

# Town Council Study Session

## Reach Code Effort & Potential Update to Town's Green Building Ordinance

September 25, 2019

Town of Portola Valley



# Study Session Overview

- Timeline
- Review of Reach Code Concept
- Regional Reach Code Effort
- Current Green Building Ordinance
- Opportunities to Update
- Input from Sustainability Committee



# Ordinance Update Timeline

- Get High-Level Feedback Tonight
- BIG GPR Final Checklist expected Mid-October
- Review Against Current Ordinance Language
- Provide Another Update to Council
  - Late October/Early November – depending on checklist release



# What are Reach Codes?

- Local enhancements to state code
- Adopted with current building code cycle

## Potential Benefits of Reach Codes

- Economic value for residents now and prevents expensive future retrofits
- Safer and healthier homes – no combustion
- Enables greater EV adoption
- Fiscal prudence – more cost effective to address at new construction
- Advance climate goals



# Regional Reach Code Effort

- Joint Effort: Peninsula Clean Energy, County Office of Sustainability & Silicon Valley Clean Energy
- \$10,000k grant & Technical Support
- Model Reach Code Ordinance Language
  1. Building electrification – reduced use of natural gas (methane) and associated emissions
  2. Electric vehicle (EV) charging – increased EV readiness
- Future Implementation Support



# Current Green Building Ordinance

- Relies on BIG GreenPoint Rated Checklist
- Additional Requirements for
  - EV Readiness
  - Solar PV and Solar Thermal Readiness
  - Graywater Readiness
  - Reduction in Potable Water on Turf



# Build It Green – GPR Update

- Checklist incorporates Mixed Fuel Model used for Cost Effectiveness Study
- Includes Electric Readiness
- Rewards All Electric
- Finalized Checklist Available Mid-October



# Sustainability Committee GBO Sub-Committee Recommendations

- Update GBO
  - Continue reliance on BIG GPR
    - Encourages mixed fuel, requires all electric readiness and encourages all electric
  - Educate and encourage all electric
    - Provide training
- Consider all electric for Multi-Family
- EV Readiness
  - Add Level 1 EV (standard 110v outlet)
  - Don't require charger





# Guidance Needed

- Continue with BIG GreenPoint Rated Checklist
  - Provides value beyond electrification
  - State CalGreen Code and other measures are verified by 3<sup>rd</sup> Party
  - Used in Portola Valley since 2010
  - Easily update the Ordinance to encourage Mixed Fuel and Electric Homes






# Guidance Needed

- Electric Vehicle Charging Stations
  - Currently require Level 2 EV readiness (dryer outlet)
    - Meets CalGreen Mandatory
    - Add outlet and label to meet Regional Reach Code Recommendation
  - Options
    - Add Level 1 EV (standard 110v outlet)



# Electric Vehicles - Single and Two-family New Construction

	2016 CALGreen	2019 CALGreen	PCE/SVCE Proposed
	Mandatory	Mandatory	
Single Family Two-Family Townhome	(1) Level 2 EV Capable for one parking space per dwelling unit		<p>2 EV spaces total:</p> <ul style="list-style-type: none"> <li>• 1 Level 2 EV Ready circuit</li> <li>• 1 Level 1 EV Ready circuit</li> </ul>    <div data-bbox="1653 733 1846 868" style="border: 1px solid gray; padding: 5px; text-align: center;">ELECTRIC VEHICLE OUTLET</div>

# Guidance Needed

Maintain Current Requirements?

- Solar PV and Solar Thermal Readiness
- Graywater Readiness
- Reduction in Potable Water on Turf



# For Further Study

- Opportunities with ADUs
  - EV Readiness on detached units
- Non-Residential
  - Increased EV readiness requirements
- Multi-Family
  - Review against updated BIG GPR Checklist, once available



# Next Steps

- BIG GPT Final Checklist expected Mid-October
- Prepare Update to Ordinance Language
- Provide Update to Council with Edited Ordinance Language
  - Late October/Early November – depending on checklist release



# Questions



# University of California- All-Electric New Construction

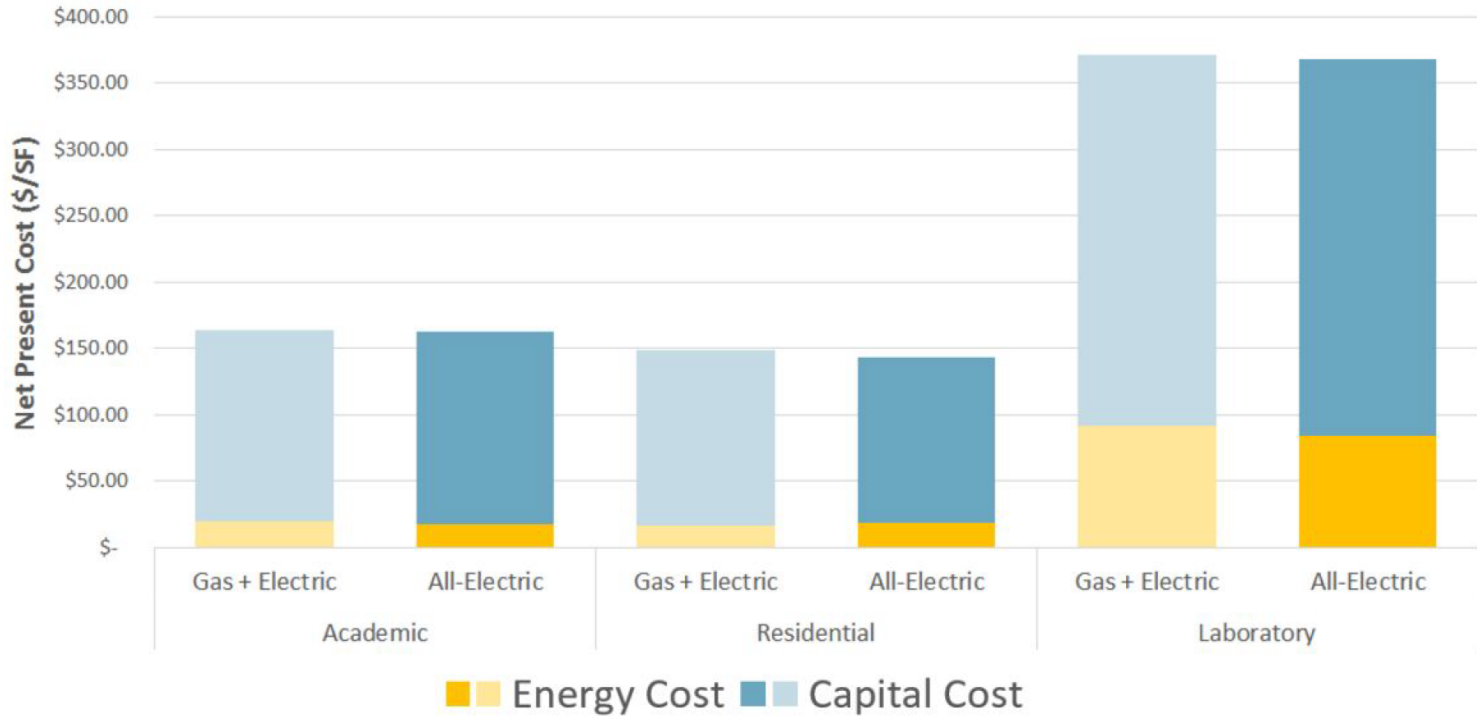


Figure 1. UC Average Total Net Present Costs across All Campuses





# Electric Vehicle Terms - Background

## Speed

**Level 1**  
"Trickle Charging"



**Level 2**  
"Standard Charging"

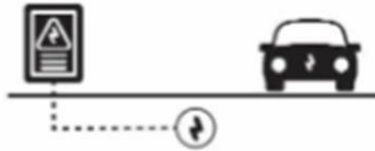


**Level 3**  
"DC Fast / SuperCharging"



## Readiness

**EV Capable**



**EV Ready**



**EV Charging Station**



## Number

Percent of  
Parking Spaces

