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CPSA & PHTA Response to CALSSA Comments on the â€œSolar Heating for an Existing Pool and Spaâ€ CASE Proposal â€“ 2028 Title 24, Part

Additional submitted attachment is included below.

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California Energy Commission
Docket Unit, MS-4
715 P Street
Sacramento, CA 95814

Subject: CEC Docket No. 25-BSTD-03 – CPSA & PHTA Response to CALSSA Comments on the "Solar Heating for an Existing Pool and Spa" CASE Proposal – 2028 Title 24, Part 6 Code Cycle

Dear California Energy Commissioners and Staff:

On behalf of the California Pool & Spa Association (CPSA) and the Pool & Hot Tub Alliance (PHTA), we appreciate the opportunity to respond to comments submitted by the California Solar & Storage Association (CALSSA)[1] regarding the proposed "Solar Heating for an Existing Pool and Spa" CASE proposal for the 2028 Title 24, Part 6 code cycle.

We respectfully disagree with CALSSA's recommendation that facility operators be required to demonstrate why solar thermal or heat pump systems are not feasible before having access to the high-efficiency condensing gas compliance pathway.

As currently discussed through the CASE process, the proposal contemplates multiple equivalent compliance pathways, including solar thermal, heat pump systems, high-efficiency condensing gas systems, and locally sourced or waste energy recovery systems. This technology-neutral framework appropriately recognizes the broad range of operational, structural, and economic realities facing existing aquatic facilities throughout California. It is also generally consistent with ongoing discussions occurring nationally through ASHRAE 90.1 and the International Energy Conservation Code (IECC), both of which have explored multiple pathways to achieve efficiency objectives rather than mandating a single preferred technology.

CALSSA's comments effectively propose a "solar-first" framework under which facility operators would be required to demonstrate that solar thermal or heat pump systems are infeasible before being permitted to utilize another compliance pathway. CPSA and PHTA respectfully disagree with this approach.

The current CASE proposal appropriately recognizes multiple equivalent compliance pathways as viable approaches depending on site-specific conditions and operational needs. Establishing a hierarchy that requires applicants to exhaustively demonstrate why one technology cannot be utilized before pursuing another would undermine that balanced framework and effectively favor one technology source over another.

Further, requiring applicants to prove solar or heat pump infeasibility would create significant new compliance burdens and project costs. In practice, this could easily require additional engineering studies,

[1] TN #: 269476 "CALSSA Comments on March 12, 2026 updates to Solar Heating for an Existing Pool and Spa," submitted by Dara Yung on behalf of the California Solar & Storage Association (CALSSA).

structural evaluations, and operational analyses that are not otherwise required for the modification in question just to rule out a preferred compliance pathway that will not be used. The additional burden on local agencies in making determinations before equipment replacement projects could proceed should not be understated, as well as the likely significant delays resulting from this otherwise fruitless analysis. These additional procedural requirements would increase project costs, delay critical equipment replacements, and create uncertainty for facility operators, particularly public agencies, schools, nonprofits, swim schools, and community aquatic facilities operating under constrained budgets.

Importantly, CALSSA itself acknowledges that high-efficiency gas systems are necessary in certain circumstances. However, conditioning their use on extensive case-by-case feasibility demonstrations would impose substantial administrative and financial burdens while providing limited practical benefit.

As discussed in our previous comments, solar feasibility in retrofit applications is often constrained by a range of factors extending far beyond Solar Access Roof Area (SARA) alone. Existing facilities frequently face structural limitations, roof condition concerns, shading, equipment layout conflicts, trenching and piping challenges, and significant electrical or utility upgrade costs. Facilities may technically satisfy SARA thresholds while still lacking the practical ability to install and operate a viable solar system.

Additionally, many aquatic facilities that install solar thermal systems still require conventional heating systems to reliably maintain operational temperatures, particularly for swim schools, therapy pools, municipal facilities, and spas that require tightly controlled water temperatures and extended operating hours. In most cases, solar systems function as supplemental technologies rather than standalone primary heating systems.

Operators have also reported instances where installed solar systems are underutilized or bypassed entirely due to operational limitations, insufficient performance during periods of peak demand, weather variability, or the inability to consistently maintain required temperatures. In these cases, requiring both solar systems and conventional backup systems would create duplicative infrastructure costs without corresponding operational benefits.

Similarly, heat pump pool heater systems continue to present significant limitations in many retrofit applications. Larger facilities may require multiple units and substantial electrical upgrades, increasing both project cost and equipment footprint. Performance is also highly dependent on ambient temperature and humidity conditions, limiting reliability in certain regions and operational environments.

High-efficiency condensing gas systems remain the only currently available technology capable of reliably meeting the operational demands of large, high-use aquatic facilities. Operators consistently report that these systems provide the rapid heating capability, operational flexibility, and temperature consistency necessary for real-world aquatic operations.

CPSA and PHTA are also concerned that imposing a solar-first compliance structure could lead to unintended consequences for community-serving facilities. Increased project costs, delayed equipment replacement timelines, and additional permitting uncertainty may result in deferred maintenance, reduced operating hours, or even facility closures. These pools often provide essential public health and safety services, including swim instruction, rehabilitation programs, youth recreation, senior programming, and water safety education. Preserving operational viability for these facilities should remain an important consideration as the proposal evolves.

Finally, we respectfully disagree with the assertion that condensing gas systems should not receive "equivalent consideration" as part of the compliance framework. The Energy Code should remain focused on providing practical, achievable, and cost-effective pathways to improve efficiency while recognizing

the diverse operational realities of California facilities. A technology-neutral compliance structure supports those objectives better than a framework that establishes preferred technologies regardless of site-specific feasibility or operational performance requirements.

For these reasons, CPSA and PHTA respectfully encourage the CASE Team and the California Energy Commission to maintain a clear, independent, and technology-neutral condensing gas compliance pathway that does not require applicants to first demonstrate solar infeasibility before pursuing compliance through another approved method.

Sincerely,

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