


City Council

Item 6
RTC 21-371
Climate Action Plan Update

March 2, 2021

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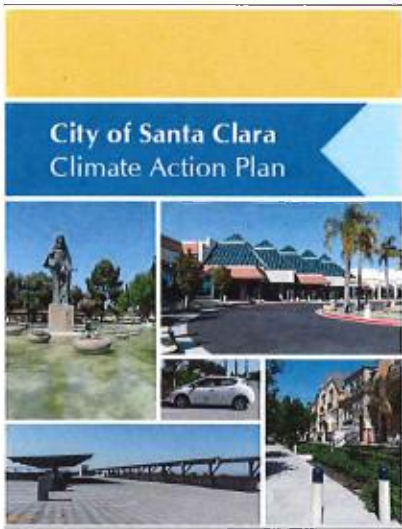


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Background

Current Climate Action Plan

- Implements City's General Plan Goals & Policies for sustainability and environmental quality
- Adopted – December 2013
- Greenhouse Gas (GHG) reduction target: 20% below 1990 levels through year 2020



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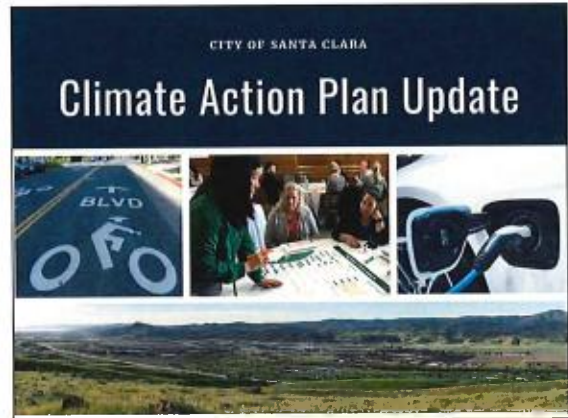
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Background

Why the Update?

- Address new State requirements
- Extend City's GHG reduction goals through 2030, consistent with AB32 targets
- Qualified CAP provides CEQA streamlining benefits



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Council Meeting Goals

- Confirmation of proposed GHG reduction target
- Feedback on initial Strategies and Actions
- Input on draft Reach Codes



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Consulting Team

Firm

Cascadia Consulting Group | Andrea Martin

Women-owned firm empowering clients to direct their own progress toward sustainability, resource conservation, climate resilience, low impact development, and waste reduction goals.

Raimi + Associates | Walker Wells

Mission-driven planning, urban design, policy, and research firm providing a range of consulting services that support healthy, sustainable, and equitable communities.

David J. Powers & Associates | Shannon George

Environmental planners specializing in providing comprehensive environmental consulting and impact analysis services.

Project Role

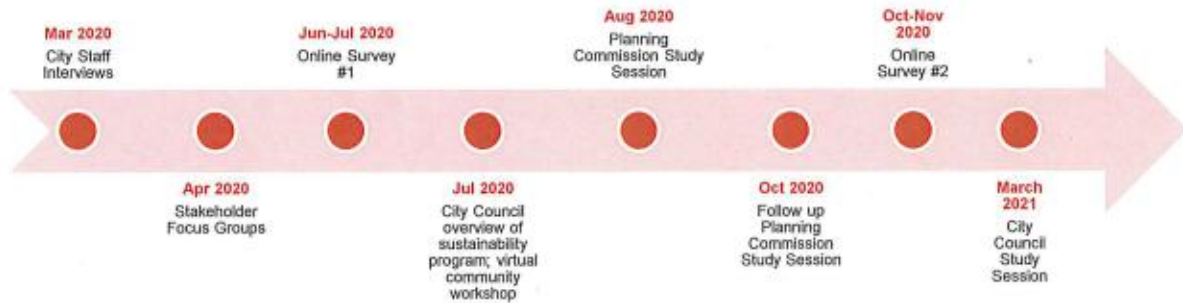
- Project management
- Strategy development and evaluation
- Implementation planning
- Climate Action Plan drafting
- Greenhouse gas emissions forecasting
- Target setting
- Public engagement
- CEQA lead

2020 CAP Update Process





Where we've been...



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Community Engagement

1. Focus Groups
2. Online Surveys (2)
3. Virtual Community Workshop
4. Planning Commission Study Sessions (2)

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What we've heard...

Threats

Sea level rise • Poor air quality • Heat

Barriers

Lack of... Awareness • City/regional support • Political will

Goals

- Set ambitious GHG reduction targets
- Become a climate action leader

Actions

- Increase amount of **renewable energy** SVP provides.
- Adopt **all-electric or electric-preferred** reach codes.
- Reduce **vehicle miles travelled**.
- Promote **electric vehicles**.
- Improve transportation network for **cyclists** and **pedestrians**.
- Improve **regional mobility** and mobility options.
- Promote **voluntary/incentive-based** measures.

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Planning Commission Feedback


Themes from (2) Planning Commission Study Sessions:

- Set ambitious targets (City of Santa Clara as climate action leader)
- Reduce VMT and promote EVs
- Focus on reducing data center energy consumption
- Facilitate telecommuting (reliable internet)
- Incorporate reach codes

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Forecasts & Targets



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Regulatory Background

-  AB 32, SB 32, EO B-55-18, SB 100, EO N-79-20
-  California Renewable Portfolio Standard Program
-  CBSC Energy Efficiency Standards
-  California Clean Car Standards, ZEV by 2035
-  SB 1383 (2016)

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Considerations for Adopting Target

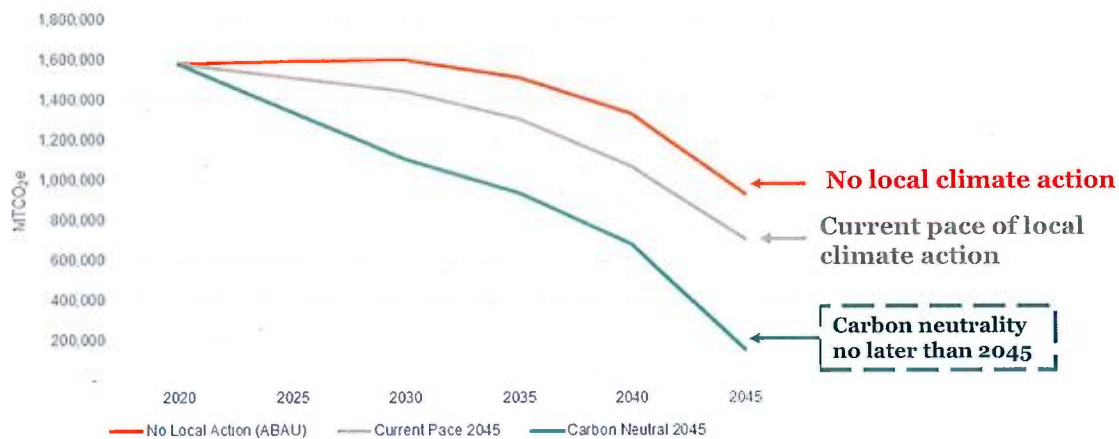
- Consistency with current and anticipated SVP IRPs
 - Requirement: 60% renewable by 2030 (SB 100)
 - Goal: 100% carbon-free electricity by 2045
- Alignment with Reach Codes, Bicycle Master Plan, SVP EV Blueprint, Santa Clara UWMP
- Combination of incentives/voluntary measures and regulations

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Recommended GHG Reduction Target



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CAP Update: Forecast and Target

Recommended Option: Carbon neutrality *no later than* 2045 (EO B-55-18)

Alternative Options:

- Comply with State emissions reduction targets set forth in SB 32 (40% below baseline levels by 2030 and 80% by 2050).
- Set a City target more aggressive than State guidance.

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Strategies & Actions

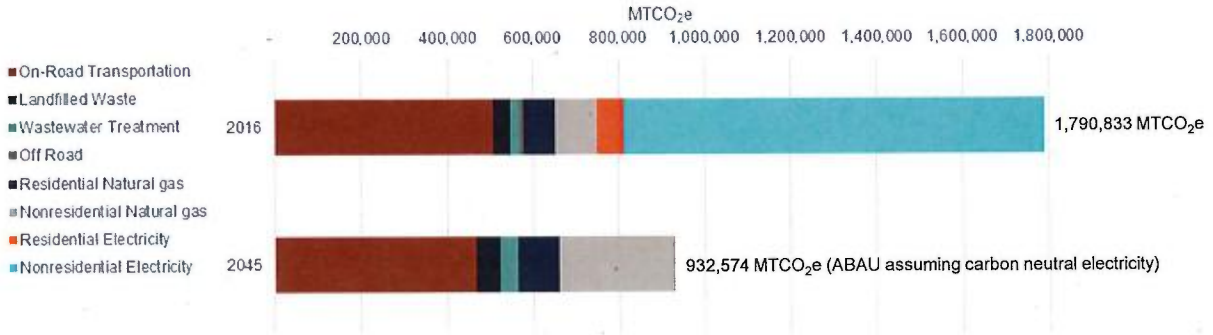


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2016 and 2045 Emissions Profiles

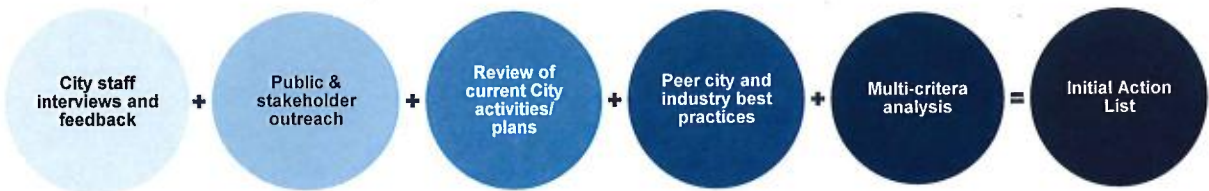


	2016	2045
Per capita	14.35 MT CO ₂ e	5.57 MT CO ₂ e
Per service population	9.55 MT CO ₂ e	2.75 MT CO ₂ e

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Recommended Strategies & Actions



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Recommended Strategies

Focus Area	Strategies
Buildings & Energy	<ul style="list-style-type: none"> • Shift to electric fuels in new and existing buildings to achieve zero-net carbon buildings • Manage energy demand and improve energy efficiency • Maximize renewable energy generation and storage capacity
Transportation & Land Use	<ul style="list-style-type: none"> • Transition vehicles to electric alternatives • Expand use of non-SOV transportation modes • Advance sustainable land use
Materials & Consumption	<ul style="list-style-type: none"> • Increase waste diversion • Reduce landfilled food waste • Enhance sustainable production and consumption
Natural Systems & Water Resources	<ul style="list-style-type: none"> • Increase tree canopy cover • Enhance ecosystem resilience • Improve water supply & conservation
Community Resilience & Wellbeing	<ul style="list-style-type: none"> • Improve community resilience • Prepare for climate change

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Reach Codes



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Reach Codes

Background

- Locally adopted Building Codes that exceed State standards
- Implementation Tool for Climate Action Plan
- Address electrification of new construction:
 - Buildings
 - Transportation - electric vehicle (EV) charging infrastructure

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Reach Codes

Considerations

- Alignment with City objectives
- Peninsula Reach Code
- Stakeholder outreach
- Cost/benefit analysis
- Actions taken by surrounding cities
- Benefits to Climate Action Plan

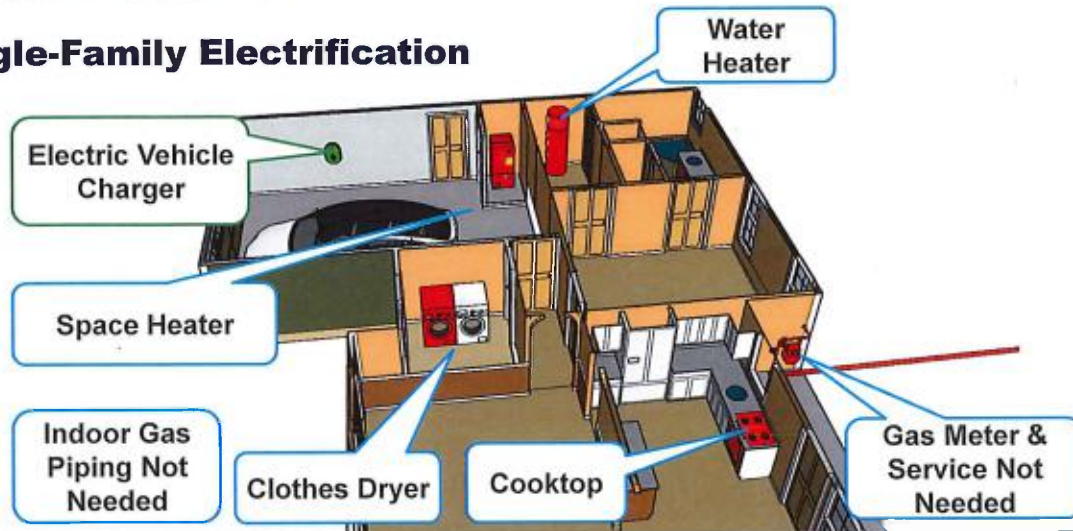
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Reach Codes

Single-Family Electrification



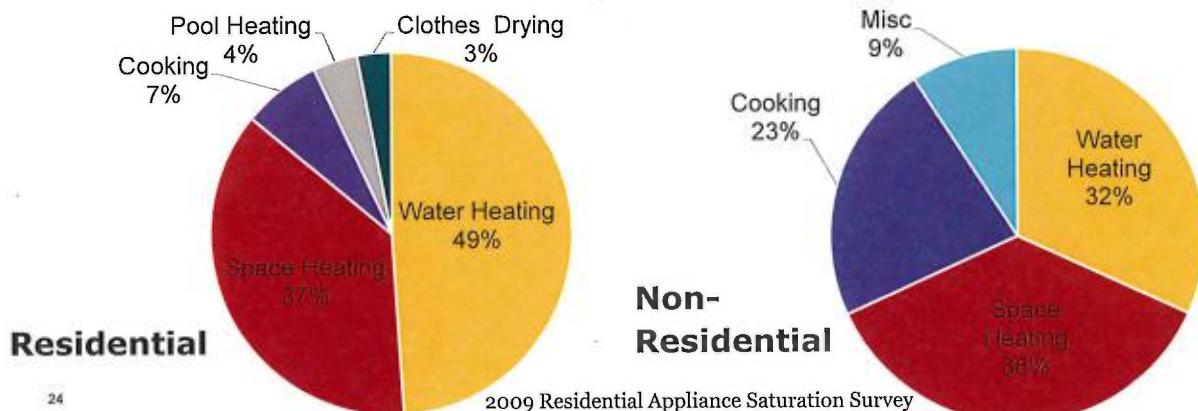
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Reach Codes

Thermal Energy Use in CA



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2009 Residential Appliance Saturation Survey
2006 California Commercial End Use Survey

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Reach Codes

Options for New Construction

Code Type	How it Works
Natural Gas Ban*	No gas hookup allowed (via Land Use Code)
All-Electric Required*	Appliances must be electric (via Energy Code)
All-Electric Preferred	Allows mixed-fuel buildings with high energy performance: <ul style="list-style-type: none"> • additional energy efficiency measures • battery storage • electric-ready (pre-wiring)

* Exceptions where necessary

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EV Reach Code Minimums

Type	Single Family	Multifamily <20 parking spaces	Multifamily >20 parking spaces	Office Building	Other Commercial
EV Installed				10% of spaces	6% of spaces
EV Ready (Level 2)	1 space	1 space	25% of spaces		5% of spaces
EV Ready (Level 1)	1 space		75% of spaces	10% of spaces	
EV Capable				30% of spaces	



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Reach Code Adoption Status

Jurisdiction	Reach Code Type				
	No Reach	Electric Preferred	All-Electric*	Natural Gas Bans*	EV Infrastructure
Campbell			X (Res)		X
Cupertino			X		X
Gilroy	X				
Los Altos			X		
Los Altos Hills			X (Res)		
Los Gatos			X (Res)		X
Milpitas		X			X
Morgan Hill				X	
Mountain View			X		X
Palo Alto		X (NonRes)	X (Res)		X
San Jose				X	X
Saratoga			X		
Sunnyvale			X		

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Reach Code

Options for Council Consideration

- Confirm overall approach – All Electric Required for new construction with specific exceptions
- Use neighboring cities as a model
 - EV Options
 - Exceptions
- Other objectives (e.g. require solar on new construction)

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Next Steps

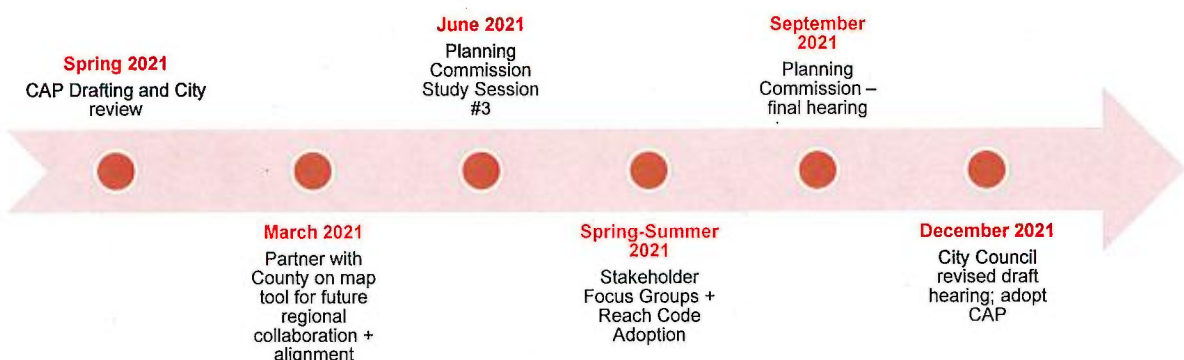
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What's Next?



- Spring 2021**
CAP Drafting and City review
- March 2021**
Partner with County on map tool for future regional collaboration + alignment
- June 2021**
Planning Commission Study Session #3
- Spring-Summer 2021**
Stakeholder Focus Groups + Reach Code Adoption
- September 2021**
Planning Commission – final hearing
- December 2021**
City Council revised draft hearing; adopt CAP

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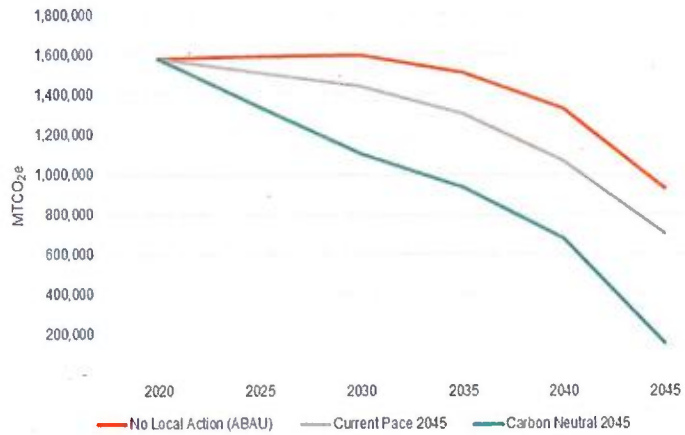
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Discussion:

- **Confirm** the proposed emissions reduction target
- **Provide feedback** on the initial actions list
- **Provide input** on draft Reach Codes (as they relate to CAP)

Santa Clara GHG Emissions 2020-2045



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