

*Comment Received From: FLUIDRA  
Submitted On: 9/5/2023  
Docket Number: 22-BSTD-01*

**Comments for Docket 22-BSTD-01 2025 Energy Code Pre-Rulemaking**

*Additional submitted attachment is included below.*

September 5<sup>th</sup>, 2023

California Energy Commission / California Energy Codes & Standards  
Docket # 22-BSTD-01, Title 24 2025 Energy Code Pre-Rulemaking  
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Re: Request for comment and Pre-Rulemaking Title 24 2025, Solar Swimming Pool and Spa Heating, Docket # 22-BSTD-01, **UPDATED August 16, 2023**

Esteemed California Energy Commission and California Energy Codes & Standards,

Fluidra appreciates the opportunity to participate in the rule making process for the 2025 Title 24 California Energy Code. As a pool equipment manufacturer with U.S. Headquarters in California, Fluidra recognizes the importance and demand for energy efficient and environmentally sustainable swimming pool operation. Accordingly, continual efforts are made in the development of products that can meet the competitive goals of a sustainable future.

As a member of the Pool & Hot Tub Alliance and AHRI Fluidra fully supports and endorses the comments jointly submitted by the Pool & Hot Tub Alliance (PHTA) and AHRI. In addition, we submit the following comments to the Title 24 2025 updates.

### **General Comments**

Fluidra agrees with the intent to conserve energy and improve the sustainability of pool operation, maintenance, and heating. However, there are concerns over the practicality and substantial incremental increase in the cost of building a pool, making pool ownership increasingly unattainable, particularly in low-income areas; as well as the negative impact to an industry that supports thousands of California jobs.

Additionally, there are concerns over the practicality of roof space for Solar PV + Solar Collectors, particularly in single home residential buildings. And the lack of practical options for heating of permanent inground spas.

### **Draft Code Language UPDATED August 16, 2023**

With regards to the proposed code updates, Fluidra respectfully submits the following suggested edits and additions to improve clarity of the approved heating options, and to provide pool owners with additional efficient options where effective and practical.

## SECTION 110.4 (a)(3)

3. **Instructions.** A permanent, easily readable, and weatherproof plate or card that gives instruction for the energy efficient operation of the pool and/or spa heater, ~~and for the proper care of pool and/or spa water, when a and to cover the pool and/or spa when not in use~~; and

### Fluidra recommends the following edits:

3. **Instructions.** A permanent, easily readable, and weatherproof plate, or card, or operating manual that gives instruction for the energy efficient operation of the pool and/or spa heater, ~~the proper care of pool and/or spa water, and to cover the pool and/or spa when not in use~~; and

### Justification

Proper care for pool and spa water quality and covering of the pool and spa are outside of the scope of the operation of a pool heater. These should be stricken here and possibly added to the requirements of water quality test devices and pool/spa covers respectively. Additionally, pool covers that are not **ASTM F1346** Certified Safety Covers may pose safety and liability concerns which do not and should not pertain to the pool heater, pool heater installer, or pool heater manufacturer.

## SECTION 110.4(b)(2)

2. ~~4-Piping.~~ At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment;

### Fluidra recommends the following edits:

2. **Piping.** At least ~~36~~ 18 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment.

### Justification

There is often very limited space on a pool pad to set all pool equipment. 36 Inches of piping would be an unnecessarily inordinate amount for solar heating plumbing connections. Attached is a drawing for a standard solar plumbing kit that is available in the marketplace that accommodates 2" and 2.5" plumbing which can easily be installed with the suggested 18 inches of

plumbing. Additionally, this is in harmony with the national ANSI/APSP/ICC-15 standard for energy efficiency.

## **SECTION 110.4 (c)**

**Fluidra recommends the addition of the following exceptions:**

**Exception 4 to Section 110.4(c):** Heating systems used exclusively for Permanent Residential Spa applications.

**Exception 5 to Section 110.4(c):** Heating systems for pool and spa combinations where heating is only provided to the spa, and the heating system is activated through Pool controls in "Spa Mode" only.

### **Justification**

We feel the options provided for heating do not provide a practical solution for a permanent inground spa. A combination inground pool and spa is a very popular build, and many users may only want to heat their spa. Unlike a pool which is typically seasonal, a spa is used year-round in California. Solar heating and heat pumps are not practical heating methods during the colder months. Additionally, due to the extended heating time necessary for a heat pump, this will likely drive significant load increase during the peak rate hours of 4 – 9 pm (when many people are coming home from work and looking to use their spa). California proudly leads the nation in renewable source energy generation, however, a third of the state's total demand for electricity is still supplied by natural gas plants<sup>1</sup> which may offset the decarbonization efforts of this regulation update.

Gas pool heaters are federally regulated appliances, with federal requirements for heating efficiency, and provide a viable, practical, and energy-efficient year-round solution for permanent in-ground spa only heating.

## **SECTION 100.1 - DEFINITIONS**

Accordingly, we propose to add a definition for a "Permanent Residential Spa" and "Spa Mode". The following definition for "Permanent Residential Spa" is harmonized with the International Swimming Pool and Spa Code (ISPSC)

**PERMANENT RESIDENTIAL SPA** – A spa, intended for use that is accessory to a residential setting and available to the household and its guests and where the water heating and water-circulating equipment is not an integral part of the product. The spa is intended as a permanent plumbing fixture and not intended to be moved.

**SPA MODE** – A pool control setting where water is circulated only to and from the spa.

Respectfully,

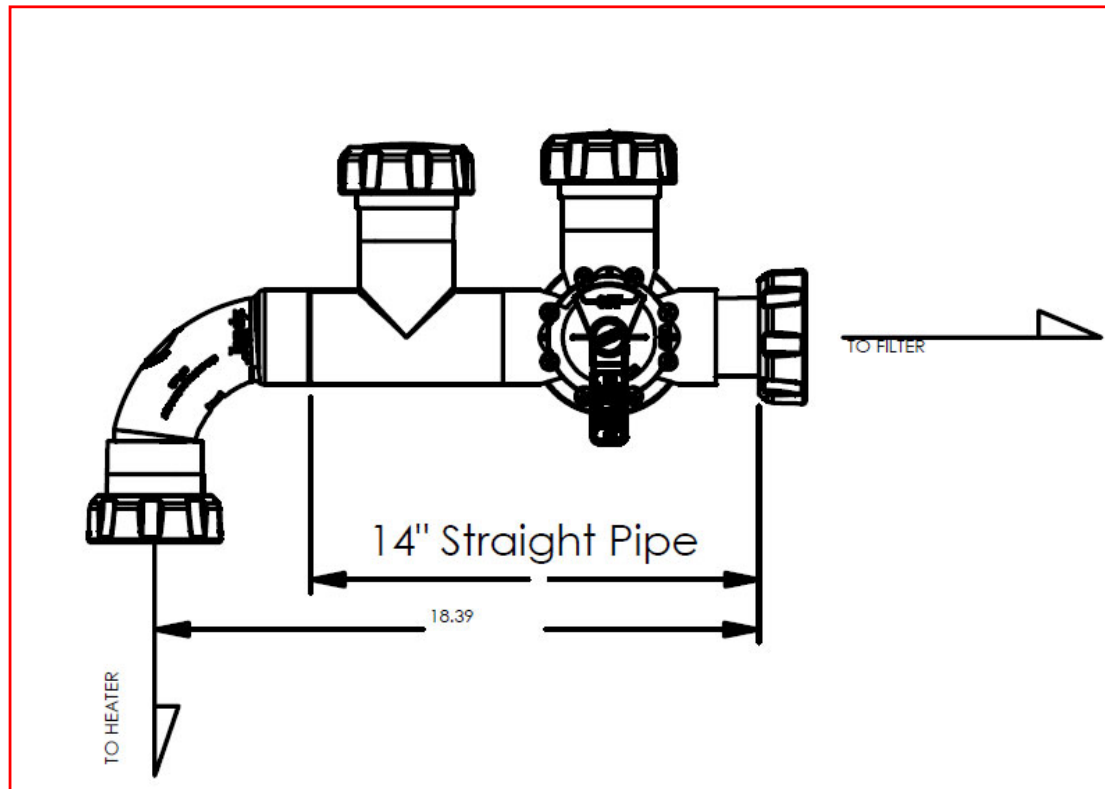


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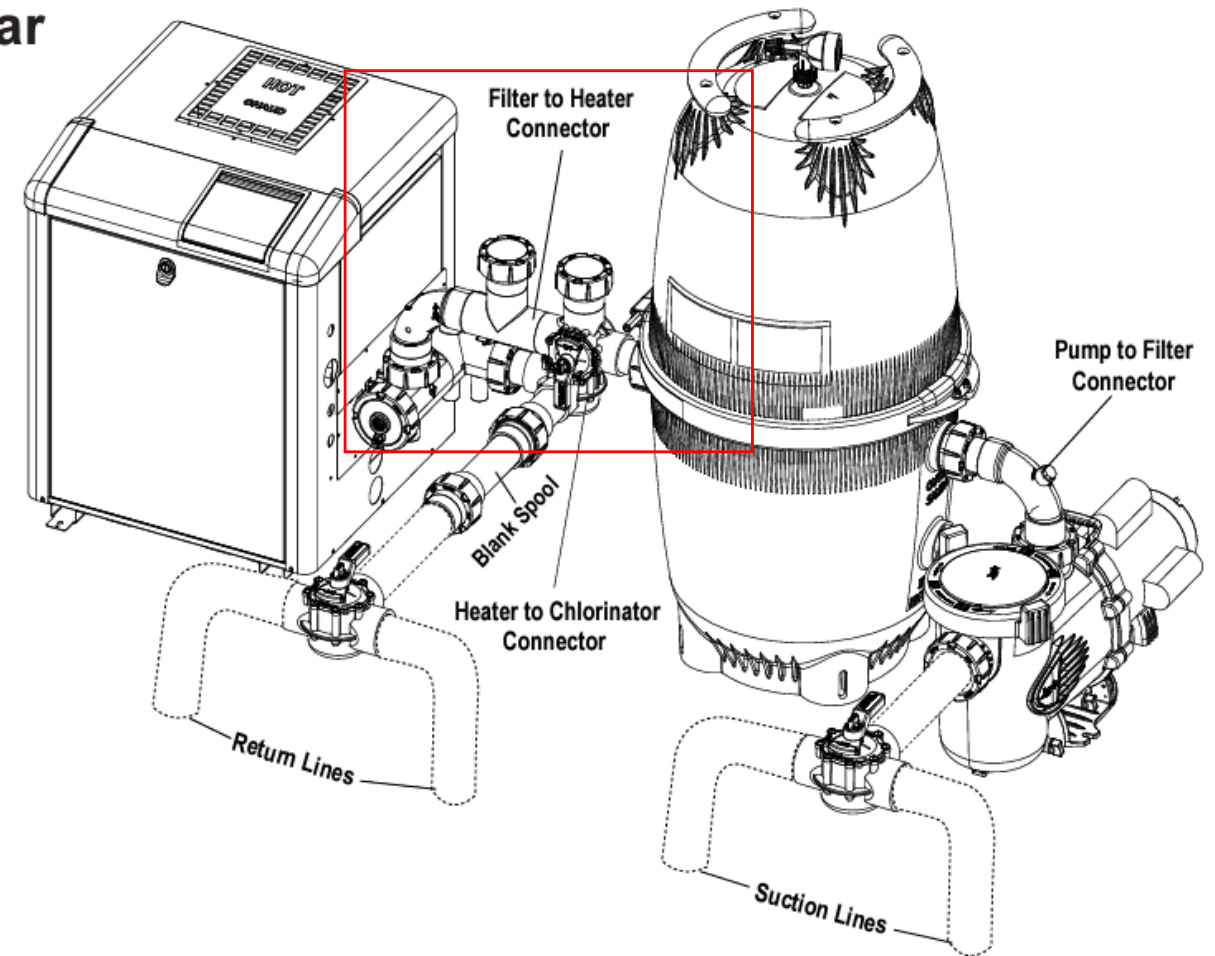


# Typical Solar collector plumbing kit available in market

- Jandy VPK-CVSLR
- Accommodates 2" and 2-1/2" plumbing.
- 14" Straight pipe requirement



## CV Solar





# Installed Solar Plumbing Kit Using 2-1/2" Pipe

