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Gradient Petition to Add Room Heat Pumps to Program QPL

Additional submitted attachment is included below.

Dear California HEERA Program Administration Team,

Gradient is an industry leader in developing and manufacturing window heat pumps[1], having released the first-ever window heat pump with a variable-speed compressor in 2022. We are advancing this innovation by developing a cold-climate version slated for release at the end of 2024, designed in alignment with the New York City Housing Authority (NYCHA) Clean Heat for All Challenge.[2] Room heat pumps are poised to transform heat pump accessibility by eliminating the need for costly and extensive building modifications. This innovation will drive electrification in underserved markets, particularly in large-scale multifamily housing and buildings like those managed by NYCHA.

Multifamily retrofits have often been a difficult portion of the market to electrify. Large multifamily buildings pose many challenges to energy efficiency programs due to their size. These upgrades are also associated with high capital requirements to undergo large-scale improvements, all while needing to minimize disruptions to tenants. Room heat pumps combine the functionality of a mini-split with the installation simplicity of a window air conditioning unit using a saddleback architecture that hangs over the windowsill. The benefits of this design include not blocking the window and allowing for larger heat exchangers and fans, which enable higher energy efficiency.

One of the key features of this system is its plug-and-play installation[3]. Our room heat pump plugs directly into a standard 120V outlet, limiting the need for panel or service upgrades to the building. There's no need to plumb condensate or alter the building envelope since it installs through a window and the condensate is atomized into the air. Installation is incredibly straightforward, taking about 30 minutes with two laypeople—this system does not require a licensed HVAC technician to install. Our high-efficiency window heat pump is designed for easy installation, making it ideal for applications where traditional heat pump installations may be challenging or cost-prohibitive.

According to the most recent TECH Clean California project data, 96% of TECH Clean California Program projects have served single-family housing projects.[4] This disparity is detrimental to ensuring that California meets its clean energy goals and retrofits housing stock. **By prioritizing technologies like room heat pumps, the state can address this inequity and significantly improve access to clean energy solutions for multifamily housing residents, many of whom live in disadvantaged or low-income communities.**

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[1] Also classified as room heat pumps or room air conditioners (ACs) with reverse cycle.
[2] New York State Energy Research and Development Authority. "Governor Hochul and Mayor Adams Announce Clean Heat for All." Last modified August 2, 2022. https://www.nyserda.ny.gov/About/Newsroom/2022-Announcements/2022-08-02-Governor-Hochul-and-Mayor-Adams-Announce-Clean-Heat-for-All.
[3] Gradient Comfort. "The Gradient All-Weather 120V Window Heat Pump." YouTube video, December 9, 2021. https://youtu.be/02OChZpzCOk?feature=shared.
[4] Tech Clean California. (n.d.). *Heat pump data: Download data*. Retrieved December 18, 2024, from https://techcleanca.com/heat-pump-data/download-data/#download-form-2147bafe-ac60-48f2-a051-98c7a60e8fea

Room heat pumps have already been recognized by the Consortium for Energy Efficiency (CEE)[5], and ENERGY STAR is on the precipice of finalizing their energy efficiency specification for room heat pumps with reverse air cycle.[6] Once this specification is published by ENERGY STAR (expected in January), room heat pumps will become eligible for HEERA rebates as noted by State and Community Energy Program (SCEP) Inflation Reduction Act Home Energy Rebates program guidelines (U.S. Department of Energy, 2024, p. 74).[7] Gradient strongly recommends adding room heat pumps as a qualified measure for California's HEERA program.

In addition, incorporating room heat pumps into TECH and HEERA program-qualified product lists will enable significant scalability for electrification efforts. The ease of installation and cost-effectiveness of room heat pumps align perfectly with the state's objectives to decarbonize the building sector while promoting equitable access to clean energy technologies. Expanding eligibility to include room heat pumps can unlock new opportunities to accelerate adoption, reduce greenhouse gas emissions, and empower multifamily building owners to make sustainable upgrades without incurring prohibitive costs.

We appreciate the opportunity to comment on Docket #: 23-DECARB-01 and look forward to working with program administrators to facilitate the addition of this measure to future programming. Please feel free to contact us if you have any additional questions about the addition of this measure.

Best,

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Public Policy Manager

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[5] Consortium for Energy Efficiency. (n.d.). CEE resources. Retrieved December 18, 2024, from https://cee1.my.site.com/s/resources?id=a0VTR000003DmoH

[6] ENERGY STAR. (2024). *ENERGY STAR Version 6.0 room air conditioners draft 1 specification*. Retrieved from https://www.energystar.gov/sites/default/files/2024-11/ENERGY%20STAR%20Version%206.0%20Room%20Air%20Conditioners%20Draft%201%20Specification.pdf

[7] U.S. Department of Energy. (2024). *Program requirements and application instructions* (Version 12-16-24). Retrieved from https://www.energy.gov/sites/default/files/2024-12/program-requirements-and-application-instructions_121624.pdf.pdf