CLIMATE ACTION PLAYBOOK

Bicycle and Pedestrian Advisory Commission
July 18, 2019

Sunnyvale

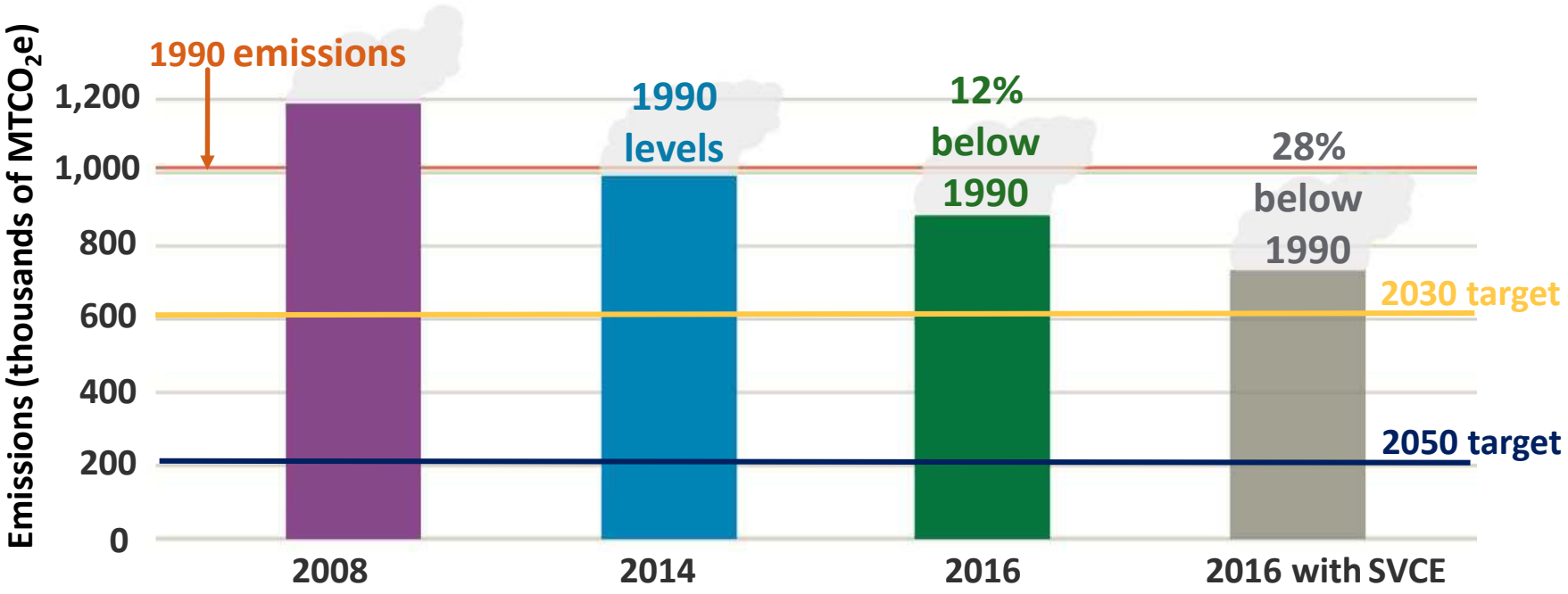
Overview

1. Climate Action: Building on Success
2. Inside Our Playbook
3. Game Plan 2022: Our Next Moves
4. Public Review Feedback
5. Proposed Final Playbook
6. Recommendations

Climate Action: Building on Success

Climate Action in Sunnyvale

- Climate Action Plan 1.0 adopted 2014
- Goal: Reduce emissions to 1990 levels by 2020 (achieved by 2014)
- California State targets:
  - 40x30
  - 80x50



A New Era of Climate Action

- Climate Action Plan (2.0) Initiative:
  - Establish emission targets
  - Identify path to reach them
- Formed CAP 2.0 Advisory Committee
- Consultant support for:
  - Technical Analysis
  - Community Engagement
- Result:
  - **Climate Action Playbook**

What is a Climate Action Playbook?

A plan to reduce greenhouse gas emissions to address climate change.

Proposed

End Game

80% below 1990 by 2050

(carbon neutrality)

Inside Our Playbook

How Our Playbook is Organized

Six Climate Strategies for the Win

Strategy 1

Promoting Clean Electricity

Strategy 2

Decarbonizing Buildings

Strategy 3

Decarbonizing Transportation & Sustainable Land Use

Strategy 4

Managing Resources Sustainably

Strategy 5

Empowering Our Community

Strategy 6

Adapting to a Changing Climate

Strategy 1: Promoting Clean Electricity

Plays		Targets	Moves	
1.1	Promote 100% clean electricity	2030: 100% participation in clean electricity 2050: 100% participation in clean electricity	1.A	Continue to support and steer SVCE in providing clean power and decarbonization programs.
			1.B	Collaborate with SVCE to target direct access customers to shift to 100% clean electricity.
1.2	Increase distributed solar photovoltaics	2030: 3% of load from local solar 2050: 5% of load from local solar	1.C	Research a mandatory solar roof ordinance for new commercial developments.

Path to 2050

3-5 Year Plans

Game Plan 2022: Our Next Moves

What is a Game Plan? (Handout #3)

- Game Plan 2022:
  - "next moves" for 3 years only
  - updated every 5 years thereafter
  - moves sourced from community ideas
  - teamwork between City and community

- Why do it this way?
  - Changing regulations
  - Evolving technologies
  - Changing trends and community needs

Strategy 3: Decarbonizing Transportation & Sustainable Land Use

Plays		Targets
Play 3.1	Balance land use supply and enhance urban form	2030 Target: 13% reduction in vehicle miles per person 2050 Target: 25% reduction in vehicle miles per person
Play 3.2	Increase transportation options and support shared mobility	
Play 3.3	Increase zero-emission vehicles	2030: 20% of all vehicles on road are zero-emission vehicles 2050: 75% of all vehicles on road are zero-emission vehicles

Moves (Handout #3)

- Move 3.A: Plan for additional housing to reduce long-distance commutes.
- Move 3.E: Update and Implement the Bike, Ped, and Safe Routes to School Plan.
- Move 3.L: Electrify Municipal Fleet as vehicles are replaced

Public Review Feedback

Outreach for Draft Playbook

Online:

- Top 30 Projects webpage
- News Post on City's website
- Social Media (Facebook, Next Door)
- Mercury News Website Banner Ads
- Update Sunnyvale (3/21, 4/18)
- Sustainable Sunnyvale e-Newsletter (4/5)
- Library and Senior Center e-newsletters
- City Events Calendar
- Email Blasts to CAC, B/C, Playbook subscription list, Playbook workshop attendees, Mercury News list, City staff

Other channels:

- Sunnyvale Sun
- Council Announcement
- Screen ads at City facilities

Community Engagement for Draft Playbook

7 public meetings • 7 community events • 152 people surveyed

Public Meetings	Attendees±
CAP 2.0 Advisory Committee (CAC)	18
Community	17
Joint Info Study Session for 3 Commissions	24
Focus Group: Developer	3
Focus Group: Business	4
Informal Meeting: Unitarian Universalist Fellowship	27
Informal Meeting: Rotary Club	26
TOTAL	**119**

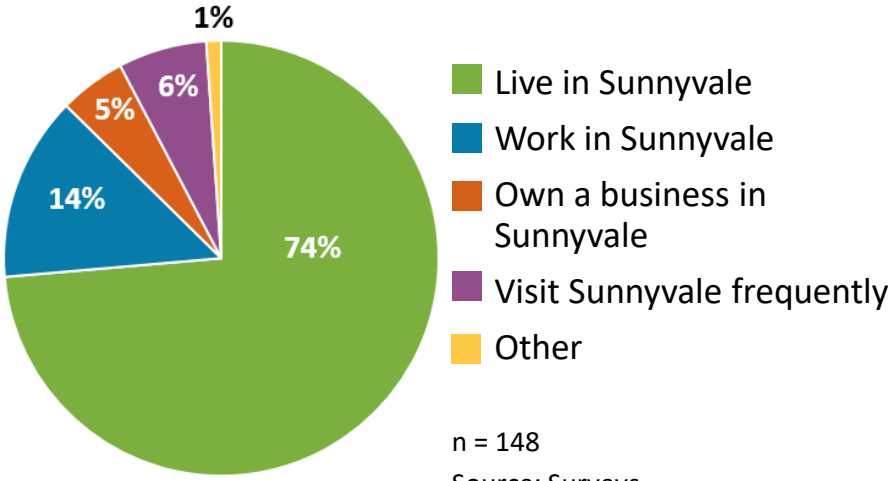
± The attendee count does not distinguish community members who may have attended more than 1 meeting.

Surveys	Responses
Online	125
PDF	6
Hard Copy	21
TOTAL	**152**

Events	No. of People Reached
Google	205
Juniper	70
Farmer's Market	91
Mobile Farmer's Market	20
Home Buyers	12
Fit N Fun	211
Senior Center	1
TOTAL	**610**

Online Survey Feedback (Handout #1)

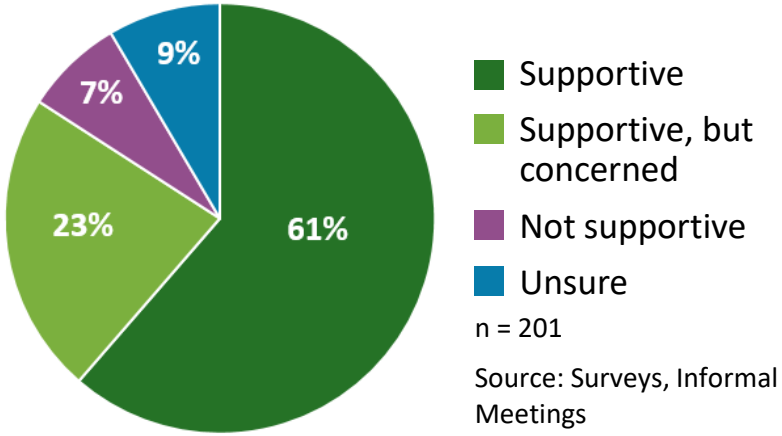
Survey Respondents



n = 148

Source: Surveys

Opinion of Local Climate Action



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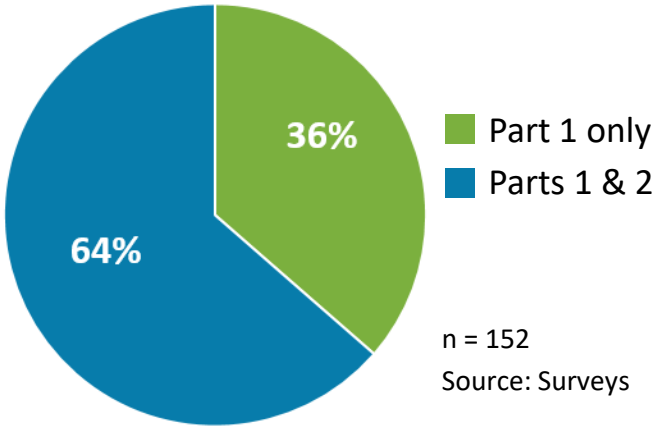
Source: Surveys, Informal Meetings

Survey Completion



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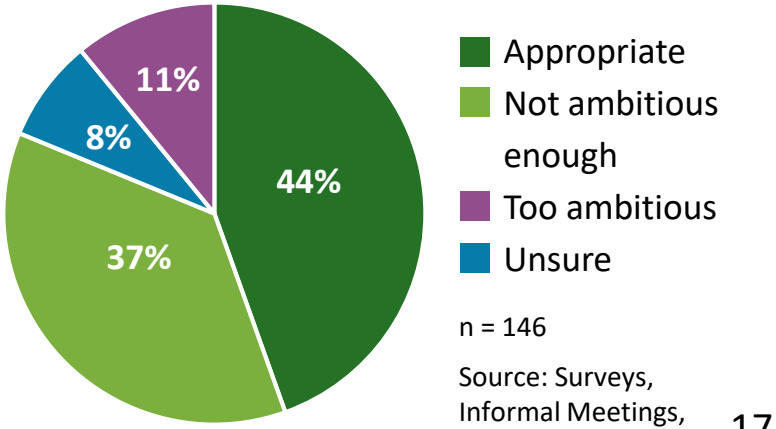
Source: Surveys

Opinion of Sunnyvale's Proposed Target



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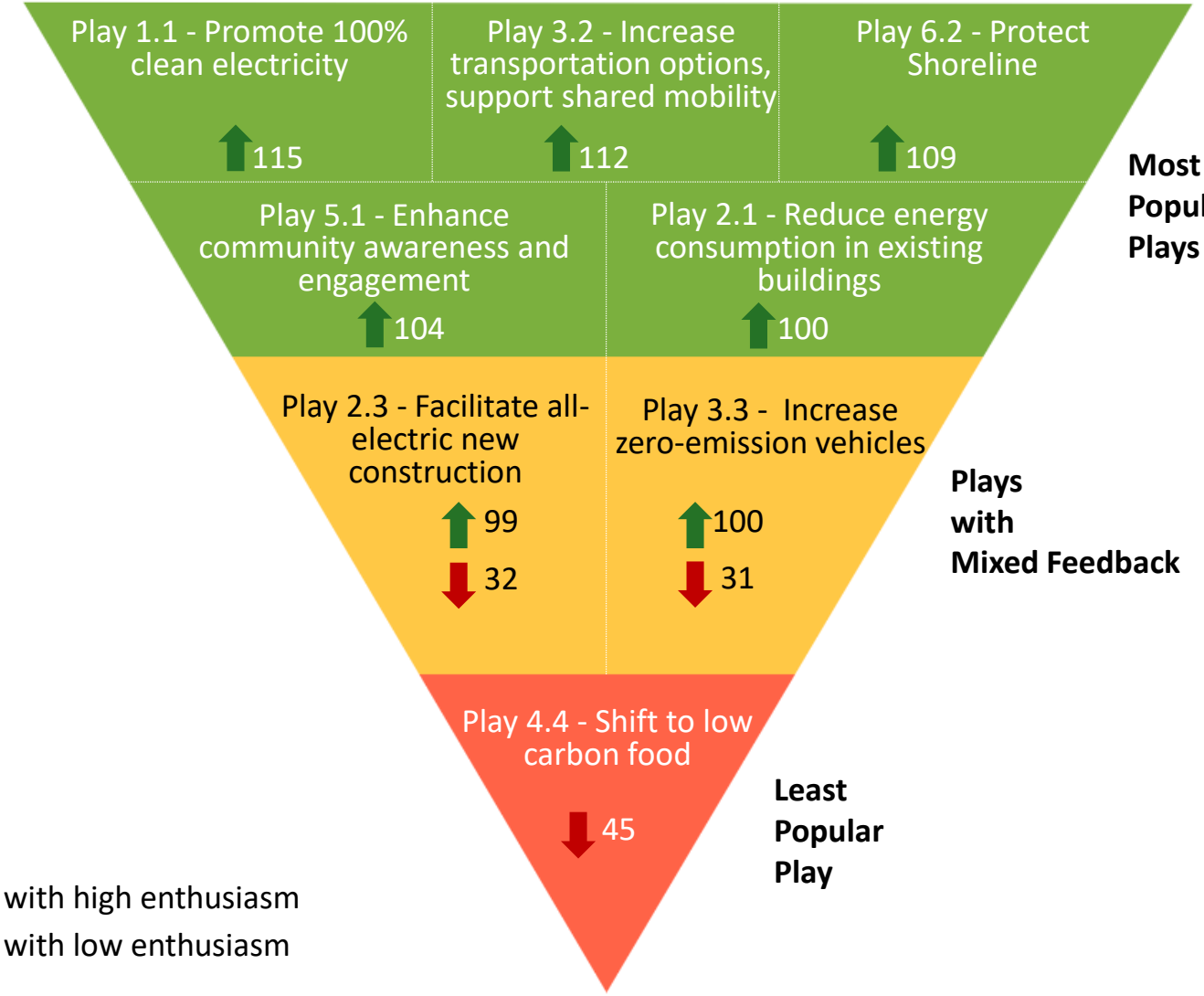
Source: Surveys, Informal Meetings, Live Polls

Feedback on Plays (Handout #1)



Proposed

Final Climate Action Playbook

Changes Based on Feedback (Handout #2)

Accelerated target for Play 2.3 to achieve all-electric new construction starting in 2030 *(vs. all-electric by 2050 in Draft Playbook).*

Adjusted transportation vehicle miles traveled (VMT) targets downward for Plays 3.1 and 3.2 to reflect targets that are challenging and attainable. Revised targets:

- 2030: 13% reduction in vehicle miles per person *(vs. 37% reduction in Draft Playbook);*
- 2050: 25% reduction in vehicle miles per person *(vs. 47% reduction in Draft Playbook).*

Created a new Play 1.3 to emphasize importance of expanding distributed electricity storage.

Simplified language for Zero Waste targets for Play 4.1 to be more meaningful to the community. Revised targets for 2030 and 2050 are to reduce landfilled garbage to 1 lb per person per day.

Adjusted language for action on sustainable food in Play 4.4 to emphasize consumer choice.

55 x 30

Based on changes to Play-level targets, 2030 target was adjusted downward from 60% to 55%.

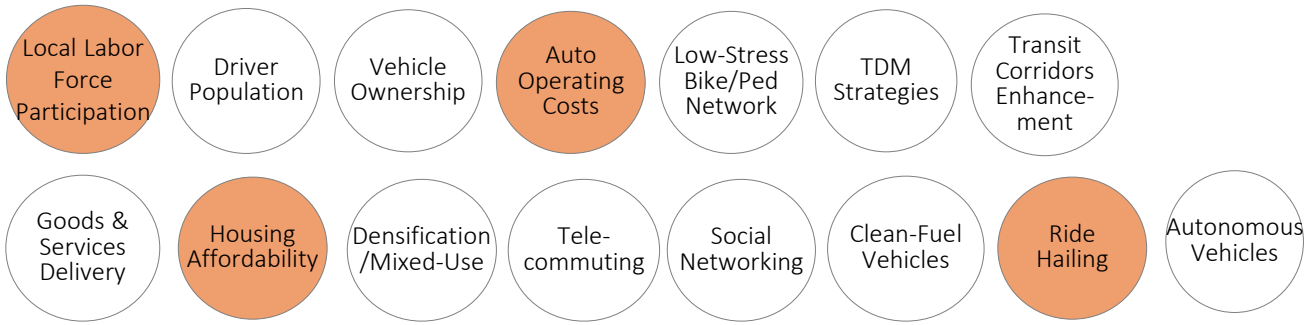
Plays 3.1, 3.2, and 3.3: VMT and EV Targets

	Scenario Description	2030 VMT/capita reduction	2030 Overall Target	2050 VMT/capita reduction	2050 Overall Target
1	Draft CAP + revised Play 2.3 target*	37%	61.0%	47%	82.2%
2	Modeled but not used	13%	55.0%	11%	79.0%
3	**Proposed Final Playbook**	**13%**	**55.0%**	**25%**	**80.1%**

*Play 2.3 target revised to achieve 100% all-electric buildings by 2030.

Source of VMT targets

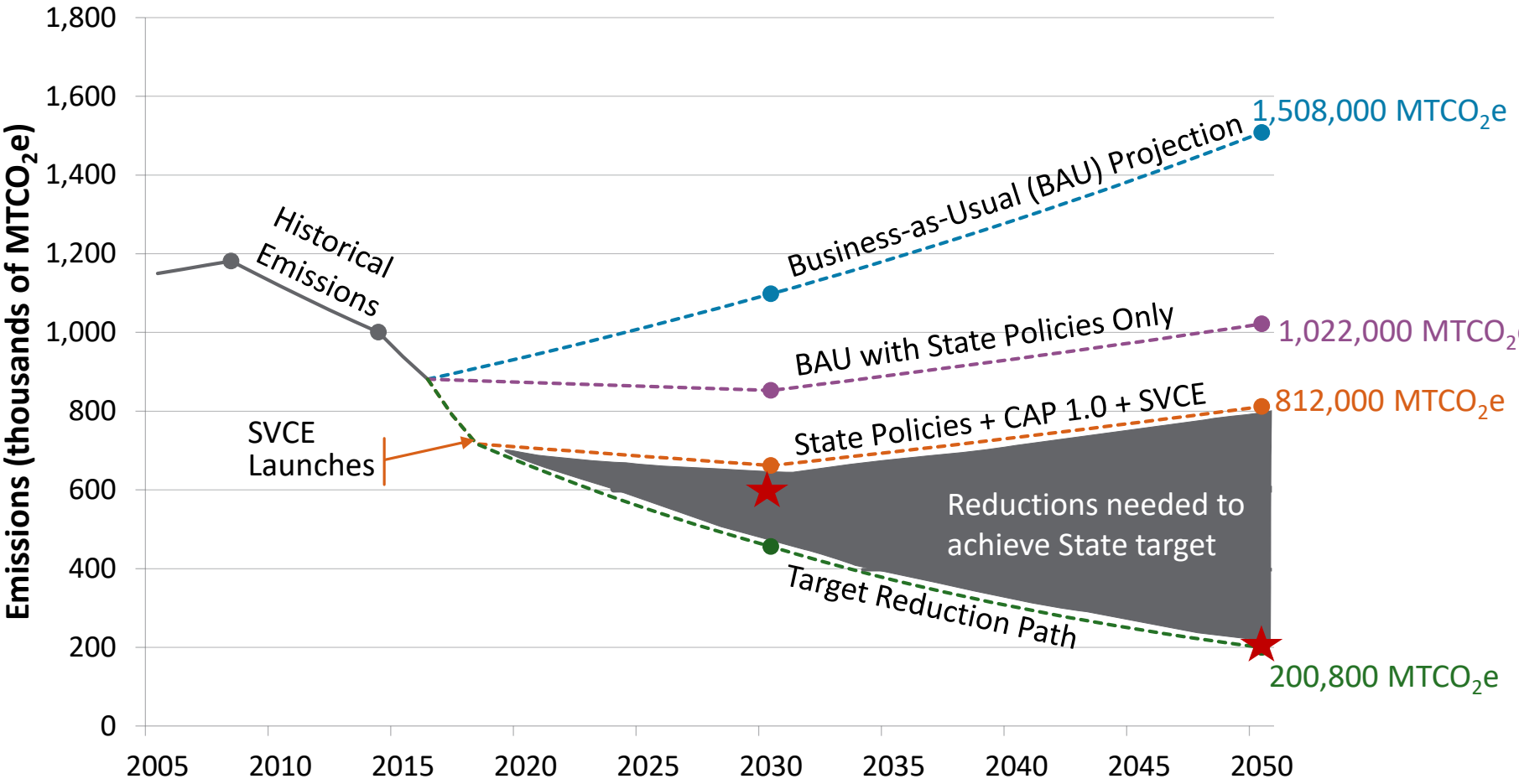
- VMT estimate produced by TrendLab+ tool
- Use-defined “desired” future trends for 15 variables:



- **Most impactful trends are ones City has limited influence over:**
  - Local Labor Force Participation
  - Auto Operating Costs
  - Housing Affordability
  - Ride Hailing

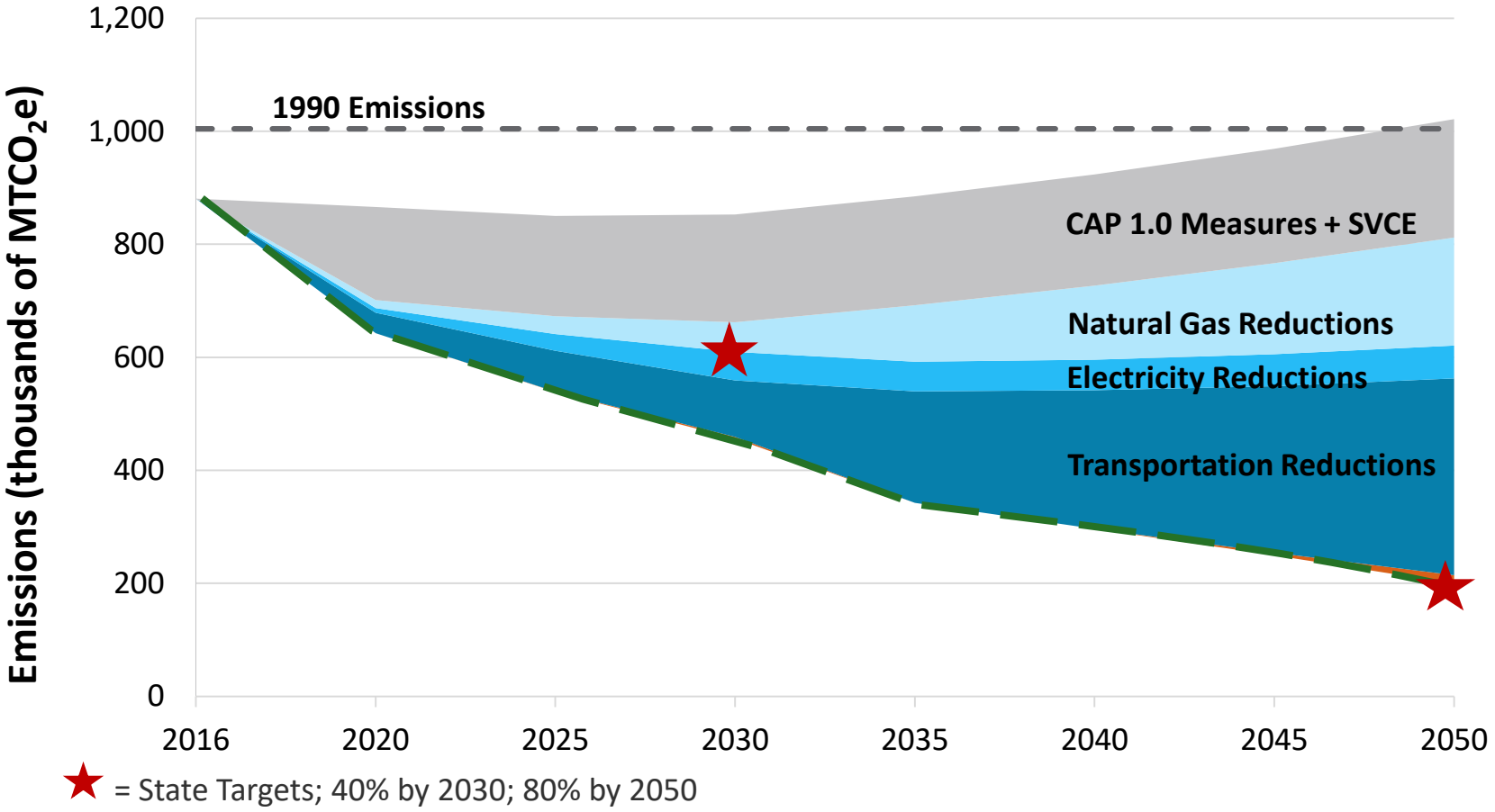
“End Game” 80x50

Overall Impact: 55% by 2030; 80% by 2050



★ = State Targets: 40% by 2030; 80% by 2050

Emissions Reductions from Playbook



GHG reductions in the waste sector (orange sliver below Transportation) constitute <3% of total emissions reductions needed to achieve 80x50.

Recommendations

Recommendations

Recommend that the City Council:

- Alternative 1: Adopt the Climate Action Playbook, including the greenhouse gas reduction targets of 55% by 2030 and 80% by 2050.
- Alternative 2: Adopt the Climate Action Playbook, including the greenhouse gas reduction targets of 55% by 2030 and 80% by 2050, with modifications.
- Alternative 3: Other recommendation provided by the Commission.

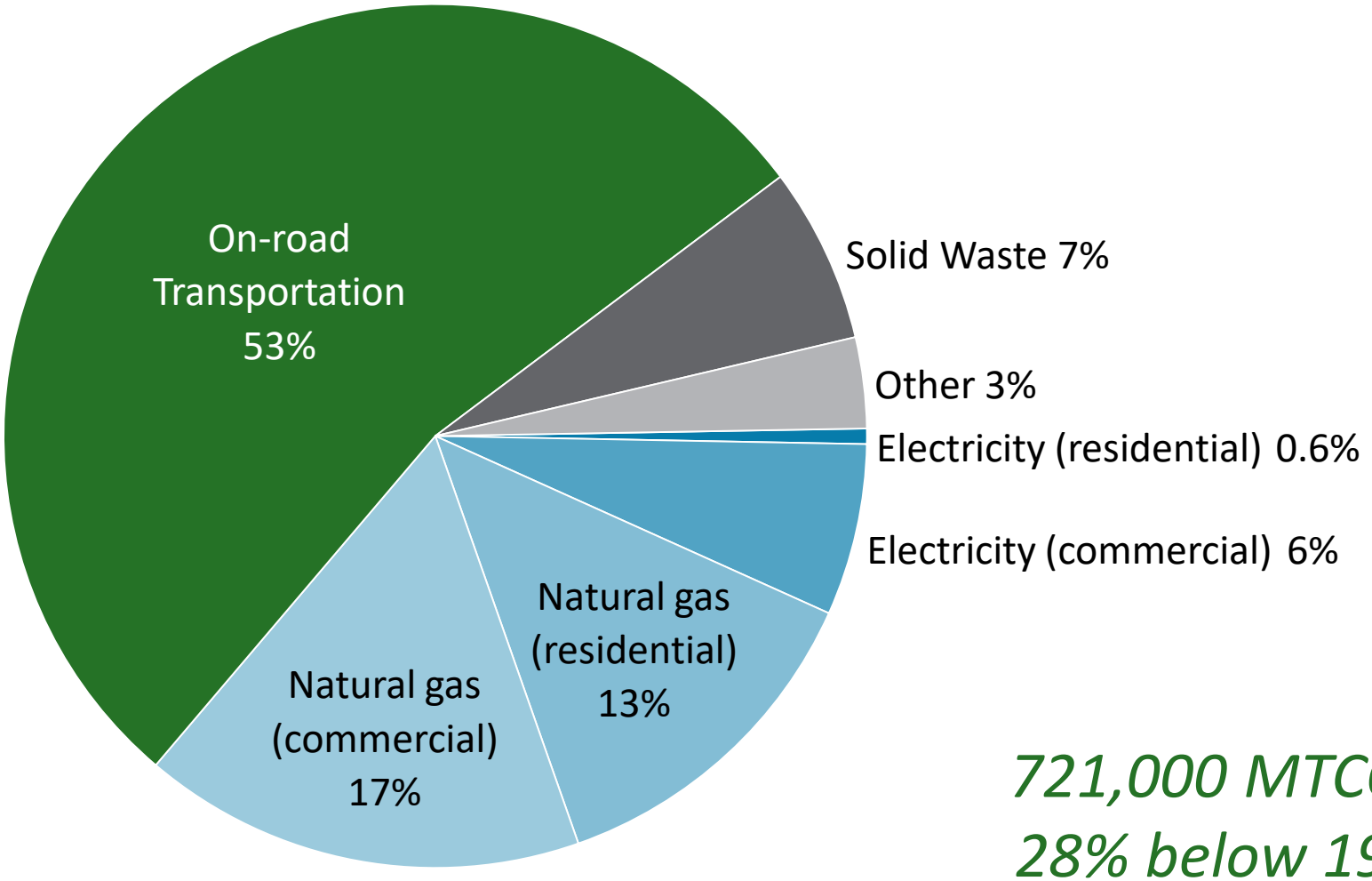
Staff Recommendation: Alternative 1

Thank you

for your contributions!

Additional Info

Sunnyvale's 2016 Emissions (with SVCE)



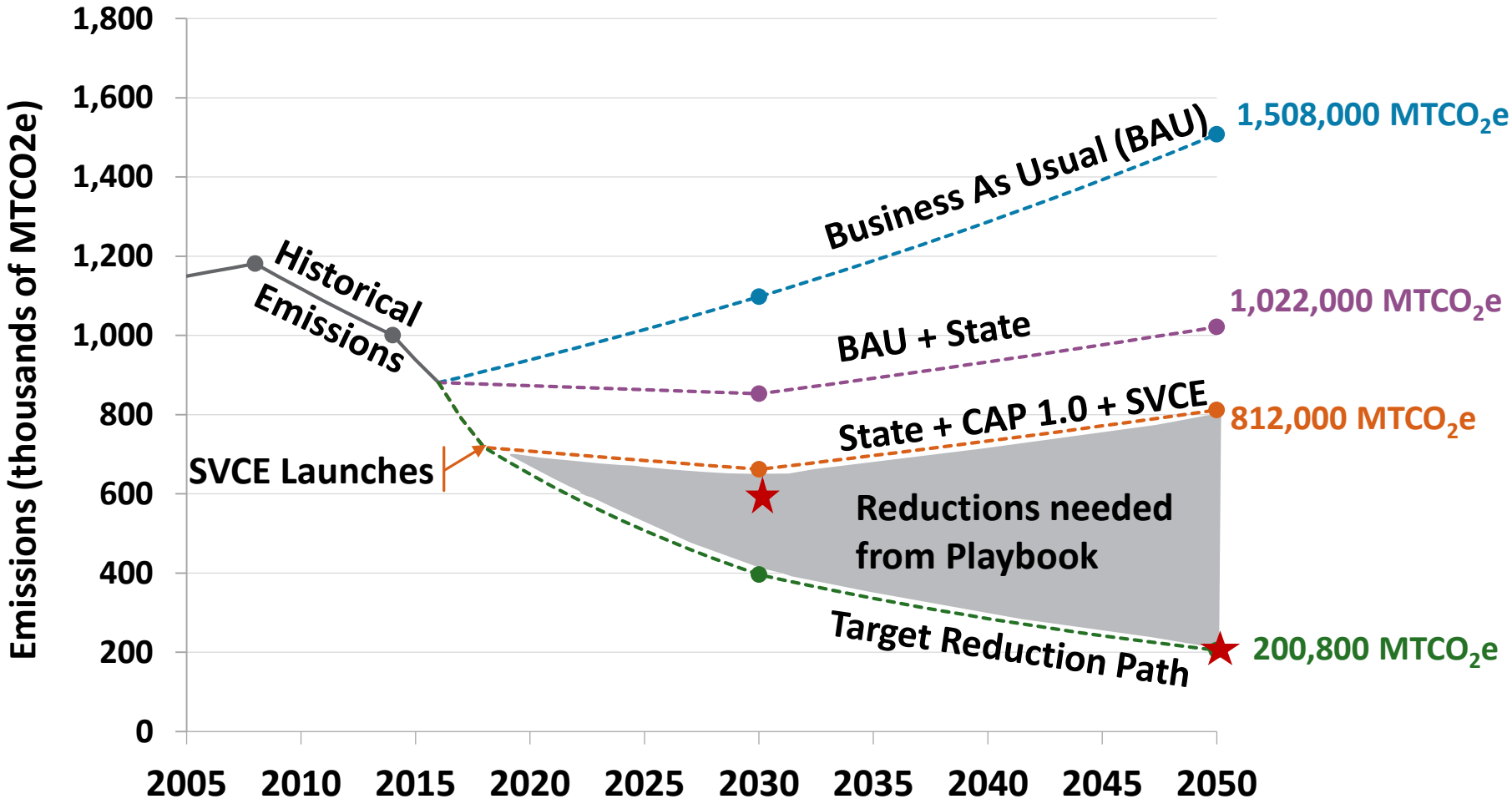
721,000 $MTCO_2e$
28% below 1990

Alternate Phrasing of Transportation Targets

Metric	2016	2030 Targets	2050 Targets
Citywide Annual VMT per Service Population	3,705	3,230	2,775
Percent Change in Citywide Annual VMT per Service Population (relative to 2016)	0%	-13%	-25%
Clean Fuel Vehicle Fleet Adoption Portion	0.5%	20%	75%
Clean Citywide Annual VMT per Service Population	17	646	2,081
Non-Clean Citywide Annual VMT per Service Population	3,688	2,584	694
Change in Non-Clean Annual VMT per Service Population	**0%**	**-30%**	**-81%**

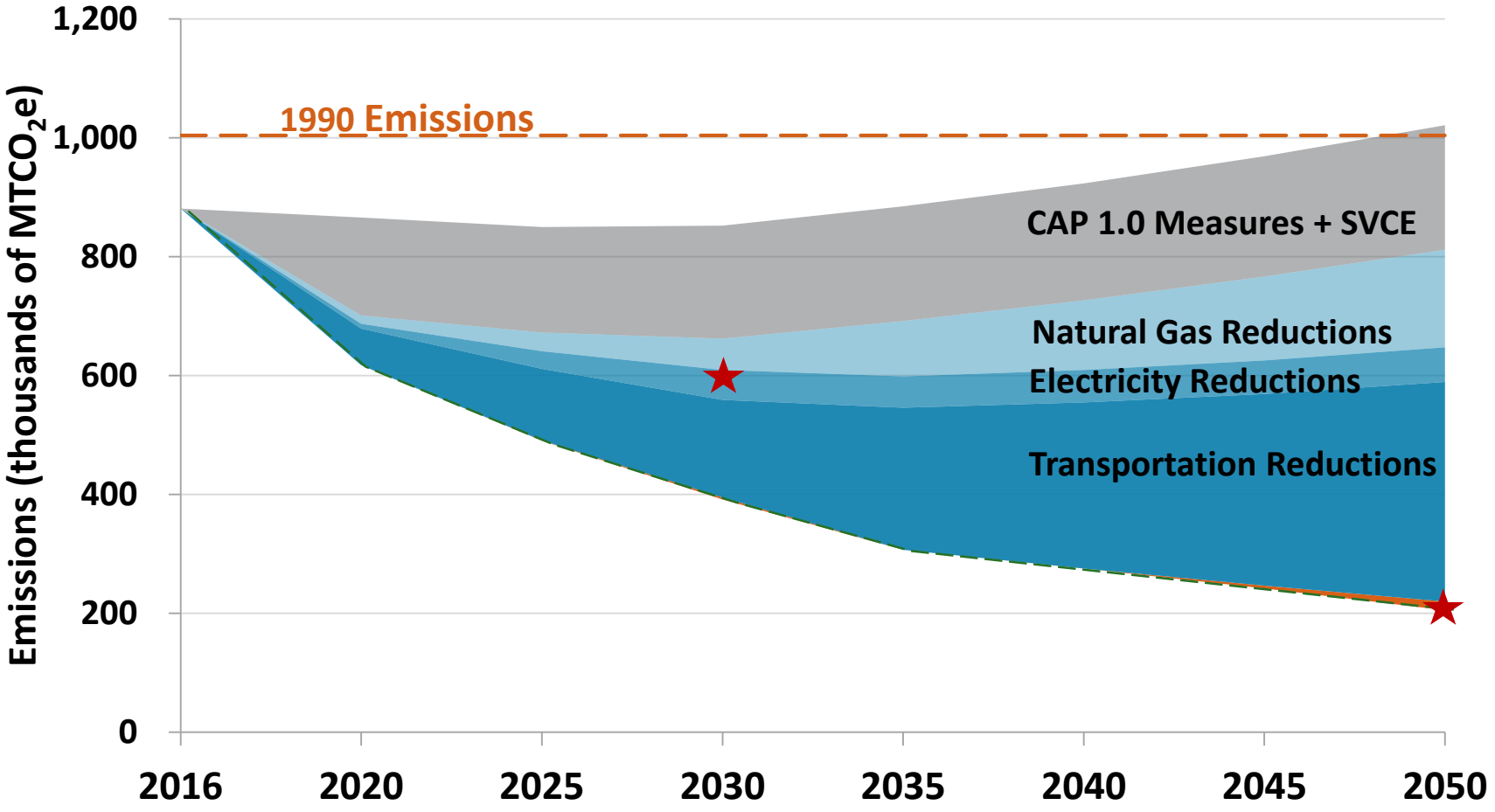
2030 Target: 30% reduction in fossil fuel-powered vehicle miles per person
2050 Target: 81% reduction in fossil fuel-powered vehicle miles per person

Draft Playbook -- “End Game” 80x50



★ = State Targets: 40% by 2030; 80% by 2050

Draft Playbook - Emissions Reductions from Playbook



Waste sector reductions (orange sliver) are <3% of total emissions reductions needed for 2050.

★ = State Targets; 40% by 2030; 80% by 2050

Summary of Changes (Handout #2)

Strategy 1: Promoting Clean Electricity		
Play 1.3	Increase distributed electricity storage	2030 Target: 1% of electricity demand stored in batteries locally 2050 Target: 5% of electricity demand stored in batteries locally

Strategy 2: Decarbonizing Buildings		
Play 2.3	Achieve all-electric new construction	2030 Target: 100% all-electric new buildings 2050 Target: 100% all-electric new buildings

Strategy 3: Decarbonizing Transportation & Sustainable Land Use		
Play 3.1	Balance land use supply and enhance urban form	2030 Target: 13% reduction in vehicle miles per person 2050 Target: 25% reduction in vehicle miles per person
Play 3.2	Increase transportation options and support shared mobility	
Play 3.3	Increase zero-emission vehicles	2030 Target: 20% of all vehicles on road are zero-emission vehicles 2050 Target: 75% of all vehicles on road are zero-emission vehicles

Strategy 4: Managing Resources Sustainably		
Play 4.1	Achieve Zero Waste goals for solid waste	2030 Target: Reduce landfilled garbage to 1 lb per person per day 2050 Target: Reduce landfilled garbage to 1 lb per person per day
Play 4.4	Promote sustainable food choices	Supports broader emissions reductions

Adopted Budget for Playbook

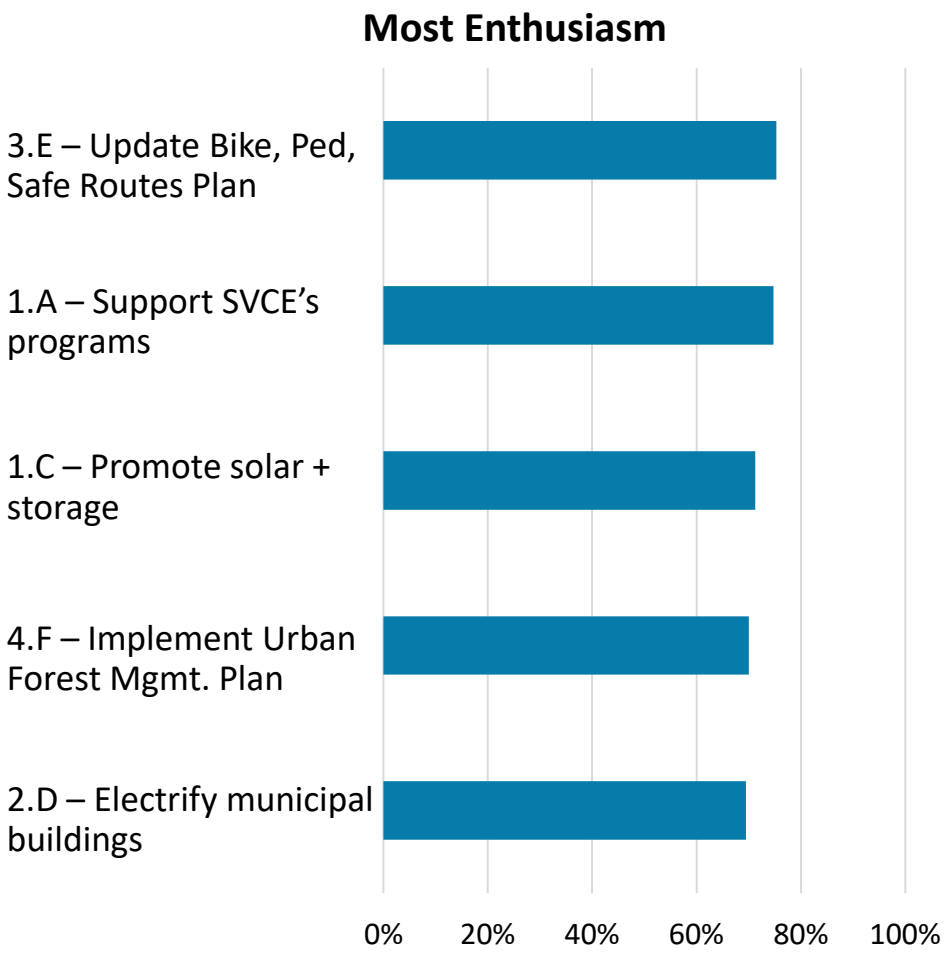
PROJECT BUDGET (PROJECT #831290)	Costs
Prior Actual	$594,687
FY 2018-2019	$381,083
Rolled over	*$975,770*
FY 2019-2020	$638,918
FY 2020-2021	$569,566
FY 2021-2022	$426,758
Budgeted for Game Plan 2022	*$1,635,242*
TOTAL	$2,611,012

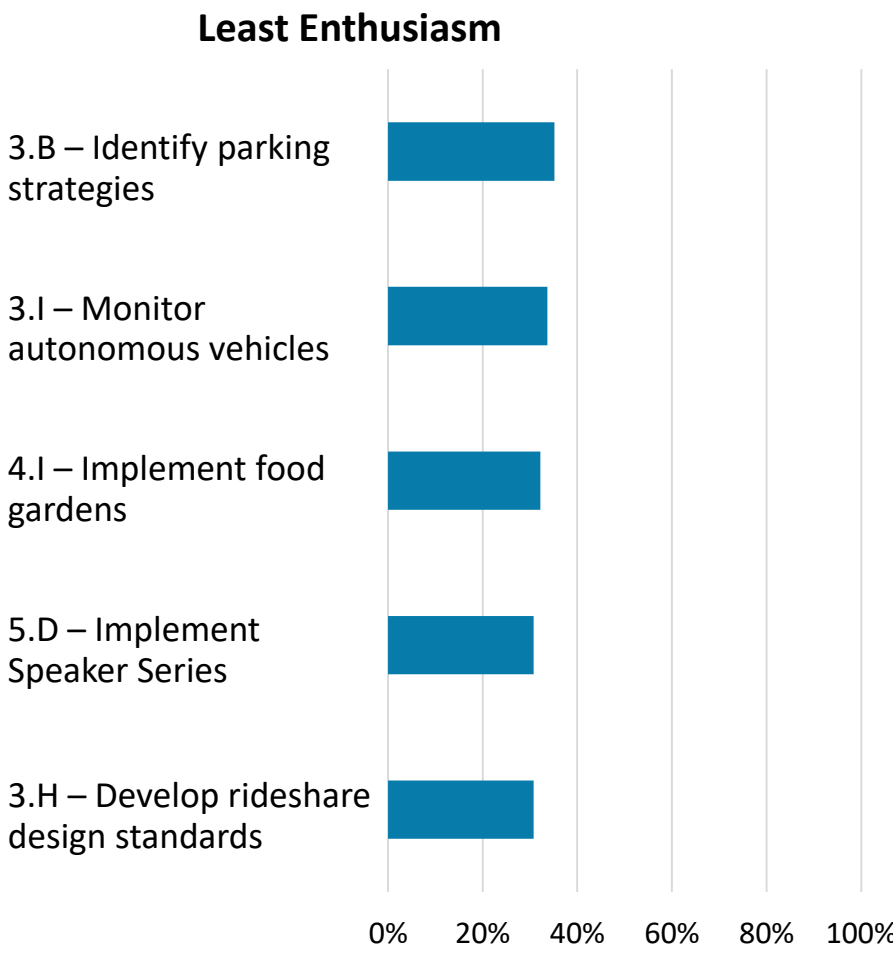
- Additional Staff:
  - Environmental Programs Specialist in ESD
  - Transportation Planner in DPW
  - Sustainability Fellow in ESD
- Consultant services
- Temporary staffing
- Infrastructure needs

Funding Opportunities to Explore

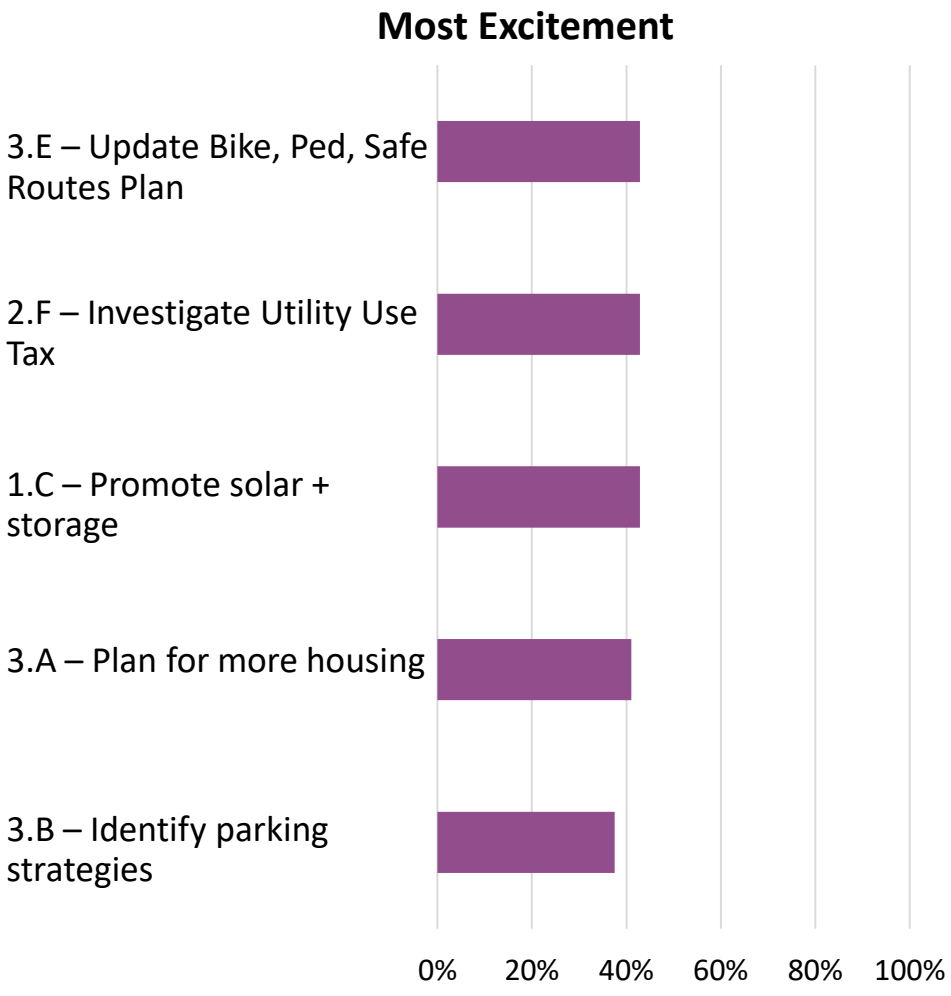
- **Partnerships and collaborations (e.g., Silicon Valley Clean Energy)**
- **Study differential utility use tax (UUT) to incentivize electrification**
- Carbon impact fees for development projects
- User fees for selected activities and services
- Paid parking in selected locations
- Transportation impact fees

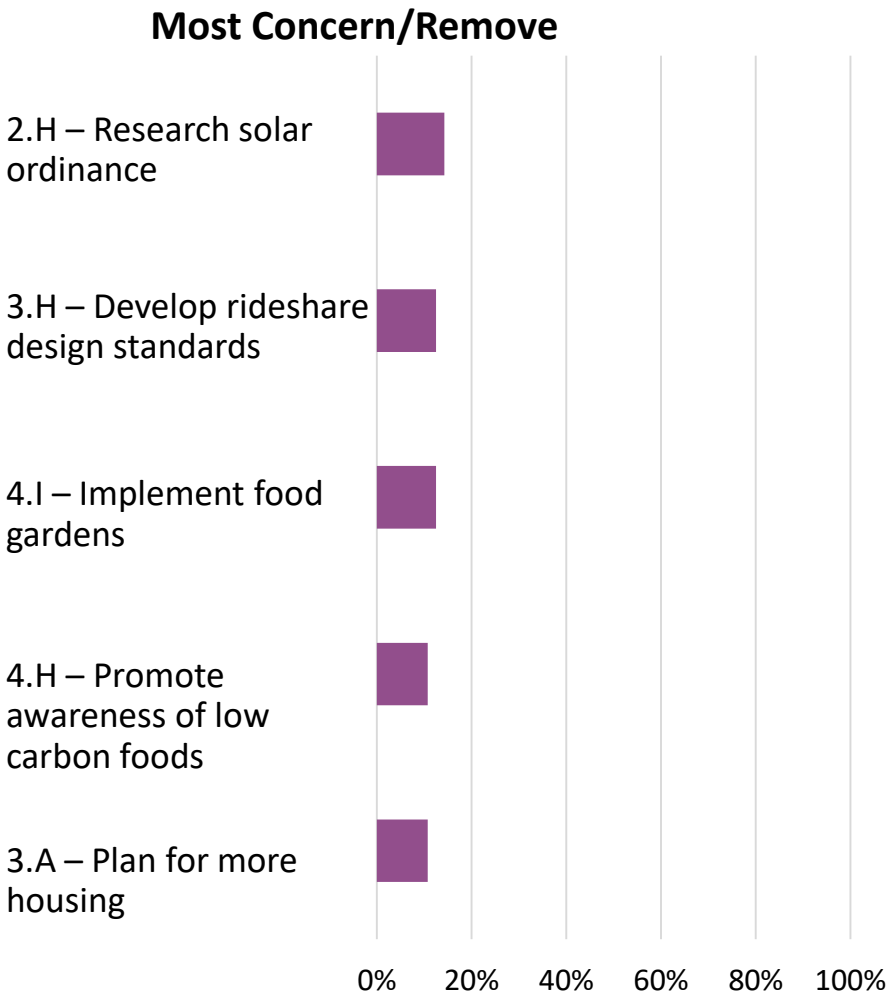
Feedback on Next Moves – from Surveys





Feedback on Next Moves – from Meetings





Gearing Up for FY20 Next Moves

- Recruit and fill new staff positions in ESD and DPW
- Establish intra-city coordination for CAP implementation
- Pursue grant opportunities and partnerships for funding
- Already conditioning for:
  - Move 2.E: Streamline building electrification
  - Move 3.J: Develop a Community EV Readiness/Infrastructure Plan
  - Move 3.K: Promote community adoption of EVs
  - Move 5.C: Create stronger social media + web presence for climate
  - Move 5.H: Annual communitywide GHG inventory
- 2nd half:
  - Move 3.L: Electrify municipal fleet
  - Move 5.G: Implement improvements for climate action data tracking
  - Move 2.F: Study potential for UUT
  - Move 3.C: Enhance TDM program implementation + monitoring
  - Move 5.A: Pilot grassroots engagement strategy