12 (2).

13 SEC. 2. Section 25402.1 of the Public Resources Code is
14 amended to read:

15 25402.1. In order to implement the requirements of subdivisions
16 (a) and (b) of Section 25402, all of the following shall apply:

17 (a) The commission shall develop a public domain computer
18 program that will enable contractors, builders, architects, engineers,
19 and government officials to estimate the energy consumed by
20 residential and nonresidential buildings. The commission may
21 charge a fee for the use of the program, which shall be based upon
22 the actual cost of the program, including any computer costs.

23 (b) The commission shall establish a formal process for
24 certification of compliance options for new products, materials,
25 and calculation methods that provides for adequate technical and
26 public review to ensure accurate, equitable, and timely evaluation
27 of certification applications. Proponents filing applications for new
28 products, materials, and calculation methods shall provide all
29 information needed to evaluate the application that is required by
30 the commission. The commission shall publish annually the results
31 of its certification decisions and instructions to users and local
32 building officials concerning requirements for showing compliance
33 with the building standards for new products, materials, or
34 calculation methods. The commission may charge and collect a
35 reasonable fee from applicants to cover the costs under this
36 subdivision. Any funds received by the commission for purposes
37 of this subdivision shall be deposited in the Energy Resources
38 Programs Account and, notwithstanding Section 13340 of the
39 Government Code, are continuously appropriated to the
40 commission for the purposes of this subdivision. Any

1 unencumbered portion of funds collected as a fee for an application
2 remaining in the Energy Resources Programs Account after
3 completion of the certification process for that application shall
4 be returned to the applicant within a reasonable period of time.

5 (c) The commission shall include a prescriptive method of
6 complying with the standards, including design aids such as a
7 manual, sample calculations, and model structural designs.

8 (d) The commission shall conduct a pilot project of field testing
9 of actual residential buildings to calibrate and identify potential
10 needed changes in the modeling assumptions to increase the
11 accuracy of the public domain computer program specified in
12 subdivision (a) and to evaluate the impacts of the standards,
13 including, but not limited to, the energy savings, cost-effectiveness,
14 and the effects on indoor air quality. The pilot project shall be
15 conducted pursuant to a contract entered into by the commission.
16 The commission shall consult with the participants designated
17 pursuant to Section 9202 of the Public Utilities Code, as that
18 section read on December 31, 2003, to seek funding and support
19 for field monitoring in each public utility service territory, with
20 the University of California to take advantage of its extensive
21 building monitoring expertise, and with the California Building
22 Industry Association to coordinate the involvement of builders
23 and developers throughout the state. The pilot project shall include
24 periodic public workshops to develop plans and review progress.
25 The commission shall prepare and submit a report to the Legislature
26 on progress and initial findings not later than December 31, 1988,
27 and a final report on the results of the pilot project on residential
28 buildings not later than June 30, 1990. The report shall include
29 recommendations regarding the need and feasibility of conducting
30 further monitoring of actual residential and nonresidential
31 buildings. The report shall also identify any revisions to the public
32 domain computer program and energy conservation standards if
33 the pilot project determines that revisions are appropriate.

34 (e) The commission shall certify, not later than 180 days after
35 approval of the standards by the State Building Standards
36 Commission, an energy conservation manual for use by designers,
37 builders, and contractors of residential and nonresidential buildings.
38 The manual shall be furnished upon request at a price sufficient
39 to cover the costs of production and shall be distributed at no cost

1 to all affected local agencies. The manual shall contain, but not be
2 limited to, the following:

3 (1) The standards for energy conservation established by the
4 commission.

5 (2) Forms, charts, tables, and other data to assist designers and
6 builders in meeting the standards.

7 (3) Design suggestions for meeting or exceeding the standards.

8 (4) Any other information which the commission finds will
9 assist persons in conforming to the standards.

10 (5) Instructions for use of the computer program for calculating
11 energy consumption in residential and nonresidential buildings.

12 (6) The prescriptive method for use as an alternative to the
13 computer program.

14 (f) The commission shall approve and make publicly available,
15 not less than six months prior to the effective date of adopted or
16 updated standards, the public domain computer program developed
17 pursuant to subdivision (a). Before approving the public domain
18 computer program, the commission shall do both of the following:

19 (1) Perform preliminary tests of the public domain computer
20 program using common examples of residential and nonresidential
21 buildings and building systems to ensure the usability of the public
22 domain computer program by users of the program, including, but
23 not limited to, architects, builders, contractors, and local code
24 enforcement personnel.

25 (2) Make the results of the preliminary tests publicly available.

26 (g) The commission shall establish a continuing program of
27 technical assistance to local building departments in the
28 enforcement of subdivisions (a) and (b) of Section 25402 and this
29 section. The program shall include the training of local officials
30 in building technology and enforcement procedures related to
31 energy conservation, and the development of complementary
32 training programs conducted by local governments, educational
33 institutions, and other public or private entities. The technical
34 assistance program shall include the preparation and publication
35 of forms and procedures for local building departments in
36 performing the review of building plans and specifications. The
37 commission shall provide, on a contract basis, a review of building
38 plans and specifications submitted by a local building department,
39 and shall adopt a schedule of fees sufficient to repay the cost of
40 those services.

1 (h) Subdivisions (a) and (b) of Section 25402 and this section,
2 and the rules and regulations of the commission adopted pursuant
3 to those provisions, shall be enforced by the building department
4 of every city, county, or city and county.

5 (1) A building permit for a residential or nonresidential building
6 shall not be issued by a local building department, unless a review
7 by the building department of the plans for the proposed residential
8 or nonresidential building contains detailed energy system
9 specifications and confirms that the building satisfies the minimum
10 standards established pursuant to subdivision (a) or (b) of Section
11 25402 and this section applicable to the building.

12 (2) Where there is no local building department, the commission
13 shall enforce subdivisions (a) and (b) of Section 25402 and this
14 section.

15 (3) If a local building department fails to enforce subdivisions
16 (a) and (b) of Section 25402 and this section or any other provision
17 of this chapter or standard adopted pursuant thereto, the
18 commission may provide enforcement after furnishing 10 days'
19 written notice to the local building department.

20 (4) A city, county, or city and county may, by ordinance or
21 resolution, prescribe a schedule of fees sufficient to pay the costs
22 incurred in the enforcement of subdivisions (a) and (b) of Section
23 25402 and this section. The commission may establish a schedule
24 of fees sufficient to pay the costs incurred by that enforcement.

25 (5) The construction of a state building shall not commence
26 until the Department of General Services or the state agency that
27 otherwise has jurisdiction over the property reviews the plans for
28 the proposed building and certifies that the plans satisfy the
29 minimum standards established pursuant to Chapter 2.8
30 (commencing with Section 15814.30) of Part 10b of Division 3 of
31 Title 2 of the Government Code, subdivision (a) or (b) of Section
32 25402, and this section that are applicable to the building.

33 (i) Subdivisions (a) and (b) of Section 25402 and this section
34 shall apply only to new residential and nonresidential buildings
35 on which actual site preparation and construction have not
36 commenced prior to the effective date of rules and regulations
37 adopted pursuant to those sections that are applicable to those
38 buildings. Those sections shall not prohibit either of the following:

39 (1) The enforcement of state or local energy conservation or
40 energy insulation standards, adopted prior to the effective date of

1 rules and regulations adopted pursuant to subdivisions (a) and (b)
2 of Section 25402 and this section with regard to residential and
3 nonresidential buildings on which actual site preparation and
4 construction have commenced prior to that date.

5 (2) The enforcement of city or county energy conservation or
6 energy insulation standards, whenever adopted, with regard to
7 residential and nonresidential buildings on which actual site
8 preparation and construction have not commenced prior to the
9 effective date of rules and regulations adopted pursuant to
10 subdivisions (a) and (b) of Section 25402 and this section, if the
11 city or county files the basis of its determination that the standards
12 are cost effective with the commission and the commission finds
13 that the standards will require the diminution of energy
14 consumption levels permitted by the rules and regulations adopted
15 pursuant to those sections. If, after two or more years after the
16 filing with the commission of the determination that those standards
17 are cost effective, there has been a substantial change in the factual
18 circumstances affecting the determination, upon application by
19 any interested party, the city or county shall update and file a new
20 basis of its determination that the standards are cost effective. The
21 determination that the standards are cost effective shall be adopted
22 by the governing body of the city or county at a public meeting.
23 If, at the meeting on the matter, the governing body determines
24 that the standards are no longer cost effective, the standards shall,
25 as of that date, be unenforceable and no building permit or other
26 entitlement shall be denied based on the noncompliance with the
27 standards.

28 (j) The commission may exempt from the requirements of this
29 section and of any regulations adopted pursuant to this section any
30 proposed building for which compliance would be impossible
31 without substantial delays and increases in cost of construction, if
32 the commission finds that substantial funds have been expended
33 in good faith on planning, designing, architecture, or engineering
34 prior to the date of adoption of the regulations.

35 (k) If a dispute arises between an applicant for a building permit,
36 or the state pursuant to paragraph (5) of subdivision (h), and the
37 building department regarding interpretation of Section 25402 or
38 the regulations adopted pursuant thereto, either party may submit
39 the dispute to the commission for resolution. The commission's
40 determination of the matter shall be binding on the parties.

1 (l) Nothing in Section 25130, 25131, or 25402, or in this section
2 prevents enforcement of any regulation adopted pursuant to this
3 chapter, or Chapter 11.5 (commencing with Section 19878) of Part
4 3 of Division 13 of the Health and Safety Code as they existed
5 prior to September 16, 1977.

6 SEC. 3. Section 25942 of the Public Resources Code is
7 amended to read:

8 25942. (a) On or before July 1, 1995, the commission shall
9 establish criteria for adopting a statewide home energy rating
10 program for residential dwellings. The program criteria shall
11 include, but are not limited to, all of the following elements:

12 (1) Consistent, accurate, and uniform ratings based on a single
13 statewide rating scale.

14 (2) Reasonable estimates of potential utility bill savings, and
15 reliable recommendations on cost-effective measures to improve
16 energy efficiency.

17 (3) Training and certification procedures for home raters and
18 quality assurance procedures to promote accurate ratings and to
19 protect consumers.

20 (4) In coordination with home energy rating service organization
21 databases, procedures to establish a centralized, publicly accessible,
22 database that includes a uniform reporting system for information
23 on residential dwellings, excluding proprietary information, needed
24 to facilitate the program. There shall be no public access to
25 information in the database concerning specific dwellings without
26 the owner's or occupant's permission.

27 (5) Labeling procedures that will meet the needs of home buyers,
28 homeowners, renters, the real estate industry, and mortgage lenders
29 with an interest in home energy ratings.

30 (b) The commission shall adopt the program pursuant to
31 subdivision (a) in consultation with representatives of the
32 ~~Department~~ Bureau of Real Estate, the Department of Housing
33 and Community Development, the Public Utilities Commission,
34 investor-owned and municipal utilities, cities and counties, real
35 estate licensees, home builders, mortgage lenders, home appraisers
36 and inspectors, home energy rating organizations, contractors who
37 provide home energy services, consumer groups, and
38 environmental groups.

39 (c) On and after January 1, 1996, a home energy rating services
40 shall not be performed in this state unless the services have been

1 certified, if such a certification program is available, by the
2 commission to be in compliance with the program criteria specified
3 in subdivision (a) and, in addition, are in conformity with any other
4 applicable element of the program.

5 (d) On or before July 1, 1996, the commission shall consult with
6 the agencies and organizations described in subdivision (b), to
7 facilitate a public information program to inform homeowners,
8 rental property owners, renters, sellers, and others of the existence
9 of the statewide home energy rating program adopted by the
10 commission.

11 (e) The commission shall, as part of the biennial report prepared
12 pursuant to Section 25302, report on the progress made to
13 implement a statewide home energy rating program. The report
14 shall include an evaluation of the energy savings attributable to
15 the program, and a recommendation concerning which means and
16 methods will be most efficient and cost-effective to induce home
17 energy ratings for residential dwellings.

18 (f) For existing single-family residential dwellings and
19 multifamily residential dwellings with up to four units, the
20 commission shall do both of the following in administering the
21 statewide home energy rating program:

22 (1) Ensure energy assessment tools used by the commission are
23 routinely adjusted to improve modeling accuracy.

24 (2) Ensure that consumers receive a notice with the output of
25 the energy assessment tools explaining the assumptions used in
26 the energy assessment tools and how they may differ from actual
27 usage patterns.

28 SEC. 4. Section 454.58 is added to the Public Utilities Code,
29 to read:

30 454.58. (a) No later than January 1, 2016, the commission
31 shall, in a new or existing proceeding, include a program in its
32 energy efficiency portfolio program to provide incentives to an
33 electrical corporation that adopts an energy efficiency program to
34 reduce electrical demand from indoor appliances.

35 (b) The program established by the commission pursuant to
36 subdivision (a) shall address challenges and minimize
37 programmatic barriers that may limit or inhibit the achievement
38 of energy efficiency goals determined by the commission. The
39 energy efficiency goals shall include, but not be limited to, all of
40 the following:

- 1 (1) Evaluation and attribution of energy savings.
- 2 (2) Long-lasting, sustainable increases in the adoption of energy
- 3 efficiency technologies through structural changes in the market
- 4 and in behaviors of market actors for indoor appliances that receive
- 5 electricity through power outlets, such as 110 voltage alternating
- 6 current (VAC), and other emerging delivery mechanisms, including
- 7 universal serial bus (USB), Power over Ethernet (PoE), and 24-volt
- 8 direct current (VDC).
- 9 (c) In order to receive incentives from the program, the
- 10 commission shall require an energy efficiency program adopted
- 11 by an electrical corporation pursuant to subdivision (a) to be
- 12 established and maintained at a net to gross ratio of 0.8 for a
- 13 minimum of 36 consecutive months. After 36 months, the
- 14 commission may evaluate the energy efficiency program and adjust
- 15 the net to gross ratio on a prospective basis.
- 16 (d) The commission shall update cost-effectiveness tools to
- 17 account for long-term benefits and costs that accrue as a result of
- 18 the establishment of programs pursuant to subdivision (a).

O