1. Is the cost effectiveness study based on investor-owned utility rates or Silicon Valley Clean Energy rates?

   A: Currently, the study is based on specific investor-owned utility rates (PG&E).

2. Where can I find the cost effectiveness study?

   A: The statewide study covers all geographical regions in California and Santa Clara County is primarily located in climate zone 4. The 2019 cost-effectiveness studies can be found on the CA Local Energy Codes website.

3. Does an all-electric building cost more to build?

   A: In most cases, all electric buildings cost less to build because it eliminates the installation cost of the natural gas infrastructure. These studies examine the upfront costs, maintenance costs, and operational costs of all-electric designs and support these conclusions:


4. What are the baseline solar panel sizing requirements for low-rise residential buildings as per 2019 Title 24 code?

   A: The photovoltaic (PV) system offsets the electricity usage of a mixed-fuel home. An all-electric home is required to have a baseline PV system size equivalent to a similar mixed-fuel home.

5. Can a heat pump water heater match the performance of a gas system?

   A: Yes, a heat pump water heater can equal the performance of a gas equivalent. For example, Rheem's 55-gallon unit can deliver 70 gallons of hot water in the first hour, enough for about four showers. For comparison, Rheem's gas equivalent delivers 79 gallons in the first hour. When selecting any hot water heater, no matter the fuel, make sure it is the right size for your use type. A home with a big family might need a larger 80-gallon tank.
6. **How reliable is the electric grid as compared to natural gas?**

   A: The natural gas grid and electric grid both go down on occasion. In fact, during California’s primary natural disaster events, wildfires and earthquakes, utilities are supposed to turn the gas off. If 100% reliability is a goal for your home or project, electrification with battery and solar backup via microgrid is an effective solution.

7. **How does the induction cooking compare to gas cooking?**

   A: Induction cooking has more specific temperature control, is much safer, easier to clean, and can vary heat settings faster than gas.

8. **Are natural gas systems more efficient than all-electric?**

   A: In every case, all-electric systems operate more efficiently than natural gas systems.

9. **How would the reach code promote more solar PV installations in Santa Clara County?**

   A: There are a number of options to further solar PV in non-residential new construction, since the 2019 CA building code will already further solar in residential new construction, including:
   
   - Requiring solar readiness for all buildings, not just those required in Title 24
   - Requiring solar installations on all buildings (where feasible) either as part of meeting Title 24 or in addition to Title 24
   - Requiring greater efficiency, which will encourage the use of PV to meet efficiency requirements

10. **Would the reach code apply to existing buildings?**

    A: The reach code is meant for new construction. However, the development process is considering ways to reasonably expand applicability to some additions and/or alterations. This may be a direction that the reach code can go in the future.
11. Would there be any incentives outside of the reach code to encourage electrification?

A: Several incentives for EV charging infrastructure and solar already exist. More incentives are expected to be offered, including for building electrification, within the next 1-2 years based on State funding priorities. The County will also evaluate incentive programs for future retrofit programs for existing buildings and electric vehicle charging infrastructure but incentives for new construction are not viewed as a priority at this time due to the lower construction costs for all-electric.

12. How would the reach code impact the electric grid?

A: The reach code will result in some loads being shifted from the natural gas infrastructure to the electric grid. This may have a future impact on the capacity needs of the grid at some point in the future.