

DATE: October 28, 2024

TO: Council Sustainability Committee

FROM: Whitney Ramos, Sustainability Analyst II
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VIA: Audrey Seymour Ramberg, Assistant City Manager

SUBJECT: **Year of the Water Heater Campaign**

RECOMMENDATION

Receive information and provide feedback as appropriate on the Year of the Water Heater Campaign.

BACKGROUND

On April 21, 2020, the City Council passed Resolution No. 18439, adopting a communitywide decarbonization target of 2045. The Council Sustainability Committee (CSC) is currently exploring an accelerated target of 2035, 2040, or 2045. Greenhouse gas (GHG) emissions inventories for Mountain View regularly show that transportation and buildings are the top two contributors to emissions. Achieving the City's climate goals will involve converting existing buildings from natural gas (a GHG source) to GHG-free electricity, a process known as electrification.

Many Mountain View residents and businesses are not familiar enough with electrification to consider replacing their gas-fired appliances with electric alternatives. Outreach and engagement efforts to-date have involved communicating the full range of electrification topics, such as heat pump water heating (HPWH), heat pump space heating, induction stoves, heat pump dryers, electric panel upgrades, and electric vehicle charging. The messages prioritized current electrification incentive program offerings from Silicon Valley Clean Energy (SVCE) and other regional and state programs.

For the upcoming 2025 calendar year, the Sustainability team proposes to launch the "Year of the Water Heater" Campaign to leverage new SVCE program offerings and strongly encourage the community to take at least one step toward building electrification next year by converting their gas-fired water heater to electric.

ANALYSIS

Rallying the community around changing their water heating from gas to electric over the next year will create more focused conversations that are likely to garner more engagement than trying to make the case for whole home electrification in brief conversations and through media content. The more homeowners that install HPWHs over the next year and share their positive experiences with family, friends, and neighbors, the more readily the rest of the community is likely to follow.

Individuals are also more likely to use electric technologies when they have experience using one in the past or if they use a gateway electric technology.¹ Heat pump water heaters are anticipated to be an impactful gateway technology to start homeowners on the electrification journey for the following reasons:

- Water heating is the second greatest use of energy in most homes (about 18%), representing large potential for efficiency gains, utility savings, and emissions reductions.
- Installation is less expensive and complicated than heat pump space heating.
- New Bay Area Air Quality Management District rules will be taking effect in the next three years, starting in 2027, that will prohibit the sale of gas-fired water heaters, making transitioning to HPWH a priority for homeowners over other gas-fired equipment in the home.
- SVCE is expanding its direct install electrification program and starting an emergency water heater loan program in 2025, allowing the Year of the Water Heater Campaign messaging to be backed up with programmatic and technical assistance provided by SVCE.

Single-family and condominium homeowners will be prioritized for outreach and engagement as they can readily make decisions about changes to the equipment in their homes. Homes with solar are particularly strong candidates for HPWH. Families with children may also be more motivated to transition to HPWH for health and safety reasons.

Year of the Water Heater Campaign Elements

Staff proposes implementing the following activities and incentives for the Year of the Water Heater campaign.

¹ Sussman, Reuven, and Jonah Eisen. 2024. Marketing and Promoting Electrification Using Behavioral Science: Results from a National Survey. Washington, DC: ACEEE. www.aceee.org/research-report/b2406

1. Developing a Mountain View HPWH Character to Use in Displays and for Communications: To create excitement about HPWHs and begin conversations with families and homeowners, staff will develop a Mountain View HPWH character/mascot named Wattson. Wattson will be used as a HPWH costume or large prop for events. Other materials include Wattson educational coloring books with facts about HPWH and a Wattson plush toy to give to children with information on how to transition to a HPWH.
2. In-Person Outreach: Throughout 2025, staff will attend City-sponsored events and other public events, such as the Farmer’s Market. Outreach through school events, parent groups, or special presentations will also be incorporated to the extent possible. To engage youth of all ages, staff will also explore opportunities with the Youth Advisory Committee and Teen Center. A temporary display at a City facility, such as the Library, Senior Center, Community Center, and/or the City Hall lobby, may also be considered. Staff will also explore opportunities for door-to-door outreach through contracting with a local nonprofit who could leverage a sustainability volunteer group to expand capacity.
3. Quarterly Direct Mailers: Quarterly postcards highlighting HPWH opportunities, key benefits, and new programs will be mailed directly to homeowners. Targeted additional mailers will be considered for homes with solar. The series of postcards may include seasonal themes to draw attention and is expected to be an effective way to reach residents who do not regularly subscribe to the Sustainability Division communications such as its newsletter or social media.
4. Placing Local Advertisements through Various Mediums: Staff is exploring geographically targeted audio and video ads on streaming services, “out-of-home”² photo or digital advertisements, a preview at the local movie theater, and the Mountain View shuttle bus. This activity is also aimed at those who do not regularly receive the City or Sustainability Division’s newsletters or social media messages.
5. Amplify Silicon Valley Clean Energy (SVCE) HPWH Programs Locally: SVCE continues to launch a series of programs offering resources to support water heater electrification. The Year of the Water Heater campaign will promote these programs in its communications to connect Mountain View residents with available electrification support and funding. Active and upcoming SVCE programs to promote include:
 - **On-bill financing pilot** to remove the upfront cost barrier of electric equipment by providing 0% interest loans that are repaid over 10 years through the utility bill. The repayment charges are offset by savings across gas and electric bills.

² “Out-of-home” advertising includes print and digital billboards, bus shelter posters, and checkout advertising.

- **Direct installation program** which connects residents with SVCE's selected contractor to switch their gas-fired equipment to electric. This provides customers more stabilized pricing and reduces the project management time for the customer. The program also offers an emergency water heater program that will loan a gas-fired water heater while necessary upgrades are made to install a HPWH.
 - **Go Electric Advisor program** that provides live help and step-by-step assistance for residents and businesses to switch to electric equipment and appliances.
6. Water Heater Challenge: Residents will be invited to participate in the Year of the Water Heater Challenge with the potential to win prizes or additional incentives for participating. The challenge could involve walking residents through preparing to convert to a HPWH, such as checking their water heater's age, finding the right size for their home, identifying rebates they qualify for, and more.
 7. Mountain View Incentive Program for Replacing Gas-Fired Water Heater with a HPWH: To motivate the community over the next year, staff is proposing to implement a limited-time Mountain View HPWH incentive program for one year.

Through outreach efforts in 2023 and 2024, staff documented feedback from 332 Mountain View residents on decarbonization and electrification topics. Engagement included small group conversations (48), quick one-on-one conversations on one question (46), and quick three-question surveys (238) that took place at events such as the Monta Loma and the Community Action Team Ice Cream Socials, the Technology Showcase, and two Civic Leadership Development Academies. The survey indicated that residents were receptive to installing a HPWH. However, the installation price was a major factor influencing decisions on whether to install a HPWH.

To replace a gas water heater, the estimated cost is \$2,000 to \$3,500. Replacing a gas water heater with HPWH can cost up to \$7,050³ excluding any electric panel upgrades that may be necessary. SVCE currently offers a \$2,000 incentive for HPWHs and \$1,000 incentive for electric panel upgrades. An additional Mountain View rebate could reduce the incremental cost to install a HPWH to further motivate a homeowner to make the transition. This could involve matching or adding to SVCE's current rebate and/or exploring working with SVCE's direct install contractor to provide additional funding for harder to electrify water heating projects. In addition, the incentive could be used to increase participation in the water heater challenge during certain months in 2025.

The total incentive program budget proposed is \$200,000, which would be funded through the Capital Improvement Program (CIP) Project 20-99 for Sustainability Projects (the

³ Cost estimates are based on SVCE's direct install pricing program using prevailing wages.

“Sustainability Fund”). A \$200,000 incentive program is anticipated to cover over 100 HPWH projects in Mountain View. Staff is exploring working with SVCE to support implementation of a Mountain View HPWH incentive for homeowners that could layer with their current incentives and program offerings.

Evaluation

Staff will evaluate effectiveness of the campaign, adjust ongoing outreach accordingly, and document lessons learned. Program assessment will use quantitative metrics such as:

- City Permit and/or Mountain View-Specific Incentive Data: The rate of permits for converting water heaters from gas to heat pump and the number of residents that participated in the Mountain View HPWH rebate program.
- SVCE Program Data: The number of Mountain View residents that called the Go Electric Advisor “concierge” service about water heating and claimed HPWH rebates or participated in direct-installation programs.
- Trackable QR Codes: Using trackable QR codes on materials allows staff to evaluate message effectiveness if residents use the QR codes to find out more information.
- Surveys and Case Studies: Participant surveys and case studies will be useful to document the success of the Year of the Water Heater Campaign and understand what motivated homeowners to make the transition from gas to electric water heating.

Timeline

Staff proposes preparing materials for the Year of the Water Heater during the fourth quarter of 2024 followed by launching the program in January 2025. Staff will provide regular updates to the CSC on the progress of the campaign.

DISCUSSION QUESTIONS

Staff seeks feedback from the Council Sustainability Committee on the following:

1. Does the CSC have feedback on the activities and/or proposed incentive for the Year of the Water Heater Campaign?

FISCAL IMPACT

The Year of the Water Heater Campaign would be funded by the SAP-4 Sustainability Project CIP (Project 20-99), and there are sufficient funds to cover the proposed activities. The outreach and

engagement budget for Activities 1 through 6 is \$50,000, and the Mountain View HPWH incentive program budget is \$200,000. The total budget for the campaign is \$250,000.

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