

DOCKETED

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Net Zero Comments

Please see the attached two (2) pages for comments.

Additional submitted attachment is included below.

To: California Energy Commission

From: Net Zero Energy Operators

Subject: Comments on Staff Workshop CalSHAPE Ventilation Program Assessment Report

Date: 03/19/2024

Dear California Energy Commission staff,

Considering buildings contribute up to 40% of greenhouse gas emissions and much of that comes gas-fired space heating equipment, the CalSHAPE program is uniquely positioned to target some of the highest energy users in commercial buildings – such as schools. Our company, Net Zero Energy Operators, has worked with several districts, contractors, and engineers to educate and adopt CalSHAPE Ventilation program funding. Some of our early experiences in this program include the following feedback from Districts and related parties:

Item #1: Anticipated High CO2 Levels – A concern for teacher and parent complaints that will inevitably result from display of in-space CO2 monitors. Facilities staff are not equipped with guidance or training on how to navigate these inevitable concerns. Therefore, major hesitation exists on implementation of this funding. In addition, contractors and engineers are not trained to speak to the topic of indoor air quality.

Item #2: Lack of Equipment Replacement Funding - A concern for the lack of funding originally available to replace HVAC units that are past End of Useful life (approx. 15 years or older). In addition, expensive Energy Management Systems would inevitably be required to control for increased ventilation air – given the under ventilated spaces.

Item #3: Cumbersome Reporting Requirements & Methodologies - The program reporting requirements, including but not limited to: TAB reports, HVAC assessment reports, and the potential energy/GHG reporting requirements. A spreadsheet is simply an antiquated and cumbersome way of facilitating programmatic impacts of energy / GHG reductions.

Based on these concerns, Net Zero Energy Operators recommends the following – respectively:

Item #1 CEC to Sponsor Indoor Environmental Quality Education Series – We propose the CEC hire a qualified consultant that can speak to the topic of indoor air quality, HVAC ventilation systems, common misconceptions, and ways Districts can navigate teacher concerns relating to high CO2 levels. District concerns for antiquated facilities and low-grade air quality are justified considering the annual deficits in maintenance and operations budgets to keep facilities up-to-par. We propose empowering school districts with education on their facilities to support creating a master plan for improved environmental equality – using CalSHAPE funding. Current mechanisms for education are not working and are tailored more towards contractors and engineers – rather than educators. Finally, such education will share how building systems work to reduce CO2 levels to motivate the expenditure of such funding to offset the maintenance and operations budget shortfalls.

Item #2 CEC to Develop RFP for Strategic Energy Management Plan for Schools – We propose the CEC hire a qualified 3rd party consultant to develop a Strategic Energy Management plan for Schools – which would ensure that Districts scope out equipment replacements in such a way that end up saving districts money and reduce GHG emissions. While AB 802 requires commercial buildings above 50,000 sqft to conduct energy benchmarking, this has largely been ignored without proper enforcement. Therefore, school districts do not have an energy baseline established from their current energy use and as a result cannot effectively report the impact of energy upgrades made through CalSHAPE. Without this high-level energy management planning, contractors will elect to provide the minimally efficient equipment possible without regard to the GHG and energy savings impact. Furthermore, this strategic energy management plan for schools will also help offset the upfront cost of equipment replacements by aligning scope of work with existing energy efficiency rebate programs. It is recommended that a credentialed 3rd party energy consultant conduct this work to avoid contractor or designer conflict of interest.

Item #3 CEC to Engage 3rd Party Commissioning Agent(s) to conduct Energy & GHG assessments – the way the CalSHAPE program is written requires a measurement and verification process to ensure that CO2 levels are suitable for occupancy, that energy savings are present, and GHG reductions can be quantified. In order to properly enforce this, CEC must engage qualified 3rd party professionals (e.g. energy consultants, commissioning agents, etc.) to measure the actual impact of the program. Relying on building contractors or design professionals creates conflicts of interest and in turn will dilute the measured impact of CalSHAPE funding’s original intent. Furthermore, this will relieve the undue burden of energy and GHG reporting from contractors and engineers that are not trained to conduct such type of work. This will ensure the program delivers on its promised outcomes of healthier indoor environments for teachers and students. The CEC would simply demonstrate the criteria of information it wishes to collect for energy and GHG reductions. The 3rd party consultant or commissioning agency would determine the best means and methods in collecting this information, utilizing the latest technology and tools available. We believe relying on industry experts to propose their own data reporting methodologies will enhance the overall program implementation and measured effectiveness.

We recognize CalSHAPE funding and its current revision as a generational opportunity to support energy equity and climate action in some of our most underserved communities. We ask that CEC strongly consider these recommendations in maximizing benefits to ratepayers throughout California. Thank you.

Best Regards,



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