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CITY OF CUPERTINO

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CITY COUNCIL STAFF REPORT

Meeting: December 17, 2019

Subject

Adoption of Local Amendments to 2019 California Energy & Green Building Standards Codes (Reach Code)

Recommended Action

1. Conduct the first reading of "An Ordinance of the City Council of the City of Cupertino Amending City Code Chapters 16.54 and 16.58 Adopting the 2019 California Energy Code and Green Building Standards Code With Certain Exceptions, Deletions, Modifications, Additions and Amendments "; and
2. Adopt a Resolution making factual findings with respect to the local geological, topographical, and climatic conditions necessary to make local amendments to the California Building Standards Code; and making the determination that this Ordinance is not a project subject to CEQA, or that if it is a project, it is exempt from CEQA.

Background

Staff recommends adopting the attached Ordinance in order to make modifications to the California Energy Code and Green Building Standards Code. This Staff Report provides an overview of the reach code measures proposed in the Ordinance, describes the reach code development process, and explains Staff's findings that the energy reach code is cost-effective and will require the diminution of energy consumption levels permitted by the state Energy Code. This Report also outlines provisions in the Ordinance that will maintain Cupertino's previously adopted green building measures. These local measures are adopted as amendments to the Green Building Standards Code.

Local governments may address the emissions associated with their building stock by adopting local amendments to the California Building Standards Code that exceed or differ from the State's standards. Any local changes to the state Building Standards Code must be justified on the basis of a local climatic, geologic, or topographic condition. Such changes must be filed with the California Building Standards Commission ("CBSC"). Cupertino recently adopted its local amendments to the state codes, and plans to file its

ordinance with the CBSC this month. Ordinance No. 19-2189 was enacted by the City Council at the November 5, 2019 regular council meeting.

Local governments may also adopt "reach codes," which are more restrictive local amendments to the state Energy Code or Green Building Standards Code ("CALGreen"). In addition to being filed with the CBSC, energy reach codes must be approved by the California Energy Commission ("CEC") before they can be enforced by a local government. To obtain CEC approval, a local government must find that the energy reach code is cost-effective, and the CEC must find that the reach code will require the diminution of energy consumption levels permitted by the state code. Other types of reach codes, including local changes to CALGreen, need only be filed with the CBSC, along with the requisite findings of local necessity.

Staff's findings of cost-effectiveness and energy consumption are discussed in greater detail below, and the related studies are included as Attachments D and E. Additionally, Staff's justification for the local amendments to the state code are included in the Resolution, attached as Attachment B.

Reach Code Adoption Process

The Cupertino City Council took a leadership position on the adoption of reach codes as a measure to reduce emissions from its building stock when it included a study of reach codes in its FY 2019-20 adopted City Work Program. Specifically, the Sustainability Commission and Sustainability Division were tasked to study model reach codes addressing building electrification and green building measures. Staff in the Sustainability and Building divisions have been leading the reach code process.

Encouraging or requiring the electrification of buildings and transportation in Cupertino is one method to support the goals of the City's Climate Action Plan. Cupertino's electricity supply from Silicon Valley Clean Energy ("SVCE") is carbon-free, so buildings that are all-electric or largely electric will similarly be carbon-free.[1] Given the cleaner electricity mix available locally, adopting a local electrification ordinance has the potential to avoid a cumulative 59,000 tonnes CO2e over the next decade in Cupertino, bringing the City closer to its target emissions path. This finding supports the proposed reach code addressing fossil fuels used in buildings and transportation.

The sustainability impact of addressing fuel choices in new construction is notable, given the fact that any newly installed natural gas service would "lock in" that fuel for 30-50

[1] Nearly all customers in Cupertino rely on SVCE for electricity. Exceptions include direct access customers, which are a limited number of large commercial customers, and customers who opt out of SVCE's service. 3.66% of available customers have opted out as of November 2019.

years in the life of that building, potentially putting the owner at risk of having to retrofit that building in response to future regulations addressing fossil fuel emissions.

Cupertino's 2018 Greenhouse Gas Inventory found that community-wide natural gas emissions increased 14% from 2010 to 2018 and increased 34% from 2015 to 2018. Natural gas emissions made up 38% of Cupertino's total community-wide greenhouse gas emissions in 2018. Furthermore, emissions from the transportation sector account for 36% of Cupertino's emissions, making this sector the second highest source of emissions in Cupertino.

In April 2019, Cupertino declared its intent to participate in SVCE's regional outreach and policy development to encourage electrification of newly constructed buildings with a local amendment to the 2019 Energy and Green Building Codes, otherwise known as "reach codes." The intent of this process was to have each participating agency consider SVCE's model reach code and make any modifications necessary based on local needs and objectives, as well as to generate regional consistency in public outreach and model code development.

On November 19, 2019, the City Council held a Study Session to consider reach code policy options. Staff presented two proposed ordinances, the recommendation of the Cupertino Sustainability Commission, local context, and the results of community outreach to date. Council and the public expressed strong interest in an all-electric reach code, which would require, rather than incentivize, electric appliances for space and water heating, cooking, clothes drying, and a higher level of electric vehicle charging than the State Code requires. Additional results of Staff's outreach efforts are summarized below.

Council directed Staff to return with an all-electric reach code that creates these outcomes where cost-effective and provides targeted exemptions to address feasibility and community concerns. Council also directed Staff to consider additional community engagement to enhance cultural acceptance of electrification, especially around induction cooking appliances.

Discussion

After participating in SVCE's model code development process, and conducting research and public outreach, Staff drafted an "all-electric" reach code ordinance for Council's consideration. The reach code would be applied at permit application for all newly-constructed buildings seeking construction permits after the ordinance is adopted by Council and approved by the California Energy Commission, likely February 2020, at the earliest.

The all-electric reach code is based on the recommendations of the Sustainability Commission, consideration of economic and social impacts in the community, feedback

from the public, and consultation with stakeholders in the development community. Direct feedback from Council was received at the November 19 Study Session.

The all-electric and electric vehicle reach code measures are designed to have the greatest impact on reducing emissions from energy usage in newly constructed buildings in Cupertino. The EV charging requirements will ensure that newly constructed residential and non-residential parking has ample EV charging capability, reducing the long-term costs of EV infrastructure installation while helping to increase EV adoption and decrease transportation-related greenhouse gas emissions.

The all-electric and EV reach code measures are summarized below. For a more detailed analysis of the major policy components, see the staff report from the November 19, 2019 Study Session (Attachment C).

Summary of all-electric reach code

Under the all-electric reach code, all newly constructed residential and non-residential buildings would be required to be built all-electric, meaning that the buildings will have no natural gas or propane plumbing installed, and that electricity will be the sole source of energy for all space heating, water heating, cooking appliances, and clothes drying appliances.

Several categories of buildings are excepted from the all-electric requirement, including factories, hospitals, laboratories, other research and development uses, and "essential facilities." Additionally, Accessory Dwelling Units ("ADUs") and Junior ADUs, along with nonresidential kitchens, are exempt from the all-electric requirement. Finally, if there is not an all-electric prescriptive pathway for a building under the state Energy Code, and the building is unable to achieve the Energy Code's performance compliance pathway using commercially available technology and an approved calculation method, then the building official may grant a modification. Buildings subject to these exceptions, other than ADUs and Junior ADUs, must prepare the location of natural gas appliances for future electrification.

These elements of the all-electric reach code are summarized in Table 1:

Table 1. Building reach code requirements summary

All-Electric Building Reach Code Applies to:	Reach Code Requirement
Low-rise residential (includes single-family, duplex, townhomes, and multifamily three stories or fewer)	All-electric required. No natural gas plumbing in the building.
High rise multifamily Mixed-use Hotel/Motel Office Retail	All-electric required. No natural gas plumbing in the building. Exemption for Factories, Hospitals, Laboratories and other research and development uses as determined by the building official, kitchens in nonresidential buildings, and Essential Facilities as defined by the Cupertino municipal code. Exemption available for buildings without an all-electric prescriptive compliance pathway or ability to meet performance pathway using approved compliance calculation method. Any gas appliances installed through exemptions, other than in ADUs and Junior ADUs, shall provide electric circuiting for future electric appliances.

Summary of electric vehicle reach code

The proposed local amendments to the state's electric vehicle requirements would require additional electric vehicle charging infrastructure beyond the State levels. Electric Vehicle (EV) charging requirements in California can generally be broken into three categories: EV Charging Installed: all supply equipment is installed at a parking space, such that an EV can charge without additional equipment; EV Ready: Parking space is provided with all power supply and associated outlet, such that a charging station can be plugged in and a vehicle can charge; EV Capable: Conduit is installed to parking space, and building electrical system has ample capacity to serve future load, but an electrician would be required to complete the circuit before charging is possible.

The requirement under the 2016 code cycle was that all new multifamily projects with 17 or more dwelling units which provide residential parking to the occupants must prewire 3% of these spaces for future EV charging station installation. In the 2019 code cycle, multifamily projects of any size must prewire 10% of these spaces for future EV charging station installation. Other low-rise residential developments are required to provide one

EV Capable parking space for each dwelling unit according to the 2019 base code. However, non-residential parking will not be affected by the 2019 base code update.

The proposed local amendments to the CALGreen Code would require the following electric vehicle infrastructure to be installed in newly constructed buildings, above and beyond the Statewide standards as described above:

Table 2. EV requirements summary

Electric Vehicle Reach Code Applies to:	Reach Code Requirement:
Low-rise residential (includes new one- and two-family dwellings and townhomes with attached private garages)	For each dwelling unit, install (1) Level 2 EV Ready Circuit and (1) Level 1 EV Ready Circuit.
Multi-family buildings less than or equal to 20 units	One parking space per dwelling unit with parking provided with (1) Level 2 EV Ready Circuit.
Multi-family buildings greater than 20 units	25% of dwelling units with parking spaces provided with (1) Level 2 EV Ready Circuit. Each remaining dwelling unit with parking space provided with (1) Level 1 Ready Circuit.
Office buildings	10% of available parking provided with Level 2 EV Charging Stations installed. An additional 10% provided with Level 1 EV Ready Circuits. An additional 30% are at least EV Level 1 Capable.
Other non-residential buildings	6% of available parking provided with Level 2 EV Charging Stations installed. An additional 5% are at least EV Level 1 Ready. Exception: Each Level 3 Fast Charger can substitute for some of the required spaces.

Cost-Effectiveness and Energy Consumption Findings

An energy reach code can only be adopted if the jurisdiction adopting it determines that the proposed requirements are cost effective. Cupertino's proposed all-electric reach code has been found to be cost-effective, as discussed below. Additionally, the all-electric reach code would require the diminution of energy consumption levels permitted by the state Energy Code as required by California Health & Safety Code section 25402.1(h)(2).

Cost-effectiveness is measured considering lifecycle costs using a 30-year timeframe. Generally, electric appliances are not more expensive than natural gas appliances. When considering the avoided cost of installing gas infrastructure (piping), in all modeled cases in Cupertino's climate zone, all-electric construction is cost-effective. The CEC requires that the cost-effectiveness analysis incorporate the time-dependent valuation (TDV) of energy so that the costs for the construction and operation of the building can be accurately calculated.[2]

Cupertino's finding that its proposed all-electric reach code is cost-effective is based on the Statewide cost-effectiveness studies, attached here for review.[3] The relevant results are summarized in table 3, below. A cost effectiveness ratio greater than 1 indicates that the building modeled is cost-effective.

[2] As defined in the cost-effectiveness studies, the TDV calculation is "intended to capture the "societal value or cost" of energy use including long-term projected costs such as the cost of providing energy during peak periods of demand and other societal costs such as projected costs for carbon emissions, as well as grid transmission and distribution impacts. This metric values energy use differently depending on the fuel source (gas, electricity, and propane), time of day, and season. Electricity used (or saved) during peak periods has a much higher value than electricity used (or saved) during off-peak periods (Horii et al., 2014). This is the methodology used by the Energy Commission in evaluating cost-effectiveness for efficiency measures in Title 24, Part 6." Horii, B., E. Cutter, N. Kapur, J. Arent, and D. Conotyannis. 2014. "Time Dependent Valuation of Energy for Developing Building Energy Efficiency Standards." Available at: http://www.energy.ca.gov/title24/2016standards/prerulemaking/documents/2014-07-09_workshop/2017_TDV_Documents

[3] *See* "2019 Residential New Construction Cost-effectiveness Study," (Aug. 1, 2019) TRC; "2019 Nonresidential New Construction Cost-effectiveness Study." (July 25, 2019) Frontier Energy, Inc., *available at* https://localenergycodes.com/content/2019-local-energy-ordinances/.

Table 3. Summary of Statewide TDV cost effectiveness ratios, climate zone 4.

Summary of Statewide Cost Effectiveness Ratios, Climate Zone 4			
Building Type	**Modeling Package**	**TDV Cost-Effectiveness Ratio**	**Source Data**
Hotel	2: All-electric federal code minimum	24.5	A
Retail	2: All-electric federal code minimum	104.2	A
Office	2: All-electric federal code minimum	1.7	A
Residential	Single family all-electric	1.8	B
Residential	Multifamily all-electric non-preempted	1.5	B

Note: TDV cost-effectiveness >1 indicates cases where there are both first cost savings and annual utility bill savings. Federal code minimum indicates that the compliance modeling package does not rely on appliances that are higher efficiency than the federal minimum, thereby avoiding any federal pre-emption in the ordinance.

A: 2019 Nonresidential New Construction Reach Code Cost Effectiveness Study. TRC. July 25, 2019

B: 2019 Cost-effectiveness Study: Low-Rise Residential New Construction. Frontier Energy, Inc. August 1, 2019

Status of reach codes in the Bay Area

Other jurisdictions in the Bay Area have adopted or are actively considering similar reach codes. The following table summarizes the status and level of reach code policy adoption by neighboring agencies:

Table 4. Local reach code adoption matrix

Jurisdiction	Status	Approach (See below for explanation)
Berkeley	Adopted	Gas infrastructure ban and electric-preferred reach code
Campbell	First reading (Jan. 21)	Limit gas (1 + 2A)
Cupertino	First reading (Dec. 17)	Require all-electric (1)
Gilroy	Declined	
Los Altos	First reading (Jan. 23)	Require all-electric (1)
Los Altos Hills	Staff proposal (Dec. 4)	Limit gas (1 + 2A)
Los Gatos	Second reading (Dec. 17)	Require all-electric (1)
Menlo Park	Adopted	Require all-electric (1)
Milpitas	Adopted	Encourage gas reduction (1 + 2 + 2A)
Monte Sereno	Adopted	Encourage gas reduction (1 + 2 + 2A)
Morgan Hill	Adopted	Require all-electric
Mountain View	Adopted	Require all-electric
Palo Alto	Adopted	Require all-electric for some building types and limit gas for others
San Jose	Adopted	Gas infrastructure ban and electric-preferred reach code
San Mateo	Adopted	Encourage gas reduction (1 + 2 + 2A)
Saratoga	Second reading (Dec. 4)	Limit gas (1 + 2A)
Santa Clara County	Staff proposal	Encourage gas reduction (1 + 2 + 2A)
Sunnyvale	Staff proposal	Limit gas (1 + 2A)

1) All-electric (or nearly all-electric).

2) High Reach (electric + natural gas). Mixed fuel has higher efficiency requirements.

2A) Mostly electric. Typically, all-electric except for gas cooking.

Note that all of the above approaches allow for exemptions or modifications depending on local needs.

Note: Some jurisdictions impose different requirements on different types of buildings, e.g., requirement "1" for residential, "2" for high-rise residential and commercial, and "2A" for restaurants.

Outreach

Staff worked closely with the Cupertino Sustainability Commission's reach code subcommittee to review policy options and guide outreach efforts. Staff has engaged with the public through a variety of avenues, including public meetings, social media, and the reach codes outreach website[4], posted in September 2019. The website provides:

- Regional resources and an overview of the SVCE model code process.
- Frequently asked questions on reach codes.
- Outreach calendar to highlight opportunities for the public to get involved in Cupertino's adoption process.
- Contact information for Sustainability Division Staff for stakeholders to ask questions and provide direct feedback.

Staff has received public feedback throughout the development of the draft reach code ordinance through official public meetings, one-on-one discussions, emails, and a community workshop hosted by the Sustainability Commission reach codes subcommittee on October 16, 2019. Staff also received feedback from the public and members of Council at the November 19, 2019 Study Session.

The public feedback has been generally enthusiastic in support of an all-electric reach code, including letters of support from PG&E, local residents, and a number of professional engineers and architects. The feedback received from the development community indicated a more favorable outlook on the "electric-preferred" alternative reach code discussed in the November 19 Study Session, which allows for more consumer flexibility.

The feedback received by Staff, and the actions taken by Staff to address that feedback, is summarized in the following table:

Table 5. Feedback and Staff Responses

Feedback Received	Staff Response
Enthusiastic support to adopt an all-electric reach code ordinance.	The majority of public feedback received encouraged Staff to bring an all-electric reach code ordinance to Council. Council's direction received at the November study session also indicated support for an all-electric ordinance, with reasonable exemptions. In response, Staff changed the original recommendation, which was an "electric-preferred" ordinance, to match the recommendation of the Sustainability Commission, Council, and public sentiment.

[4] http://cupertino.org/reachcodes

Feedback Received	Staff Response
General concerns and questions about resilience and disaster preparation in light of the recent PG&E Public Safety Power Shutoff event.	Most modern gas appliances will not operate without electricity. For example, there are certain models of gas cooktop – especially newer models – that are made with a safety feature called an interlock. The purpose of an interlock is to prevent hazardous gas leaks by completely cutting off gas flow to the burners in the event of an electrical outage. Any attempt to light a gas burner with an interlock during a power outage will not be successful. Gas stoves also should not be operated without the electric ventilation fans, which take harmful combustion by-products away from the user. Modern gas water heating equipment that is installed in newly constructed buildings also cannot operate without electricity. Moreover, the all-electric reach code does not impact the ability to install generators or battery storage. These facts illustrate that all-electric buildings are no more subject to reliability concerns than a newly-constructed mixed-fuel building.
A need for reassurance that the codes will not affect existing residences and buildings or projects that have already gone through the permitting process.	The all-electric reach code and electric vehicle charging requirements only address new buildings applying for construction permits after the ordinance is adopted by the City and approved by the CEC, likely in early 2020.
A desire to support as much EV charging as possible, while considering implications for parking space needs.	The reach code requires more EV charging spots than the base building code. Staff believes that the EV reach codes strikes a reasonable balance between cost and space concerns, and the availability of charging stations for the expected growth of electric vehicle market share in our region.
A desire to exclude ADUs from the all-electric requirements so that ADU construction is not	ADUs are exempt from the all-electric provisions of the reach code. ADUs without additional parking are not required to comply with the EV requirements.

Feedback Received	Staff Response
discouraged. Staff also received less-frequently expressed desire to include ADUs in the Ordinance's scope.	
Concern over cost associated with construction-related delays – e.g. inspections, permitting, utility provisions.	The all-electric reach code provides for fewer items to be designed and inspected, thereby simplifying the design, approval, construction and inspection processes. For example, the all-electric building does not require the same level of air venting, piping, and metering infrastructure associated with gas appliances, which avoids significant capital and labor costs from a project.
A desire to require electric appliances upon any replacement/upgrade.	The reach code does not address remodel or tenant improvements within existing buildings, since Staff found that it was not cost-effective to require fuel switching from existing gas appliances to electric appliances in many cases. Incentive programs are more appropriate in addressing the retrofit market.
Requests to allow appropriate exemptions.	Staff is including specific exemptions for building types that cannot meet the cost-effectiveness test, where public comment has raised serious concerns on fuel choice, where the CEC has not yet provided a compliance pathway, and where the greenhouse gas impact from requiring all-electric construction would be limited. For example, there is an exemption allowing commercial kitchens to utilize gas appliances based on public sentiment.
A request to consider further community outreach such as an induction cooking event specifically for Asian cooking techniques.	Staff is speaking with other jurisdictions where similar events and resources are being offered. For example, San Jose has a program to loan induction stovetops to residents. Such a program can likely be implemented in Cupertino with existing staff resources.
Concern that restaurants often have specialty cooking	Staff modified the proposed ordinance to allow exemptions for kitchens in non-residential buildings.

Feedback Received	Staff Response
requirements using gas appliances.	
A desire to explore the natural gas infrastructure ban as was adopted by Berkeley.	A natural gas infrastructure ban would yield largely the same results for Cupertino as the proposed all-electric reach code, assuming similar exemptions.
Consumer operating costs were raised as a concern with all-electric buildings.	Cheaper renewable electricity and more efficient electric appliances have improved the cost-effectiveness of all-electric buildings. As shown in Table 3, above, the all-electric buildings studied are able to meet both capital cost and operating cost savings for the developer and consumer. In cases where there is no electric alternative, or where significant public concern has been registered on fuel choice, Staff has made appropriate exemptions and modifications available to permit applicants.

Next Steps

Modern technologies like electric heat pumps, solar photovoltaics, battery storage, electric vehicles, and induction cooking, are desirable consumer features in Cupertino's modern households and workplaces. Staff believes the proposed reach code is a wise policy to encourage more rapid development of this all-electric future.

Staff acknowledges that the successful implementation of the reach code is only a first step toward encouraging more rapid development of an all-electric future, and is expected to impact only a fraction of the built environment. Additional programs will be proposed to build upon this important policy such as:

- Local incentive and technical assistance programs for businesses and homeowners who wish to retrofit and electrify their buildings. Programs such as SVCE Future Fit[5], which pays homeowners to install electric heat pump water heaters, are expected to grow in scope in the short term.
- Education events such as induction cooking demonstrations with professional chefs, which can be recorded and shown on Cupertino TV.
- Information and assistance offered at the plan check counter for permit applicants to comply with the all-electric and electric vehicle requirements.
- Resources for homeowners in Cupertino such as an induction cooktop rental program.

[5] https://www.svcleanenergy.org/water-heating/

- Electric vehicle demonstration and drive days.

Summary of Cupertino's CALGreen Requirements

In addition to recommending adoption of the proposed all-electric reach code and EV requirements, Staff also recommends that City Council readopt its previously-adopted additions to CALGreen. The Cupertino Green Building ordinance (Ordinance 12-2099) was adopted on September 18, 2012 Council Meeting, and effective July 1, 2013. The ordinance aims to promote green practices (e.g., water, energy and resource conservation) through the design, construction and maintenance of new buildings and existing buildings undergoing major renovations. The City's Green Building Ordinance applies to all new residential and non-residential buildings and structures, additions, renovations, and tenant improvements where CALGreen and minimum green building measures are applicable.

The Ordinance readopts the existing Cupertino Green Building Ordinance as an amendment to CALGreen. In particular, as in the previous version, the Ordinance requires larger development projects to earn certification per the Leadership in Energy and Environmental Design (LEED) or Green Point Rated (GPR) standards. Smaller developments must meet CALGreen's minimum thresholds as established by the State.

Staff reviewed the Cupertino Green Building Ordinance and found it to be consistent with leading cities in California. For example, Sacramento, San Jose, San Francisco, and San Diego choose to align with third-party rating systems such as LEED. The advantage of aligning with a third-party rating system is that they are commonly known in the construction and design industry, introduce a third-party rater and expert to support the design team and City building inspectors, and are continually updated to drive best practices in the industry. The latest version of LEED, version 4, builds on the fundamentals of previous versions while offering a new system that prepares buildings to perform at a higher level.[6]

Conclusion

As described above, the proposed reach codes are aligned with Cupertino's Climate Action Plan (CAP) goals to decrease greenhouse gas emissions in the community. These local reach codes anticipate that building decarbonization is quickly becoming the policy of the State of California[7], and Cupertino has the ability to avoid risks of additional gas installations in buildings, which may become a liability under these future policy scenarios. The Energy Information Administration estimates that by 2023 it will cost $36.60 per megawatt-hour to produce electricity from wind and $37.60 to produce solar energy, versus $40.20 to produce energy from gas. Any investment in gas, either in a home appliance or a power generation plant, is thus at risk of failing to yield an economic return

[6] https://www.usgbc.org/help/how-leed-v4-different-leed-2009-rating-system

[7] https://www.cpuc.ca.gov/BuildingDecarb/

and becoming a stranded asset.[8] In addition, local reach codes are an important mechanism whereby markets are transformed by accelerating and scaling adoption of low-carbon technologies.

Environmental Determination

The proposed ordinance would not be deemed a project under the requirements of the California Quality Act of 1970 or the State CEQA Guidelines, Title 14 of the California Code of Regulations (collectively, "CEQA") because it has no potential for resulting in physical change in the environment, either directly or ultimately. In the event that the Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3), because it can be seen with certainty that there is no possibility that the project will have a significant effect on the environment. CEQA applies only to projects which have the potential of causing a significant effect on the environment. In this circumstance, the amendments to the City Code would have no or only a de minimis impact on the environment. The Ordinance is also exempt from CEQA under CEQA Guidelines section 15308, because it is a regulatory action for the protection of the environment.

Fiscal Impact

The proposed reach codes are not anticipated to result in additional costs to the City. Conducting this first reading of the reach code ordinance qualifies the City to receive a $10,000 grant from SVCE to support some of the staff and consultant time during the development of the code. Cupertino building officials are already transitioning to enforcement of the new California Building Standards as adopted by the City with local amendments and modifications, which occurs on a three-year cycle. Thus, the introduction of an all-electric building requirement does not represent a significant increase in staff time to review any new permit applications. One advantage of the all-electric ordinance may be to reduce the number of items that need to be inspected in the field (for example, air vents and shutoff safety elements for gas appliances), which could reduce plan check and inspection time. In addition, SVCE and local partners have offered support to building officials to develop inspection checklists for any the model codes being considered in SVCE's region.

Sustainability Impact

The proposed ordinance is expected to mitigate much of the carbon emissions impact of future development in the City of Cupertino, bringing the City closer to meeting the target emissions reduction pathway as outlined in the Climate Action Plan. This ordinance also aligns Cupertino with current and anticipated future State policies to decarbonize the building and transportation sectors.

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[8] "The False Promise of Natural Gas" *The New England Journal of Medicine, Perspective. December 4, 2019.* https://www.nejm.org/doi/full/10.1056/NEJMp1913663

Reviewed by: Katy Nomura, Assistant to the City Manager
Albert Salvador, Assistant Director of Community Development/Building Official
Approved for Submission by: Deborah Feng, City Manager

Attachments:

A – Ordinance
B – Resolution Making Findings of Local Necessity
C – November 19, 2019 Study Session Staff Report
D – 2019 Residential New Construction Cost-Effectiveness Study
E - 2019 Nonresidential New Construction Cost-Effectiveness Study
F - Redlined Version of Ordinance

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