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## **Electrify San José: A Framework for Existing Building Electrification Frequently Asked Questions**

### **1. What is the Framework for Existing Building Electrification?**

The Framework offers strategies to encourage and incentivize the electrification of homes and businesses in San José. The Framework also explores ways to:

- Raise awareness of the negative health and climate impacts of using gas and the benefits of using electric appliances
- Encourage the growth of high-quality local jobs in building electrification
- Reduce housing and energy costs through new supportive city programs
- Increase and broaden access to clean, affordable, reliable energy in San José

### **2. Why is the Framework needed?**

The latest climate science shows that nations need to reduce their fossil fuel usage rapidly to avoid catastrophic effects of climate change. The City of San José has recognized the urgency of the climate crisis by:

- Setting ambitious greenhouse gas (GHG) emission reduction goals in 2018 through Climate Smart San José, the City's climate action plan
- Declaring a climate emergency in 2019
- Setting a goal in 2021 of aspiring to be carbon neutral by 2030 and evaluating the feasibility of doing so

Buildings account for 34% of the GHG emissions in San José, the second largest source of its emissions. Within the buildings sector, natural gas represents the largest portion (19%) of the city's total emissions – about as much as per year as the emissions of more than 207,000 passenger vehicles – with most of the emissions coming from natural gas used for space and water heating. [San José Clean Energy](#), San José's primary electricity provider, already has a goal of providing 100% carbon-neutral electricity as a base product to our community. To address the remaining GHG emissions from buildings, the City is evaluating and implementing supportive actions to help the community transition from natural gas to electric and enable residents to take advantage of funding opportunities to make cost-effective upgrades.

**3. Does this Framework require the mandatory elimination of natural gas equipment in San José buildings and homes by 2030?**

No. The Draft Framework does not propose any mandates to switch out existing natural gas for electric equipment. See Question 1 for what the framework is.

If the City does consider mandates related to building electrification in the future, it will engage with the public and stakeholders and provide opportunities for input. In April 2022, Council directed staff to evaluate a “replacement at burnout” policy, conduct community outreach, and return in the fall of 2022 with findings. The policy would apply to home equipment that uses natural gas and has reached the end of its useful lifespan.

**4. What are the benefits of building electrification?**

There are many benefits to switching homes from gas to electric:

- **Safer, healthier:** Modern electric appliances are safer and better for indoor air quality since they do not emit carbon monoxide or nitrous oxides, as natural gas appliances do.
- **Lower bills, more efficient:** All-electric homes can help lower energy bills, according to a recent report by Energy + Environmental Economics (E3) titled [Residential Building Electrification in California](#).
- **Fight climate change:** All-electric homes also reduce GHG emissions, especially when powered by carbon-neutral electricity from [San José Clean Energy](#).
- **New jobs for the community:** Building electrification in San José will also create new, local jobs.

The Framework helps guide the distribution of a wide range of resources and information to the community (including homeowners, renters and property managers) so that the city can reap the benefits of building electrification. Billions of dollars in federal and state funding are

**5. I just put in a new natural gas water heater/stovetop/dryer/furnace. Does the Framework require me to replace it by 2030?**

No. There are no proposed mandates in the Framework to switch out existing natural gas for electric equipment.

**6. What community outreach has been done to let people know about the Framework and receive their input?**

The City has completed significant community outreach and engagement related to the Framework including:

- Fifteen meetings over 7 months with our community-based organization partners, ICAN and Veggielution, to ensure the City included the perspectives of Spanish- and Vietnamese-speaking residents and communities that are most vulnerable to poor air quality and other climate impacts
- Individual meetings with more than 40 community-based organizations, labor organizations, environmental organizations, nonprofits and housing organizations
- Three community forums with community-based organizations, labor organizations and housing organizations
- Five virtual public information sessions to share the development of the Draft Framework with the broader community. Sessions were promoted via social media (Facebook, Twitter, Instagram and Nextdoor) and emails to more than 450 stakeholders, including neighborhood associations.

## **7. Would being all-electric make my home less resilient due to grid reliability?**

No, all-electric buildings can actually be a more resilient option. Many gas appliances already require electricity to work or cannot operate safely during emergencies or blackouts. Gas infrastructure is particularly vulnerable to fires or earthquakes and, in the event of a long-term outage due to an earthquake, is expected to take longer to restore to safe operation<sup>1</sup>.

Grid infrastructure needs to be upgraded, but with smart planning it will be able to handle the increased demand for electricity caused by converting buildings to electricity, as those changes will occur over a period of decades. Grid upgrades to enable more clean electricity are already in planning stages. In addition, increasing investments in renewable energy, including firm sources like geothermal that produce clean energy 24/7, and energy storage will make the electric grid more reliable. San José Clean Energy and other electric utilities are investing in long-duration storage that can store renewable energy and discharge it at a later time for eight hours or longer.

Meanwhile, technological advances are enabling homeowners to make all-electric homes more resilient and carbon-neutral. Electric appliances can use a backup power source such as a generator or batteries, which can be powered by solar. Future technology trends – including the falling price of lithium-ion batteries, the ability to use an electric vehicle battery as a backup power source, and smart electrical panels that distribute power to critical loads in the home – will increasingly allow for backup electric power that is safer and more reliable than gas. San José Clean Energy is now planning ways, such as microgrids, to enhance future grid capacity and resiliency in San José.

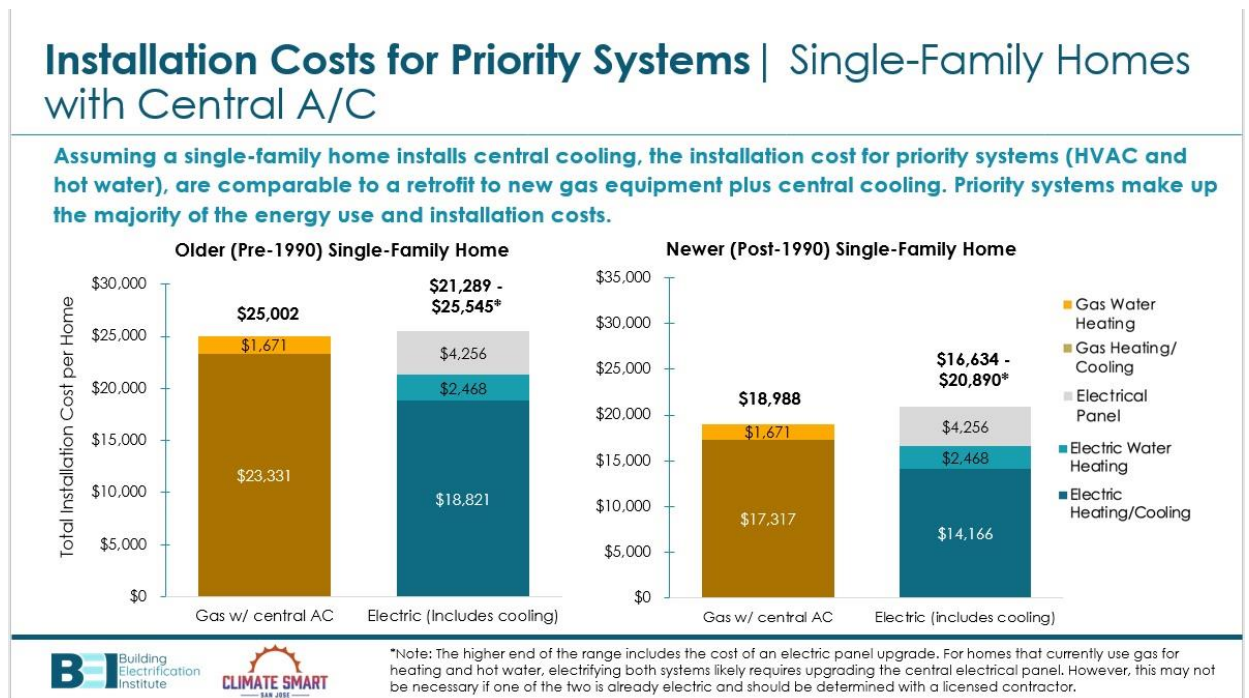
## **8. If I choose to transition from natural gas to electricity, how much would that cost?**

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<sup>1</sup> <https://www.onesanfrancisco.org/sites/default/files/inline-files/Lifelines%20Restoration%20Performance%20Report%20Final.pdf>

Homeowners can take advantage of existing [rebates and incentives](#) to electrify their homes and complete electric panel upgrades. Billions of dollars in additional incentives are expected to become available in coming years through local, state and federal programs.

For single-family homes, installing an electric space heating/cooling system and water heater (without an electric panel upgrade) is estimated to cost between 14%-17% less when compared with choosing a gas furnace with central air conditioning and a gas water heater.



Electric appliances also typically reduce total home energy costs because they are three to four times more efficient than their natural gas counterparts.

Focusing on the biggest gas uses in a single-family home (space and water heating), it could cost between approximately \$2,500 (for hot water only) and \$22,000 (hot water plus HVAC system) to electrify a home, depending on the extent of the upgrade. This does not include a panel upgrade (estimated at around \$4,300) as some single-family homes in San José were built with adequate capacity for full home electrification or have already upgraded their panel. Upgrading the panel of a home can add capacity for electric-vehicle charging.

Please email [climatesmart@sanjoseca.gov](mailto:climatesmart@sanjoseca.gov) with any additional questions.