

DOCKETED

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Additional Comment re Exception 2

Additional submitted attachment is included below.



January 19, 2024

Submitted via: [Docket Log 22-BSTD-01](#)

Re: Additional pool/spa heating comment on Title 24 Pre-rulemaking Express Terms

California Energy Commission Staff:

The Pool & Hot Tub Alliance (PHTA) represents more than 3,650 company members and over 11,000 individual members nationwide, including companies that manufacture pool and spa heating equipment. PHTA has a long history of working with the California Energy Commission (Commission or CEC) and appreciates the opportunity to provide feedback on the initial proposed language.

The California Pool & Spa Association (CPSA) is the statewide trade association that represents more than 230 company members in the state of California, including pool and spa builders, service companies, manufacturers and distributors.

PHTA and CPSA welcomes your careful consideration of this additional comment to our previous comments submitted on November 17, 2023, in response to the pool and spa-related proposals for the 2025 California Energy Code. If you have any questions on these comments, please contact me at jen@jhatfieldandassociates.com on behalf of PHTA.

Sincerely,

A handwritten signature in black ink that reads 'Jennifer Hatfield'.

Jennifer Hatfield
Government Affairs Consultant
Pool & Hot Tub Alliance

cc: Justin Wiley, PHTA VP of GR, Standards and Codes, jwiley@phta.org

PHTA and CPSA previous comments were remiss in addressing one additional concern found in the pre-rulemaking expressed terms, that of exception 2 only applying to single family homes with existing heating systems or equipment for pools and/or spas.

Exception 2 to Section 110.4(c): A pool and/or spa serving single family buildings with existing heating systems or equipment for pools and/or spas.

Our understanding is the CASE team intended this exception to only apply to single family, requiring nonresidential and multifamily to meet the proposed new code pool/spa heating requirements when replacing an existing heating system. However, industry believes the impact to multifamily and nonresidential pools and spas currently utilizing gas heating and no longer being able to simply replace in kind, was not properly considered and justified. We encourage the CEC and CASE team to evaluate and consider the complications and cost associated with multifamily and nonresidential pools/spas, when a replacement is needed, to have to utilize the heat source systems and sizing requirements in Section 110.4(c).

Specifically, the Commission needs to consider space capacity limitations for these larger high capacity heat pump pool heaters or solar heating systems that would be needed in many nonresidential and multifamily pools and spas. In most cases, there simply is not enough space without major changes to the equipment pad or building to accommodate new heating systems. Even if enough space could be made with major modifications, the cost associated with doing so, including the electrical work that likely would be required to adjust for the new heating systems, is not being considered. Another aspect is the noise associated with multiple heat pumps that can be another constraint on where to locate the heating systems.

Public pools, condominiums, homeowner associations and the like will have funding and/or space constraint challenges that simply cannot be overcome. Not to mention the amount of electrical power associated with these larger heating systems that may be needed; resulting in a higher electricity bill. If an existing multifamily or nonresidential pool/spa is currently using a gas heater, they should be able to continue doing so by being afforded the same exception single family homes are provided within the pre-rulemaking express terms. In fact, in most cases, the challenges to change the type of heating system is much greater for nonresidential and multifamily applications due to the typically larger size of the pool/spa.

The largest capacity single-phase¹ heat pumps are rated at 135 Kbtu² at the DOE test condition³. The average size gas heater used to heat a pool or spa would be 400 Kbtu. Therefore, it would take a minimum of three, if not four, heat pumps to replace that gas heater. Each heat pump requires a 50 amp electrical service, so a facility would also need to increase the electrical service by 150 to 200 amps. This one example would cost \$15,000 to

¹ The maximum capacity for 3-phase heat pump pool heaters in the AHRI directory is 180 kbtu/h.

² One single-phase heat pump pool heater is certified in the AHRI directory at 166 kbtu/h.

³ The DOE test condition is the High Air Temperature–Mid Humidity (63% RH) level specified in section 6 of AHRI 1160 (80.6 °F [27.0 °C] Dry-Bulb, 71.2 °F [21.8 °C]). See Appendix P to 10 CFR 430.

\$20,000 if the local utility could provide that service and does not account for the space constraints that likely also exist. Ultimately, this would be a huge undertaking for any multifamily or nonresidential pool currently using gas heating.

There is also the example of an Olympic size pool that requires millions of btus, but there are only so many hours in the day to heat it. Additionally, heat pumps generally lose 10 Kbtus for ever 10 degree drop in ambient temperature. In certain climate zones and/or size of the pool this will make for a most difficult scenario for the facility to continue to heat the pool properly.

Further, in the cases of existing gas heating being utilized for any type of pool/spa, the gas resource is already there and the product is being regulated by federal energy efficiency standards. In this case, no matter if single family, multifamily or nonresidential, a requirement to change heating systems when a replacement of the current system is needed, should not be required. Depending on how old the existing gas heater is, it is also likely the new one installed will be more efficient based on ever increasing efficiency requirements. Existing pools/spas utilizing gas heaters may also be doing so specifically for their ability to heat quickly, especially in the case of vacation homes and rentals.

For all of the above reasoning, we request the Commission consider applying exception 2 to multifamily and nonresidential, along with single family. This critical change will provide the ability for all types of pools and spas to replace existing gas heaters, if one already is being utilized.