



Flexible Demand Appliance Standards (FDAS) Pool Controls - Fact Sheet

The Flexible Demand Appliance Standards (FDAS) for Pool Controls

will bring utility bill savings to consumers and reduce emissions from electricity generation by providing a default pool maintenance schedule. Major pool loads such as pumping and heating will be shifted to during the day when there is plentiful and cheap renewable electricity. The pool controls FDAS are the first standards under the new authority provided by the California Legislature for the California Energy Commission (CEC) to implement load-shifting technologies that are capable of shifting or curtailing appliance operations to reduce greenhouse gas emissions (GHG) and help consumers save on energy bills ([SB 49, Skinner](#)). Starting in September 2025, all pool control devices sold in California must meet the FDAS standards. The standards will encourage off-peak use of electricity to save pool owners money and help California reach its decarbonization goals.

\$1,131

Consumer savings on utility bills over 10 years.

Avoids 33,000 CO₂ metric tons.

A single mature tree takes in about 50 pounds of carbon dioxide (CO₂) per year. The tenth year of the regulation can avoid approximately the amount of carbon dioxide that will be absorbed by 17 million mature trees.

\$113

Estimated consumer savings per year.

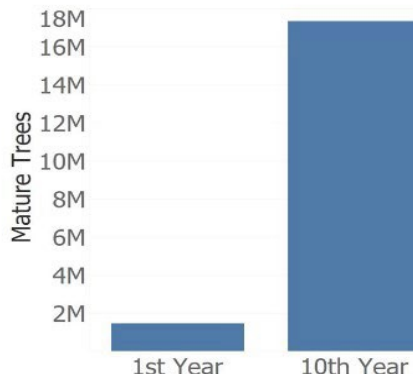
Pool Control Equipment



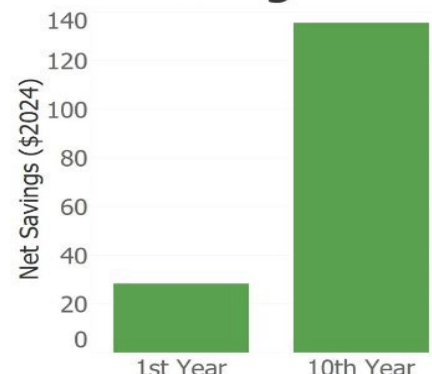
First and Tenth Year Impacts

The first-year net consumer utility bill savings from the pool control standard is \$27 after factoring in the incremental cost to create flexible demand features. By the tenth year, net savings reaches \$130. Resulting GHG reductions are equivalent to there being an additional 1.5 million mature trees to absorb CO₂ in the first year, and 17 million mature trees in the tenth year of the appliance standard.

Equivalent Number of Mature Trees



Net Consumer Savings



Additional Resources

- [Senate Bill 49 \(Skinner, 2019\)](#)
- [Senate Bill 846 \(Dodd, 2022\)](#)

For Questions about Pool Controls:

- Please email FlexDemandStandards@energy.ca.gov or call the California Energy Commission Appliance Standards Call Center at (888) 838-1467 or (916) 651-7100.

EMAIL FDAS AT:

FlexDemandStandards@energy.ca.gov

FOR MORE INFORMATION, VISIT:

FDAS Webpage:

<https://www.energy.ca.gov/proceeding/pool-controls>

What is a Pool Control?

- A pool control is any equipment or system capable of coordinating the operation of a pool filter pump, as well as other pool equipment. This may include devices such as an electric pool heater, pressure cleaner booster pump, or chlorinator by a pool filter pump.

What Products are In-Scope and Out-of-Scope?

- **In-Scope:** A pool timer, pool pumps and heater switches, direct load control switches, or any component or group of components including software that has the capability to schedule the operation or control the start and stop times of a pool filter pump.
- **Out-of-Scope:** Controls marketed exclusively for use as a control for pool filter pumps with a rated hydraulic horsepower (hhp) greater than 2.5 hhp, safety interlock or shutoff controls, controls integral to a single pool filter pump, or pump motor that can control only that pump or motor.

Do pool controls need to be certified to the California Energy Commission?

- Yes, all pool controls manufactured on or after September 29, 2025, that are sold or offered for sale, rented, imported, distributed, or leased for use in California are to be certified to the CEC using the Flexible Appliance Database (FAD). For questions regarding certification, email ApplianceEnforcement@energy.ca.gov.

Relevant Code Sections

California Code of Regulations, Title 20: Division 2, Chapter 4.1 Flexible Demand

1690 – Scope

1690.1 – Rules of Construction

1691 – Definitions

1692 – General Requirements

1693 – Appliance Specific Standards & Requirements

1694 – Customer and Consumer Consent

1695 – Certification Requirements

1696 – Data Submittal Requirements

1697 – Compliance, Enforcement and Administrative Civil Penalties