Public Comment received for the May 28, 2020 Peninsula Clean Energy Board of Directors meeting

Items 9 and 10
Date: Thu, May 28, 2020 at 10:30 AM
Subject: Support for 5/28 PCE Board Items # 9 & 10
Honorable Peninsula Clean Energy Board of Directors and Staff,

I am writing to express my strong support for tonight's Agenda Items 9 and 10.

I want to underscore the dire need to immediately address the climate crisis. A group of us are working together to support an accelerated phase out of fossil fuel use in buildings. Over the past year we have actively supported Reach Codes to prevent the use of fossil fuels in new construction. We have put this advocacy in action by appearing and speaking at City Council meetings all over the Peninsula, as they considered Reach Codes. We are actively working with developers of multi-family properties to phase out natural gas equipment.
The urgency of addressing fossil gas use in existing buildings has also become a priority as we continue to learn about the serious health and safety risks of burning gas in our homes. Your agenda item 10 will enable many gas fired water heaters, including mine, to be replaced with a Heat Pump Water Heater.
Building Electrification of New and Existing Buildings is an Urgent Climate Action
PCE has made significant contributions to the electrification of new buildings, Agenda Items 9 and 10 are important for existing buildings.
I very much appreciate the hard work of staff and appreciate the swift action to bring forward these critically needed programs. Although everyone is rightly focused on addressing COVID-19, the climate crisis continues, health impacts from Fossil Fuel use continue, and wildfires and power outages are a more frequent reality for us.
I appreciate your continued leadership.
Sincerely,
Robert Whitehair, San Mateo

Items 9 and 10
Date: Wed, May 27, 2020 at 11:26 PM
Subject: Support for 5/28 PCE Board Items # 9 & 10: Battery Program for Medically Vulnerable Customers & Existing Buildings Electrification Program
Honorable Peninsula Clean Energy Board of Directors and Staff,

I'm writing in support of the proposal for electrification programs to help existing home owners replace Fossil Gas appliances (Board Agenda item #10), for all the reasons stated in our April 30th letter attached. It's also important to note that this program could help create jobs and bring more people back to work at a time when unemployment rates are exceptionally high. We hope

that the programs will be carried out in accordance with PCE's workforce development policy (Policy number 10) to maximize the local benefits.

In addition, I hope you'll approve the staff recommendation for $500,000 for Batteries for Medically Vulnerable residents (item #9), who will be impacted by Public Safety Power Shutoffs during the upcoming wildfire season.

We applaud the hard work of staff and appreciate the swift action to bring forward both of these critically needed programs. Although everyone is rightly focused on addressing COVID-19, the climate crisis continues, health impacts from Fossil Fuel use continue, and wildfires and power outages are a more frequent reality for us. Your leadership in addressing these complex issues in the midst of the COVID public health emergency will benefit everyone in San Mateo County. Please approve items 9 and 10 on the PCE Board agenda tomorrow to improve the health, sustainability, and resilience of our communities.

Sincerely,
Diane Bailey
Executive Director | MENLO SPARK

Date: Friday, May 1, 2020 at 12:09 AM
Subject: Support & Recommendations for Proposed Building Electrification Programs
Honorable Peninsula Clean Energy Board of Directors and Staff,

Please find attached some recommendations and comments in support of the recently proposed building electrification programs. We are grateful for the careful vetting and development efforts for these much-needed programs, especially in this challenging time.

Some of you likely saw the UCLA report released this week that shows how converting existing homes from fossil gas to electric can save over 300 lives and $3.5 billion in health costs annually in California. This is a big deal, and an opportunity for PCE to lead on climate solutions that improve community health.

On that note, congrats on the new Community Impact Report that does a great job detailing what PCE has done so far to deliver clean power and lead on local climate action!

Sincerely,
Diane Bailey
Executive Director | MENLO SPARK
(please see Attachment – Comments from The Campaign for Fossil Free Buildings in Silicon Valley)

Item 10
Date: Thu, May 28, 2020 at 5:53 PM
Subject: Comment for tonight's PCE meeting

I'd like to add my support to the three building electrification programs under discussion tonight and urge that action be taken as quickly as possible.

COVID-19 has distracted us from a threat that continues to loom, almost unnoticed for the present, that is potentially even more disruptive and destruction than the pandemic. Climate change will make our battle with the coronavirus seem almost inconsequential by comparison.

I know this body knows far better than almost any other that decisive, robust action is needed NOW! Please move as quickly as you can to implement these three programs: Low-income Turnkey Electrification & Healthy Homes, Heat Pump Water Heater Program, by enhancing the current regional BayREN "Home Plus" program; and beginning a new technology pilot program for integrating space and water heating in a single unit.

Thank you,
Carol Cross
Fossil Free Mid-Peninsula

Item 10
Date: Thu, May 28, 2020 at 3:28 PM
Subject: Support for Existing-Building Electrification Programs (Item 10)
Dear Chair Aalfs, Directors, and Staff,

As a Carbon Free Silicon Valley Board member and Bay Area CCE Advocate, I'd like to express my strong support for the building electrification programs being considered in Agenda Item 10. Building electrification is an urgent climate action and existing home-owners and building-owners need help from their CCEs, both funding and technical guidance, to replace aging gas appliances with electric in existing homes and buildings.

I support the comments and recommendations provided by the Campaign for Fossil Free Buildings in SV, and appreciate PCE's continued investment, leadership and creative partnering with other CCEs to help pro-actively drive the transition to electricity in existing buildings.

Thank you for considering my comments.
Julie Allingham
CFSV Board Member
SJCE Advocate

Item 10
Date: Thu, May 28, 2020 at 8:35 AM
Subject: Support for Existing building electrification
Hello:

I'm writing to support the proposal for $6 million over 4 year electrification program for existing buildings and includes appliance incentives, low income building upgrade and harvest thermal

innovation pilot among other programs. I think as a resident of San Mateo this is the most important thing we can do to help our community with the climate crisis.
Please count my support for this proposal.

Thank you,
Leane Eberhart
San Mateo Resident/ Architect

Item 10
Date: Wed, May 27, 2020 at 9:33 PM
Subject: Building electrification program
Dear Chair Aalfs, Directors and Staff--

Peninsula Clean Energy is doing an exceptional job of moving people in San Mateo County toward more renewable energy. I strongly urge you to support the $6 million building electrification program that would help homeowners transition to all-electric homes.

A few weeks ago, we replaced our broken gas water heater with a heat pump water heater (HPWH). It was a huge hassle. After three days without a shower, we were tempted to take the cheaper, faster route of replacing it with another gas water heater. I could not find a single plumber in our county who belonged to the BAYREN program offering a $1,000 rebate.

Several of the plumbers I called said they couldn't be bothered with heat pump water heaters because there was no demand for them. One told me they "might be illegal." Others quoted exorbitant prices of $7,500 or more. In the end we paid $3,750 for the HPWH and $838 in fees and plumber time associated with the city permit, whereas a gas water heater would have cost $1,900.

I'm convinced that the only way to motivate local residents to get natural gas out of their homes is to offer substantial rebates and make the process easier. The increased demand will incentivize local plumbers to get up to speed and stock HPWHs. The integrated space and water heater program would also be a welcome innovation.

Thank you for your consideration.

Best regards,
Terry Nagel
Chair, Sustainable San Mateo County
Former Mayor, Burlingame
Board of Directors, Citizens Environmental Council of Burlingame

The Campaign for Fossil Free Buildings in Silicon Valley

350 Silicon Valley, Acterra, Bay Area for Clean Environment, Carbon Free Silicon Valley, Carbon Free Palo Alto, Carbon Free Mountain View, Citizens' Climate Lobby San Mateo County, Citizens Environmental Council of Burlingame, Clean Coalition, Climate Reality: Santa Clara County, Coltura, Cool Block, Earthy B, EmeraldECO, Fossil Free Mid-Peninsula, GreenTown Los Altos, Kitchens of Life, Menlo Spark, Menlo Together, Mothers Out Front South Bay, Pacifica Climate Committee, Peninsula Interfaith Climate Action, Project Green Home, SIDCO Homes, San Carlos Green, San Francisco Bay Area Physicians for Social Responsibility, Sierra Club Loma Prieta Chapter, Sustainable San Mateo County, Sustainable Silicon Valley, Sunnyvale Cool, Silicon Valley Youth Climate Action, and Silicon Valley Youth Climate Strike.

April 30, 2020

Peninsula Clean Energy
2075 Woodside Road
Redwood City, CA 94061

Via email: abartoletti@peninsulacleanenergy.com; jpepper@peninsulacleanenergy.com; rreyes@peninsulacleanenergy.com

RE: Support for Priority Building Electrification Programs

Dear Chair Aalfs, Directors, and Staff,

On behalf of the Campaign for Fossil Free Buildings in Silicon Valley (FFBSV), this letter expresses our strong support for new building electrification programs currently under staff discussion. We urge you to consider expediting these critically needed programs to address the magnitude of the climate, air quality, health, and safety impacts of current fossil gas use in our homes and buildings.

FFBSV is comprised of the 32 organizations listed above, all of which have particular expertise in addressing the climate crisis. We recognize the dire need and are working together to support an accelerated phase out of fossil fuels in buildings.[1] A rapid transition from fossil fuel use is required to avoid the very worst and irreversible impacts of climate change. As our coalition has worked to support Reach Codes over the past year to prevent the use of fossil fuels in *new* construction, the urgency of addressing fossil gas use in *existing* buildings has also become a priority as we continue to learn about the serious health and safety risks of burning gas in our homes. ***We are writing to support and provide further recommendations on the following three concepts currently under consideration:***[2]

- Low-income Turnkey Electrification & Healthy Homes (including potential workforce development);
- Heat Pump Water Heater Program, enhancing the current regional BayREN "Home Plus" program; and
- New technology pilot program for integrated space and water heating with a single unit.

Building Electrification is an Urgent Climate Action

Although we are in the midst of a global pandemic with serious economic impacts, the depths of the climate crisis is worse than commonly understood and demands urgent action. In addition to devastating long-term climate consequences, San Mateo County faces significant present-day risks including flooding from sea level rise, increased vulnerability to wildfires and smoke, and more severe heat waves.[3] The seminal 2018

Intergovernmental Panel on Climate Change (IPCC) report concluded that ***we must dramatically reduce Greenhouse Gas (GHG) emissions by 2030 through rapid, far-reaching, and unprecedented measures.***[4] Since that report was issued, we have seen greater impacts from climate change than anticipated (e.g. the 2019-2020 Australian wildfire that destroyed over 10,000 buildings and killed at least 34 people).[5] Current trends for carbon emissions and lack of action show that we are headed to *twice* the rate of warming that the Paris Climate Accord sought to contain.

Roughly one-third of carbon emissions in the United States are from buildings.[6] Here in Silicon Valley, where there is little industry and extremely clean power (thanks to PCE and other CCEs), the carbon contributions of gas use in buildings are nearly as large as from transportation (the biggest contributor to GHG emissions).[7] The true impact of fossil gas use may be much higher because it has exceptionally high carbon emissions when considering the lifecycle of the fuel, including leaks**.**[8]

Cities and counties are recognizing how important going fossil-free is to community health, safety, and a stable climate future. While the reach codes adopted so far can help develop the market for all-electric heating and appliances, targeted programs are needed to ensure that heat-pumps and other zero -emission and non-combustion products are chosen and home- and building-owners replace old equipment. Replacing fossil gas use with electric heating and appliances has many advantages:

- **Public Safety:** Natural gas is highly flammable. In the past ten years, 9,000 gas explosions in the U.S have killed 548 people, and gas leaks have displaced and sickened thousands of people.[9] Gas caused half the fires after two major California earthquakes.[10]
- **Public Health:** Gas stoves release smog-like NO2 pollution that doubles risks for heart and lung disease and triples the use of asthma medications.[11] Improperly vented gas appliances lead to carbon monoxide poisoning that results in thousands of emergency room visits and several hundred deaths every year.[12]
- **All-Electric buildings are more efficient.** Due to rapid gains in the efficiency of electric appliances, they can reduce energy use compared to the best gas burning appliances. For example, according to the California Energy Commission, a modern high efficiency heat pump electric water heater (available now at major retailers) costs roughly one third less on utility bills to operate than the most efficient gas water heater.[13]

We recommend that PCE move ahead with the three building electrification programs under discussion as quickly as possible and at the latest by the end of this year, with a minimum budgetary allocation of $5 million across the three programs. PCE has already made significant investments in other important climate and community programs (at least $12 million for EV charging infrastructure and $10 million on Resilience), while less than $1 million has been invested in building electrification (e.g. reach codes & small pilot projects). Since heating systems alone can last for 30 years or longer, it is imperative to break the cycle of fossil fuel dependency with electric equipment when HVAC or fossil gas appliances need to be replaced. Electric replacements, however, are unlikely to become a popular, mainstream choice without significant investment in technical assistance and incentives to develop the market and educate consumers.

Although the COVID-19 emergency has led to budgetary concerns for everyone, as well as uncertainty and likely increases of the PCIA (“exit fees”) for PCE, fortunately the financial outlook for PCE is very strong with the recent BBB+ rating. Further, the Proposal from PG&E to allocate GHG-free power

resources (surplus power from existing facilities) that was approved in January should save PCE up to $8 million. These funds are critically needed for building electrification programs.

The ***Low-income Turnkey Electrification & Healthy Homes*** concept under discussion is a top priority due to the equity issues and the need to bring the health and financial benefits of replacing polluting gas appliances to everyone in San Mateo County. We look forward to assisting PCE in outreach and support for this program.

The planned ***Heat Pump Water Heater Program, enhancing the current regional BayREN "Home Plus" program*** is essential because the $1,000 rebate of the current Home Plus program is not adequate to cover the additional costs of installing electric heat pump water heaters. Other jurisdictions provide more funding, including, for example San Jose, which provides from $2,000 to $6,000 rebates for heat pump water heaters (with higher rebates for low-income customers and where electrical panel upgrades are required).[14] As these important incentive programs progress and more contractors become proficient at installing heat pump water heaters, we expect the costs to come down so that the rebate programs can be gradually phased out.

We also strongly support the ***new technology pilot program for integrated space and water heating with a single unit.*** This is an important innovation that, with PCE's support, can significantly advance the market readiness and mainstream potential of a new technology that can reduce the cost of electrification. This technology can also play a role in shifting peak energy use to better manage electric loads.

There are two other time-sensitive building electrification concepts that are best accomplished now, while businesses are shut down. It has come to our attention that ***SVCE will be initiating contractor trainings online*** during the shelter-in-place to improve their understanding and proficiency with electric heat pump products. We encourage PCE to partner with SVCE on this effort. In addition, we urge PCE to consider a ***fast-action program to help businesses and institutions replace aging gas heating and appliances with electricity*** and make efficiency improvements while they are closed to the public.

Thank you for considering our comments. We would be pleased to provide additional information or respond to any questions that might arise.

Sincerely,
Sven Thesen, Founder & CEO ProjectGreenHome.org & BeniSolSolar.com
Karen Warner Nelson, Chair Climate Reality Project: Santa Clara County
Ellyn Dooley, Citizens' Climate Lobby, San Mateo County
Raymond Larios, San Mateo County
Zoë Wong-VanHaren, Menlo Spark intern and Palo Alto High School student
Terry Nagel, Chair, Sustainable San Mateo County, & Board Member, Citizens Environmental Council of Burlingame
Logan Spalding, Americorps Beneficial Electrification Fellow at Acterra
Carol Cross, Fossil Free Mid-Peninsula
Debbie Mytels, Peninsula Interfaith Climate Action
Janelle London, Coltura
Linda Hutchins-Knowles, Co-founder, Mothers Out Front South Bay
Steve Schmidt, CFSV Board Member
Barbara Fukumoto, Sunnyvale Cool

Gary Latshaw, Chair of the Guadalupe Regional Group - Subchapter of the Sierra Club
Hoi Poon, board members, Bay Area for Clean Environment; co-founder, Silicon Valley Youth Climate Action
Rani Fischer, 350 Sunnyvale
Bruce Naegel CFMV, CFSV, SSV
Janet Creech, CFSV Board Member
Bret Andersen, Carbon Free Palo Alto
Diane Bailey, Executive Director, Menlo Spark, CFSV Board Member

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[1] Learn more about the FFBSV Campaign and find resources at www.FossilFreeBuildings.org

[2] As discussed at the 4/9/20 Citizens Advisory Committee meeting (view the presentation here).

[3] *See for example*: The resources documenting local vulnerabilities at Climate Ready San Mateo County: https://climatereadysmc.org

[4] https://www.ipcc.ch/sr15/ *Also see*: WRI blog for a roundup of the landmark reports of 2018 & a comparison of climate impacts in a 1.5 deg.C v. 2 deg.C world: https://www.wri.org/blog/2018/12/2018-year-climate-extremes

[5] Also, a massive global bleaching event for coral reefs impacting many of the more than one billion low income people who rely on fish for most of their daily protein, and over 250 million people who depend on fisheries for their livelihoods.
See: A roundup on the latest global reports showing a worsened outlook than previously understood, including an estimated 3-5 degrees C of likely warming by the end of the century, here:
https://docs.google.com/document/d/1-LHZe9kFhLymXE7CaVZmgQTx8VEfbGKAVOSK_x4TcDo/edit?usp=sharing
This WRI blog discusses the state of international climate negotiations as of COP25 and what is required moving ahead:
https://www.wri.org/blog/2019/12/cop25-what-we-needed-what-we-got-whats-next
This NYT OpEd discusses why climate action is essential in the midst of the COVID-19 pandemic and how to integrate a climate response into the economic recovery required: https://www.nytimes.com/2020/04/15/opinion/climate-change-covid-economy.html?smid=em-share

[6] Delforge, P., and Borgeson, M. (2016). Slashing Emissions form Fossil Fuels Burned in Buildings. Natural Resources Defense Council. <https://www.nrdc.org/experts/merrian-borgeson/slashing-emissions-fossil-fuels-burned-buildings>

[7] Some cities, such as Menlo Park, report that natural gas contributes 41% of total GHG emissions, while SVCE reports a similar level. City of Menlo Park Climate Action Plan Update, 12/10/19 https://www.menlopark.org/DocumentCenter/View/23614/SS1-20191210-CC-Climate-Action-Plan-Update-Direction

[8] For example, documented in this 2018 study finding 60% higher methane (the chemical known as "natural" gas) levels than documented by U.S. EPA: https://science.sciencemag.org/content/361/6398/186
Huge amounts of methane leaking from U.S. oil fields. This new study of methane escaping from the Permian found roughly 3.7% leaking, where many experts believe that gas is more damaging to climate than coal if the methane emission rate is greater than 2.7%.
A new Stanford study finds that methane leaks from gas water heaters are three times higher than previously understood.

[9] Joseph, George. "30 Years of Oil and Gas Pipeline Accidents, Mapped." Citylab. November 30, 2016
Sellers, F., Weintraub, K. and Wootson, C. (2018). "Thousands of residents still out of their homes after gas explosions trigger deadly chaos in Massachusetts." Washington Post. https://www.washingtonpost.com/national/thousands-of-residents-still-out-of-their-homes-after-gas-explosions-trigger-deadly-chaos-in-massachusetts/2018/09/14/802ff690-b830-11e8-94eb-3bd52dfe917b_story.html

[10] Los Angeles in 1994 and San Francisco in 1989, according to the California Seismic Safety Commission. (2002). "Improving Natural Gas Safety in Earthquakes." SSC-02-03
Taylor, Ann. "The Northridge Earthquake: 20 Years Ago Today." The Atlantic. January 17, 2014.

[11] Utah Dept. of Environmental Quality. (2018). "Understanding Utah's Air Quality":
https://deq.utah.gov/communication/news/featured/understanding-utahs-air-quality
Jarvis et al. (1996) "Evaluation of asthma prescription measures and health system performance based on emergency department utilization." https://www.ncbi.nlm.nih.gov/pubmed/8618483

[12] USDN, Methane Math, https://sfenvironment.org/sites/default/files/fliers/files/methane-math_natural-gas-report_final.pdf

[13] Rider, Ken, Email correspondence, ken.rider@energy.ca.gov. March 2020.

[14] https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/electrify-san-jos