AN ACT CONCERNING ENERGY EFFICIENCY STANDARDS.

SUMMARY

This bill establishes new energy efficiency standards for 18 types of products. For these products ("new product types"), the bill prohibits their sale, lease, rental, or installation of new products that do not meet the standards by certain dates.

Current law requires the Department of Energy and Environmental Protection (DEEP) commissioner to adopt regulations establishing energy efficiency standards for 22 other types of products ("existing product types") in accordance with certain minimum standards. The bill reduces, from 22 to 16, the number of types of products to which such standards apply and allows, rather than requires, DEEP to establish the regulations. (In practice, the Office of Policy and Management (OPM) established the regulations.)

The bill also allows, rather than requires, DEEP to adopt regulations designating additional products to be subject to regulatory standards. It establishes new minimum standards for three currently regulated products (commercial clothes washers, residential pool pumps, and pool heaters), and eliminates standards for five products (CD players, DVD players, and DVD recorders are eliminated entirely; commercial hot-food holding cabinets and portable electric spas are re-established as new product types).

The bill extends certain provisions that currently apply to the product types with standards in regulations to the new product types, including those related to product certification and attorney general actions to enforce energy efficiency standards.

The federal Energy Policy and Conservation Act establishes an
energy conservation program for consumer products other than automobiles. If certain federal standards under the act are voided, the bill establishes them as state standards and allows the attorney general to enforce them.

Lastly, the bill makes many minor, technical, and conforming changes.

EFFECTIVE DATE: July 1, 2019

GENERAL PROVISIONS FOR NEW PRODUCT TYPES

Phase-in of Required Standards

Table 1 shows the new product types for which the bill establishes energy efficiency requirements and the dates by which products that do not meet the bill’s standards can no longer be sold, leased, rented or professionally installed.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Applicable for Sales, Leases, or Rentals beginning:</th>
<th>Applicable for Installations beginning:</th>
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<tbody>
<tr>
<td>Commercial dishwashers</td>
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<td>Commercial fryers</td>
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<td>Commercial hot-food holding cabinets</td>
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<td>Commercial steam cookers</td>
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<td>Computers and computer monitors</td>
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<td>Faucets</td>
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<td>Portable electric spas</td>
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<td>Residential ventilating fans</td>
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<td>Showerheads</td>
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<td>Spray sprinkler bodies</td>
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<td>Uninterruptable power supplies</td>
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<td>Urinals</td>
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<td>Water closets (toilets)</td>
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<td>Water coolers</td>
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<tr>
<td>Air compressors</td>
<td>January 1, 2022</td>
<td>January 1, 2023</td>
</tr>
<tr>
<td>Portable air conditioners</td>
<td>February 1, 2022</td>
<td>February 1, 2023</td>
</tr>
</tbody>
</table>
High color rendering index fluorescent lamps | January 1, 2023, or as early as January 1, 2022 if California adopts a standard for this product | No date
---|---|---
General service lamps | See below

For commercial hot-food holding cabinets and portable electric spas, the bill prohibits sale, lease, or rental of new products that do not meet efficiency standards in regulations until January 1, 2021. Current law similarly prohibits sale or installation of such products unless they meet minimum standards.

The bill requires the DEEP commissioner, in consultation with the attorney general, to determine, by December 28, 2019, whether regulating general services lamps is federally preempted. For general services lamps not subject to federal preemption, the bill prohibits their sale if they do not meet the bill’s efficiency standards beginning January 1, 2021.

As is the case for existing product types that are subject to efficiency standards, the bill’s standards for new product types do not apply to:

1. new products manufactured in the state and sold outside of the state;
2. new products manufactured outside the state, sold at wholesale inside the state for final retail sale and installation outside the state;
3. products installed in mobile manufactured homes at the time of their construction; and
4. products designed expressly for installation and use in recreational vehicles.

**Testing and Inspection**

For new product types, the bill allows the DEEP commissioner to test products. If any tested product does not meet the bill’s efficiency standards, the bill requires her to (1) charge the product manufacturer
for the cost of the product’s purchase and testing and (2) make the product information available to the attorney general and the public.

The bill also allows the DEEP commissioner to periodically inspect or have product distributors and retailers inspected to determine compliance with standards and related provisions for new product types. She must give prior notice and the inspections must occur at reasonable and convenient hours.

The bill also requires the DEEP commissioner to coordinate with the State Building Inspector to inspect or have inspected before the buildings are occupied newly constructed buildings containing new products that are also subject to the State Building Code.

DEFINITIONS AND STANDARDS FOR NEW PRODUCT TYPES

**Air Compressors**

The bill’s efficiency standard for air compressors applies to compressors designed to compress air that have an inlet open to the atmosphere or other air source and have a compression element or bare compressor, one or more drivers, mechanical equipment to drive the compressor element, and any ancillary equipment.

The bill requires air compressors that meet the criteria listed on pages 350 and 351 of the U.S. Department of Energy’s (DOE) “Energy Conservation Standards for Air Compressors” final rule issued December 5, 2016, to meet certain specified requirements in the same rule, following specific instructions and as measured in accordance with the “Uniform Test Method for Certain Air Compressors” in Appendix A to 10 C.F.R. 431, Subpart T in effect on July 3, 2017.

**Commercial Dishwasher**

Under the bill, a commercial dishwasher is a machine designed to clean and sanitize plates, pots, pans, glasses, cups, bowls, utensils, and trays by applying sprays of detergent solution, with or without blasting media granules, and a sanitizing rinse. The bill requires dishwashers included in the scope of the version 2.0 product specification of the federal Environmental Protection Agency’s (EPA)
“Energy Star Program Requirements Product Specification for Commercial Dishwashers” to meet its qualification criteria.

**Commercial Fryer**

Under the bill, a commercial fryer is an appliance, including a cooking vessel, in which oil is placed to such a depth that the cooking food floats in it and heat is delivered to the cooking fluid by (1) an immersed electric element of band-wrapped vessel, including an electric fryer, or (2) heat transfer from gas burners through either the fryer’s walls or through tubes passing through the cooking fluid, including a gas fryer. The bill requires commercial fryers under the scope of the EPA’s version 2.0 “Energy Star Program Requirements Product Specification for Commercial Fryers” to meet that specification’s qualification criteria.

**Commercial Hot Food Holding Cabinet**

The bill defines a commercial hot-food holding cabinet as a heated, fully-enclosed compartment with at least one solid or transparent door designed to maintain the temperature of hot food that was cooked with a separate appliance. It does not include heated glass merchandizing cabinets, drawer warmers, or cook-and-hold appliances.

Under the bill, such cabinets must have a maximum idle energy rate of 40 watts per cubic foot of interior volume, as determined by the “idle energy rate-dry test” in ASTM Standard F2140-11, “Test Method for the Performance of Hot Food Holding Cabinets.” The bill also specifies the standard for measuring interior volume, which is an EPA specification.

**Commercial Steam Cooker**

Under the bill, a commercial steam cooker (or compartment steamer) is a device with at least one food-steaming compartment in which the steam’s energy is transferred to the food by direct contact, including countertop models, wall-mounted models, and floor models mounted on a stand, pedestal, or cabinet-style base. The bill requires steam cookers to meet requirements in the EPA’s version 1.2 “Energy
Star Program Requirements Product Specification for Commercial Steam Cookers.”

**Computers and Computer Monitors**

The bill requires computers and computer monitors to meet energy efficiency requirements in California’s Code of Regulations (20 CCR § 1605.3(v)), as measured by methods prescribed in the same regulations.

The bill also requires the DEEP commissioner, in any regulations she adopts, to include definitions of “computer” and “computer monitor” that mirror those in California’s regulations (20 CCR § 1602(v)), but existing law, unchanged by the bill, defines computer monitor as an analog or digital device, not marketed for use as a television, designed primarily to display computer generated signals. The bill also allows the commissioner to amend the regulations to conform to any standards and definitions for computers and computer monitors that California subsequently adopts.

**Faucets**

Under the bill, a faucet is a (1) lavatory faucet; (2) kitchen faucet; (3) metering faucet, which is a fitting that, when turned on, will gradually shut itself off over a period of several seconds; (4) public lavatory faucet, which is a fitting intended for nonresidential bathrooms that are exposed to walk-in traffic; or (5) replacement aerator for a lavatory, public lavatory, or kitchen faucet.

The bill establishes maximum flow rates for faucets as follows:

1. for lavatory faucets and replacement aerators, 1.5 gallons per minute at 60 pounds per square inch;

2. for residential kitchen faucets and replacement aerators, 1.8 gallons per minute at 60 pounds per square inch, with an optional temporary flow of 2.2 gallons per minute, provided they default to the standard after each use; and

3. for public lavatory faucets and replacement aerators, 0.5 gallons
per minute at 60 gallons per square inch.

Under the bill, faucets must meet the above standards when tested in accordance with the “Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads” in Appendix S to Subpart B to 10 C.F.R. 430, Subpart B in effect on January 3, 2017.

**General Service Lamps**

Under the bill, a general service lamp:

1. has an American National Standards Institute base;

2. operates (a) at 12 volts or 24 volts, (b) at or between 100 to 130 volts, (c) at or between 220 to 240 volts, (d) 227 volts for integrated lamps, or (e) any voltage for nonintegrated lamps; and

3. has an initial lumen output of at least 310 lumens, or 232 lumens for modified spectrum general service incandescent lamps, and up to 3,300 lumens; and

4. is used in general lighting applications.

General service lamps include general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode (LED) lamps, and general service organic LED lamps. The bill lists 26 lamp types that are not general service lamps, in addition to light fixtures and LED downlight retrofit kits.

Under the bill, general services lamps must have a lamp efficacy of at least 45 lumens per watt, when tested with applicable federal test procedures for general service lamps (10 C.F.R. 430.23(gg), in effect on January 3, 2017).

**High Color Rendering Index Fluorescent Lamps**

Under the bill, a high color rendering index fluorescent lamp is a fluorescent lamp with a color rendering index of at least 87 that is not a compact fluorescent lamp. The bill requires these lamps to meet minimum efficiency requirements in 10 C.F.R. 430.32(n)(4), as
measured in accordance with methods described in Appendix R to 10 C.F.R. 430, Subpart B in effect January 3, 2017.

**Portable Air Conditioners**

Under the bill, a portable air conditioner (1) is a portable encased assembly, other than a packaged terminal air conditioner, room air conditioner, or dehumidifier, that delivers cooled, conditioned air to an enclosed space; (2) is powered by a single-phase electric current, (3) includes a source of refrigeration; (4) may include other ways of circulating air and heat; and (5) may be a single- or dual-duct portable air conditioner.

The bill requires portable air conditioners to have a Combined Energy Efficiency Ratio of at least 1.04 X ((the Seasonally Adjusted Cooling Capacity) divided by (3.7117 X SACC0.6384)) as measured in accordance with applicable standards in Appendix CC to 10 C.F.R. 430, Subpart B as in effect January 3, 2017.

**Portable Electric Spas**

Under the bill, a portable electric spa is a factory-built electric spa or hot tub which may or may not have any combination of integral controls, water heating, or water circulating equipment.

The bill requires these spas to meet requirements of the “American National Standard for Portable Electric Spa Energy Efficiency” ANSI/APSP/ICC-14.

**Residential Ventilating Fans**

Under the bill, a residential ventilating fan is a ceiling, wall-mounted, or remotely mounted in-line fan designed for use in a bathroom or utility room to move air out of the building.

The bill requires residential ventilating fans to meet the qualification criteria in version 3.2 of the EPA’s “Energy Star Program Requirements Product Specification for Residential Ventilating Fans.”

**Showerheads**

The bill defines a showerhead as a device that discharges water for a
shower bath and includes a hand-held showerhead but not a safety shower showerhead.

It requires showerheads to have a maximum flow rate of 2.0 gallons per minute at 80 pounds per square inch, when tested in accordance with applicable standards under Appendix S to 10 C.F.R. 430 Subpart B in effect on January 3, 2017.

**Spray Sprinkler Bodies**

Under the bill, a spray sprinkler body is the sprinkler’s exterior case or shell incorporating a means of connection to the piping system designed to convey water to a nozzle or orifice.

Under the bill, spray sprinkler bodies not specifically excluded from the scope of version 1.0 of the EPA’s “WaterSense Specification for Spray Sprinkler Bodies” must (1) include an integral pressure regulator, which is a device to maintain a constant operating pressure immediately downstream from the device, given higher pressure upstream and (2) meet water efficiency, performance criteria, and other requirements of that specification.

**Uninterruptible Power Supply**

Under the bill, an uninterruptible power supply is a battery charger with a combination of convertors, switches, and energy storage devices (e.g., batteries) that constitute a power system to maintain load power continuity in case of input power failure.

Under the bill, uninterruptable power supplies that use a NEMA 1-15P or 5-15P input plug and have an AC output must have an average load adjusted efficiency that at least meets certain values in DOE’s December 28, 2016, prepublication final rule “Energy Conservation Program: Energy Conservation Standards for Uninterruptable Power Supplies.” Efficiency must be measured with test procedures prescribed in the “Uniform Test Method for Measuring the Energy Consumption of Battery Chargers” in Appendix Y to 10 C.F.R. 430, Subpart B, in effect January 11, 2017.

**Urinals and Water Closets**
Under the bill, a urinal is a plumbing fixture that receives only liquid body waste and conveys it through a trap into a drainage system. A water closet (toilet) is a plumbing fixture with a water-containing receptor that receives liquid and solid body waste through an exposed integral trap into a drainage system.

The bill establishes standards for urinals and toilets, excluding trough-type urinals and those designed and marketed exclusively for prisons or mental health facilities. Urinals and toilets must meet the bill’s standards when tested in accordance with (1) the “Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals” in Appendix T to 10 CFR 430, Subpart B, in effect on January 3, 2018, and (2) for toilets, the waste extraction test in 7.10 of the American Society of Mechanical Engineers A112.19.2/CSA B45.1-2013.

The bill establishes the following standards:

1. for wall- or floor-mounted urinals, a maximum flush volume of 0.5 gallons per flush;

2. for dual-flush tank-type toilets, a maximum dual-flush effective flush volume of 1.28 gallons per flush; and

3. for all other toilets, a maximum flush volume of 1.28 gallons per flush.

**Water Coolers**

The bill establishes standards for water coolers, which are freestanding devices that cool or heat potable water. Under the bill, water coolers included in the scope of the version 2.0 of the EPA’s “Energy Star Program Requirements Product Specification for Water Coolers” must have on mode with no water draw energy consumption no higher than the following values based on Energy Star test requirements:

1. for cold-only unit water coolers and cook and cold unit water coolers, 0.16 kilowatt-hours per day;
2. for storage-type hot and cold unit water coolers, 0.87 kilowatt-hours per day; and

3. for on-demand hot and cold unit water coolers, 0.18 kilowatt-hours per day.

GENERAL PROVISIONS FOR EXISTING PRODUCT TYPES

Current law establishes a regulatory framework for energy efficiency standards for 22 products ("existing product types"), in which DEEP must establish regulations that require standards that meet certain specifications. Within this framework, the bill:

1. decreases, from 22 to 16, the number of products to which enforcement and certification requirements apply (though two product types, commercial hot food holding cabinets and portable electric spas, are re-categorized as new products as described above);

2. allows, rather than requires, DEEP to establish the standards in regulations (in practice, OPM established these regulations);

3. allows, rather than requires, DEEP to biennially review the standards and increase their levels under certain circumstances;

4. allows, rather than requires, DEEP to designate additional products to be subject to standards within the regulatory framework for existing product types, provided the standards meet certain requirements; and

5. eliminates a requirement that DEEP consult with the Multi-State Appliance Standards Collaborative to identify additional appliance and equipment efficiency standards.

NEW STANDARDS FOR EXISTING PRODUCT TYPES

Commercial Clothes Washers

Under current law, minimum energy efficiency standards for commercial clothes washers are those requirements in January 2006 California Code of Regulations in Table P-3 of CCR 20 § 1605.3. The bill
instead requires clothes washers to meet federal efficiency standards, as long as the standards equal or exceed those required by U.S. DOE on January 1, 2018.

However, it appears the bill also exempts commercial clothes washers from other provisions concerning regulation and enforcement, including (1) the prohibition on sales and installations when not meeting the standard and (2) DEEP’s testing procedures.

**Residential Pool Pumps**

Current law requires residential pool pumps to meet requirements under the January 2006 California Code of Regulations, CCR 20 § 1605.3. Under the bill, beginning July 19, 2021, the pumps must meet federal efficiency requirements specified in the DOE’s dedicated pool pump rules published on January 18, 2017, and effective on May 18, 2017.

**Pool Heaters**

Current law requires pool heaters to meet standards in the January 2006 California Code of Regulations (20 CCR §§ 1605.1 and 1605.3). The bill instead requires, beginning January 1, 2020:

1. gas- and oil-fired pool heaters to meet efficiency requirements established in 10 C.F.R. 430 by the DOE as of April 16, 2013, and

2. electric heat pump pool heaters to meet efficiency requirements in the Air Conditioning, Heating, and Refrigeration Institute Certification Reference 1160.

**Bottle-Type Water Dispensers**

Current law establishes efficiency standards for bottle-type water dispensers and requires DEEP to adopt regulations implementing and increasing them in certain circumstances. Current law also prohibits sale or installation of new water dispensers that do not meet the standards. The bill similarly prohibits the sale, lease, or rental of new water dispensers that do not meet or exceed standards established in regulations up until January 1, 2021, after which date there is no state standard.
PROVISIONS AFFECTING EXISTING AND NEW PRODUCT TYPES

Certification Requirements

Current law for existing product types requires manufacturers of certain new products to certify to DEEP that the products comply with the state’s energy efficiency requirements. Exempt from this requirement are (1) products with efficiency standards in California (2) products for which DEEP has not adopted efficiency standards, and (3) single voltage external AC to DC power supplies, walk-in refrigerators, and walk-in freezers. The bill retains these exemptions, but expands the requirement to apply to both existing product types and new product types.

The bill allows, rather than requires, DEEP to promulgate regulations on product certification and references standards established in the state rather than only those adopted by DEEP. The bill expands to new product types the requirement that DEEP publish on its website a list of products designating which are (1) certified in California and (2) are not certified in California but have demonstrated compliance with state standards.

Attorney General Proceedings

Current law allows the attorney general to enforce provisions related to energy efficiency standards of existing product types. The bill extends this provision to the new product types, thereby allowing the attorney general to enforce eligibility standards and related provisions. It similarly extends a $250 civil penalty for violating standards requirements and related provisions for new product types.

FEDERAL ENERGY POLICY AND CONSERVATION ACT

Under the bill, if certain federal energy or water conservation standards issued or approved for publication by January 1, 2018, are withdrawn, repealed, or otherwise voided, the bill prohibits the sale, lease, or rental of products previously subject to the standards that do not meet them as they existed on January 1, 2018. (Presumably, this applies to the extent repealed federal standards are not replaced with more stringent standards.) This applies to standards adopted by the...
DOE under the Energy Policy and Conservation Act, which apply to some products for which the state establishes efficiency standards under current law and the bill, as well as products for which the state does not set separate standards. (It is unclear if federal standards established in state law are in addition to, in conflict with, or superseded by other standards established in state law under the bill and under current law.) The bill exempts from this provision any standards set aside by a court under federal laws allowing people adversely affected by a rule to petition for a judicial review.

The bill allows the attorney general to enforce eligibility standards established due to withdrawal, repeal, or voiding of the federal energy or water conservation standards. The bill similarly extends a $250 civil penalty for violations.

**COMMITTEE ACTION**

Energy and Technology Committee

Joint Favorable Substitute
Yea 16  Nay 9  (03/19/2019)