Good for the Economy.
Good for the Environment.

September 6, 2019

Councilmember Devora Davis, Chair
Transportation & Environment Committee
200 E. Santa Clara Street
San José, CA 95113

RE: 2019 Building Reach Code – SUPPORT

Dear Councilmember Davis and Committee Members:

On behalf of E2 (Environmental Entrepreneurs) and our more than 2,400 members and supporters in California—including more than 30 who live and work in San José—I am writing in support of a strong building reach code,[1] which will set more robust standards for new construction related to energy efficiency, electric vehicle (EV) charging infrastructure, solar-readiness, and building electrification. A strong reach code is critical to achieving the goals laid out in Climate Smart San José, passed unanimously by the City Council last year. It also represents an enormous opportunity for the city to invest in a sustainable, affordable future for its citizens and businesses alike and take a leadership role in building decarbonization; strong reach codes will establish San Jose as a cleantech leader as it continues to grow its local clean energy economy.

E2 is a national, nonpartisan group of business leaders, investors, and professionals from every sector of the economy who advocate for smart policies that are good for the economy and good for the environment. Our members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and manage more than $100 billion in venture and private equity capital.

As you know, the 2019 California Building Code will take effect on January 1, 2020, increasing the minimum levels of efficiency required for building design and construction across the state. The reach code is San José's opportunity to extend beyond the statewide requirements. It will ensure the city maintains its pole position in rooftop solar deployment and EV adoption while creating the city's homes, apartments, stores, and offices of the future—buildings with lower construction costs, smaller carbon footprints, and cheaper utility bills.

The promise of savings resulting from implementation of a strong reach code is real. Constructing an all-electric building avoids the costly trenching, plumbing and combustion safety expenses necessary with gas infrastructure, lowering capital costs for developers. And as all-electric buildings become standard practice, design and construction costs will decrease. As California advances towards a zero-carbon future and the costs of renewable energy continues to drop, all-electric building owners and renters will enjoy savings on their utility bills as well. These savings resulting from investment in all-electric buildings will be further amplified with

[1] http://www.sanjoseca.gov/index.aspx?NID=6357

the cost of natural gas expected to increase rapidly in the coming years, according to a draft study commission by the California Energy Commission.[2]

A strong reach code is also about bolstering San José's clean energy economy. With more than 52,500 clean energy jobs, Santa Clara County already boasts one of the highest per capita rates of clean energy jobs in the state by county, according to E2's Clean Jobs California[3] report. This is due in no small part to San José's leadership on sustainability and clean energy—the city is third in the nation in per capita solar rooftop installations and owns the highest share of EV sales in the U.S.

With a strong reach code, San José can accelerate this success story. Strong reach codes will develop San Jose's cleantech market and lead to local job growth. All-electric buildings and higher efficiency targets for mixed fuel buildings mean more energy efficiency experts and installers in San José. Solar-ready rooftops means more solar photovoltaic installers in San José. More EV charging infrastructure means more EV charging infrastructure technicians in San José. All this adds up to more local clean energy jobs and investment in San José and Santa Clara County.

If there's any question about the economic benefits of all-electric buildings, look to Adobe. The company is expanding its global headquarters in downtown with an all-electric tower slated for completion in 2022. While Adobe rightfully touts this project as a commitment to reduce its environmental footprint and mitigate climate change, it's clear the company also knows all-electric buildings are a good investment: over its lifetime, Adobe's building will reduce costs and help their bottom line.

The opportunity is clear. A strong reach code is San José's chance to lead the effort to decarbonize our cities and reap the economic benefits of that leadership. But with Berkeley and San Luis Obispo already passing strong zero-emission new construction reach codes and several other cities in California slated to vote on similar ordinances in the coming weeks, San José runs the risk of quickly becoming a laggard in this space.

San José's citizens and businesses rely on city leaders to implement policies that spur economic development and increase affordability. In service of these goals, the city must not tie itself to a retrograde building stock that requires costly retrofits or expensive gas. E2 and our community of business leaders call on you to support a strong reach code to avoid that fate.

We appreciate the opportunity to comment. Please contact me at if you have any questions.

Respectfully,

Zach Amittay
E2 California Advocate

[2] https://ww2.energy.ca.gov/research/notices/2019-06-06_workshop/2019-06-06_Future_of_Gas_Distribution.pdf
[3] https://www.e2.org/reports/clean-jobs-california-2019/

September 6, 2019

Transportation and Environment Committee
City Council
City of San José
200 E. Santa Clara St.
San José, CA 95113

RE: SUPPORT THE REACH CODE AND MAKE IT STRONGER (CC 19-209)

Honorable Chairperson Davis and Members of the Transportation and Environment Committee:

On behalf of the Natural Resources Defense Council (NRDC), I am writing to support the proposed Reach Code and urge further ambition as laid out in the initial draft. NRDC is an international environmental nonprofit that combines the power of more than three million members and online activists with the expertise of some 700 scientists, lawyers, and policy advocates across the globe to ensure the rights of all people to the air, the water, and the wild.

NRDC is the implementing partner of the American Cities Climate Challenge funded by Bloomberg Philanthropies. The City of San José was one of 25 cities to be awarded participation in the Climate Challenge, which provides on-the-ground capacity in the form of a climate advisor, thousands of hours of technical assistance from leading national experts, and hundreds of thousands of dollars in direct funding for local partners and technical consultants to support the City of San José's buildings, energy, and transportation initiatives. The City of San José was chosen as a winner of the Climate Challenge due to its ambitious vision and commitment to execute upon the Paris-compliant *Climate Smart San José* strategies.

The Reach Code is the first major initiative to receive Climate Challenge support. I personally have worked with the City of San José for four years on improving building energy performance, first through the City Energy Project, and now through the Climate Challenge. I have been delighted to work with the staff of the Environmental Services Department – some of the best city staff in the nation.

The proposed Reach Code aligns directly with the following *Climate Smart San José* strategies:

- Strategy 1.1: Transition to a renewable energy future
- Strategy 2.2: Make homes efficient and affordable for our residents
- Strategy 2.3: Create clean, personalized mobility choices
- Strategy 3.2: Improve our commercial building stock

We support the passage of the Reach Code. We think there is further opportunity to strengthen features of the Reach Code, and urge the Committee to consider the following areas: (1) raising the efficiency margins back up to the model code recommendations, which are still cost effective; alternatively, we would strongly support an all-electric building requirement and (2) increase the

electric vehicle capable percentage. These options are outlined in Alternatives 1 and 2 of the Staff Memo.

Moving San José toward all-electric, zero-emission buildings will reduce greenhouse gas emissions, improve resiliency during drought and heatwaves, enhance indoor and outdoor air quality, and create positive economic growth and improve public health in low-income communities.

We urge you to vote in favor of an ambitious Reach Code as outlined in Alternatives 1 or 2 of the Staff Memo.

Sincerely,

Kimi Narita
Director, Buildings and Energy, American Cities Climate Challenge
NRDC

From: Bruce Naegel
Sent: Sunday, September 08, 2019 2:11 PM
Subject: Support of the San Jose REACH code

Supporting the San Jose Reach Code

The NRDC has a team of people working on sustainability in San Jose. Their most recent effort is working on the REACH code for San Jose. Two items are enclosed:

- NRDC letter (black graphics) with logos from supporting organizations on the second page
- Staff Report on the REACH code for San Jose.

Background:

When the staff report was initially released, it supported Alternative 2 (on page 15 of the report). The version released last week supported a weaker version. The NRDC letter requests San Jose goes back to the first version as expressed in Alternative 2

Action: Please support the REACH code with Alternative 2.

Bruce Naegel
Director, Metrics and Research

Sustainable Silicon Valley

SUPPORT REACH CODES FOR BUILDINGS IN **SAN JOSÉ**

The City of San José has an opportunity to support healthier, safer, and more affordable homes and businesses, while also driving down greenhouse gas pollution. By implementing the proposed Reach Building Energy Code, San José will lead on zero-emissions new construction, all-electric new buildings powered by renewable energy, and more accessible charging for electric vehicles. Specifically, we urge San Jose to adopt the staff-recommended reach code alternative with a stronger electric-preferred incentive approach as recommended in the Staff Memo.

WHAT POLICIES ARE INCLUDED IN THE PROPOSED REACH CODE?

San José's proposed Reach Code builds on the 2019 California Building Standards Code requirements for energy efficiency and includes the following components for new construction (not for retrofits or additions):

1. Incentivizes construction of all-electric zero-emission buildings by requiring buildings that still use gas to be more energy-efficient and ready to become all-electric.
2. Requires additional electric vehicle (EV) charging infrastructure across all building sectors and types to help meet the demand of San José's EV market, which is the largest EV market in the nation.
3. Requires all buildings to be solar-ready by including capacity for potential future solar installations.

Electrifying buildings and installing EV and solar infrastructure during initial construction is more efficient and saves thousands of dollars compared with retrofitting a building to include these features after construction.

The proposed Reach Code was developed after an extensive stakeholder engagement process and input from multiple agencies, departments, over 60 external stakeholders, and 200 Neighborhood Associations. The proposed Reach Code provides a thoughtful, flexible, and comprehensive approach to the transition to clean power with all-electric, zero-emission new buildings in San José.

HOW DOES THE PROPOSED REACH CODE SUPPORT HOUSING AFFORDABILITY AND ECONOMIC DEVELOPMENT IN SAN JOSÉ?

The Reach Code will incentivize developers to construct all-electric buildings in San José, which are cheaper to build and operate. This means San José residents and businesses will enjoy more affordable homes and rental prices. Further, the Reach Code will help protect San José residents and businesses from rapid increases in the price of natural gas by avoiding that fossil fuel to power heating and hot water in buildings.

HELP MAKE SAN JOSÉ CLIMATE SMART

In February 2018, the San José City Council unanimously approved *Climate Smart San José*, one of the first Paris-compliant climate action plans in the nation. The proposed Reach Code will prevent the emission of nearly 900,000 tons of CO_2 over the next 50 years, equivalent to 1.7 trillion car miles. The proposed Reach Code will support the goals of the following *Climate Smart San José* strategies:

- Strategy 1.1: Transition to a renewable energy future
- Strategy 2.2: Make homes efficient and affordable for our residents
- Strategy 2.3: Create clean, personalized mobility choices
- Strategy 3.2: Improve our commercial building stock

Moving San José toward all-electric, zero-emission buildings will reduce greenhouse gas emissions, improve resiliency during droughts and heatwaves, enhance indoor and outdoor air quality, and create positive economic growth and improve public health in low-income communities.

For more information, please contact **Maria Stamas** at the Natural Resources Defense Council at **mstamas@nrdc.org**.

SUPPORTERS OF THE REACH CODE INCLUDE:

NRDC ACTION FUND

ANN V EDMINSTER DESIGN AVEnues LLC

ASSOCIATION FOR ENERGY AFFORDABILITY INC

E2 Good for the Economy. Good for the Environment.

EARTHJUSTICE BECAUSE THE EARTH NEEDS A GOOD LAWYER

FFBSV

ehdd.

SIERRA CLUB

T & E AGENDA: 09/09/19
ITEM: d(3)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
Rosalynn Hughey

SUBJECT: BUILDING REACH CODE FOR NEW CONSTRUCTION

DATE: August 21, 2019

Approved

Date 8-30-19

RECOMMENDATION

Accept the report and refer to the full City Council on September 17 for consideration of:

1. Approval of an Ordinance amending various sections of Title 24 (Technical Codes) to adopt Provisions of the 2019 California Green Building Standards and California Building Energy Efficiency Standards with certain exceptions, modifications, and additions which serve as a reach code to increase building efficiency, mandate solar readiness, and increase requirements related to electric vehicle charging stations; and
2. Acceptance of findings related to local modifications based upon local geographical, topographical, and climatic conditions and cost effectiveness; and
3. Authorization for the City Manager to submit a reach code submittal package to the California Energy Commission for its approval as required by law.

OUTCOME

City Council approval of a San José Reach Code Ordinance for new construction will further community-wide progress on meeting the goals of the following Climate Smart San José strategies:

- Strategy 1.1: Transition to a renewable energy future
- Strategy 2.2: Make homes efficient and affordable for our residents
- Strategy 2.3: Create clean, personalized mobility choices
- Strategy 3.2: Improve our commercial building stock

EXECUTIVE SUMMARY

The effects of climate change are devastating and increasing. To do its part to reduce greenhouse gas emissions and address climate change, the City adopted Climate Smart San José ("Climate Smart") which sets aggressive goals around electric vehicle (EV) adoption, solar installation, and zero net energy/carbon (ZNE/ZNC) buildings. The proposed reach code is designed to lower and eventually eliminate greenhouse gas (GHG) emissions from new construction.

The California Energy Commission (CEC) updates the California Building Energy Efficiency Standards every three years. The 2019 California Code will go before City Council in October 2019 for approval, with an effective date of January 1, 2020. Jurisdictions may also adopt "reach codes" that require development projects to exceed the minimum Building Energy Efficiency requirements. A proposed reach code would need to be approved by City Council in September 2019 in order to submit to the CEC in time for an effective date of January 1, 2020, corresponding with the effective date of the new 2019 California Code.

As part of its American Cities Climate Challenge (ACCC) commitment, the City agreed to pursue adoption of a "reach code" for new residential and commercial construction, aligned with Climate Smart goals. To this end, the Environmental Services Department (ESD) and Planning, Buildings and Code Enforcement (PBCE) Departments co-led the development of the proposed reach code with the New Buildings Institute (NBI), a technical partner that specializes in building codes and ZNE buildings. Staff reached out to over 250 stakeholders and conducted seven public meetings and several individual meetings to get community and developer input on a potential reach code. Several considerations influenced the scope of the proposed reach code including: input from various City departments; input from external stakeholders; impact on GHG emissions; the economic impact on development projects; regional reach code efforts; and alignment with the State's longer term decarbonization efforts.

The proposed reach code will apply only to new residential and non-residential construction in San José. It incentivizes all-electric construction, a cost-effective construction option for all building types. It also requires increased energy efficiency and electrification-readiness for those choosing to maintain the presence of natural gas, a fossil fuel and powerful GHG, and construct mixed-fuel buildings. It requires that non-residential construction include solar readiness. It also requires additional EV charging readiness and/or electric vehicle service equipment (EVSE) installation for all development types.

The reach code will provide many benefits including: significant GHG emissions reductions; financial benefits related to lower cost electric construction, facilitate the transition to EVs, and avoidance of significant EV charging retrofit costs; and public health benefits by reducing both indoor and outdoor air pollution. All of these benefits are specifically pertinent to San José's low-income communities, which are inordinately impacted by the negative environmental and financial impacts associated with natural gas in buildings and gasoline-powered vehicles.

BACKGROUND

The climate challenges of this century directly affect the quality of life of all residents in San José. Over the past two years, across California, the United States, and worldwide, there have been more frequent and disruptive flooding events, degraded air quality from massive wildfires, and record-breaking extreme heat events. San José has been no stranger to such occurrences. Coyote Creek flooded in February 2017, affecting adjacent neighborhoods and causing an estimated $73 million in property damage to San José homes and businesses, and forcing 14,000 residents to evacuate, some even by boat[1]. Flooding and displaced residents, particularly in coastal zones, may also become a familiar site, according to a new study that declared tens of thousands of Bay Area homes are at risk of flooding from rising sea levels by 2050[2]. This summer, the world experienced the hottest month (July 2019) ever recorded in human history[3]. Furthermore, the Bay Area experienced a record heat wave first in June 2019[4] and then again in July 2019[5], a trend that seems to be exacerbating rather than diminishing, considering that 2018 was previously dubbed the hottest year on record worldwide[6]. San José has been impacted by these events which affect the health of residents and visitors, the safety of neighborhoods, the success of businesses and institutions, and the viability of local plants and wildlife.

In response to the experienced and potential impacts of climate change, the City of San José was one of the first U.S. cities to adopt a Paris Climate Agreement-aligned climate action plan, Climate Smart San José. Approved by City Council in February 2018, Climate Smart includes the following goals and milestones to ensure the City can reduce GHG emissions on target:

- All new residential (by 2020) and commercial (by 2030) buildings as ZNE[i,7], in alignment with the State of California's ambitious ZNE goals[8].
- 100 percent carbon-free base power from San José Clean Energy (SJCE) by 2021.
- 1 GW of solar installed in San José by 2040.
- 61 percent of passenger vehicles are EVs by 2030.
- Reimagining the "Good Life 2.0," that harnesses the benefits of sustainable actions and improves our quality of life.

In 2018, the California Legislature passed Senate Bill 1477 with strong support from the City. SB 1477 authorizes $50 million in Cap and Trade funds for two pilot programs, the Building Initiative for Low Emission Development (BUILD) and Technology and Equipment for Clean Heating (TECH) programs, which will enable California to lead the way toward decarbonization of new and existing building stock. The California Public Utilities Commission is currently in proceedings to establish the parameters for providing this funding throughout California.

The CEC updates the California Building Energy Efficiency Standards every three years, in alignment with the California Code of regulations. Title 24 Parts 6 and 11 of the California Building Energy Efficiency Standards and the California Green Building Standards Code

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[i] As defined in Climate Smart, a ZNE building is one which is zero net carbon emissions, meaning that it would need to be all-electric with a clean energy source (i.e. via the grid and/or on-site renewable energy).

(CALGreen) address the need for regulations to improve energy efficiency and combat climate change.

California State law and the Building Energy Efficiency Standards require new construction to meet certain energy efficiency and renewable energy criteria which is documented in the Building Code. There are two pathways, prescriptive and performance set forth in Section 100.0(e)2 of Part 6, to demonstrate compliance with the Building Code. The prescriptive path relies on employing specific measures to achieve compliance whereas the performance pathway is based on an energy budget allowance.

The California Building Energy Efficiency Standards apply to "residential" and "non-residential" building types. The residential category covers low-rise residential buildings with three or fewer habitable stories. The non-residential category covers all non-residential occupancies, as well as hotels/motels and high-rise residential buildings with four or more habitable stories. The 2019 California Building Energy Efficiency Standards includes some substantive changes to increase the energy efficiency of buildings and encourage the installation of solar and heat pump water heaters in low-rise residential buildings. PBCE staff will separately present the 2019 California Codes, with any related amendments, for Council adoption in October 2019 in order to allow for a January 1, 2020 implementation date.

Jurisdictions also have the authority to adopt "reach codes" that require development projects to exceed minimum requirements established in the 2019 California Energy Code's Building Energy Efficiency Standards (Title 24, Part 6). In order to be approved by the CEC, a reach code must: 1) be at least as stringent as the statewide code; 2) be cost effective as defined by standards set by the CEC; 3) be submitted to and approved by the CEC; and 4) not preempt federal appliance regulations.

Nineteen cities, including eight in the Bay Area (e.g. San Francisco, Oakland, and Fremont), adopted reach codes in the current (2016) code cycle to encourage or require building electrification, increased building energy efficiency, the installation of electric vehicle infrastructure (EVCI), and/or solar installation. According to the CEC, over 50 cities are considering reach codes, with a focus on encouraging or requiring building and transportation electrification, for implementation in the 2019 building code cycle. In the Bay Area alone, more than 45 jurisdictions are pursuing a reach code including eight in Alameda County, 19 in San Mateo County, 14 in Santa Clara County, the City and County of San Francisco, and five in Sonoma County. Many cities, including San José, have been coordinating to support and encourage consistency of reach codes, particularly among those located in the same geographic area.

At the February 26, 2019 City Council meeting, City Council approved the City's scope of work in its ACCC memorandum of understanding, which included a support package of in-kind services valued at $2.5 million over a two-year period concluding at the end of 2020. As part of its ACCC commitment, the City agreed to pursue adoption of a reach code for EV and solar-readiness in new residential and commercial construction, aligned with Climate Smart goals. In

order to advance this initiative, the City has partnered with the NBI through the ACCC to facilitate the reach code development process, including stakeholder engagement.

In May 2019, staff included an update on the City's reach code initiative at the Transportation and Environment (T&E) Committee meeting (May 6, 2019) and a City Council meeting (May 21, 2019) as part of the Climate Smart semi-annual update. In addition, ESD and PBCE staff presented an update on the reach code work completed to-date at the June 24, 2019 Community and Economic Development Committee meeting.

ANALYSIS

There are several factors influencing: 1) whether San José should adopt a reach code, 2) what San José's reach code should consist of, and 3) when San José should adopt a reach code. The following sections provide context informing staff's proposed reach code.

Greenhouse Gas Emissions Reduction Benefits

One of the reasons why moving away from natural gas would have such a large impact on greenhouse gas emissions in San José is because natural gas is made up primarily of methane, a super pollutant that is 84 times more effective at trapping heat in the atmosphere than CO_2 over the short term[9].

In order to further San José's Climate Smart GHG reduction goals, new construction in San José will need to be designed to exceed the requirements of the 2019 Building Energy Efficiency Standards and CALGreen Building Standards. Based on the City's latest five-year development forecast[10], San José can conservatively expect approximately 350 single-family new residences, 2,400 new multi-family residences, and 2.4 million additional square feet of commercial/industrial construction per year over the next three years. If these buildings use natural gas, an estimated increase of 897,000 tons of greenhouse gas emissions would result over the expected life of the buildings (50 years for residential and 50 years for commercial). This equates to almost 300,000 Metric Tons of CO_2 emissions per year, equivalent to 1.7 trillion car miles[11], as shown in Table 1 below.

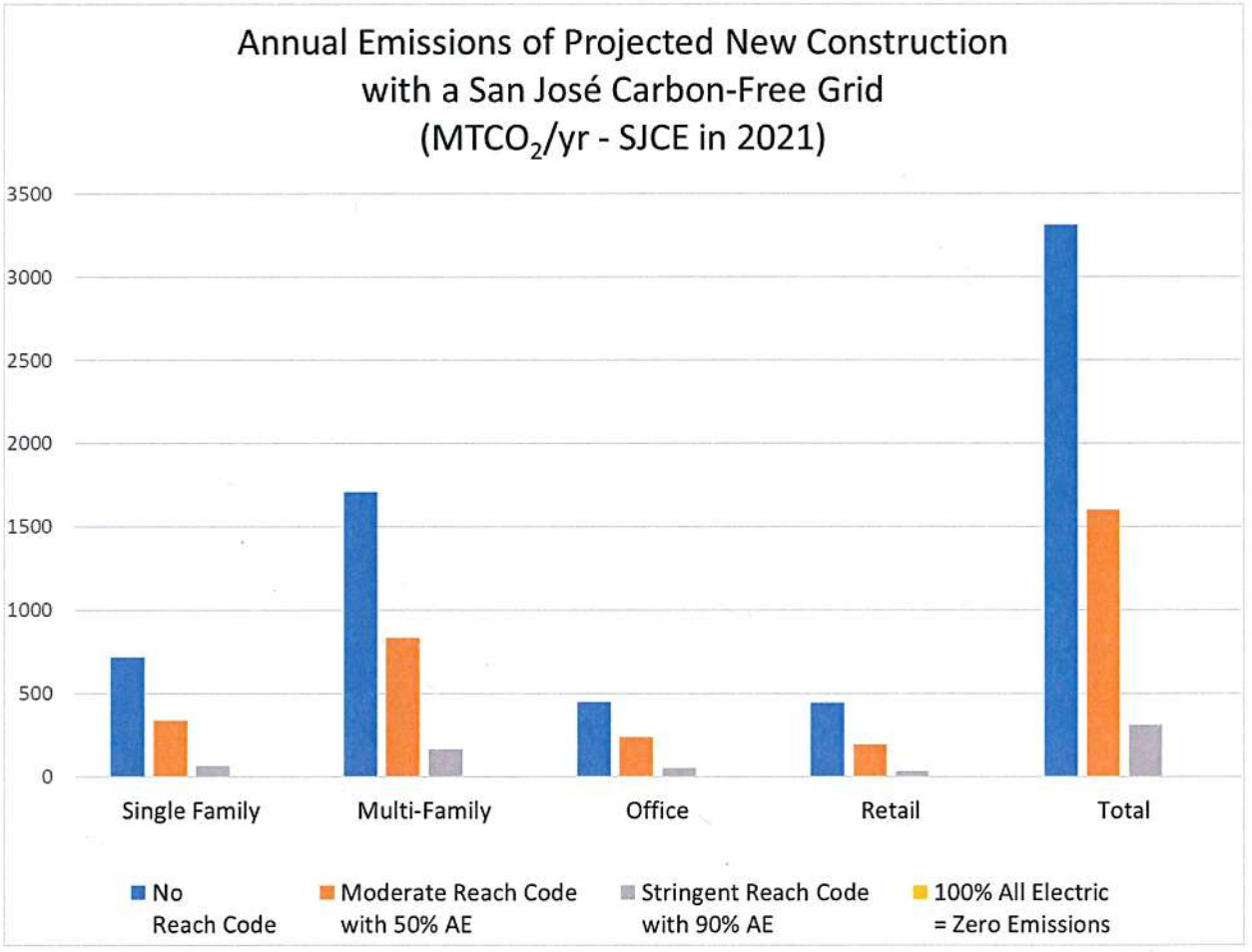
Table 1. Projected New Construction Development in San José and CO_2 Impact[10]

Building Type	Sq. Ft.	CO_2/Yr.	x	Units/Yr.	x	Years in service	Total tons of CO_2
Single-Family	2,700	2 tons	x	350	x	50	105,000 tons
Multi-Family	1,000	1 ton	x	2400	x	50	360,000 tons
Commercial/ Industrial	100,000	120 tons	x	24	x	50	432,000 tons
						Total CO_2:	**897,000 tons**

Graph 1 compares the potential GHG emissions offset by San José's proposed reach code when compared with the Title 24 Base Code (based on the development forecast as shown in Table 1).

The graph looks at the emissions impact for each building category for mixed fuel and all-electric buildings. It is important to note that this graph assumes 100 percent of electricity is carbon neutral and begins in 2021, in accordance with SJCE's scheduled delivery plans. The emissions offset by mixed fuel buildings come from increased efficiency requirements as required by the reach code. The graph shows emissions if no reach code is implemented (blue), if 50 percent (orange) and 90 percent (gray) of all new construction is all-electric. Emissions from all-electric buildings are zero or negligible and therefore are not shown. The emissions impact of the proposed reach code will largely depend on how much it incentivizes all-electric new construction, but it is estimated that staff's recommendation will reduce emissions from new construction to at least 1,500 $MTCO_2$/year.

Graph 1: Carbon Impact from Reach Code in Mixed Fuel vs All-Electric New Construction[12]



Based on the City and State goals to reduce GHG emissions, electrification retrofits will be necessary and ultimately required for existing buildings. Addressing electrification now in new buildings avoids hardships and retrofit costs for building owners in the future and acknowledges the GHG impacts of taking no action, particularly considering the benefits of building and

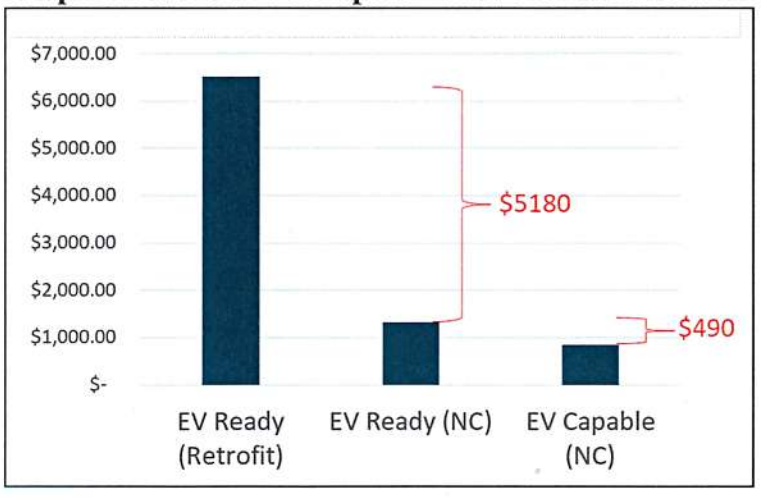
transportation electrification when paired with carbon-free electricity that will be provided by SJCE.

Promoting EV adoption and solar infrastructure represents further opportunity to reduce GHGs. Since EVs are powered by electricity, they have the potential for zero tailpipe emissions and, therefore, represent a significant potential to reduce GHGs in San José. SJCE purchases renewable energy from sources such as solar and wind, helping reduce GHG emissions dramatically from the electricity sector and reduce energy costs for consumers. Solar heating and cooling systems can provide about 80 percent of the energy used for space heating and water heating needs[13], as well as provide clean emissions-free energy sources to charge EVs.

Financial Benefits

Adding additional amenities (e.g. conduit, wiring, breaker space) to accommodate building electrification or Electric Vehicle Charging Infrastructure (EVCI) during initial construction is more efficient and significantly more cost effective than retrofitting a building after it is constructed. There are three different levels of EVCI: 1) EV Capable: a parking space with conduit sized for a 40-amp, 208/240 Volt dedicated branch circuit and sufficient physical space on the service panel, 2) EV Ready (full circuit): a space with conduit and wiring for a 40-amp, 208/240 Volt circuit, electrical service capacity, and outlet, 3) Electric Vehicle Service Equipment (EVSE): a parking space with electric vehicle supply equipment capable of supplying current at 40amps at 208/240 volts. The amount of EVCI needed in each building will depend primarily on the type of building and occupant use. The importance of adding the right level of EVCI at the time of new construction is critical. The Graph 2 shows the EVCI cost differences in new construction (NC) versus building retrofits for EV Ready (essentially plug and play) and EV Capable (conduit and breaker space only) parking spaces. One of the reasons why requiring electrification-ready spaces at the time of new construction is so important is because the retrofit cost is often a barrier to installing EVSE.

Graph 2. Cost of EVCI/ Space – New Construction versus Retrofit[14]



Providing EVCI encourages the uptake of EVs and EVs offer owners a lower operating cost versus standard vehicles, which is particularly significant to our lower-income communities as detailed in the following section.

Benefits to Low-Income Communities

Promoting electrification of buildings and EV charging access is expected to have positive economic and health-related effects on low-income communities. A recent study by U.S. Environmental Protection Agency (EPA) scientists shows that low-income communities, particularly those of color, are disproportionately affected by air pollution[15]. It is therefore imperative that clean fuel options (i.e., electric) are incorporated into San José's low-income community housing to promote the reduction of indoor and outdoor air pollution.

EV charging can be perceived by some as incongruent with low-income housing needs, however recent studies suggest otherwise. EVs are becoming more affordable to purchase and their fuel costs are considerably lower than fossil fuel powered vehicles. While price point has traditionally been a barrier for low-income communities to purchase EVs or hybrids, recent market research suggests that prices are falling at a dramatic rate due to lowering battery costs and government rebate programs[16]. According to a recent CB Insights Report, the general industry consensus is that EVs will reach price analogy with fossil fuel vehicles within the next decade, possibly as soon as 2021[17]. Further lowering upfront costs, the California Clean Vehicle Rebate Project offers rebates of up to $4,500, with additional rebates for low-income buyers, for the purchase or lease of new, eligible battery electric vehicles[18]. In terms of operational costs, compared with $2,550 per year for similar fossil fuel vehicles[19], an EV will save the average user an estimated $10,000 in fuel costs over the course of 10 years at current fuel and SJCE utility rates. For these reasons, EV charging access, which would be facilitated by the proposed reach code, is therefore just as relevant if not more critical to low-income housing projects as market-based or commercial projects.

Public Health Benefits

Moving toward all-electric buildings will result in reduced GHG emissions and better indoor and outdoor air quality. When emissions from natural gas are compared with those from PG&E's electricity fuel mix, emissions from natural gas are almost double.

Another concern with using natural gas as a fuel source involves leaks associated with transmission. Since the majority of natural gas (84 percent) used in California is imported from other states and Canada, interstate pipelines must be operated in order to deliver natural gas to California[20]. The EPA currently estimates the national methane leakage rate to be 1.4 percent[21]. However, a study conducted by the Environmental Defense Fund shows the methane leakage rate at 2.3 percent[22]. Recent studies exposing the leaks coming from the State's natural gas pipelines predict emissions to be a lot higher, about double, when accounting for the leaks[23].

In recent years, issues over natural gas safety have caused growing concern. In 2010, an underground gas pipe explosion killed eight people and destroyed or damaged more than 100 homes in San Bruno, California. The largest natural gas leak in U.S. history occurred just a few

years ago in Southern California at the SoCalGas Aliso Canyon Gas Storage Facility site. Between 2015 and 2016, a natural gas leak at Aliso Canyon was responsible for approximately 100,000 MT of methane and forced the evacuation of more than 8,300 households for more than 100 days[24].

Statewide Cost Effectiveness Study

The California Statewide Codes and Standards Program completed cost effectiveness residential[25] and non-residential studies[26] for use statewide in the current building code adoption cycle to justify the cost effectiveness of certain types of reach codes for new construction. Jurisdictions may also develop additional cost effectiveness studies, if needed, to proceed with their specific reach code. San José's proposal is based on data in the existing studies, so additional studies were not needed. EVCI requirements going beyond building code do not need a cost effectiveness study or separate CEC approval since they are not directly related to a building's energy efficiency.

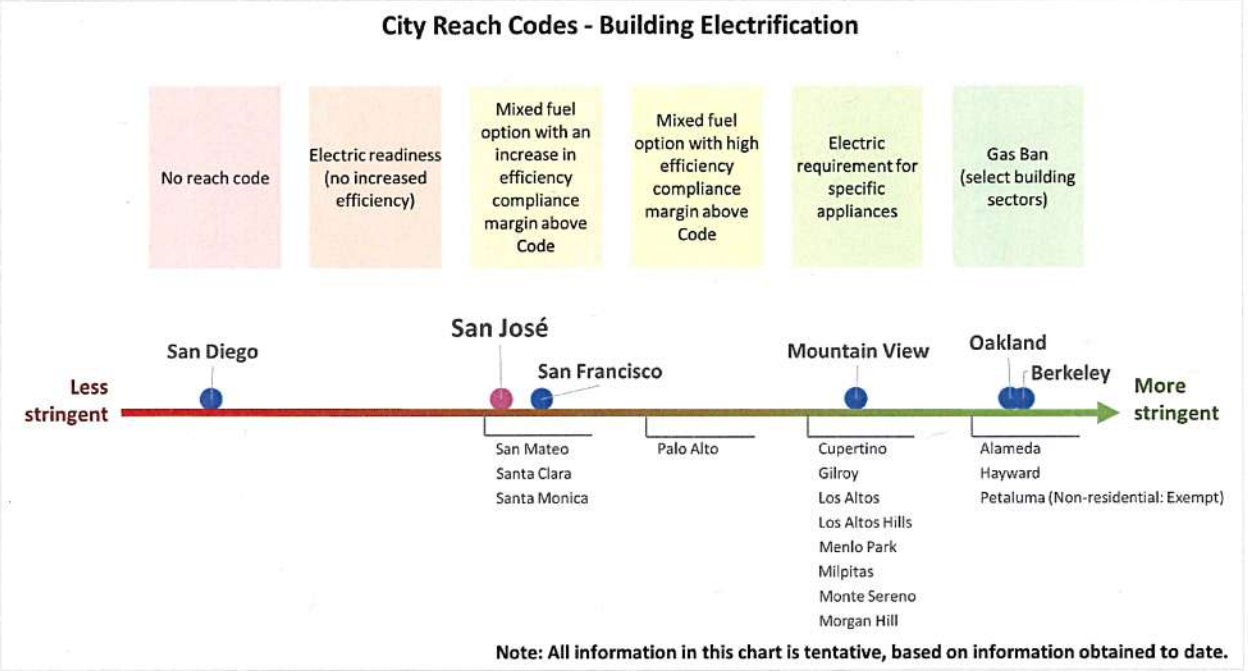
Regional Reach Code Efforts

Current regional reach code efforts are generally focused on both residential and non-residential new construction and EVCI, and incentivize or require:

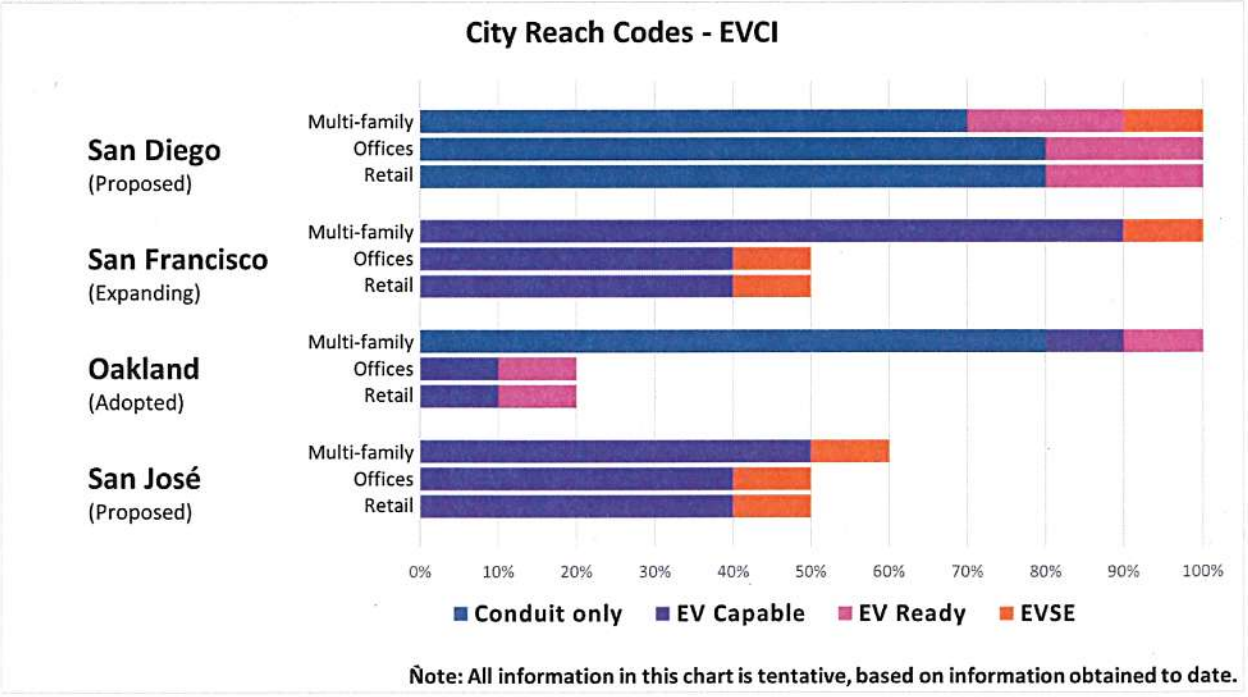
1. All-electric buildings for new construction; or
1. Mixed fuel (i.e. natural gas and electric) buildings, when allowed, go above building energy code (up to maximum limits set by existing cost effectiveness studies) and include electrification readiness in order to incentivize all-electric buildings; and
2. Additional EVCI requirements for all building types to further and prepare for current and anticipated future EV uptake.

While it is important to consider San José's unique building development characteristics, there is also a clear benefit on both the City implementation and development customer side to align as much as possible with regional reach codes for consistency. The proposed San José reach code built off of the draft reach code language released by regional partners representing jurisdictions in the rest of Santa Clara County and in San Mateo County[27]. City staff also communicated with other California jurisdictions outside of the region to vet reach code options. Regional collaboration offers local municipalities the opportunity to collectively encourage building electrification that will be similarly implemented across Silicon Valley and/or the State, therefore reducing the risk of competitive disadvantage between municipalities. For reference, Attachment A explains the components and shows the current known status of reach codes planned or under consideration in the 2019 building code cycle by a variety of California jurisdictions. Based on the information that City staff has been able to obtain to-date, Image 1 and Graph 3 below provides visual summaries of the level of San Jose's proposed building and EVCI reach code requirements versus other California cities.

Image 1. San José Proposed Building Reach Code Requirements versus Other California Cities



Graph 3. San José Proposed EVCI Reach Code Requirements versus Other California Cities



Stakeholder Input

Throughout the reach code development process, PBCE and the ESD staff informed and coordinated with other City departments including the Departments of Community Energy, Housing, Public Works, San José Mineta International Airport, Department of Transportation, and the Office of Economic Development. With the assistance of various City departments, City staff developed a stakeholder engagement list including:

- Over 65 stakeholders, including developers, contractors, environmental and transportation or energy non-profits, industry organizations, business associations, realtor organizations, labor groups, technical experts, educational groups, EV and solar companies, construction management and engineering firms, and utilities.
- More than 200 Neighborhood Associations for all ten City Council Districts.

Reach code stakeholder engagement activities included:

- Four stakeholder engagement workshops covering:
  - Introduction to San José 's reach code development process (May 29, 2019)
  - New non-residential construction focus (June 4, 2019)
  - New residential construction focus (June 25, 2019)
  - Final input on draft reach code language (July 10, 2019), with an extended public comment period through July 23, 2019.
- Presentation at the Silicon Valley Organization Housing & Development Policy Committee meeting (June 13, 2019)
- Presentation at the City's Developers and Construction Roundtable (June 21, 2019)
- Presentation to the City's Community and Economic Development Subcommittee (June 24, 2019)
- Individual meetings, as requested, with organizations representing the affordable housing and market-rate development community
- City Reach Code webpage (www.sanjoseca.gov/reachcode) to keep the public informed about the City's reach code development process and timeline, including key meeting dates, agendas and content for stakeholder meetings, and draft reach code language.

Cost Concerns

The primary concern raised by external stakeholders and other City departments is whether there is a cost increase to build and/or operate all-electric buildings. According to the statewide cost effectiveness studies, all-electric buildings offer savings on "first" construction cost for all building types when compared to mixed fuel buildings. Table 2 shows the first, annual utility, and life-cycle costs for all-electric buildings and mixed fuel buildings under a reach code compared to base code, and demonstrates that beyond the costs inherent to base code compliance, all-electric construction has no added costs for San José's proposed reach code. The cost effectiveness studies do however show an increase in the annual utility costs for all electric buildings, which is the primary reason why lifecycle costs for all electric buildings show an increase in certain building types. The life cycle costs in the table below include annual utility costs (over a 30-year period), maintenance, and the Net Present Value of building equipment. It is important to note that the costs presented below do not account for the projected change in fuel

costs for electricity and natural gas. These projections are based on the notion that a considerable amount of gas infrastructure is nearing the end of its life and will need to be replaced and/or seismically retrofitted. For example, in 2018, SoCalGas requested a rate increase from the CPUC on the cost of natural gas[28]. If approved, SoCalGas ratepayers will see an increase of 19% in 2019, 8.1% in 2020 and 6.1% in 2021, which will be used to replace existing infrastructure, increase safety and cover transportation costs. If these factors are accounted for, the LCC and annual utility costs are reduced, relative to increasing gas costs, for all electric buildings.

Table 2. Costs of Reach Code All-Electric and Mixed Fuel Buildings over 2019 Base Code[25, 26]

	Costs of a Reach Code All-Electric Building over 2019 Title 24 Base Code			Costs of a Reach Code Mixed Fuel Building[ii] over 2019 Title 24 Base Code		
	First Cost	Annual Utility	Life-Cycle	First Cost	Annual Utility	Life-Cycle
Single-family	$0/unit	$0/unit	$0/unit	+$5,434/unit	-$17.43/unit	+$4,911/unit
Low-Rise Multi-family	$0/unit	$0/unit	$0/unit	+$2,429/unit	-$9.60/unit	+$2,141/unit
Office	$0/sf	$0/sf	$0/sf	+1.24/sf	-$0.10/sf	-$1.78/sf
Retail	$0/sf	$0/sf	$0/sf	+$0.23/sf	-$0.10/sf	-$2.85/sf
Small Hotel	$0/sf	$0/sf	$0/sf	+$0.51/sf	-$0.02/sf	-$0.06/sf

Other recent studies found lower upfront and/or lifecycle costs for both residential and non-residential all-electric buildings[29] [30]. Multi-family, affordable housing, and non-residential development projects in California (including several in San José) are already building all-electric (see Attachment B for examples all-electric development projects in the Bay Area).

In terms of EVCI, increased construction costs will be incurred by requiring new construction to provide additional charging infrastructure. Table 3 provides a hypothetical scenario to illustrate how additional EVCI requirements could impact first construction costs under the proposed reach code. The costs represented in Table 3 are for a multi-family building and a commercial

[ii] Figures are based on the highest Energy Design Rating and compliance margins possible for mixed fuel buildings while still maintaining cost-effectiveness.

office building each with 100 parking spaces. The incremental costs are projected to be less than one percent of total project costs.

Table 3. EVCI Additional Construction Costs for Multi-family and Non-Residential Buildings Scenarios[12]

	Multi-family 2019 Base Code	Multi-family Reach Code	Non-Res 2019 Base Code	Non-Res Reach Code
EV Capable Spaces	0	50	0	40
EV Ready Spaces	10	0	10	0
EVSE Spaces	0	10	0	10
Total Cost of EV Capable (w/8A capacity)	$ -	$ 49,500	$ -	$ 39,600
Total Cost of EV Ready[1]	$ 13,300	$ -	$ 13,300	$ -
Total Cost of EVSE	$ -	$ 23,300	$ -	$ 23,300
Total EVCI Cost	**$ 13,300**	**$ 72,800**	**$ 13,300**	**$ 62,900**
Total Project Cost[2]		$ 23,000,000		$ 30,000,000
Incremental Cost of reach code over 2019 base code		0.26%		0.17%

1. Pike, Ed P.E., (2018, June 20). Opportunities to Support PEV Adoption, Roadmap 11, Portland, OR. Energy Solutions [PowerPoint Slides] Retrieved from http://roadmapforth.org/program/presentations18/EdPike.pdf
2. Assumed $250/sf for a 92,000 sf MF development and $300/sf for a 100,000 sf non-res development.

San José Reach Code Components

Considering stakeholder input and the various benefits that can be achieved through a reach code, San José updated the draft reach code language (see Attachment C for a redlined version).

The proposed reach code, codified in the San José Reach Code Ordinance (Attachment D), includes the following:

1. Incentivizes all-electric buildings by requiring that mixed-fuel buildings achieve a higher energy efficiency (demonstrated through a higher Energy Design Rating or compliance margin[iii]) and be electrification ready for all building types;
2. Requires additional electric vehicle charging infrastructure requirements across all building types; and
3. Requires solar readiness for non-residential buildings.

The specific components of San José's proposed reach code are summarized in Table 4.

[iii] Compliance Margin, applicable to non-residential buildings, is the percentage difference between the energy use of the proposed building project over the baseline requirement. An Energy Design Rating, applicable to low-rise residential projects, is a way to express the energy consumption of a building as a rating score index from 1-100 wherein a score of 0 represents a building that has zero energy consumption.

Table 4. Proposed Reach Code Components

	Proposed Reach Code Compliance Pathways	
Occupancy Type	**All-Electric***	**Mixed Fuel***
Single-family & Low-Rise Multi-family	**Efficiency:** To code	**Efficiency:** Energy Design Rating ≤10, electrification-ready
High-rise Multi-family & Hotel	**Efficiency:** To code **EVCI:** Same as mixed fuel	**Efficiency:** 5% (compliance margin), electrification-ready **EVCI:** 10% EVSE, 50% EV Capable
Non-Residential	**Efficiency:** To code **EVCI:** Same as mixed fuel	**Efficiency:** 10% office/retail, 0% industrial/manufacturing, 5% all other occupancies, electrification-ready **EVCI:** 10% EVSE, 40% EV Capable

*Solar-readiness required for all buildings.

Both the mixed fuel building and EVCI requirements were reduced in response to concerns raised by other City departments and external stakeholders around construction costs. A comparison of the proposed components versus the draft components is included in Attachment E.

Reach Code Implementation

City staff intended for the reach code implementation timing to be aligned with the City's implementation of the 2019 California Code, which will go into effect on January 1, 2020. Due to the CEC's review and approval period for a reach code, the ordinance for the San José Reach Code should be approved by City Council and submitted to the CEC no later than September 2019, in order to align with the January 1, 2020 implementation date.

This implementation timing will allow for:

1. Simultaneous implementation of the updated California Code and the reach code requirements, streamlining the process for both City staff and for those submitting development projects;
2. An efficient process that maximizes the implementation period of the reach code since a reach code needs to be re-approved with each code update;
3. Maximization of the impact of the reach code by ensuring it applies to development in San José as soon as possible; and
4. City fulfillment of its commitment to the ACCC and furtherance of its Climate Smart goals.

Next Steps
Pending City Council approval of the proposed reach code, the reach code would be implemented with existing staff and resources with the following next steps:

1. Submit reach code to the CEC for review and approval.
2. File the CEC-approved reach code with the California Buildings Standards Commission.
3. Work with NBI and regional cities to develop implementation resources, such as trainings and checklists, for City staff.
4. Implement San José 's reach code starting January 1, 2020.
5. Continue to provide building and transportation electrification educational opportunities to both City staff and the public.
6. Pursue funding opportunities to incentivize all-electric buildings and transportation in San José, such as the SB 1477 BUILD program funding for decarbonization efforts in new construction.
7. Collect and document data on the reach code impact to consider for future reach code updates

EVALUATION AND FOLLOW-UP

Staff will provide progress updates to T&E Committee and City Council on Climate Smart San José activities, including the reach code, on a semi-annual basis.

POLICY ALTERNATIVES

Alternative #1: Adopt a reach code that requires all-electric buildings while maintaining all other proposed reach code provisions.
Pros: An all-electric building requirement would significantly reduce GHG emissions from new construction and supports the State and City GHG emissions reduction goals. All-electric new construction is also supported by the State's cost effectiveness studies. There would be no incremental costs associated with efficiency performance requirements since all-electric buildings would not be required to go further than the base 2019 Building Code.
Cons: This approach would rapidly transition construction to all-electric with no flexibility.
Reason for not recommending: This approach would offer less flexibility for development as it continues to transition to all-electric in a still emerging and developing marketplace.

Alternative #2: Adopt a reach code that increases energy efficiency requirements for non-residential mixed fuel buildings to the maximum allowable under the 2019 Non-residential New Construction Cost Effectiveness Study and increases EVCI requirements for non-residential and multi-family developments while maintaining all other proposed reach code provisions.
Pros: Increased energy efficiency requirements for non-residential mixed fuel buildings would have a greater impact on GHG emissions due to increased efficiency. Requiring increased energy

efficiency requirements for mixed fuel buildings would also send a stronger signal to more rapidly transition to all-electric buildings.
Cons: This would result in an increased construction cost for mixed fuel buildings.
Reason for not recommending: There are concerns about increasing construction costs for mixed fuel buildings.

PUBLIC OUTREACH

The City established its Reach Code webpage (www.sjenvironment.org/reachcode) in May 2019, which includes FAQs as well as a pathway to receive updates and to sign up for stakeholder meetings. City staff reached out to over 250 stakeholders and presented at seven public meetings since May 2019.

This memorandum will be posted on the City's website for the September 9, 2019 T&E agenda as well on the September 17, 2019 City Council's Agenda website.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the Department of Transportation, Department of Community Energy, Housing Department, Office of Economic Development, and Public Works.

FISCAL/POLICY ALIGNMENT

The reach code components align with the Climate Smart San José strategies and the City's Envision 2040 General Plan approved by City Council.

CEQA

Categorically Exempt, File No. PP19-067, CEQA Guidelines Section 15308, Actions by Regulatory Agencies for Protection of the Environment.

/s/
ROSALYNN HUGHEY
Director, Planning, Building, and Code Enforcement

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Ken Davies, Deputy Director, at (408) 975-2587.

Attachments:
Attachment A – Reach Code Efforts in Other Jurisdictions
Attachment B – Bay Area All-Electric Development Projects
Attachment C – Redlined Draft Reach Code Components
Attachment D – San José Reach Code Ordinance
Attachment E – Summary of San José Reach Code Components

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From: Karen Nelson
Sent: Thursday, September 12, 2019 11:02 AM
To: Davis, Dev <dev.davis@sanjoseca.gov>
Cc: District 6 <district6@sanjoseca.gov>; City Clerk <city.clerk@sanjoseca.gov>
Subject: San Jose Reach Codes

Hello Dev,

We met to discuss the Reach Codes a couple weeks ago. I'm Karen Nelson and a resident of your district. As you know, from our meeting and my comments at the Transportation and Environment meeting, that I believe we need to adopt strong Reach Codes that reduce emissions and protect the health and safety of our residents. And thank you for your in-depth questions at the T&E meeting. I'd love to answer any questions you may have in regard to this email or Reach Codes in general. Do you have time to talk on Monday?

This is the greatest single action San José can take this year. I ask that you NOT adopt current draft 2 that is being considered for adoption on September 17th. The **current Draft 2's requirements achieve very little impact** in the medium to short term given that electrification ready can delay real change for up to 20 years or more as people continue to use old natural gas systems.

Right now, the San Jose City Council has the power to make that visionary mandate, that commitment to their constituents and to the planet, a reality. Either moving back to Draft one with more rigorous compliance margins or requiring moving to All-Electric standards which is the simpler, cheaper and cleaner approach, is essential at this time. As technology rapidly improves, state level requirements become more stringent and the price gap between cheaper electricity and the ever more expensive natural gas alternative widens, the gas appliances and systems installed now will become stranded assets, that will cost our residents more money to operate and require pre-mature replacement with electric appliances.

BACKGROUND

The arguments against moving to all-electric power - that it is too costly, too cumbersome and a barrier to development - no longer stand.

In fact, numerous studies by state regulatory agencies, utilities, and nonpartisan groups have shown that all-electric new construction is faster to build, more affordable for both developers and users, better for public health, and safer for the climate.

Twenty years ago, gas cooking and heating was considered to be clean and cheap and a better alternative to coal. Today natural gas is the new coal. Since 2015 it has surpassed coal in greenhouse gas emissions.

If cheaper, cost-effective and cleaner are not persuasive enough reasons for moving to all-electric, there are strong, additional reasons why Natural Gas should be phased out:

Health hazards: Investigators estimated that, during a typical winter week, 1.7 million Californians, who use gas appliances, could be exposed to CO levels that exceed standards for ambient air, and 12 million could be exposed to excessive NO2 levels. These hazards disproportionately burden low-income communities and communities of color with some of the most polluted air in the nation.

Safety hazards: Natural gas is responsible for half of accidental home fires, half of fires after earthquakes in California, and natural gas/methane pipeline leaks are occurring on a daily basis.

Disproportionate Impact on Low Income Households: As the market shifts away from gas, low-income customers, who are less able to electrify, will end up shouldering more costs with less financial ability to do so. Moving to all-electric in a timely way will reduce the impact on low-income customers.

LEADERSHIP FROM OTHER CITIES

In the last few weeks, several cities have taken strong leadership action on Reach Codes, and I would like San Jose to continue being a climate leader through adoption of similar policies. Menlo Park City Council asked staff to create a stronger Reach Code than the first draft, to include all electric space and water heating, no gas in commercial cooking, and very limited exemptions for some applications and industries. San Luis Obispo has just ensured a nearly all electric code by requiring notable in lieu fees for mixed fuel residential and commercial development. Oakland, Berkeley, Santa Rosa, and many other cities in our region have draft code policy notably stronger than our current proposal.

WE NEED TO ADOPT STRONG REACH CODES NOW

The Silicon Valley community is innovative and forward-thinking. Our city is the **tenth largest city** in the **world's largest economy.** Over eighty per cent of your Santa Clara County constituents are aware of and concerned about Climate Change. They are here to support you.

With the resources and the passion to make this happen at our fingertips, we need to use Reach Codes to dramatically lower GHG emissions now by adopting rigorous Reach codes that move us to All Electric power. IF WE CAN'T DO IT, WHO WILL? IF NOT NOW? WHEN?

As concerned leaders and citizens representing millions of Californians who are ready for healthy, clean air solutions, we are voicing our support for the San Jose City Council to eliminate natural gas in our homes and commercial buildings. Let's stand together as leaders, showing the world what can be done! **Please support a strong REACH CODE for San Jose.**

Thank you so much,

Karen Nelson

Chair of Climate Reality: Santa Clara County

Karen Warner Nelson l Principal

Pacific Media Communications

Strategic and Content Communications

From: Janet Walworth
Sent: Tuesday, September 10, 2019 8:09 PM
To: Liccardo, Sam <sam.liccardo@sanjoseca.gov>; Davis, Dev <dev.davis@sanjoseca.gov>; ian.diep@sanjoseca.gov; Peralez, Raul <Raul.Peralez@sanjoseca.gov>; Arenas, Sylvia <sylvia.arenas@sanjoseca.gov>; Esparza, Maya <Maya.Esparza@sanjoseca.gov>; Jones, Chappie <Chappie.Jones@sanjoseca.gov>; sergio.jiminez@sanjoseca.gov; Carrasco, Magdalena <Magdalena.Carrasco@sanjoseca.gov>; Foley, Pam <Pam.Foley@sanjoseca.gov>; johnny.kamis@sanjoseca.gov; City Clerk <city.clerk@sanjoseca.gov>; Silicon Valley Energy Watch <energy@sanjoseca.gov>
Subject: Fwd: I Want San Jose to be a Strong Climate Leader; Adopt Strong Reach Codes!

Apologies, I added an extra "." when one wasn't called for. Please see my email below.

Thank you,

Janet Walworth

From: Janet Walworth
Date: September 10, 2019 at 7:46:35 PM PDT
To: sam.liccardo@sanjose.ca.gov, dev.davis@sanjose.ca.gov, ian.diep@sanjose.ca.gov, sylvia.arenas@sanjose.ca.gov, maya.esparza@sanjose.ca.gov, charles.jones@sanjose.ca.gov, sergio.jimenez@sanjose.ca.gov, magdalena.carrasco@sanjose.ca.gov, pam.foley@sanjose.ca.gov, johnny.kamis@sanjose.ca.gov, jim.ortbal@sanjose.ca.gov, kevin.fisher@sanjose.ca.gov, scott.green@sanjose.ca.gov, louis.osemwegie@sanjose.ca.gov, city.clerk@sanjose.ca.gov, energy@sanjoseca.gov
Subject: I Want San Jose to be a Strong Climate Leader; Adopt Strong Reach Codes!

Dear Mayor Liccardo and members of the San Jose City Council,

As someone who grew up in San Jose, I can't tell you how proud I was to recently read that San Jose was the most sustainable city in the country. A lot of that is due to early leaders such as Norm Mineta who was an early leader in the movement. And a lot of it is due to this administration. Thanks to you all for your efforts.

My father, who helped start the diabetes clinic at what was then County Hospital, was an early adopter and rode his bike to VMC and O'Connor Hospital every morning to make rounds before heading to his office in Santa Clara. He would be very pleased and proud of San Jose's progress in and emphasis on sustainability.

Although I no longer live in San Jose, I have many high school and college friends who currently live in San Jose who are likewise very proud of San Jose's efforts in becoming truly sustainable.

The City Mayor and the City Council Members now has the unique opportunity to act at a time

when urgent climate action is needed to protect our future by adopting the strongest Reach Codes possible and not the current draft.

In the last few weeks, several cities have taken strong leadership positions on Reach Codes. I would very much like San Jose to continue being a climate leader by adopting similar policies.

Menlo Park's City Council asked staff to creat a stronger Reach Code than the first draft it considered, in order to include all electric space and water heating, no gas in commercial heating, and very limited exemptions for some applications and industries.

San Luis Obispo has just ensured a nearly all electric code by requiring notable in lieu fees for mixed fuel residential and commercial development. And many other cities in our area have draft Reach Code policy notably stronger than the current Reach Code policy being proposed by proponents of a stronger Reach Code.

This is not the time for partial measures! I urge San Jose to join other cities in adopting a 'Reach Code' that mandates all-electric new building construction as of 2020.

Thank you for exercising leadership as we fight the all too real threat posed by climate change.

Best regards,

Janet Walworth

From: Stet Sanborn
Sent: Friday, September 06, 2019 5:52 PM
To: The Office of Mayor Sam Liccardo <TheOfficeofMayorSamLiccardo@sanjoseca.gov>; District1 <district1@sanjoseca.gov>; District2 <District2@sanjoseca.gov>; District3 <district3@sanjoseca.gov>; District4 <District4@sanjoseca.gov>; District5 <District5@sanjoseca.gov>; District 6 <district6@sanjoseca.gov>; District7 <District7@sanjoseca.gov>; District8 <district8@sanjoseca.gov>; District9 <district9@sanjoseca.gov>; District 10 <District10@sanjoseca.gov>
Cc: Stampe, Elizabeth <estampe@nrdc.org>; Gomez, David <David.Gomez@sanjoseca.gov>; Sandoval, Vanessa <vanessa.sandoval@sanjoseca.gov>; Lebron, Charisse <charisse.lebron@sanjoseca.gov>; Ramos, Christina M <christina.m.ramos@sanjoseca.gov>; Groen, Mary Anne <maryanne.groen@sanjoseca.gov>; McGarrity, Patrick <Patrick.McGarrity@sanjoseca.gov>; Hughes, Scott <scott.hughes@sanjoseca.gov>; Quintero, Andres <andres.quintero@sanjoseca.gov>; Herbert, Frances <frances.herbert@sanjoseca.gov>; City Clerk <city.clerk@sanjoseca.gov>
Subject: City of San Jose: Reach Code and Beyond

Dear Mayor Liccardo and City Council,

As an Engineering Discipline Principal and licensed California Architect, I've had the opportunity to work on over a dozen all-electric buildings, in projects throughout the Western U.S., ranging from affordable housing to K-12 schools, university campus projects to complex laboratories and hospitals.
Across all these sectors, our teams have successfully been able to deliver all-electric buildings at the same cost as their legacy mixed-fuel (gas and electric) alternatives. A number of these projects have been developer-led and all delivered within the developer's cost pro-forma while simultaneously reducing risk and delivering high-quality product.
Based on my 20 years of experience in the industry, I'd like to make the following recommendations to support San Jose in creating a truly robust reach code:

Send a signal that is simple and strong

San Jose could and should simply require all-electric new buildings, with an ordinance like Berkeley's to set an all-electric standard, which could pass after the reach code.
The city's current draft approach, while less ideal, is a step in the right direction. The draft reach code requires that if buildings are still mixed-fuel, they must meet a higher energy efficiency margin. However, this margin must send a signal that is simple and strong – strong enough to truly incentivize electrification, rather than being an administrative burden.
Rather than having different compliance margins for each different building type and use, which adds unnecessary complexity to the permitting process, the margin should be consistent, to enable developers to more easily show compliance, and allow city staff to verify that compliance. To provide a significant enough incentive or price signal, mixed fuel projects should be required to have a 15% compliance margin over code baseline.

Go all electric or at least get ready

I strongly endorse the electric-ready requirements in Draft 2, as any reach code without such requirements would not have meaningful impact in our transition to a carbon-free future.
The cost to retrofit buildings later to be all-electric is significantly higher than the cost to provide all-electric at initial construction. The smart thing is to require electric readiness; the smarter thing is just to go all-electric now.

Cost of gas

Gas prices will rise. Existing cost-effectiveness tests do not account for the known risks of increasing gas prices and the burden on consumers. Recently, the state announced that it will require PG&E to invest nearly $14 billion in gas infrastructure improvements, costs that will be passed on to ratepayers. This

will significantly increase the cost of gas for everyone. Mixed-fuel buildings will be tied to future gas cost spikes – as will the residents of those buildings will be locked into paying more for years to come.

Safety

Gas is not safe. Natural gas use in residential buildings exposes residents to harmful NOX and particulate emissions that have been shown to be higher than federal limits for outdoor air pollution. These exposures contribute to long-term health impacts including upper respiratory illnesses and asthma. Those impacts are a burden in terms of health and cost, especially in communities with poor access to quality health care.

In addition, indoor natural gas leaks often go unnoticed, increasing the risks of gas-based explosions.

San Jose can lead and should be future-proofing.

Throughout the Bay Area and the state dozens of cities are preparing to adopt reach codes that are as ambitious, or in many cases more ambitious, than this one.

San Jose's adoption now of this code – or ideally one that is even stronger – will reaffirm its leadership status in the Bay Area and beyond.

Current activity at the state and regional level is rapidly progressing toward full building electrification and decarbonization; San Jose shouldn't be left behind, especially as the tech capital of Silicon Valley.

Today the City is deciding on the buildings where today's children will live and work; they will thank you for a more secure future.

STET SANBORN
AIA NCARB CPHC LEED AP
Principal | Engineering Discipline Lead

SmithGroup

From: Jenny Green
Sent: Thursday, September 05, 2019 8:36 PM
To: District9 <district9@sanjoseca.gov>
Cc: City Clerk <city.clerk@sanjoseca.gov>
Subject: Please Adopt the Strongest Reach Codes Possible

Dear Councilmember Foley:

I'm writing to ask the City Council to adopt the strongest reach codes possible to help ensure the electrification of new buildings that go up in San Jose. I'm worried that the version of the reach code currently under review is too weak.

Please make the compliance margins as strong as legally possible so that developers will have a real incentive to build all-electric buildings. In Palo Alto they didn't make the compliance margins strong enough and consequently 75% of Palo Alto builders are still building with natural gas appliances in their buildings. We need San Jose to be a climate leader so our reach code should include compliance margins that are strong enough to result in 100% electrification.

Also please include strong EV charging requirements. Please require that multi-family dwellings, condo high-rises etc have a lot of EV parking spaces. My mother lives in a high-rise and wants to buy an electric car but she can't because her building doesn't have any charging stations and her building manager says they can't even put a 110 volt outlet at her parking space because the electrical wiring isn't set up to handle that.

Thank you for considering this.

Sincerely yours,
Jennifer Green

From: Sean Armstrong
Sent: Tuesday, September 10, 2019 2:56 AM
To: The Office of Mayor Sam Liccardo <TheOfficeofMayorSamLiccardo@sanjoseca.gov>; District1 <district1@sanjoseca.gov>; District2 <District2@sanjoseca.gov>; District3 <district3@sanjoseca.gov>; District4 <District4@sanjoseca.gov>; District5 <District5@sanjoseca.gov>; District 6 <district6@sanjoseca.gov>; District7 <District7@sanjoseca.gov>; District8 <district8@sanjoseca.gov>; District9 <district9@sanjoseca.gov>; District 10 <District10@sanjoseca.gov>
Cc: Stampe, Elizabeth <estampe@nrdc.org>; Gomez, David <David.Gomez@sanjoseca.gov>; Sandoval, Vanessa <vanessa.sandoval@sanjoseca.gov>; Lebron, Charisse <charisse.lebron@sanjoseca.gov>; Ramos, Christina M <christina.m.ramos@sanjoseca.gov>; Groen, Mary Anne <maryanne.groen@sanjoseca.gov>; McGarrity, Patrick <Patrick.McGarrity@sanjoseca.gov>; Hughes, Scott <scott.hughes@sanjoseca.gov>; Quintero, Andres <andres.quintero@sanjoseca.gov>; Herbert, Frances <frances.herbert@sanjoseca.gov>; City Clerk <city.clerk@sanjoseca.gov>; CA Building Decarbonization
Subject: Encouragement to phase out natural gas use

Dear San Jose City Councilors, Staff and Members of the Public,

Thank you for considering strategies to phase out the use of combustible methane ("natural gas") in San Jose's new building stock in 2020.

As the Managing Principal of Redwood Energy, I have had the good fortune of getting to work with engineers from around our nation as we co-designed more than two hundred Zero Net Energy apartment complexes for low-income households. To guide your deliberations, I wanted to share with you a few of our findings supporting a complete 2020 phase out of natural gas use in New Construction.

1. All-electric high-rise apartments are common world-wide because they are faster, cheaper and simpler to build. Adding gas piping and venting to high rise buildings slows down construction, compromises aesthetics and adds costs. Most high rises in Seattle and Vancouver are built all-electric, as is true also of Hong Kong. The Related Companies in Manhattan retrofitted twelve existing 60+ story apartment complexes to all-electric in 2015 alone. In Hawaii almost all of the luxury condos and resorts people stay have been built all-electric since the 1960s. There are no technical challenges to building all-electric high rises, just knowledge gaps in some design groups that can be remedied with education.

2. According to the Federal EIA, all-electric housing has been growing nation-wide since 1993, and in 2015 had grown to half of all homes built in the South, and 25% of all homes built nation-wide. In California the construction of all-electric housing has been led by cost-sensitive affordable housing developers. The average rental complex saving enough by avoiding gas infrastructure to build 1 more residence (e.g. 60 apartments, $3000 saved per apartment, $180,000 total). All-electric affordable housing funding applications are more competitive for scarce funding because they can provide more housing for the same cost.

3. Solar panel pricing has dropped during my career from five dollars per Watt ($5.00) in 2001 to fifteen cents ($.15) per Watt in September of 2019. Affordable housing

developers can now repay a 15 year solar construction loan in 4-8 years of utility bill savings, making Zero Net Energy a financially responsible investment even in less than ideal locations, like elevated rooftop canopies, parking lot carports and south-facing building walls.

4. In the U.S. there has been a gas pipeline explosion 8 out of every 10 days since 1986 with 548 fatalities, there are 7900 gas-related house fires a year, 15,000 emergency room visits a year for carbon monoxide poisoning, tens of thousands displaced each year from their homes due to a tragic accident, landlord neglect or their utility's catastrophic mistake.

I encourage you to make public policy that helps save the citizens of San Jose from the significant dangers and financial downsides of natural gas. Please help guide development towards safer, less expensive buildings.

Sincerely,

Sean Armstrong
Managing Principal
Redwood Energy

--
Partner and Project Manager
Redwood Energy

Pacific Gas and Electric Company

Robert S. Kenney
Vice President
State and Regulatory Affairs

August 23, 2019

VIA EMAIL TO: Toni Taber, City Clerk
energy@sanjoseca.gov

Toni Taber, City Clerk
San Jose City Hall
200 E. Santa Clara Street
San Jose, CA 95113

Dear Toni Taber:

Pacific Gas and Electric Company (PG&E) is proud to provide electric and natural gas service to the City of San Jose. And we are committed to helping customers and the community achieve their energy goals. As part of this commitment, PG&E welcomes the opportunity to support the City of San Jose's efforts to promote efficient, all-electric new construction, when it is cost-effective.

PG&E strongly supports California's climate and clean air goals. We recognize that achieving these goals requires a range of approaches and tools, including increasing the use of energy-efficient electric appliances in buildings when cost-effective. PG&E welcomes the opportunity to avoid investments in new gas assets that might later prove underutilized as local governments and the state work together to realize long-term decarbonization objectives. With all this in mind, PG&E supports local government policies that promote all-electric new construction when cost effective.

PG&E recognizes the need for a multi-faceted approach to address climate change, including electrification, as well as opportunities to decarbonize the gas system with renewable natural gas and hydrogen. As electrification policies are implemented and as large scale renewable gas options develop, PG&E will continue to ensure the safe and reliable operation of the existing gas system to continue supporting the customers that depend on it.

PG&E appreciates the partnership with the City of San Jose during its policy development process, which allows us to prepare for the future and continue providing the best service possible to customers. PG&E remains ready to engage with our customers, local government, businesses, and community members to meet their needs safely, reliably, affordably, and with clean energy.

PG&E looks forward to continuing to work with the City of San Jose to accomplish its policy goals.

Thank you, and have a safe day.

Sincerely,

Robert S. Kenney
Vice President

cc:

- Rachel Kuykendall, Senior Program Manager, Sonoma Clean Power
- Anna Brooks, Sr. Manager Public Affairs, PG&E,

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Mayor Sam Liccardo
City Councilmembers
City of San José
200 E. Santa Clara St.
San José, CA 95113

September 3, 2019

Subject: The City of San José's Proposed Reach Code

Dear Mayor Liccardo and City Councilmembers:

The Bay Area Air Quality Management District (Air District) is pleased to write this letter in support of the City of San José's adoption of its proposed building reach code.

The Air District is committed to working with Bay Area cities and towns to advance greenhouse gas reductions. In 2017, we published *Spare the Air, Cool the Climate*, a regional clean air plan that serves as a blueprint for a Bay Area with a post-carbon economy and clean air in all communities. In an effort to implement innovative strategies toward this future, the Air District awarded the City of San José a 2018 Climate Protection Grant to launch a pilot electric heat pump water heater education and incentive program focused on gas-to-electric retrofits in San José's residential buildings. The Air District fully supports electrification across our region, as it removes natural gas combustion from our buildings, making them safer and healthier for people, and better for the climate. In addition to electrification, the Air District also supports the inclusion in the reach code of measures that strengthen efficiency standards and require solar photovoltaic systems and electric vehicle charging infrastructure across building types.

The City of San José's commitment to climate protection is evident through its participation in the American Cities Climate Challenge, 2018 adoption of a climate action plan aligned with the Paris Agreement, and launch of one of the largest single-city community choice aggregation programs, which will offer 100% carbon-free electricity by 2021. The adoption of a strong reach code, along with the City's numerous efforts to transform local climate policy and utilize innovative clean technologies, is critical for achieving San José's climate goals. These actions will continue to position San José as a climate leader, and serve as a model for other Bay Area municipalities.

The Air District enthusiastically encourages the City of San José's adoption of its proposed reach code and looks forward to continued collaborations in our shared pursuit of a healthy, equitable and carbon-free Bay Area.

Sincerely,

Henry Hilken
Director, Planning and Climate Protection
Bay Area Air Quality Management District

The Campaign for Fossil Free Buildings in Silicon Valley

350 Silicon Valley, Acterra, 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, Fossil Free Mid-Peninsula, Menlo Spark, Menlo Together, Mothers Out Front South Bay, Pacifica Climate Committee, Peninsula Interfaith Climate Action, Project Green Home, Sierra Club Loma Prieta Chapter, Sustainable San Mateo County, Sustainable Silicon Valley, and Sunnyvale Cool.

9 September 2019

Ken Davies, Interim Deputy Director, Climate Smart San José, City of San José - Environmental Services Department
Julie Benabente, Environmental Services Program Manager, Sustainability & Compliance Division, Environmental Services Department

San José City Hall
200 E. Santa Clara St.
San José, CA 95113

Via email: energy@sanjoseca.gov

RE: 2019 Building Electrification & Electric Vehicle Infrastructure Reach Code Initiative – PLEASE CREATE A STRONGER REACH CODE THAN DRAFT TWO

Dear Mr. Davies, Ms. Benabente, sustainability staff, and consultants:

On behalf of the Campaign for Fossil Free Buildings in Silicon Valley ("FFBSV"), this letter expresses our strong support for strengthening the 2019 Building Electrification & Electric Vehicle (EV) Infrastructure "Reach Code" Initiative, reverting to at least as strong compliance margins and EV charging requirements as found in version one. In a more equitable way, these stronger requirements will advance building codes to make our homes and buildings safer, healthier, and more affordable, as well as help meet Climate Smart San José goals with specific deadlines for emission reduction tactics. Promoting electrification to this degree also supports Electrify San José, by increasing market availability and awareness of electrification techniques and products.

FFBSV member organizations have a strong interest in ensuring successful adoption of this initiative by all cities and municipal governments throughout Santa Clara and San Mateo Counties, including and especially the largest city in the region, San José. Since our initial comment letter on July 23, several cities have shown incredible climate leadership by proposing, and adopting, strong Reach Codes. For example, Menlo Park City Council asked staff to create a stronger Reach Code than the first draft, to include mandatory all-electric space and water heating, no gas in commercial cooking, and very limited exemptions for some gas appliances. The all-electric requirement simplifies the code by removing the

need for compliance margins in mixed fuel buildings, since gas cannot be used for space or water heating (typically >80% of would be gas usage), and ensures more all-electric construction. San Luis Obispo has just ensured a nearly all-electric code by requiring notable in lieu fees for mixed fuel residential and commercial development.

We want San José to follow the great examples being set in other cities, and strengthen draft two of the Reach Code, demonstrating San José is a leader that adopts a highly effective Reach Code, as well. We ask San José to set an example for other cities and to show climate leadership, by adopting the best, more cost effective, impactful code.

Our thoughts on version two of the draft Reach Code are as follows:

Thank You for Ensuring Future Electric Retrofit Success

Thank you for ensuring future electric retrofit success by amending version one to match the SVCE model code. This change for mixed-fuel buildings is critical for ensuring future electric retrofit success. New gas water and space heaters will need to be replaced with electric systems as codes are tightened, gas is phased out, or gas rates increase, so these requirements will save residents significant future upgrade costs.

Compliance Margins Must be Raised to Align with SVCE Model Code, or an All-Electric Code, Like Alternative #1, Should be Adopted

We are surprised and disappointed to see compliance margins revised downward in the second draft of the code. SVCE compliance margins, in their model code, are based on the careful cost modeling of the statewide studies sponsored by the CEC, and represent realistic mitigations for the impact of mixed fuel buildings--and were set to help encourage more electrification. Dramatically dropping compliance margins to the level in the current draft will certainly disincentivize electrification. Please restore the previous compliance margins from the July 11th draft to align with the well researched model proposed by SVCE and PCE for cities in our area, or consider what we believe to be a stronger, more streamlined, yet flexible approach, by adopting an all-electric code.

We understand the concerns expressed by some stakeholders that higher compliance margins or an EDR of 10 or more might cause challenging calculations or excessive design requirements. To this end, we recommend considering the Menlo Park option for all-electric space and water heating, which as noted, reduces 80% of gas consumption, and makes plumbing for other gas uses less attractive, while still allowing some uses, such as gas cooktops and fireplaces. This option is most similar to option one in the staff report. (We would suggest ensuring electric-readiness for any gas appliance allowed). The Menlo Park option removes compliance margins and EDR requirements, and allows exemptions to be made for certain specific uses and specific industries, and allows for appeals for applicants who feel the all-electric requirements would be detrimental, for example, for nonresidential kitchens. San José could design a set of exemptions that meet city needs, for example, in the downtown area if gas was seen as a deterrent to high rise development, for affordable housing developments in which all-electric

requirements are deemed burdensome, for specific residential uses demanded by consumers, such as gas cooktops, or in specific industries, like manufacturing.

One specific concern we know some multifamily developers have is about water heating in multistory buildings, with the belief that gas boilers are the only effective way to heat water. Dozens of projects have been studied, documenting the use of all-electric water heating solution in this development type. Please see A Zero Emissions All-Electric Multifamily Construction Guide, for case studies and product information. The two most common solutions used are small, in-unit water heaters or central electric heat systems that can serve up to eight units (known as mini-plants), both described in this guide.

Tenants of New Apartments and Condos Must be Able to Charge Their Electric Vehicles (EVs)

In our previous letter, we asked to please ensure that every new multifamily development allows access for all tenants to charge their EVs. We are surprised to see you adjust these EV charging requirements dramatically downward. Focusing on electric capable, versus electric readiness, does a disservice to future property owners and tenants. Lack of access to charging is a leading reason why lower income residents feel unable to purchase very well-priced new used EVs that would save them thousands of dollars in annual operating costs. To ensure equity in San José's Climate Smart policies, we must remove barriers to EV adoption, not perpetuate them.

We ask the City of San José to restore the language for multifamily, with special provisions for affordable housing. A model to follow is Menlo Park, with reduced requirements for 100% BMR properties. Other considerations for exemptions can be around transit-oriented development, or in properties where car ownership might be less due to very local or demographic conditions. Or, the requirements can be contingent on funding from SJCE, PG&E, Electrify America, or other programs which help provide funding support for EV charging. Multiple ways to ensure high rates of EV charging capabilities exist with flexible exemptions and future fundings.

Two ways to ensure that every new multifamily development has access are (1) adopting the SVCE/PCE Reach Code language that requires 100% of parking spaces for new multifamily include EV charger ready outlets labeled "for EV charger installation," or (2) replicating the City of Menlo Park EV Charging Infrastructure language that requires one charging outlet per new residential unit.

We believe that with the above recommended adjustments to the Reach Code, this effort will be one of the most impactful climate mitigations that San José can take since adopting community choice energy for cleaner electricity. We are grateful to the City of San José and their partners for having created this Reach Code for clean and healthy building and EV standards that will save money and create safer communities. Thank you in advance for your careful consideration of our requests. Please do not hesitate to contact us with any questions or for further discussion.

Sincerely,

IdaRose Sylvester, Fossil Free Buildings Silicon Valley Campaign, Menlo Spark
Linda Hutchins-Knowles, Mothers Out Front South Bay
Janelle London, Coltura
Karen Warner Nelson, Chair Climate Reality: Santa Clara County
Gary Latshaw, Chair of the Guadalupe Regional Group of the Sierra Club
James Tuleya, Carbon Free Silicon Valley
Bruce Hodge, Carbon Free Palo Alto
Bret Anderson, Carbon Free Palo Alto
Kat Wilson, Climate Reality, Santa Clara County Chapter
Diane Bailey, Menlo Spark

(add your name by using the comments feature, by adding a comment here!)

Cc: Mayor Sam Liccardo sam.liccardo@sanjoseca.gov
Environmental & Transportation Subcommittee Members
Councilmember Dev Davis, dev.davis@sanjoseca.gov
Councilmember Raul Peralez, raul.peralez@sanjoseca.gov
Councilmember Lan Diep, lan.diep@sanjoseca.gov
Councilmember Sylvia Arenas, sylvia.arenas@sanjoseca.gov
Councilmember Maya Esparza, maya.esparza@sanjoseca.gov
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Scott Green, Mayor's Office scott.green@sanjoseca.gov
Louis Osemwegie, City Clerk's Office louis.osemwegie@sanjoseca.gov

September 9, 2019

The Honorable Dev Davis, Chair
Transportation & Environment Committee
City of San José
200 E. Santa Clara Street
San Jose, CA 95113

The Honorable Raul Peralez, Vice Chair
Transportation & Environment Committee
City of San José
200 E. Santa Clara Street
San Jose, CA 95113

Re: Proposed City of San José Electric Vehicle (EV)-Capable Reach Code for Multi-Unit Dwellings

Dear Chair Davis and Vice Chair Peralez,

We, the undersigned organizations, write to express our concerns regarding staff's recommended EV-capable reach code for multi-unit dwellings (MUDs). As written, the proposed reach code would require ten percent electric vehicle supply equipment (EVSE) spaces and 50 percent EV-capable parking spaces for new MUDs. While we support EV-ready reach codes, the proposed reach code for EV-capable parking spaces is problematic because it sets an electric panel capacity standard that is less stringent than the California Green Building Standards Code (CALGreen). CALGreen requires panel capacity at 40 amps 208/240 volts per space , which is a key component of EV ready and EV capable parking spaces. Staff's proposal would require running conduit and providing physical panel space, but at only 8 amps per space, meaning it would take inordinate lengths of time to get any amount of useful charge, thus dampening the consumer charging experience. Staff's proposal essentially requires just another typical wall outlet to be installed, which may already be required under non-EV code. This will not provide enough panel capacity to support most commercially-available home charging stations.

The state has a goal to deploy 1.5M EVs and 250,000 charging stations by 2025 and 5M EVs by 2030. New MUDs will be a critical piece toward helping the state achieve this goal; the Energy Commission projects that by 2025, 121,000 EV drivers will reside at MUDs. However, they also currently project that the state is currently set to fall 80,000 chargers short of its goal. To fill this gap, the California Air Resources Board and the California Department of Housing and Community Development recommended increasing the mandatory minimum for EV-capable parking for MUDs to at least 10 percent.[1] Even at higher levels of EV-capability required, this represents a minimal amount of total construction costs, usually at less than 1%, which was demonstrated via cost effectiveness assessment for the statewide code update.

A positive consumer charging experience is critical to driving EV adoption. The state is already experiencing a shortage of chargers, creating "range anxiety" – the fear of not being able to find another charging station before running of out fuel. Lower amperage, and thus a slow charge,

[1] The California Green Building Standards Code (CALGreen) requires EV-capable infrastructure, which includes the installation of raceway and panel capacity. EV ready building standards would include wiring as well to allow for even easier installation of charging stations.

will exacerbate this issue. Therefore, we respectfully request that you amend the 8 amps minimum. Our suggested language changes are as follows[2]:

- **Electric Vehicle Capable Space**. A designated parking space that is provided with conduit sized for a 40-amp, 208/240-Volt dedicated branch circuit from a building electrical service panel to the parking space and sufficient physical space in the same building electrical service panel to accommodate a 40-amp dual-pole circuit breaker. This includes adequate panel capacity at 40-amp, 208/240-volt to accommodate future installation of a dedicated branch circuit and charging station(s).

- **Electric vehicle supply equipment (EVSE) Space.** A parking space with electric vehicle supply equipment capable of supplying current at ~~32~~ 40 amps at 208/240 volts. ~~and a minimum of 8 amps at 208/240 volts when connected to an Electric Vehicle Load Management System~~.

- **5.106.5.3.2 Electric service capacity for electric vehicle capable spaces.** The building electrical panel that contains the physical space to accommodate the future installation of circuit breakers for electric vehicle capable spaces required by Section 5.106.5.3.1 shall have sufficient electrical capacity to provide no less than ~~8amps~~ 40 amps at 208/240 volts per electric vehicle capable space.

EV readiness requirements are a critical tool to support the state's ambitious climate, EV, and EV charging deployment goals. We sincerely appreciate the City's efforts to support EV adoption and charging station deployment. With these proposed changes, we support staff's code proposal as it provides consistency with the terminology in the statewide CALGreen Code and will provide sufficient EV-readiness to support the high levels of EV deployment expected in San Jose. We would be happy to work further with staff to help refine the current proposal as necessary, and may provide additional comments as this proposal moves forward.

Thank you for your consideration,

CalETC
California Electric Transportation Coalition

EVCA
Electric Vehicle Charging Association
INNOVATION FOR CLEAN MOBILITY

TESLA

chargepoint

[2] Text in red represents additions to current proposed code language. Text in red and strikethrough represents removal of current proposed code language. These edits are based on the revised draft code language that was released for stakeholder review on August 26, 2019.

The Climate Reality Project®
SANTA CLARA COUNTY, CA CHAPTER

September 9th, 2019

Ken Davies, Interim Deputy Director: Climate Smart San José
City of San José, Environmental Services Department

Julie Benabente, Environmental Services Program Manager
Sustainability & Compliance Division, Environmental Services Department

Letter also sent to: *energy@sanjoseca.gov*

Comments Regarding:
Strengthen Draft Two of San Jose's 2019 Building Electrification and Electric Vehicle Charging Infrastructure Reach Codes

Al Gore's Climate Reality Project: Santa Clara County chapter of over 100 community active members, is concerned about the low level of Reach Code effectiveness provided by the recent San Jose Reach Code Draft Two.

Our comments and requests for modification regarding Reach Code Draft 2 include:

Building Electrification

We request that San Jose:

- **Revert, at a minimum, to the compliance margins as found in Draft One.** We suggest they be adjusted back into alignment with the Silicon Valley Clean Energy Model Code. Although we understand some of the developer's concerns, we have ideas regarding exemptions and technical solutions that help to address those concerns.

  Draft Two's reduced compliance margins, compared to Draft one, are not acceptable to the informed community. This appears to placate some in the development community but does not make sense given that Silicon Valley Clean Energy's model code compliance margins, found in their model reach code, are based on highly researched **cost modeling** found in statewide studies sponsored by the CEC. The CEC was carful to consider margins that would support GHG emission reduction and encourage more electrification, but also addressed development considerations.

  Draft Two's far lower compliance margins will have little to no impact to incentivize electrification.

  The Draft Two electrification-ready approach does not recognize that electric power cost is now at parity with natural gas. And there will be pressure to be replace gas

systems with electric systems as codes are tightened, gas is phased out, or gas rates increase (which could occur soon given the PG&E situation). As a result, these requirements will save residents significant future upgrade costs.

Please revise Draft Two to use the SVCE compliance margins, as used in Draft One.

- **Considerations for select situations**

  We understand the concerns expressed by some stakeholders that these higher compliance margins or an EDR of 10 or more might cause challenging calculations or excessive design requirements. To this end, we support the approach taken in the Menlo Park Reach Code Model, allowing natural gas use for cooktops and fireplaces in residential.

  For nonresidential kitchens (such as office cafeterias and for-profit restaurants) they would have the right to appeal the Compliance Margin requirements that require electric cooking appliances.

  In these "exception" circumstances, we suggest that natural gas appliance locations be made electric-ready for future electric appliance installation

Electric Vehicles

We request that San Jose:

- Remove barriers to EV adoption by **applying Draft One's EV readiness focus** but with affordable housing exemptions included to avoid barriers to development.

  Tenants of new apartments and condos will need to charge their electric vehicles (EVs). But there was a downward adjusting of the EV charging requirements from Draft One to Draft Two. Specifically, a downward shift to electric capable, from electric readiness, will be a huge burden to tenants as the D2 Reach Codes limit their ability to purchase EVs. And it limits the value of these soon-to-be-outmoded properties and usefulness to potential property owners and tenants.

  Lack of access to charging is a leading reason why moderate-income residents feel unable to purchase very well-priced new or used EVs that would save them thousands of dollars in annual operating costs.

  The Draft Two approach is both a property owner and equity issue.

- **Restore the language for multifamily, with special exemption provisions for affordable housing**.

  Also consider applying the Menlo Park Reach Code model for multifamily, with reduced requirements for 100% below-market rate properties. Other considerations for exemptions can be around transit-oriented development, or in properties where car ownership might be less due to very local or demographic conditions. Or, the requirements for BMRs could be contingent on funding from San Jose Clean Energy,

Electrify America, even PG&E, or other programs which help provide funding support for EV charging.

Industry Specific Exemptions and Opportunity for Appeal

We understand that a completely separate objective for the city of San Jose, is to protect and continue encouraging San Jose's growth and active building development. To acknowledge this need, we support adding to the Reach Code industry-specific exemptions and the opportunity for appeal.

These **exemptions** for certain industries would allow appeals from applicants who feel the all-electric requirements would be detrimental. This includes exemptions for Affordable Housing developers from the EV code standards with the application of possible reduced standards.

San José could design a set of exemptions that meet the city needs. For example, in the downtown area, eliminating gas use might be seen as a deterrent to high rise development, or for specific industries, like manufacturing.

An **appeal** process could also be instituted for applicants who feel the all-electric requirements would be detrimental, e.g. fundamentally challenging to construct.

We believe that by reinstating the original goal to achieve effective Reach Codes for San Jose you will align with the adopted goals of Climate Smart San Jose.

Thanks to the City of San José for pursuing Reach Code standards that, if applied effectively will lead to a safer, healthier community and by considering the longer-term costs associated with climate change, will save the City and community expensive mitigation and adaptation costs in the near future.

Thank you for carefully considering our comments. Please contact us with any questions and for further discussion.

Karen Warner Nelson, Chair of Climate Reality Project: Santa Clara County

Cc: Mayor Sam Liccardo, sam.liccardo@sanjoseca.gov

Environmental & Transportation Subcommittee Members
Councilmember Dev Davis, dev.davis@sanjoseca.gov
Councilmember Raul Peralez, raul.peralez@sanjoseca.gov
Councilmember Lan Diep, lan.diep@sanjoseca.gov
Councilmember Sylvia Arenas, sylvia.arenas@sanjoseca.gov
Councilmember Maya Esparza, maya.esparza@sanjoseca.gov

Jim Ortbal, City Manager's Office jim.ortbal@sanjoseca.gov
Scott Green, Mayor's Office scott.green@sanjoseca.gov
Louis Osemwegie, City Clerk's Office louis.osemwegie@sanjoseca.gov

SILICON VALLEY LEADERSHIP GROUP

September 6, 2019

The Honorable Dev Davis, Chair
Transportation and Environment Committee
City of San José
200 E. Santa Clara Street
San Jose, CA 95113

The Honorable Raul Peralez, Vice Chair
Transportation and Environment Committee
City of San José
200 E. Santa Clara Street
San Jose, CA 95113

Subject: Proposed City of San José Electric Vehicle (EV)-Capable Reach Code for Multi-Unit Dwellings

Dear Chair Davis and Vice Chair Peralez:

The Silicon Valley Leadership Group writes to express its concerns regarding Staff's recommended EV-capable reach code for multi-unit dwellings (MUDs). As written, the proposed reach code would require ten percent electric vehicle (EV) supply equipment spaces and 50 percent EV-capable parking spaces for new MUDs. While the Leadership Group is supportive of EV-ready reach codes and appreciates San Jose's efforts in developing the proposed code, the proposed reach code for EV-capable parking spaces is problematic. This is because it potentially sets an electric panel capacity standard that is less stringent than the statewide CalGreen Code for MUDs as it does not include the same level of panel capacity at 40 amps 208/240 volts per space – a key component of EV-ready and EV capable parking spaces. Staff's proposed 50 percent EV-capable reach code for MUDs would require running conduit and providing physical panel space, but at only 8 amps per space, would not require sufficient electrical panel capacity to accommodate future EV charging stations.

New MUDs must include more EV charging infrastructure to meet our Transportation Electrification and 2030 climate goals. The California Air Resources Board's (CARB) 2018 gap analysis revealed a gap of 66,000-79,500 EV charging stations needed to accommodate the Energy Commission's projected 120,000 EVs residing in MUDs by 2025. To fill this gap, CARB and the Department of Housing and Community Development (HCD) recommended increasing the mandatory minimum for EV-ready parking for MUDs to at least 10 percent. In response to CARB's findings, Executive Order B-48-2018 authorized $900 million for the installation of 250,000 EV chargers. The Leadership Group proudly supported CARB and HCD's recommendation, which was adopted as part of the 2019 California Building Standards CalGreen Code.

Regrettably, California is falling short on where it needs to be to electrify the transportation sector and provide air quality and reduced greenhouse gas emissions benefits to all communities. Overall transportation emissions are still on the rise, accounting for at least 40 percent of California's Greenhouse Gases. To accelerate Transportation Electrification (TE), the Leadership Group respectfully requests the San José City Council Transportation and Environment Committee, at minimum, to adopt a reach code requiring 20 percent EV supply equipment spaces for MUDs, a Tier 2 voluntary reach code of the forthcoming 2019 CalGreen Code for MUDs (excluding the wiring). The Leadership Group has also submitted the attached TE recommendations to Governor Newsom, including authorizing local governments to promote policies that accelerate EV infrastructure deployment. To reduce retrofit costs, over 14 Bay Area cities and counties have already voluntarily exceeded the mandatory minimum for EV-ready parking for new MUDs. According to CARB's 2018 cost analysis, pre-wiring parking spaces for EV charging infrastructure could result in $264 to $374 million in avoided retrofit costs between 2020-2025. The Leadership Group, founded in 1978 by David Packard of Hewlett-Packard, represents over 360 of Silicon Valley's most respected employers on issues that affect the economic health and quality of life in Silicon Valley, including energy, environment, transportation, education, housing, health care, tax policies, and economic vitality. Accelerating deployment of EVs and EV charging infrastructure is one of the Leadership Group's top priorities. If you have any questions, please do not hesitate to contact me at

Sincerely,

Heidi Sickler
Director, Energy and Environment
Silicon Valley Leadership Group

September 13, 2019

Toni Taber, City Clerk
City of San José
200 E. Santa Clara Street
San Jose, CA 95113

San José City Council
City of San José
200 E. Santa Clara Street
San Jose, CA 95113

Re: Item 7.2 19-802 Proposed City of San José Electric Vehicle (EV)-Capable Reach Code for Multi-Unit Dwellings

Dear Mr. Taber and San José City Council Members:

We, the undersigned organizations, write to express our concerns regarding staff's recommended EV-capable reach code for multi-unit dwellings (MUDs). As written, the proposed reach code would require ten percent electric vehicle supply equipment (EVSE) spaces and 50 percent EV-capable parking spaces for new MUDs. While we support EV-ready reach codes, the proposed reach code for EV-capable parking spaces is problematic because it sets an electric panel capacity standard that is less stringent than the California Green Building Standards Code (CALGreen). CALGreen requires panel capacity at 40 amps 208/240 volts per space , which is a key component of EV ready and EV capable parking spaces. Staff's proposal would require running conduit and providing physical panel space, but at only 8 amps per space, meaning it would take inordinate lengths of time to get any amount of useful charge, thus dampening the consumer charging experience. Staff's proposal essentially requires just another typical wall outlet to be installed, which may already be required under non-EV code. This will not provide enough panel capacity to support most commercially-available home charging stations.

The state has a goal to deploy 1.5M EVs and 250,000 charging stations by 2025 and 5M EVs by 2030. New MUDs will be a critical piece toward helping the state achieve this goal; the Energy Commission projects that by 2025, 121,000 EV drivers will reside at MUDs. However, they also currently project that the state is currently set to fall 80,000 chargers short of its goal. To fill this gap, the California Air Resources Board and the California Department of Housing and Community Development recommended increasing the mandatory minimum for EV-capable parking for MUDs to at least 10 percent.[1] Even at higher levels of EV-capability required, this represents a minimal amount of total construction costs, usually at less than 1%, which was demonstrated via cost effectiveness assessment for the statewide code update.

A positive consumer charging experience is critical to driving EV adoption. The state is already experiencing a shortage of chargers, creating "range anxiety" – the fear of not being able to find another charging station before running of out fuel. Lower amperage, and thus a slow charge, will exacerbate this issue. Therefore, we respectfully request that you amend the 8 amps minimum. Our suggested language changes are as follows[2]:

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[1] The California Green Building Standards Code (CALGreen) requires EV-capable infrastructure, which includes the installation of raceway and panel capacity. EV ready building standards would include wiring as well to allow for even easier installation of charging stations.

[2] Text in red represents additions to current proposed code language. Text in red and strikethrough represents removal of current proposed code language. These edits are based on the revised draft code language that was released for stakeholder review on August 26, 2019.

- **Electric Vehicle Capable Space**. A designated parking space that is provided with conduit sized for a 40-amp, 208/240-Volt dedicated branch circuit from a building electrical service panel to the parking space and sufficient physical space in the same building electrical service panel to accommodate a 40-amp dual-pole circuit breaker. This includes adequate panel capacity at 40-amp, 208/240-volt to accommodate future installation of a dedicated branch circuit and charging station(s).

- **Electric vehicle supply equipment (EVSE) Space.** A parking space with electric vehicle supply equipment capable of supplying current at ~~32~~ 40 amps at 208/240 volts. ~~and a minimum of 8 amps at 208/240 volts when connected to an Electric Vehicle Load Management System~~.

- **5.106.5.3.2 Electric service capacity for electric vehicle capable spaces.** The building electrical panel that contains the physical space to accommodate the future installation of circuit breakers for electric vehicle capable spaces required by Section 5.106.5.3.1 shall have sufficient electrical capacity to provide no less than ~~8amps~~ 40 amps at 208/240 volts per electric vehicle capable space.

EV readiness requirements are a critical tool to support the state's ambitious climate, EV, and EV charging deployment goals. We sincerely appreciate the City's efforts to support EV adoption and charging station deployment. With these proposed changes, we support staff's code proposal as it provides consistency with the terminology in the statewide CALGreen Code and will provide sufficient EV-readiness to support the high levels of EV deployment expected in San Jose. We would be happy to work further with staff to help refine the current proposal as necessary, and may provide additional comments as this proposal moves forward.

Thank you for your consideration,

CalETC
California Electric Transportation Coalition

EVCA
Electric Vehicle Charging Association
INNOVATION FOR CLEAN MOBILITY

TESLA

chargepoint

The Climate Reality Project®
SANTA CLARA COUNTY, CA CHAPTER

September 16, 2019

Mayor Sam Liccardo and City Councilmembers
San Jose City Hall
200 E. Santa Clara St.
San Jose, CA 95113

Via email: agendadesk@sanjoseca.gov, cityclerk@sanjoseca.gov, and *energy@sanjoseca.gov*

RE: City Council Meeting 9/17 Item 7.2 – Building Reach Code for New Construction
SUPPORT for the Proposed Reach Code in the Memorandum from Mayor, Peralez, Diep,Carrasco and Davis, dated 9132019

Dear Mayor Liccardo and City Councilmembers,

The Climate Reality Project: Santa Clara County shares our solid support for the Mayor's Reach Code proposal that will move San Jose toward healthier and safer new homes and buildings and address the climate change crisis in a number of ways.

After significant work on Reach Codes with a variety of proposals submitted to the public, we believe that the Mayor's proposal is a valuable way to engage in Reach Codes for the first time with standards that begin the process of building decarbonization. Moving to fossil free buildings that are All Electric is our ultimate goal. The Mayor's proposal solidly moves us in that direction.

This proposal activates a number of important actions for GHG emission reduction including:

- Applying higher compliance margins efficiency standards.
- Requiring all-electric municipal construction, single-family homes, multi-family buildings up to 3 stories and ADUs.
- Studying the application of all electric policies for multi-family buildings 4 -7 stories by January 2020.
- Providing annual reports on Reach Code implementation.
- Applying funding and other opportunities for solar, battery storage, and EV Charging in new affordable housing, etc.
- Considering potential fee and tax reductions for new all-electric high-rise multi-family and commercial building construction.
- Increasing access to EV Charging for future tenants of new multi-family buildings; including the proposed hardship exemption.
- Exploring additional opportunities to support EVs for low-income families, including a parking management initiative that could reduce parking requirements allowing significant savings that could be applied to EV chargers; and EV Car Share opportunities.

We urge you to support his proposal, unchanged by modifications that would reduce its effectiveness.

We thank the diligent efforts of the Mayor, the Council Members, and staff to thoughtfully develop this robust proposal. And thanks to the entire Council for your time to consider the options to work for a standards that

supports the Climate Smart San Jose plan and for listening to the community during the Reach Code development process.

It is our sincere hope the Mayor's proposal is adopted at the upcoming September 17th Council meeting.

Sincerely,
Karen Warner Nelson, Chair of Climate Reality Project: Santa Clara County

CC:
Scott Green, Mayor's Office scott.green@sanjoseca.gov
Jim Ortbal, City Manager's Office jim.ortbal@sanjoseca.gov

Ken Davies, Interim Deputy Director: Climate Smart San José Ken.Davies@sanjoseca.gov

Julie Benabente, Environmental Services Program Manager julie.Benabente@sanjoseca.gov
Sustainability & Compliance Division

SILICON VALLEY LEADERSHIP GROUP

September 15, 2019

Honorable Mayor Sam Liccardo and City Council
City of San José
200 E. Santa Clara Street
San José, CA 95113

RE: Item 7.2, September 17, 2019, Council Meeting: Proposed City of San José Electric Vehicle-Capable Reach Code for Multi-Unit Dwellings

Dear Mayor Liccardo and City Council:

The Silicon Valley Leadership Group writes to express its concerns regarding Staff's recommended EV-capable reach code for multi-unit dwellings (MUDs). As written, the proposed reach code would require ten percent electric vehicle (EV) supply equipment spaces and 50 percent EV-capable parking spaces for new MUDs. While the Leadership Group is supportive of EV-ready reach codes and appreciates San Jose's efforts in developing the proposed code, the proposed reach code for EV-capable parking spaces is problematic. This is because it potentially sets an electric panel capacity standard that is less stringent than the statewide CalGreen Code for MUDs as it does not include the same level of panel capacity at 40 amps 208/240 volts per space – a key component of EV-ready and EV capable parking spaces. Staff's proposed 50 percent EV-capable reach code for MUDs would require running conduit and providing physical panel space, but at only 8 amps per space, would not require sufficient electrical panel capacity to accommodate future EV charging stations.

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Regrettably, California is falling short on where it needs to be to electrify the transportation sector and provide air quality and reduced greenhouse gas emissions benefits to all communities. Overall transportation emissions are still on the rise, accounting for at least 40 percent of California's Greenhouse Gases. To accelerate Transportation Electrification (TE), the Leadership Group respectfully requests the San José City Council Transportation and Environment Committee, at minimum, to adopt a reach code requiring 20 percent EV supply equipment spaces for MUDs, a Tier 2 voluntary reach code of the forthcoming 2019 CalGreen Code for MUDs (excluding the wiring). The Leadership Group has also submitted the attached TE recommendations to Governor Newsom, including authorizing local governments to promote policies that accelerate EV infrastructure deployment. To reduce retrofit costs, over 14 Bay Area cities and counties have already voluntarily exceeded the mandatory minimum for EV-ready parking for new MUDs. According to CARB's 2018 cost analysis, pre-wiring parking spaces for EV charging infrastructure could result in $264 to $374 million in avoided retrofit costs between 2020-2025. The Leadership Group, founded in 1978 by David Packard of Hewlett-Packard, represents over 360 of Silicon Valley's most respected employers on issues that affect the economic health and quality of life in Silicon Valley, including energy, environment, transportation, education, housing, health care, tax policies, and economic vitality. Accelerating deployment of EVs and EV charging infrastructure is one of the Leadership Group's top priorities. If you have any questions, please do not hesitate to contact me at .

Sincerely,

Heidi Sickler
Director, Energy and Environment
Silicon Valley Leadership Group

Please support Mayor Liccardo's strengthened Reach Code proposal

Jenny Green < >

Sat 9/14, 9:06 PM
District9;City Clerk;Agendadesk

Dear Councilmember Foley:

As a mother deeply concerned about climate stability, air quality, and equity, I'm writing to ask you to **support Mayor Liccardo's strengthened Reach Code proposal**. This is a very important policy initiative that will **incentivize the electrification of new buildings** in San Jose (reducing greenhouse gas emissions) as well as **ensure that all parking spaces in multi-family dwellings are EV-ready** (reducing barriers to EV adoption).

We also ask that you propose and champion a complementary policy, worded something like this:

1. In order to ensure that developers give all due consideration to constructing all-electric buildings, even though they may lack such experience themselves, the Environmental Services Department is hereby directed to **convene a technical roundtable of experts before November 1, 2020** to help ESD understand the **best way to create a new requirement** that any developer seeking to build a mixed-fuel building in San Jose must **(a) submit a cost-comparison analysis**, showing what the project would cost to build all-electric vs. with mixed-fuel and **(b) report on what grant funding is available** to cover the cost of building all EV-capable parking and which of those grants they will seek.

2. In order to increase technology awareness of cost-effective, all-electric alternatives to fossil-gas appliances, especially in high-rise buildings, the City Manager will **direct funding for professional development training in these technologies** to the heads of Planning and Building, and to building permit reviewers and related staff.

Thank you in advance for doing all you can to preserve a livable climate for my children and all children.

Sincerely yours,
Jennifer Green
DISTRICT #9
MOTHERS OUT FRONT SOUTH BAY

The Campaign for Fossil Free Buildings in Silicon Valley

350 Silicon Valley, Acterra, 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, Fossil Free Mid-Peninsula, Menlo Spark, Menlo Together, Mothers Out Front South Bay, Pacifica Climate Committee, Peninsula Interfaith Climate Action, Project Green Home, Sierra Club Loma Prieta Chapter, Sustainable San Mateo County, Sustainable Silicon Valley, and Sunnyvale Cool.

September 16, 2019
Mayor Sam Liccardo and City Councilmembers
San José City Hall
200 E. Santa Clara St.
San José, CA 95113

Via email: agendadesk@sanjoseca.gov

RE: City Council Meeting 9/17 Item 7.2 Reach Code – SUPPORT for the Recommendations in the 9/13/19 Memorandum to City Council

Dear Mayor Liccardo and City Councilmembers:

On behalf of the Campaign for Fossil Free Buildings in Silicon Valley ("FFBSV"), this letter expresses our strong support for the proposed Reach Code with the recommendations made in the September 13 memo to City Council. With those recommendations, this policy will greatly advance building codes to make our homes and buildings safer, healthier, and more affordable, as well as help meet Climate Smart San José goals. ***Adopting this Reach Code is the single biggest climate action that the city can take this year.***

FFBSV members have a strong interest in ensuring successful adoption of similar initiatives by all cities and municipal governments throughout Santa Clara and San Mateo Counties, including and especially the largest city in the region, San José. San Jose's leadership will encourage many other cities to follow suit, greatly accelerate the all-electric building market development in our area and deliver a strong message to the California Energy Commission that California communities need and want the support of strong low carbon building standards across the state.

The Campaign for Fossil Free Buildings in Silicon Valley aims to accelerate a phase-out of fossil fuels including natural gas from all buildings in Silicon Valley. The Reach Code initiative is a priority for FFBSV, because as you are aware, a swift transition away from fossil fuel use is necessary to avoid the very worst and irreversible impacts of climate change. For example, the 2018 Special Report from the Intergovernmental Panel on Climate Change (IPCC, https://www.ipcc.ch/sr15/) finds that ***we must dramatically reduce Greenhouse Gas (GHG) emissions by 2030 through rapid, far-reaching, and unprecedented measures.***

The recommendations set forth in the September 13th Memorandum from Mayor Liccardo and Councilmembers Peralez, Diep, Carrasco, and Davis are critical improvements to the staff proposal (Draft 8/21/19) to maximize the effectiveness of the Reach Code. In particular, we are very supportive of the main elements:

- **Restore the higher efficiency standards** ("compliance margins" from the July 2019 draft) for any fossil fuel use in all building sectors.

- Return to Council by October 2019 with policies **requiring all-electric** municipal construction, single-family homes, multi-family buildings up to 3 stories, and ADUs; and explore all electric policies for multi-family buildings 4 -7 stories by January 2020.
- Provide **annual reports** on Reach Code implementation (e.g. what percent of projects avoid fossil fuel use, whether unexpected issues arise, and estimates of carbon emissions reduced).
- **Increased access to EV Charging** for future tenants of new multi-family buildings; including the proposed **hardship exemption** (for permanent supportive housing and housing built for up to 30% AMI).
- Exploration within six months of:
    - Funding and other opportunities to Install solar, battery storage, and EV Charging in new **affordable housing**, and several other worthwhile elements; and
    - Options for potential **fee and tax reductions for new all-electric** high-rise multi-family and commercial building construction.
- Explore additional opportunities to **support EVs for low-income families**, including a parking management initiative that could reduce parking requirements allowing significant savings that could be applied to EV chargers; and EV Car Share opportunities.
- Develop a plan for **technical assistance** to multifamily projects in support of all-electric buildings.

We hope that this strong reach code will incentivize all-electric construction, given that all-electric construction, even of high-rises, is now not only entirely feasible but also more cost-effective than building with mixed fuel. We support the Mayor and Council Member's recommendation # 9 in their September 13 memo, ensuring that developers thoroughly explore and consider the all-electric option, with "technical assistance to multifamily project developers and the greater community." **We suggest that Council also direct ESD to convene a technical round table of electric building experts before November 15, 2019** to help the City develop additional ways to encourage developers who might still prefer to build mixed-fuel buildings in San Jose to give all-electric due consideration.

We believe that with the above recommended supplements to the Reach Code, this effort will be one of the most impactful climate mitigations that San José can take since adopting community choice energy for cleaner electricity. We are grateful to the City of San José and their partners for having created this Reach Code for clean and healthy building and EV standards that will save money and create safer communities. We urge you to support these important recommendations this Tuesday. Thank you for considering these comments.

Sincerely,
Karen Warner Nelson, Chair, Climate Reality: San Jose/Santa Clara County
Linda Hutchins-Knowles, Mothers Out Front South Bay
Kat Wilson, Climate Reality Project, Santa Clara County
Ruth Merino, Chair, San Jose Community Energy Advocates
James Tuleya, Chairperson, Carbon Free Silicon Valley
Dashiell Leeds, Sierra Club Loma Prieta Chapter
Gary Latshaw, Ph.D., Chair of Guadalupe Regional Group of the Sierra Club
Nicole Kemeny, 350 Silicon Valley
Janet Walworth, Peninsula Interfaith Climate Alliance
Bret Anderson, Carbon Free Palo Alto
Carol Cross, Fossil Free Mid-Peninsula
Doug Silverstein, Citizens Environmental Council of Burlingame
IdaRose Sylvester, Fossil Free Buildings Campaign Manager, Menlo Spark
Diane Bailey, Executive Director, Menlo Spark

Cc:

Ken Davies, Interim Deputy Director, Climate Smart San José, City of San José - Environmental Services Department
Julie Benabente, Environmental Services Program Manager, Sustainability & Compliance Division, Environmental Services Department
Lori Mitchell, Director, San José Clean Energy
Sean Denniston, NBI
Panama Bartholomy, California Building Decarbonization Coalition