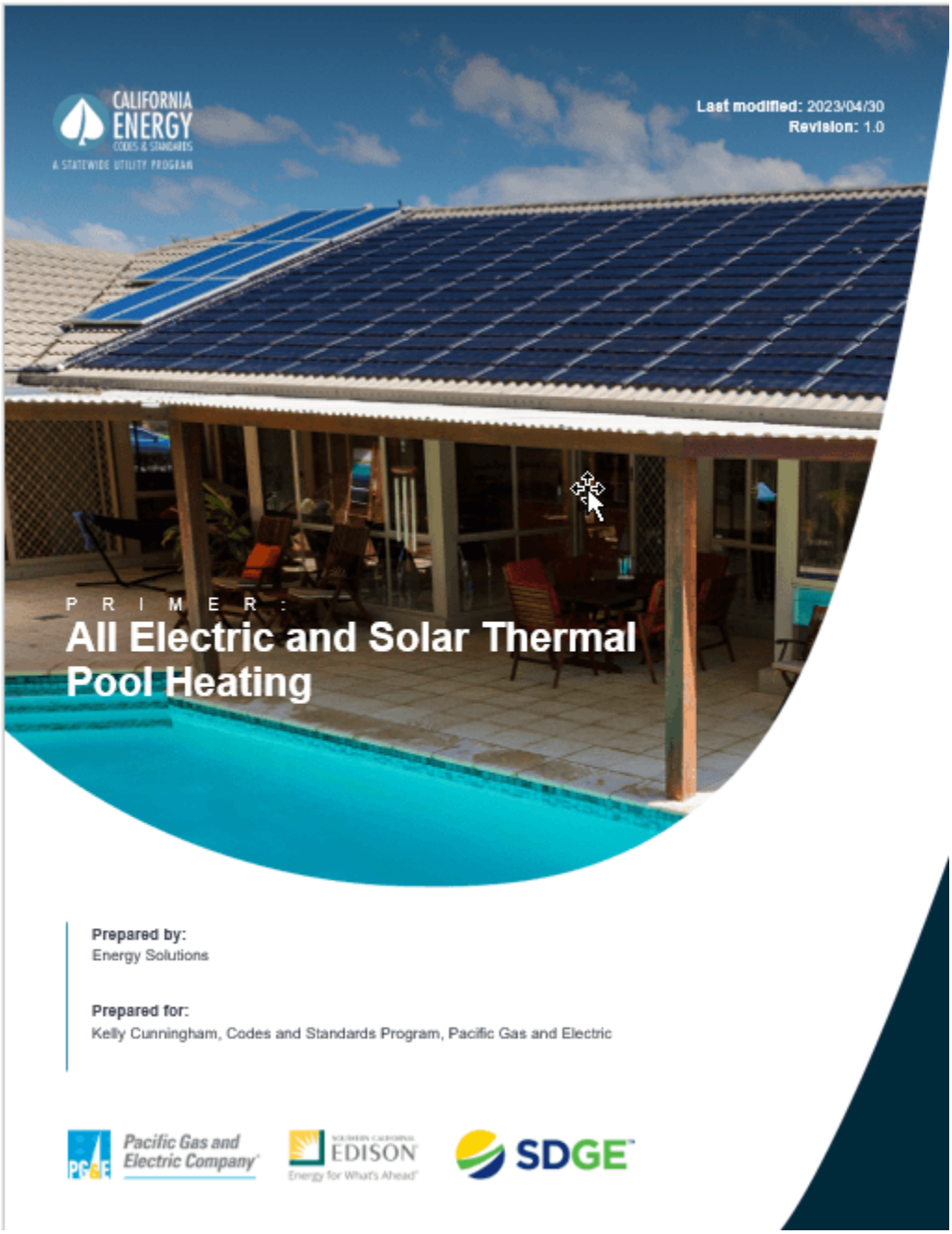
REACH CODE NEWS BRIEF: JULY 2023

NEW ALL ELECTRIC AND SOLAR THERMAL POOL HEATING STUDY NOW AVAILABLE!



The statewide Reach Codes Program has published a new Cost Effectiveness study that documents analyses evaluating pool heating for single family and multifamily swimming pools and inground spas.

The report documents the assumptions and cost-effectiveness analysis comparing all-electric pool heating systems with a gas-fired pool heater.

In 2019, the Reach Codes Team analyzed the cost effectiveness of an all-electric HPPH compared to a gas-fired pool heater in the City of Santa Monica (Statewide Reach Codes Team, 2019). This report builds upon the existing research, expanding the analysis to all 16 climate zones and exploring additional all-electric configurations, including a heat pump pool heater (HPPH) alone, and a HPPH in combination with a secondary electric resistance heater.

The report also evaluates the impact of a HPPH in combination with electric resistance and a solar power heating system.

The Reach Codes Team designed three prototypes to represent pools and pool and spa combinations found in single family and multifamily buildings:

- Prototype 1 has a pool at a single family house
- Prototype 2 has pool and spa at a single family house
- Prototype 3 has a pool and spa at a location with multifamily housing

The size, water temperature and pool usage were selected to reflect typical pools and spas in California with some assumptions varying with climate. The baseline prototypes use a minimally compliant natural gas-fired pool water heater. Results of the analysis indicate that all-electric pool heating is more energy efficient than a minimally compliant gas-fired pool heating system and is cost effective in most climate zones through either the On-Bill or TDV metrics when compared to a gas-fired pool heater baseline.

The full Cost-Effectiveness Study and the accompanying Executive Summary are available at no cost from localenergycodes.com.



CONTRIBUTE INPUT TO EXISTING BUILDING COST-EFFECTIVENESS STUDY UPDATES!

The Codes & Standards Reach Codes program team is preparing to update the Existing Single Family and Multifamily Cost-Effectiveness Studies.

We've identified several cost- and measure-related updates already. We'd appreciate feedback regarding the proposed scope, and to identify any significant gaps or other options that we've inadvertently missed.

Please complete the survey by July 21 to help us ensure the analyses provide sufficient support for proposed local energy ordinances.

UPCOMING EVENTS

July 12: BayREN Training: Nonresidential Tenant Improvements and Alterations

July 13: 3C-REN Regional Forum: Breaking Barriers – Energy Friendly Permitting

July 19: Central Coast and Ventura ICC Chapter Series: 2022 Energy Code Nonresidential

July 26: Energy Commission Monthly Business Meeting

July 26: New Buildings Institute & California Energy Design Assistance (CEDA): All-Electric Commercial Kitchens

July 31: CivicWell & Governor's Office of Planning and Research: California Adaptation Forum. Pomona CA.



Be sure to follow us on Twitter for the latest news and information!

NEW THIS MONTH!





A FIRESIDE CHAT: WHAT BUILDING OFFICIALS WANT TO SHARE ABOUT COLLABORATION ON REACH CODES

This year's CCEC Forum, held June 13-14, 2023 in Santa Rosa, featured a panel session titled Electrify Everything (Except for …): Understanding Reach Code Exemptions. As part of that session, Greg Mahoney, Chief Building Official for the County of Sacramento, and Bill Kelley, Deputy Director of Building and Safety for the County of Marin, participated in an electric 'fireside chat', sharing their perspectives on reach codes, exemptions and exceptions, and the opportunities for collaboration with planning and sustainability department staff. This article excerpts portions of this session.

Q: Why focus on exceptions and exemptions rather than reach code development itself?

Greg: This area of a reach code's lifecycle is where the building official and building department is most involved. For the jurisdiction staff who guide development of a measure, adoption can seem like the finish line. But for the building department, it's really the starting line! And some of the thorniest challenges in implementation and compliance can be in the exceptions. That's where the perspectives of we as building officials can be the most impactful to the success of the reach code.

Bill: As we've seen over the years, the need for some exemptions or exceptions can emerge during the development phase with stakeholder input. In other cases, the need may emerge after adoption, during the implementation phase with a specific project. In either case, the opportunity for effective collaboration between the code developers and the code enforcers is most apparent in this area and that's why we're talking about it today.

Q: What is the difference between an exemption and an exception?

Greg: I tend to think of an exemption as an application that is excused from permitting requirements, while exceptions may be sprinkled throughout a code to provide explicit alternative treatment for a specific reason or set of reasons. For example, perhaps a jurisdiction exempts a specific kind of building from compliance as a blanket measure for policy reasons, while an exception might focus only on a specific type of requirement like space heating or insulation or a specific project.

Q: Why is the building official perspective so vital in the reach code process?

Bill: It's critically important to maintain an understanding of the building community's perspective when crafting a reach code and any exceptions. They can either be your biggest ally or your worst adversary. Maintaining regular communication and facilitating collaboration with your building officials is an easy way to ensure the local staff is never losing sight of that perspective, because those officials are the ones who deal with the building community on a daily basis.

Q: Can you describe a particularly challenging experience involving a reach code or an exception and what its ultimate outcome was?

Greg: Some of the most challenging experiences have typically revolved around ambiguous language. For instance, language referencing a building certification program such as LEED, without any additional guidance for compliance.

Bill: Agree, often the challenges come from standards that aren't well defined. Sometimes the challenge can be political as well; we had a County project seeking an exception to our local electric vehicle requirements recently. While the exception was ultimately granted, there was some concern that this could become a political situation.

Q: You're both from county jurisdictions. Are there any circumstances or challenges unique to counties?

Greg: There are a wider range of differences among stakeholders across an entire county. For instance, a developer will have little in common with a rural homeowner and both may have even less in common with an agricultural business. The needs of

each of these different county stakeholders are often challenging to address in a reach code and this is where well-crafted exceptions can provide the building official with the needed flexibility to engage project applicants with the dialogue and collaborative decision-making necessary for a successful outcome.

Bill: One of the challenges in a county jurisdiction is the lack of uniformity across all the municipalities and unincorporated areas of the jurisdiction. This presents a lot of ongoing difficulties for the building community who must sift through so many different codes and requirements on a daily basis. Providing a county-wide construct that enables more uniformity is one of the unique opportunities we have available and well worth collaborating with local staff to accomplish the greatest level of cooperation possible across jurisdictional lines county-wide.

Q: If you could only give one piece of advice to reach code developers, what would it be?

Greg: Develop and maintain a close collaborative working relationship with your local building official and staff. Engage with them early in the code development process as an ally rather than an adversary; elicit their feedback by making them part of the team.

Bill: Simplify, simplify, simplify! In addition to what Greg said, I'd encourage the use of clear, simple language to the greatest degree possible. Think 5th grade reading level, avoid the use of lengthy paragraphs, and eliminate ambiguity.



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OTHER REACH CODE NEWS BRIEFS

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Archives