

**ASSEMBLY BILL**

**No. 3001**

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**Introduced by Assembly Member Bonta  
(Coauthor: Assembly Member Friedman)**

February 16, 2018

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An act to amend Section 25402 of, and to add Section 25403 to, the Public Resources Code, and to amend Sections 12819 and 16480 of, and to add Sections 380.7, 380.8, and 740.18 to, the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 3001, as introduced, Bonta. Zero-emissions buildings and sources of heat energy.

(1) The Warren-Alquist State Energy Resources Conservation and Development Act requires the State Energy Resources Conservation and Development Commission (Energy Commission) to adopt building design and construction standards and energy and water conservation standards for new residential and nonresidential buildings to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy, including energy associated with the use of water. The act requires those standards to be cost effective when taken in their entirety and when amortized over the economic life of the structure compared with historic practice. Existing law requires the Energy Commission, in determining cost effectiveness, to consider certain factors.

This bill would additionally require the Energy Commission, in the cost-effectiveness determination, to consider emissions of greenhouse gases from fossil fuel combustion and fugitive emissions that are avoided and progress toward meeting the state's climate goals. The bill would require the Energy Commission, for the year 2022 and thereafter, to

require new residential and nonresidential buildings to be electric-ready buildings, as defined, and to develop standards pursuant to which emissions of greenhouse gases associated with new residential and nonresidential buildings could be reduced in a cost-effective manner.

(2) Existing law authorizes the PUC to fix the rates and charges for every public utility, including electrical corporations, and requires that those rates and charges be just and reasonable.

This bill would require the PUC to require electrical corporations to develop a tariff offering optional residential and commercial rates that encourage the deployment of flexible electric loads. By requiring electrical corporations to develop the tariff, a violation of which would be a crime, this bill would impose a state-mandated local program. The bill would require the PUC to identify and make policy changes to support the achievement of zero-emissions buildings. The bill would require the PUC to (A) revise its 3-prong fuel substitution test, as specified, (B) include societal and environmental costs of energy use in determining the cost-effectiveness of programs under its jurisdiction, and (C) include thermal storage and electric vehicle smart charging as qualifying resources for incentives and procurement requirements for energy storage systems.

(3) Existing law, except as specified, prohibits public utility districts and municipal utility districts from expending funds for advertising when the advertising encourages increased consumption of the services or commodities.

This bill would additionally authorize advertising that encourages increased consumption of services and commodities if the increased consumption results in a net decrease in the emissions of greenhouse gases due to the displacement of energy use resulting from the increased consumption.

(4) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

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

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

1 SECTION 1. This act shall be known, and may be cited, as the  
2 California Zero-Emissions Buildings Act.

3 SEC. 2. (a) The Legislature finds and declares all of the  
4 following:

5 (1) Residential and nonresidential buildings are the second  
6 largest source of emissions of greenhouse gases in the state, and  
7 are significant sources of air pollution harmful to the health of  
8 Californians and the environment.

9 (2) California cannot achieve its air quality and climate goals  
10 without a deep reduction in emissions from residential and  
11 nonresidential buildings. Current building-related energy policies  
12 fall short of achieving an emission reduction of greenhouse gases  
13 of 40 percent below 1990 levels by 2030 and 80 percent below the  
14 1990 levels by 2050 for residential and nonresidential buildings.  
15 While energy efficiency in buildings will continue to be an  
16 important and significant contributor to reducing emissions, a  
17 large-scale transition away from burning fossil fuels, such as  
18 natural gas and propane, is also needed to reach California's climate  
19 and clean air targets.

20 (3) While California is a leader in increasing the availability of  
21 clean electricity, the state has made little progress on transitioning  
22 away from burning fossil fuels and towards clean energy  
23 alternatives in buildings.

24 (4) Modern clean technologies, such as electric heat pumps and  
25 solar thermal systems, have the potential to dramatically and  
26 affordably reduce pollution from the building sector, while helping  
27 to integrate high levels of renewable energy into the electricity  
28 grid.

29 (5) Large-scale deployment of these clean heating technologies  
30 at the pace and scale necessary to achieve California's air quality  
31 and climate goals requires a comprehensive strategy that does all  
32 of the following:

33 (A) Removes regulatory barriers that currently hinder the clean  
34 energy transition in buildings.

35 (B) Sets electricity rates that value and encourage demand  
36 flexibility.

1 (C) Unleashes industrial innovation to reduce costs through a  
2 clear long-term direction and short- and mid-term market  
3 stimulation.

4 (D) Develops capacity in the supply chain through installer,  
5 distributor, and retailer training.

6 (E) Raises awareness among the public to drive demand.

7 (6) The transition to healthy and affordable clean energy  
8 buildings will protect the health of Californians, create local jobs,  
9 stimulate economic growth, and safeguard the environment.

10 (b) It is the intent of the Legislature for the state’s energy  
11 agencies to take expedient action to accelerate the transition of the  
12 California building sector to developing healthy, affordable, and  
13 clean energy buildings, in alignment with the state’s climate and  
14 clean energy goals, while also prioritizing investments in  
15 low-income and disadvantaged communities.

16 SEC. 3. Section 25402 of the Public Resources Code is  
17 amended to read:

18 25402. The commission shall, after one or more public  
19 hearings, do all of the ~~following~~, *following* in order to reduce the  
20 wasteful, uneconomic, inefficient, or unnecessary consumption of  
21 energy, including the energy associated with the use of water:

22 (a) (1) Prescribe, by regulation, lighting, insulation climate  
23 control system, and other building design and construction  
24 standards that increase the efficiency in the use of energy and water  
25 for new residential and new nonresidential buildings. The  
26 commission shall periodically update the standards and adopt any  
27 revision that, in its judgment, it deems necessary. Six months after  
28 the commission certifies an energy conservation manual pursuant  
29 to subdivision (c) of Section 25402.1, no city, county, city and  
30 county, or state agency shall issue a permit for any building unless  
31 the building satisfies the standards prescribed by the commission  
32 pursuant to this subdivision or subdivision (b) that are in effect on  
33 the date an application for a building permit is filed. Water  
34 efficiency standards adopted pursuant to this subdivision shall be  
35 demonstrated by the commission to be necessary to save energy.

36 (2) Prior to adopting a water efficiency standard for residential  
37 buildings, the Department of Housing and Community  
38 Development and the commission shall issue a joint finding  
39 whether the standard (A) is equivalent or superior in performance,  
40 safety, and for the protection of life, health, and general welfare

1 to standards in Title 24 of the California Code of Regulations and  
2 (B) does not unreasonably or unnecessarily impact the ability of  
3 Californians to purchase or rent affordable housing, as determined  
4 by taking account of the overall benefit derived from water  
5 efficiency standards. Nothing in this subdivision in any way  
6 reduces the authority of the Department of Housing and  
7 Community Development to adopt standards and regulations  
8 pursuant to Part 1.5 (commencing with Section 17910) of Division  
9 13 of the Health and Safety Code.

10 (3) Water efficiency standards and water conservation design  
11 standards adopted pursuant to this subdivision and subdivision (b)  
12 shall be consistent with the legislative findings of this division to  
13 ensure and maintain a reliable supply of electrical energy and be  
14 equivalent to or superior to the performance, safety, and protection  
15 of life, health, and general welfare standards contained in Title 24  
16 of the California Code of Regulations. The commission shall  
17 consult with the members of the coordinating council as established  
18 in Section 18926 of the Health and Safety Code in the development  
19 of these standards.

20 (b) (1) Prescribe, by regulation, energy and water conservation  
21 design standards for new residential and new nonresidential  
22 buildings. The standards shall be performance standards and shall  
23 be promulgated in terms of *hourly source* energy consumption per  
24 gross square foot of floorspace, but may also include devices,  
25 systems, and techniques required to conserve energy and water.  
26 The commission shall periodically review the standards and adopt  
27 any revision that, in its judgment, it deems necessary. A building  
28 that satisfies the standards prescribed pursuant to this subdivision  
29 need not comply with the standards prescribed pursuant to  
30 subdivision (a). Water conservation design standards adopted  
31 pursuant to this subdivision shall be demonstrated by the  
32 commission to be necessary to save energy. Prior to adopting a  
33 water conservation design standard for residential buildings, the  
34 Department of Housing and Community Development and the  
35 commission shall issue a joint finding whether the standard (A) is  
36 equivalent or superior in performance, safety, and for the protection  
37 of life, health, and general welfare to standards in the California  
38 Building Standards Code and (B) does not unreasonably or  
39 unnecessarily impact the ability of Californians to purchase or rent  
40 affordable housing, as determined by taking account of the overall

1 benefit derived from the water conservation design standards.  
2 Nothing in this subdivision in any way reduces the authority of  
3 the Department of Housing and Community Development to adopt  
4 standards and regulations pursuant to Part 1.5 (commencing with  
5 Section 17910) of Division 13 of the Health and Safety Code.

6 (2) In order to increase public participation and improve the  
7 efficacy of the standards adopted pursuant to subdivisions (a) and  
8 (b), the commission shall, prior to publication of the notice of  
9 proposed action required by Section 18935 of the Health and Safety  
10 Code, involve parties who would be subject to the proposed  
11 regulations in public meetings regarding the proposed regulations.  
12 All potential affected parties shall be provided advance notice of  
13 these meetings and given an opportunity to provide written or oral  
14 comments. During these public meetings, the commission shall  
15 receive and take into consideration input from all parties  
16 concerning the parties' design recommendations, cost  
17 considerations, and other factors that would affect consumers and  
18 California businesses of the proposed standard. The commission  
19 shall take into consideration prior to the start of the notice of  
20 proposed action any input provided during these public meetings.

21 (3) The standards adopted or revised pursuant to subdivisions  
22 (a) and (b) shall be ~~cost-effective~~ *cost effective* when taken in their  
23 entirety and when amortized over the economic life of the structure  
24 compared with historic practice. When determining  
25 cost-effectiveness, the commission shall consider the value of the  
26 water or energy saved, *the life cycle emissions of greenhouse gases*  
27 *from fossil fuel, including combustion and fugitive emissions,*  
28 *instate and out-of-state, that are avoided,* impact on product  
29 efficacy for the consumer, and the life cycle cost of complying  
30 with the standard. The commission shall consider other relevant  
31 factors, as required by Sections 18930 and 18935 of the Health  
32 and Safety Code, including, but not limited to, the impact on  
33 housing costs, the total statewide costs and benefits of the standard  
34 over its lifetime, economic impact on California businesses,  
35 *progress toward the state's 2030 climate goals as set forth in*  
36 *Division 25.5 (commencing with Section 38500) of the Health and*  
37 *Safety Code and other climate goals adopted by the Legislature,*  
38 and alternative approaches and their associated costs.

39 (c) (1) Prescribe, by regulation, standards for minimum levels  
40 of operating efficiency, based on a reasonable use pattern, and

1 may prescribe other cost-effective measures, including incentive  
2 programs, fleet averaging, energy and water consumption labeling  
3 not preempted by federal labeling law, and consumer education  
4 programs, to promote the use of energy and water efficient  
5 appliances whose use, as determined by the commission, requires  
6 a significant amount of energy or water on a statewide basis. The  
7 minimum levels of operating efficiency shall be based on feasible  
8 and attainable efficiencies or feasible improved efficiencies that  
9 will reduce the energy or water consumption growth rates. The  
10 standards shall become effective no sooner than one year after the  
11 date of adoption or revision. No new appliance manufactured on  
12 or after the effective date of the standards may be sold or offered  
13 for sale in the state, unless it is certified by the manufacturer thereof  
14 to be in compliance with the standards. The standards shall be  
15 drawn so that they do not result in any added total costs for  
16 consumers over the designed life of the appliances concerned.

17 In order to increase public participation and improve the efficacy  
18 of the standards adopted pursuant to this subdivision, the  
19 commission shall, prior to publication of the notice of proposed  
20 action required by Section 18935 of the Health and Safety Code,  
21 involve parties who would be subject to the proposed regulations  
22 in public meetings regarding the proposed regulations. All potential  
23 affected parties shall be provided advance notice of these meetings  
24 and given an opportunity to provide written or oral comments.  
25 During these public meetings, the commission shall receive and  
26 take into consideration input from all parties concerning the parties'  
27 design recommendations, cost considerations, and other factors  
28 that would affect consumers and California businesses of the  
29 proposed standard. The commission shall take into consideration  
30 prior to the start of the notice of proposed action any input provided  
31 during these public meetings.

32 The standards adopted or revised pursuant to this subdivision  
33 shall not result in any added total costs for consumers over the  
34 designed life of the appliances concerned. When determining  
35 cost-effectiveness, the commission shall consider the value of the  
36 water or energy saved, impact on product efficacy for the  
37 consumer, and the life cycle cost to the consumer of complying  
38 with the standard. The commission shall consider other relevant  
39 factors, as required by Sections 11346.5 and 11357 of the  
40 Government Code, including, but not limited to, the impact on

1 housing costs, the total statewide costs and benefits of the standard  
2 over its lifetime, economic impact on California businesses, and  
3 alternative approaches and their associated costs.

4 (2) No new appliance, except for any plumbing fitting, regulated  
5 under paragraph (1), that is manufactured on or after July 1, 1984,  
6 may be sold, or offered for sale, in the state, unless the date of the  
7 manufacture is permanently displayed in an accessible place on  
8 that appliance.

9 (3) During the period of five years after the commission has  
10 adopted a standard for a particular appliance under paragraph (1),  
11 no increase or decrease in the minimum level of operating  
12 efficiency required by the standard for that appliance shall become  
13 effective, unless the commission adopts other cost-effective  
14 measures for that appliance.

15 (4) Neither the commission nor any other state agency shall  
16 take any action to decrease any standard adopted under this  
17 subdivision on or before June 30, 1985, prescribing minimum  
18 levels of operating efficiency or other energy conservation  
19 measures for any appliance, unless the commission finds by a  
20 four-fifths vote that a decrease is of benefit to ratepayers, and that  
21 there is significant evidence of changed circumstances. Before  
22 January 1, 1986, the commission shall not take any action to  
23 increase a standard prescribing minimum levels of operating  
24 efficiency for any appliance or adopt a new standard under  
25 paragraph (1). Before January 1, 1986, any appliance manufacturer  
26 doing business in this state shall provide directly, or through an  
27 appropriate trade or industry association, information, as specified  
28 by the commission after consultation with manufacturers doing  
29 business in the state and appropriate trade or industry associations  
30 on sales of appliances so that the commission may study the effects  
31 of regulations on those sales. These informational requirements  
32 shall remain in effect until the information is received. The trade  
33 or industry association may submit sales information in an  
34 aggregated form in a manner that allows the commission to carry  
35 out the purposes of the study. The commission shall treat any sales  
36 information of an individual manufacturer as confidential and that  
37 information shall not be a public record. The commission shall not  
38 request any information that cannot be reasonably produced in the  
39 exercise of due diligence by the manufacturer. At least one year  
40 prior to the adoption or amendment of a standard for an appliance,



1 the commission shall notify the Legislature of its intent, and the  
2 justification to adopt or amend a standard for the appliance.  
3 Notwithstanding paragraph (3) and this paragraph, the commission  
4 may do any of the following:

5 (A) Increase the minimum level of operating efficiency in an  
6 existing standard up to the level of the National Voluntary  
7 Consensus Standards 90, adopted by the American Society of  
8 Heating, Refrigeration, and Air Conditioning Engineers or, for  
9 appliances not covered by that standard, up to the level established  
10 in a similar nationwide consensus standard.

11 (B) Change the measure or rating of efficiency of any standard,  
12 if the minimum level of operating efficiency remains substantially  
13 the same.

14 (C) Adjust the minimum level of operating efficiency in an  
15 existing standard in order to reflect changes in test procedures that  
16 the standards require manufacturers to use in certifying compliance,  
17 if the minimum level of operating efficiency remains substantially  
18 the same.

19 (D) Readopt a standard preempted, enjoined, or otherwise found  
20 legally defective by an administrative agency or a lower court, if  
21 final legal action determines that the standard is valid and if the  
22 standard that is readopted is not more stringent than the standard  
23 that was found to be defective or preempted.

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

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

30 (d) Recommend minimum standards of efficiency for the  
31 operation of any new facility at a particular site that are technically  
32 and economically feasible. No site and related facility shall be  
33 certified pursuant to Chapter 6 (commencing with Section 25500),  
34 unless the applicant certifies that standards recommended by the  
35 commission have been considered, which certification shall include  
36 a statement specifying the extent to which conformance with the  
37 recommended standards will be achieved.

38 Whenever this section and Chapter 11.5 (commencing with  
39 Section 19878) of Part 3 of Division 13 of the Health and Safety

1 Code are in conflict, the commission shall be governed by that  
2 chapter of the Health and Safety Code to the extent of the conflict.

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

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

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

13 (3) Not later than January 1, 2005, report to the Legislature on  
14 its progress with respect to the requirements of paragraphs (1) and  
15 (2).

16 SEC. 4. Section 25403 is added to the Public Resources Code,  
17 to read:

18 25403. In regulations prescribed pursuant to subdivision (a)  
19 or (b) of Section 25402 for the year 2022 and thereafter, the  
20 commission shall do both of the following:

21 (a) Require, in consultation with the State Building Standards  
22 Commission, all new residential and nonresidential buildings be  
23 electric-ready buildings. For purposes of this subdivision,  
24 “electric-ready buildings” means buildings containing electric  
25 infrastructure necessary to enable building occupants to use  
26 electrical equipment in lieu of natural gas-fired equipment, such  
27 as space and water heating equipment, without the need for  
28 additional upgrades to the building’s electrical infrastructure.

29 (b) Develop standards pursuant to which emissions of  
30 greenhouse gases associated with new residential and  
31 nonresidential buildings could be reduced in a cost-effective  
32 manner.

33 SEC. 5. Section 380.7 is added to the Public Utilities Code, to  
34 read:

35 380.7. The commission, in an existing or new proceeding, shall  
36 identify and make policy changes to support the achievement of  
37 zero-emissions buildings, including by any of the following:

38 (a) Removal of barriers to the use of clean energy in buildings,  
39 including electrification of space and water heating in buildings

1 where electrification has the potential to help achieve the state’s  
2 climate goals.

3 (b) Creating incentive programs and rate structures that  
4 encourage the transition to cleaner fuels for residential and  
5 nonresidential buildings.

6 (c) Planning for and managing necessary changes in the energy  
7 infrastructure, such as investment in natural gas infrastructure.

8 SEC. 6. Section 380.8 is added to the Public Utilities Code, to  
9 read:

10 380.8. The commission shall do all of the following:

11 (a) Revise the three-prong fuel substitution test used to  
12 determine the eligibility of projects to receive ratepayer-funded  
13 energy efficiency incentives, as established in commission  
14 decisions D92-10-020 and D92-12-050, to align the test with the  
15 state’s climate goals by increasing opportunities to reduce the  
16 emissions of greenhouse gases through fuel substitution.

17 (b) Include the societal and environmental costs of energy use,  
18 including combustion and fugitive emissions, in determining  
19 cost-effectiveness for programs under its jurisdiction.

20 (c) (1) Include thermal storage and electric vehicle smart  
21 charging as qualifying resources for incentive programs or  
22 procurement requirements for energy storage systems.

23 (2) Recommend to the Legislature necessary statutory  
24 amendments to implement paragraph (1).

25 SEC. 7. Section 740.18 is added to the Public Utilities Code,  
26 to read:

27 740.18. The commission shall require electrical corporations  
28 to develop and submit to the commission for approval a tariff  
29 offering optional residential and commercial rates for electrical  
30 services that encourage the deployment of flexible electric loads.

31 SEC. 8. Section 12819 of the Public Utilities Code is amended  
32 to read:

33 12819. (a) ~~Every~~ A district furnishing light, heat, or power  
34 shall *not* expend ~~no~~ funds for advertising when the advertising  
35 encourages increased consumption of the services or ~~commodities~~.  
36 *commodities, unless, in the district’s determination, the increased*  
37 *consumption of services or commodities results in a net decrease*  
38 *in the emissions of greenhouse gases due to the displacement of*  
39 *light, heat, or power resulting from the increased consumption.*

1 (b) ~~Nothing in this section shall~~ *This section does not* prohibit  
 2 a district furnishing light, heat, or power from expending funds  
 3 for advertising ~~which~~ *that* encourages the more efficient operation  
 4 of the facilities, works, or utilities of the district, or for advertising  
 5 ~~which~~ *that* encourages the more efficient use of light, heat, or  
 6 power, the conservation of energy or natural resources, or presents  
 7 accurate information on the economical purchase, maintenance,  
 8 or use of any appliance or device using light, heat, or power.

9 (c) ~~Nothing in this section shall~~ *This section does not* prohibit  
 10 a district furnishing light, heat, or power from expending funds  
 11 for advertising for the purposes of economic development that  
 12 benefits ratepayers, retaining customers, marketing competitive  
 13 services and commodities, or promoting ~~electrotechnologies~~  
 14 *electrical technologies* that enhance productivity or provide  
 15 environmental benefits, within or without the district.

16 SEC. 9. Section 16480 of the Public Utilities Code is amended  
 17 to read:

18 16480. (a) ~~Every~~ *A* district furnishing light, heat, or power  
 19 shall *not* expend ~~no~~ funds for advertising when ~~such~~ *that*  
 20 advertising encourages increased consumption of ~~such~~ *those*  
 21 services or ~~commodities~~ *commodities, unless, in the district's*  
 22 *determination, the increased consumption of services or*  
 23 *commodities results in a net decrease in the emissions of*  
 24 *greenhouse gases due to the displacement of light, heat, or power*  
 25 *resulting from the increased consumption.*

26 (b) ~~Nothing in this section shall~~ *This section does not* prohibit  
 27 a district furnishing light, heat, or power from expending funds  
 28 for advertising ~~which~~ *that* encourages the more efficient operation  
 29 of the facilities, works, or utilities of the district, or for advertising  
 30 ~~which~~ *that* encourages the more efficient use of light, heat, or  
 31 power, the conservation of energy or natural resources, or presents  
 32 accurate information on the economical purchase, maintenance,  
 33 or use of any appliance or device using light, heat, or power.

34 SEC. 10. No reimbursement is required by this act pursuant to  
 35 Section 6 of Article XIII B of the California Constitution because  
 36 the only costs that may be incurred by a local agency or school  
 37 district will be incurred because this act creates a new crime or  
 38 infraction, eliminates a crime or infraction, or changes the penalty  
 39 for a crime or infraction, within the meaning of Section 17556 of  
 40 the Government Code, or changes the definition of a crime within

1 the meaning of Section 6 of Article XIII B of the California  
2 Constitution.

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