

From: [Scott Shell](#)
To: [Kelly Cha](#)
Subject: Green Building Program Update
Date: Monday, March 18, 2019 4:44:12 PM
Attachments: [image001.png](#)

Hi Kelly,

I had a chance to review the Green Building Program update. Many thanks for all your great work on this!!!

I realize it is very last minute, but I have the following comments below in **RED**.

In general I think it would be beneficial to the city and residents of Sunnyvale to incentivize the electrification path by the modifications noted below.

For the projects our firm is working on in Sunnyvale those changes would make it more likely to get all the benefits of electrification.

If I can support your efforts in any way please don't hesitate to ask.

Very best regards,

Scott Shell

EHDD Architects

415-671-9194

1. ***Minimum Standards for Single-Family or Duplex Dwelling:***

Current	Proposed
- GreenPoint Rated Checklist with 80 points minimum and rater verification. - CALGreen Mandatory Measures.	- GreenPoint Rated Checklist with <u>90</u> points minimum and rater verification. - CALGreen Mandatory Measures. OR 80 GreenPoints AND all electric

Strengthen all electric requirement.

2. ***Incentives for Single-Family or Duplex Dwellings:***

Current	Proposed
- Incentive: increase lot coverage by 5%. - Requirement: 110 points minimum with verification.	- Incentive: Increase lot coverage by 5% <u>or qualify for staff level design review with a FAR up to 50% or 4,000 sq. ft. (whichever is less).</u> - Requirement: 120 110 points with Build It Green Certification; OR AND All-electric appliances for the entire home (no gas line connection).

Strengthen electrification requirement

Minimum Standards for Multi-Family Residential Development:

Current	Proposed
- GreenPoint Rated Checklist with	- GreenPoint Rated Checklist

80 points minimum and verification. - CALGreen Mandatory Measures.	with <u>90</u> points minimum and <u>Build It Green Certification</u> . - <u>Highly encouraged to include any combination of the following items:</u> ▪ <u>All-electric appliances in every unit (no gas line connection for the project);</u> ▪ <u>Cool roof or green roof;</u> ▪ <u>Install EV chargers;</u> or ▪ <u>Greywater, recycled water, and/or rainwater catchment system.</u> - CALGreen Mandatory Measures. OR CalGreen Mandatory measures AND all electric

Delete Cool-roof as an option, as this is almost standard these days.

Incentives for Multi-Family Residential Development:

Current	Proposed
- Incentive: Increase building height by 5 feet, lot coverage by 5%, or receive a 5% density bonus. - Requirement: 110 points minimum with verification.	- Incentive: Increase building height by 5 feet, lot coverage by 5%, or receive a 5% density bonus (<i>no change</i>). - Requirement: <u>120</u> points with <u>Build It Green Certification</u> , <u>AND All-electric appliances for the entire home (no gas line connection)</u> , <u>AND Provide one (or more) of the following items:</u> ▪ <u>A cool roof or green roof,</u> or ▪ <u>EV chargers,</u> or ▪ <u>Greywater, recycled water, and/or rainwater catchment system(s).</u>

Delete cool roof as an option as this is already very common

Minimum Standards for New Construction/Initial Tenant Improvements for projects larger than 30,000 square feet:

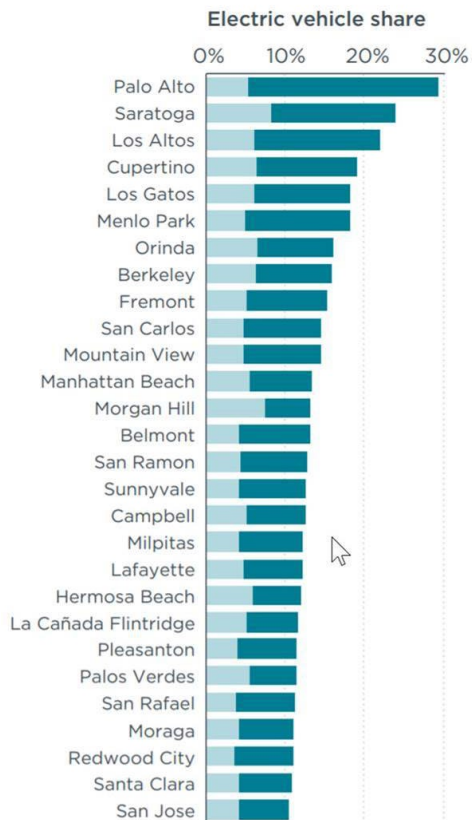
Current	Proposed
- LEED Gold Level with verification by a LEED AP. - CALGreen Mandatory Measures.	- LEED <u>Gold</u> Level with <u>USGBC Certification, including Design Phase Credits reviewed and approved by USGBC.</u> - CALGreen Mandatory Measures. OR all electric (no LEED requirement)

CALGreen already covers many of the LEED Points, electrification is more important.

Require EV chargers at all projects, or at a minimum require pre-wiring for a charger (Title 24 now requires pre-wiring for electric water heaters even if installing gas since first cost to pre-wire is so

cheap).

Chart below shows percentage of new car sales in 2017—around 15% in Sunnyvale.



Here are others who are supporting electrification

San Jose Mayor supports getting off gas:

<https://calmatters.org/articles/commentary/green-buildings/>

University of California bans Gas for heating & hot water on all ten campuses:

https://www.greentechmedia.com/articles/read/california-universities-are-transitioning-to-all-electric-buildings#gs.QUr5W_E

so does UK

<https://utilityweek.co.uk/gas-connections-new-homes-banned-2025/>

Netherlands is already doing is

<http://energypost.eu/a-revolution-the-netherlands-kisses-gas-goodbye-but-will-it-help-the-climate/>

Hearing on the topic in San Mateo on Tuesday

<https://www.eventbrite.com/e/2019-reach-code-charrette-for-the-general-public-hosted-in-san-mateo-tickets-57237634305>

And in San Jose on Wednesday:

<https://www.eventbrite.com/e/2019-reach-code-charrette-for-the-general-public-hosted-in-san-jose-tickets-57238176928>

<https://peninsulareachcodes.org/>

Scott Shell FAIA, LEED® AP BD+C, CPHC®
Principal

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From: Aimee Bailey [REDACTED]
Sent: Monday, March 18, 2019 10:48 AM
To: Delforge, Pierre [REDACTED] Sean Armstrong [REDACTED] Ted
Tiffany [REDACTED] Panama Bartholomy [REDACTED] Scott Shell
[REDACTED]
Subject: FW: Green Building Program Update

Hi all,

Way back in October, I had reached out to you on Sunnyvale's Green Building Program update. Thanks so much again for your support and responses back then, both to me and directly to Sunnyvale city staff.

FYI, they've scheduled public hearings for the update. Please see their e-mail below. I wanted to share in case you aren't on their list and in case you wanted to provide additional feedback.

Also for context, Sunnyvale is an SVCE member agency participating in our reach code effort.

Best, Aimee

From: Kelly Cha <KCha@sunnyvale.ca.gov>
Sent: Monday, March 18, 2019 8:54 AM
Cc: Amber Blizinski <ABlizinski@sunnyvale.ca.gov>; Andrew Miner <AMiner@sunnyvale.ca.gov>
Subject: Green Building Program Update

Good morning,

Thank you so much for your input and feedback on the City's Green Building Program Update process. Staff has finalized the recommendations and scheduled public hearings. Here is the scheduled public hearings for the Green Building Program Update:

- **Sustainability Commission** – Monday 3/17 at 7:00 PM, West Conference Room
- **Planning Commission** – Monday 3/25 at 7:00 PM, City Council Chamber

- **City Council** – Tuesday, May 7 at 7:00 PM, City Council Chamber

You can review the staff report for tonight's Sustainable Commission hearing [here](#). If you have any questions or have additional comments, please contact me without hesitation.

Thank you so much for your continued interest in the Green Building Program Update.



KELLY CHA
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<https://www.svcleanenergy.org/customer-confidentiality>

From: [Kristel Wickham](#)
To: [Kelly Cha](#); [Amber Blizinski](#)
Cc: [Andrew Miner](#)
Subject: Re: Green Building Program Update
Date: Tuesday, March 19, 2019 1:06:10 PM
Attachments: [Screen Shot 2019-03-19 at 10.39.45 AM.png](#)
[image001.png](#)

Kelly, Amber,

Thank you for presenting at last night's Sustainability Commission and addressing all our questions.

I really appreciate the effort that has gone into the Green Building Code update and the engagement of stakeholders.

I would like to provide my last bit of input - I didn't get to every item last night and some points are very minor.

These of course are my own and are not intended to represent the Sustainability Commission.

Appreciations Thank you for:

- Incentivizing and encouraging electrification
- Lowering the project size at which incentives apply for Commercial (from 100,000 to 30,000 sq ft)
- Showing comparisons with other cities and the evolution over time of Sunnyvale's Green Building Code
- Including LEED Platinum for the additional 10% FAR incentive on Moffett Park Commercial
- The bump from LEED Silver to Gold for Mandatory non-residential between 5000 & 30000 sq ft

Requests

- Please ensure that the future reviews of the Green Building Code occur at the three year intervals in alignment with state code releases. I understand the staffing issues that occurred over the last cycle, but please develop plans to mitigate that risk. There was missed opportunity in the delay of this update to begin setting the stage for electrification and other GHG reducing measures.
- Regarding Public Facilities, maybe include something to the effect of 'The city is committed to building electrification and will specify all-electric construction of public facilities except where exceptional circumstances of life cycle cost or application preclude it.' In the CAP Draft Playbook, Move 2-D calls for electrifying the new civic center. This can also be an education opportunity because signage or information about the building and its energy use can be displayed inside. An example of an 'exceptional circumstance' could be the wastewater treatment plant which we will probably still want to have utilize the landfill gas for some of the power instead of fully electrifying it.
- As mentioned at the Sustainability Commission meeting, include language for Single Family Residential about 'highly encouraging' similar items to the multifamily residential (especially with respect to electric systems for space and water heating).
- Could a general statement be added for non-residential that electric systems and installation of EV chargers are 'highly encouraged' for all sized projects? This may also

help set the stage for later revisions where these might become mandatory.

- In coordination with the draft Climate Action Playbook strategy 2 for Decarbonizing Buildings consider ways to promote fuel switching in everyday conversations at the the One Stop Permit Office (staff training, displays of induction cooktops and heat pumps, etc.). By increasing awareness of the benefits now, it will be easier to require the transition later.

Editorial comments

- On the first page of the draft Resolution there is reference to ‘fighting climate change’. Suggestion to perhaps use ‘mitigating climate change’ to shift the language away from a tone of war and violence to one of positive action.
- In Exhibit A Green Building Program, the first two paragraphs are almost the same. Suggest editing to remove the duplication.
- For Multifamily Residential mandatory measures it is highly encouraged to "Install EV Chargers". Maybe clarify in the Note 2 that this is in addition to the mandatory requirement of 'Prewiring for Level 2 electric vehicle chargers'.
- Cool Roof definition on the Definitions page seems a bit ambiguous. The ‘roofing product’ is just a special paint correct? Are there requirements for how heat reflective it needs to be to qualify? Does any white paint work or must it be ‘cool roof’ designated?
- To the previous point, consider adding links or references for people to go to get more information about some of the acronyms and concepts (like for ILFI, USGBC, LEED, Cool Roofs, Zero Energy, Zero Carbon...)
- Typo: Change ‘amd’ to ‘and’

2019	
SFH	120 points or all-electric home
MFH	1. 120 points certified; amd 2. All-electric home; and 3. 1 add'l item

Questions

- For Non-residential > 30,000 sq ft incentives one of the options is the “Zero Energy” certification from ILFI. Since all-electric (no gas line connection) is also required to get the incentive then couldn't the requirement be to get the "Zero Carbon" certification from ILFI? Just wondering why ‘Zero Energy’ was chosen instead of ‘Zero Carbon’. I guess they could still go for Direct Access Electricity instead of SVCE in the operation of the building and that would not get them to ‘zero carbon’. Or perhaps the 'Zero Energy' designation is to prepare for and align to the 2030 state requirement for commercial construction which currently references Net Zero Energy?

Thanks for your consideration,

Kristel Wickham
Vice Chair, Sustainability Commission

From: [Sean Armstrong](#)
To: [Kelly Cha](#); [Amy Dryden](#)
Cc: [Scott Shell](#)
Subject: Fwd: Green Building Program Update
Date: Monday, March 18, 2019 10:07:05 PM
Attachments: [image.png](#)
[New Home Rating Manual v7-9.pdf](#)

Dear Ms. Cha,

I am writing to endorse the approach proposed by Scott Shell of EHDD, that of reducing GreenPoint Rated scoring prerequisites if residential developers go all-electric. Further, within GPR for Homes there is Option J5, for a whopping 25 points within Energy, similar to if the developer builds 10% above T24 Code, but available IF:

1. They build all-electric
2. They are 3% above Code
3. They install a PV array of any size (already required in 2020 code...)
4. They use a Heat Pump water heater with an Energy Factor of 3.2+ (see below)

It seems like going all-electric is good advice for developers cost-effectively complying with GreenPoint Rated, and even triggers other free points within GPR, such as 3 points for non-combustion space heating (H1, on p.103). I do not know about Commercial, I have cced Amy Dryden in hopes of clarification).

Best regards,
Sean

J Building Performance and Testing

The percentage performance above code is shown in the Title 24 CF-1R form for low-rise residential buildings and PERF-1 form for residential buildings over three stories tall and for nonresidential buildings. The final simulation report must be used to show evidence that the project exceeds the CEC. The report must include the actual building components and HVAC systems included in the final building.

Option Two: All Electric Compliance. The approach for compliance, for both single family and multifamily is as follows:

- o 3% compliance margin
- o Prescriptive requirements: water heating that includes either the installation of a HPWH with an energy factor of 3.2 or greater or a solar thermal system with a minimum 30% solar fraction
- o All electric homes must have a photovoltaic system
- o Photovoltaics may be used to meet compliance

Option Three: Annual Energy Use Compliance. This pathway is a compliance pathway that aligns with Net Zero Energy. This option requires a project to demonstrate a percentage over a whole building use based on the GPR Energy and Water Calculator. The end uses in this tool include heating, cooling, domestic hot water, appliances, lighting, and plug loads. The compliance margin over the whole building usage is 20%. This compliance margin applies to single family and multifamily low rise and high rise.

Option Four: EDR. This option has not been fully developed at this time. GreenPoint Rated will work to develop a compliance pathway using Energy Design Rating (EDR) provided through the compliance software. The EDR is the sum of the annual TDV energy consumption for energy use components included in the compliance software. **Note: The following information applies to multifamily projects only.**

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