

Michael Krause  
Assistant Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Dr.  
Diamond Bar, CA 91765

**RE: Public Workshop for Proposed Amended Rules 1111 and 1121**

Dear Mr. Krause,

Southern California Edison (SCE) appreciates the opportunity to provide the following comments based on the Public Workshop (Workshop) for Proposed Amended Rules on Reduction of NO<sub>x</sub> emissions from Natural-Gas-Fired Furnaces (Rule 1111) and Reduction of NO<sub>x</sub> Emissions from Small Natural-Gas-Fired Water Heaters (Rule 1121), held on October 3, 2024, by the South Coast Air Quality Management District (SCAQMD).

**SCE supports the proposed revisions to SCAQMD Rules 1111 and 1121 as outlined on October 3, 2024.**

Under Rules 1111 and 1121, SCAQMD has introduced zero-emission regulations for new space and water heating equipment. This marks a significant step towards California's goal of achieving carbon neutrality by 2045, a goal that requires coordinated efforts and strategic actions across all sectors. These zero-emission regulations also pave the way for improved air quality, aiming to meet federal air pollution standards by 2037 within the SCAQMD area, while continuously promoting cleaner technologies to safeguard public health and the environment.

At SCE, we commend SCAQMD for its thorough rule update assessments, developed through extensive public engagement, numerous workshops, site visits, and collaboration with various stakeholders, including SCE.

**SCE supports SCAQMD's proposed compliance dates and technology check-in.**

The proposed rule by SCAQMD states that no person shall manufacture, supply, sell, resell, offer for sale, import, or install equipment for use within the SCAQMD, according to the Zero-Emission Limits and Compliance Schedule identified in Tables 1-2 of the Proposed Amended Rules. This provides a clearer path compared to using the manufactured date, as some entities have suggested. This proposed language helps prevent the issue of unsold equipment from outside the SCAQMD area being transferred and installed within the SCAQMD area, potentially delaying the intended air emission reductions by up to two years or more, depending on manufacturers' and distributors' inventory levels. Additionally, the compliance dates for the Bay Area AQMD Rules 9-4 and 9-6, which are equivalent to the SCAQMD Rules 1111 and 1121, are also not based on the manufactured date. Therefore, allowing the addition of the manufactured date could incentivize the transfer of unsold equipment from other areas to SCAQMD. Consequently, SCE supports SCAQMD's proposed compliance dates.

In addition, SCE supports a future technology check-in to identify updates on market supply of zero-emission technology for all equipment categories, market adoption of new technologies, reevaluation of fuel switching costs, and evaluation of building readiness addressing issues on small spaces, limited power supply, mobile home application, and any equity issues.

**SCE is transforming the grid to enable the transition to a zero-carbon economy while managing the impacts of these rules.**

SCE is proactively transforming the electric grid to accommodate significant advancements in decarbonized generation, the widespread adoption of customer-owned distributed energy resources, and the increasing use of electric vehicles and zero-emission appliances like heat pumps. As outlined in Edison’s whitepapers “Countdown to 2045”<sup>1</sup> and, most recently, “Reaching Net Zero,”<sup>2</sup> electrification is the most cost-effective path to decarbonize California’s economy and we are proactively working to plan for grid infrastructure needs. the necessary grid planning efforts required. “Countdown to 2045” calls for 100% of retail sales of electricity to be decarbonized, 90% of vehicles to be electrified, and 95% of buildings to be electrified and found that even accounting for grid upgrades required, customers would save about 40% on their energy bills by 2045. As California progresses towards its goal of becoming carbon neutral by 2045, the grid also must evolve to remain safe, reliable, resilient, and affordable. “Reaching Net Zero” expands on this analysis to look at Edison International’s specific impacts, examining how “challenge scenarios” can inform potential risks and opportunities, and identifies certain policy solutions (such as proactive grid planning and reducing permitting timelines) to enable a rapid and equitable clean energy transition.

We are collaborating closely with the California Public Utilities Commission (CPUC), the California Independent System Operator (CAISO), and the California Energy Commission (CEC) to identify and ensure the state’s energy needs are captured in the integrated energy policy reports and other planning processes. Through these coordinated efforts, California strives to make the electric grid ready to support the state’s clean energy future. With a combination of diffuse adoption of new equipment and sufficient planning horizons, SCE should be able to accommodate these impacts with the traditional load planning processes. Preliminary analysis of adopting heat pumps for space and water heating in residential buildings is not expected to significantly impact the remaining capacity of distribution circuits serving these buildings.

Lastly, technology that allows for demand flexibility will help further reduce the grid impacts of these rules. The CEC has identified the need for 7GW of flexible demand by 2030 and is developing flexible demand appliance standards and partnering with other agencies to help enable the rapid expansion of flexible demand. Locally, SCE is developing innovative incentives and flexible demand programs to promote the market adoption of clean and energy-efficient technologies.

**SCE acknowledges the critical role of workforce education and equity in implementing the proposed Rules 1111 and 1121 and is eager to collaborate with SCAQMD.**

While the current market share of heat pump technologies in the SCAQMD area remains relatively low compared to traditional gas-fired technologies, the market is rapidly transitioning towards cleaner, more efficient solutions. According to ENERGY STAR’s 2022 report, heat pump water heaters sales have increased by 26%, while gas-fired water heaters have decreased by 17%.<sup>3</sup> Additionally, the California Energy Commission’s (CEC) recently adopted 2025 Building Energy Efficiency Standards are expected to

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<sup>1</sup> Countdown to 2045. Edison International. <https://www.edison.com/clean-energy/countdown-to-2045>

<sup>2</sup> Reaching Net Zero. Edison International. <https://www.edison.com/clean-energy/reaching-net-zero>

<sup>3</sup> Heat Pump Water Heater Sales in 2022 Signal a Decisive Shift in Water Heating Trends. CleanTechnica. <https://cleantechnica.com/2023/10/25/heat-pump-water-heater-sales-in-2022-signal-a-decisive-shift-in-water-heating-trends>

drive 500,000 heat pump installations within the first three years of adoption<sup>4</sup>, significantly accelerating market growth.

As heat pump adoption increases, SCE acknowledges the critical need for contractor education and awareness. SCE's Energy Education Centers offer a variety of heat pump and related courses, which are continually updated based on industry needs and insights. These courses, offered free of charge, cover best installation practices and emphasize the benefits of heat pumps, ensuring contractors, installers, and market actors are equipped to meet customer and regulatory expectations.<sup>5</sup> SCE has also developed a Contractor Demand Building Program that provides a free heat pump water heater for contractors who attend a series of trainings on proper installation techniques for heat pump water heaters.<sup>6</sup>

While drawing lessons learned from CEC's Building Initiative for Low-Emissions Development (BUILD) Program<sup>7</sup> and Technology and Equipment for Clean Heating (TECH) Clean California, SCE also supports statewide initiatives to accelerate the adoption of clean space and water heating technology across California homes to help create an equitable pathway to carbon-free homes by 2045. The TECH Clean California program provides essential support for contractors installing heat pumps, including heat pump water heaters. The program offers technical and sales training from certified instructors and manufacturers, with a focus on installation techniques and incentives designed to ease the transition to heat pump technologies.<sup>8</sup> These programs not only provide financial incentives but also enhance contractor training relevant to SCAQMD's proposed Rules 1111 and 1121. Additionally, SCE's certified, expert-led training classes ensure contractors are equipped to deliver optimal performance and customer satisfaction.<sup>9</sup>

At a statewide level, there is significant momentum behind electrification initiatives. In October 2023, ten major heating and cooling equipment manufacturers joined the CEC in a public commitment to help the state achieve its climate target of installing six million heat pumps in California's buildings by 2030.<sup>10</sup> This collaboration includes workforce development support to ensure that contractors are well-prepared to meet growing demand, including in the Southern California region.

Equity considerations remain at the forefront of SCE's strategy, ensuring that these communities can benefit from heat pump installations. SCE's Energy Savings Assistance (ESA) Program further complements these efforts by providing income-qualified customers with no-cost installations of energy-efficient equipment, including heat pumps and other energy-saving measures. This program helps reduce energy costs while improving comfort in low-income households, making it a key

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<sup>4</sup> Energy Commission Adopts Updated Building Standards Expanding Requirements for Heat Pumps and Electric-Ready Buildings. California Energy Commission. <https://www.energy.ca.gov/news/2024-09/energy-commission-adopts-updated-building-standards-expanding-requirements-heat>

<sup>5</sup> HVAC Heat Pump Systems. Your guide to efficient heating and cooling. Southern California Edison. [https://www.sce.com/sites/default/files/inline-files/Heat\\_Pump\\_Overview\\_Fact\\_Sheet\\_WCAG.pdf](https://www.sce.com/sites/default/files/inline-files/Heat_Pump_Overview_Fact_Sheet_WCAG.pdf)

<sup>6</sup> HPWH Installation Solutions. Southern California Edison. <https://www.sce.com/business/contractor-demand-building-program>

<sup>7</sup> Building Initiative for Low-Emissions Development Program – BUILD. California Energy Commission. <https://www.energy.ca.gov/programs-and-topics/programs/building-initiative-low-emissions-development-program-build>

<sup>8</sup> TECH Clean California. <https://www.switchison.org/contractors/tech-clean-california>

<sup>9</sup> HPWH Installation Solutions. Southern California Edison. <https://www.sce.com/business/contractor-demand-building-program>

<sup>10</sup> Top Global Building Appliance Manufacturers and Distributors Commit to Help California Achieve Six Million Heat Pump Goal. California Energy Commission. October 10, 2023. <https://www.energy.ca.gov/news/2023-10/top-global-building-appliance-manufacturers-and-distributors-commit-help>

component of California's equity and energy efficiency goals. Additionally, TECH Clean California allocates 40% of its budget to equity communities, including those within the SCAQMD area. These efforts are crucial to ensuring that disadvantaged and low-income communities benefit from the transition to zero-emission technologies. SCE is committed to collaborating with SCAQMD to expand its efforts in these communities, ensuring an equitable transition to clean energy solutions.

We look forward to working with SCAQMD to enhance both workforce readiness and equity as part of the broader transition to zero-emission space and water heating technologies.

**Conclusion**

We thank SCAQMD for taking into consideration the above comments on the Public Workshop for Proposed Amended Rule 1111 and 1121 and look forward to working with SCAQMD staff and other stakeholders throughout this process. Please do not hesitate to contact me at (626) 302-9652 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Sincerely,

*/s/ Rosalie Barcinas*

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