SUSTAINABLE SAN JOSÉ

ENVIRONMENTAL SUSTAINABILITY PLAN (ESP)

PRESENTATION TO SAN JOSÉ CITY COUNCIL
21ST AUGUST 2017

DISCLAIMER:
The Project Team is finalizing materials in advance of the Report's launch in September. All numbers and content subject to final validation.

IF THERE IS ONLY ONE THING THAT YOU TAKE AWAY:
THE ESP BUILDS ON WORK ALREADY UNDERWAY

THE ESP REQUIRES ACTIVATION OF 73% OF THE GENERAL PLAN'S GOALS

CHAPTERS		GOALS																			
THRIVING COMMUNITY	Diverse and Innovative Economy	IE-1 Land Use and Employment	IE-2 Business Growth and Retention	IE-3 Regional, State, & National Leadership	IE-4 Connections to Promote Economic Development	IE-5 Cultural Attractions	IE-6 Broad Economic Prosperity	IE-7 Clean Technology													
	Arts and Culture	AC-1 San José as the Silicon Valley Cultural Center	AC-2 High Impact Public Art																		
	Community Engagement	CE-1 Active Community Engagement	CE-2 Community Partnerships																		
	Fiscal Sustainability	FS-1 City Operations	FS-2 Cultivate Fiscal Resources	FS-3 Fiscally Sustainable Land Use Framework	FS-4 Promote Fiscally Beneficial Land Use	FS-5 Fiscally Sustainable Service Delivery	FS-6 Fiscally Sustainable Waste Management														
ENVIRONMENTAL LEADERSHIP	Measurable Environmental Sustainability	MS-1 Green Building Policy Leadership	MS-2 Energy Conservation and Renewable Energy Use	MS-3 Water Conservation and Quality	MS-4 Healthful Indoor Environment	MS-5 Waste Diversion	MS-6 Waste Reduction	MS-7 Environmental Leadership and Innovation	MS-8 Environmental Stewardship	MS-9 Service Delivery	MS-10 Air Pollutant Emission Reduction	MS-11 Toxic Air Contaminants	MS-12 Objectional Odors	MS-13 Construction Air Emissions	MS-14 Reduce Consumption and Increase Efficiency	MS-15 Renewable Energy	MS-16 Energy Security	MS-17 Responsible Management of Water Supply	MS-18 Water Conservation	MS-19 Water Recycling	MS-20 Water Quality	MS-21 Community Forest
	Environmental Resources	ER-1 Grassland, Oak Woodlands, Chaparral, and Coast Scrub	ER-2 Riparian Corridors	ER-3 Bay and Baylands	ER-4 Special-Status Plants and Animals	ER-5 Migratory Birds	ER-6 Urban Natural Interface	ER-7 Wildlife Movement	ER-8 Stormwater	ER-9 Water Resources	ER-10 Archaeology and Paleontology	ER-11 Extractive Resources									
	Environmental Considerations / Hazards	EC-1 Community Noise Levels and Land Use Compatability	EC-2 Vibration	EC-3 Seismic Hazards	EC-4 Geologic and Soil Hazards	EC-5 Flooding Hazards	EC-6 Hazardous Materials	EC-7 Environmental Contamination	EC-8 Wildland and Urban Fire Hazards												
	Infrastructure	IN-1 General Provision of Infrastructure	IN-2 Infrastructure Management	IN-3 Water Supply, Sanitary Sewer, and Storm Drainage	IN-4 Wastewater Treatment and Water Reclamation	IN-5 Solid Waste-Materials Recovery / Landfill	IN-6 Telecommunications														
QUALITY OF LIFE	Vibrant Neighborhoods	VN-1 Vibrant, Attractive, and Complete Neighborhoods	VN-2 Community Empowerment	VN-3 Access to Healthful Foods	VN-4 Cultural Opportunities	VN-5 Private Community Gathering Facilities															
	Community Design	CD-1 Attractive City	CD-2 Function	CD-3 Connections	CD-4 Compatibility	CD-5 Community Health, Safety, and Wellness	CD-6 Downtown Urban Design	CD-7 Urban Villages	CD-8 Building Height	CD-9 Access to Scenic Resources	CD-10 Attractive Gateways										
	Housing	H-1 Housing - Social Equity and Diversity	H-2 Affordable Housing	H-3 High Quality Housing and Great Places	H-4 Housing - Environmental Sustainability																
	Education and Services	ES-1 Education	ES-2 Libraries	ES-3 Law Enforcement and Fire Protection	ES-4 Emergency Management	ES-5 Code Enforcement	ES-6 Access to Medical Services														
	Parks, Open Space and Recreation	PR-1 High Quality Facilities and Programs	PR-2 Contribute to a Healthful Community	PR-3 Provide an Equitable Park System	PR-4 Community Identity	PR-5 Grand Parks	PR-6 Sustainable Parks and Recreation	PR-7 Interconnected Parks System	PR-8 Fiscal Management of Parks and Recreation Resources												
LAND USE AND TRANSPORTATION	Land Use Policies	LU-1 General Land Use	LU-2 Growth Areas	LU-3 Downtown	LU-4 Commercial	LU-5 Neighborhood Serving Commercial	LU-6 Industrial Preservation	LU-7 Attract New Industrial Uses	LU-8 Maintain Employment Lands	LU-9 High-Quality Living Environments	LU-10 Efficient Use of Residential and Mixed-Use Lands	LU-11 Residential Neighborhoods	LU-12 Urban Agriculture	LU-13 Landmarks and Districts	LU-14 Historic Structures of Lesser Significance	LU-15 Public Awareness	LU-16 Sustainable Practices	LU-17 Hillside / Rural Preservation	LU-18 Hillside Development Hazard Avoidance	LU-19 Urban Growth Boundary (Open Hillside / Agriculture Lands)	LU-20 Rural Agriculture
	Transportation Policies	TR-1 Balanced Transportation System	TR-2 Walking and Bicycling	TR-3 Maximize Use of Public Transit	TR-4 Passenger Rail Service	TR-5 Vehicular Circulation	TR-6 Goods Movement	TR-7 Transportation Demand Management	TR-8 Parking Strategies	TR-9 Tier I Reduction of Vehicle Miles Traveled	TR-10 Tier II Vehicle Miles Traveled Reduction	TR-11 Regional and State VMT Reduction Efforts	TR-12 Intelligent Transportation System	TR-13 Attractive and Accessible Airport	TR-14 Safe Airport	TR-15 Moffett Field	TN-1 National Model for Trail Development and Use	TN-2 Trails as Transportation	TN-3 Accessible, Safe, and Well-Functioning Trails		
IMPLEMENTATION	Implementation	IP-1 Land Use / Transportation Diagram	IP-2 General Plan Phasing / Planning Horizons / Major Review	IP-3 General Plan Annual Review and Measureable Sustainability	IP-4 General Plan Annual Review Hearing Process	IP-5 Urban Village Planning	IP-6 Capital Improvement Program	IP-7 Specific Plans	IP-8 Zoning	IP-9 Subdivision	IP-10 Site Development	IP-11 Annexations	IP-12 Environmental Clearance	IP-13 Building Permits	IP-14 Citizen Participation and Community Engagement	IP-15 Development Fees, Taxes, and Improvement Requirements	IP-16 Implementation of the General Plan by Other Agencies	IP-17 Environmental Leadership / Stewardship	IP-18 Economic Development	IP-19 Housing Development	

KEY

- The ESP **drives progress** on this goal
- The ESP **enables progress** on this goal
- The ESP **aligns with** this goal
- The ESP **does not actively consider** this goal

FRAMING FOR TODAY'S SESSION

1. Recap on **WHY** we're doing this
2. Overview of **WHAT** we're doing
3. **HOW** City Hall and the Community can implement
4. Q&A with Council
5. Hear from general public

1

RECAP ON **WHY** WE'RE DOING THIS

A LOT HAS ALREADY HAPPENED THIS YEAR:
US CITIES 'SIGNING UP' TO THE PARIS AGREEMENT

Over 1,400 U.S. Cities, States and Businesses Vow to Meet Paris Climate Commitments

Climate Cities: Can Urban America Save Paris Agreement?

By Michael Dhar, Live Science Contributor | July 11, 2017 02:22pm ET

Sam Liccardo
8 August at 18:49 ·

While President Trump rejects the #ParisAgreement, San Jose voted unanimously to stand by it. The City Council also voted to doing its part to fight climate change by formally establishing San Jose Clean Energy, which will bring more energy from renewable sources to San Jose homes in 2018. #climatemayors

Like Comment Share

A California-led alliance of cities and states vows to keep the Paris climate accord intact

A LOT HAS ALREADY HAPPENED THIS YEAR:
SAN JOSÉ'S COMMUNITY CHOICE ENERGY SUCCESS

The Mercury News

San Jose City Council approves new community choice energy plan, the largest in California

Proponents say the plan offers consumers another choice, reduces rates and reduces greenhouse gas emissions

2

OVERVIEW OF **WHAT** WE'RE DOING

IN THE MEANTIME, WE'VE BEEN DOING THE FOLLOWING TO PROGRESS THIS WORK:

1. **DATA:** Understand what is important from a carbon and water point of view, and how far the General Plan takes us

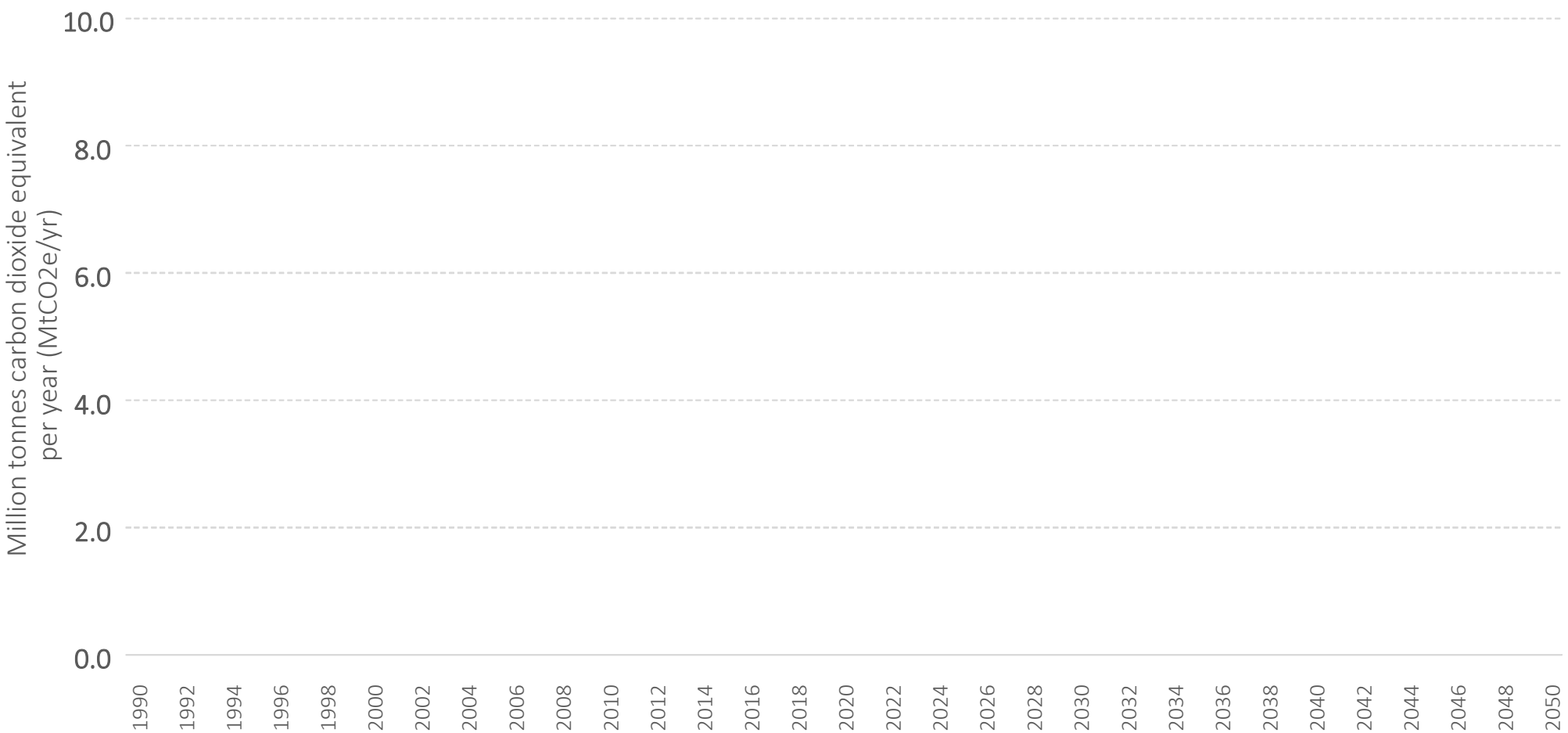
2. **OUTREACH:** Solicit ideas from the community, comparators and the data to identify sustainability measures

3. **IDEAS:** Filter ideas into a short-list of sustainability measures

4. **ANALYSIS:** Model the costs and carbon benefits of each measure

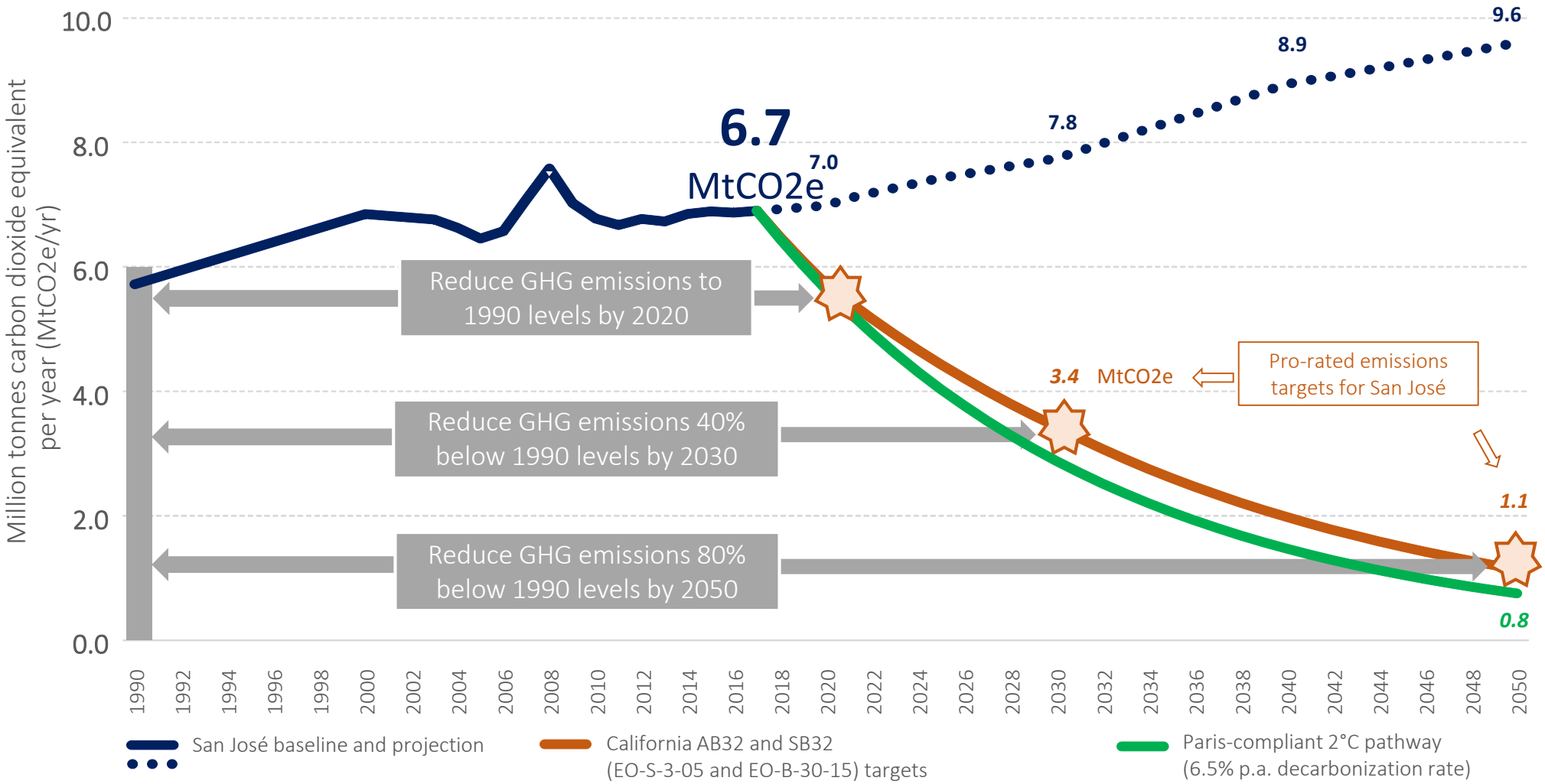
5. **PATHWAY:** Integrate and sequence measures to identify San José's Paris-compliant pathway for emissions reduction

WE STARTED BY LOOKING AT SAN JOSÉ'S CLIMATE PROFILE

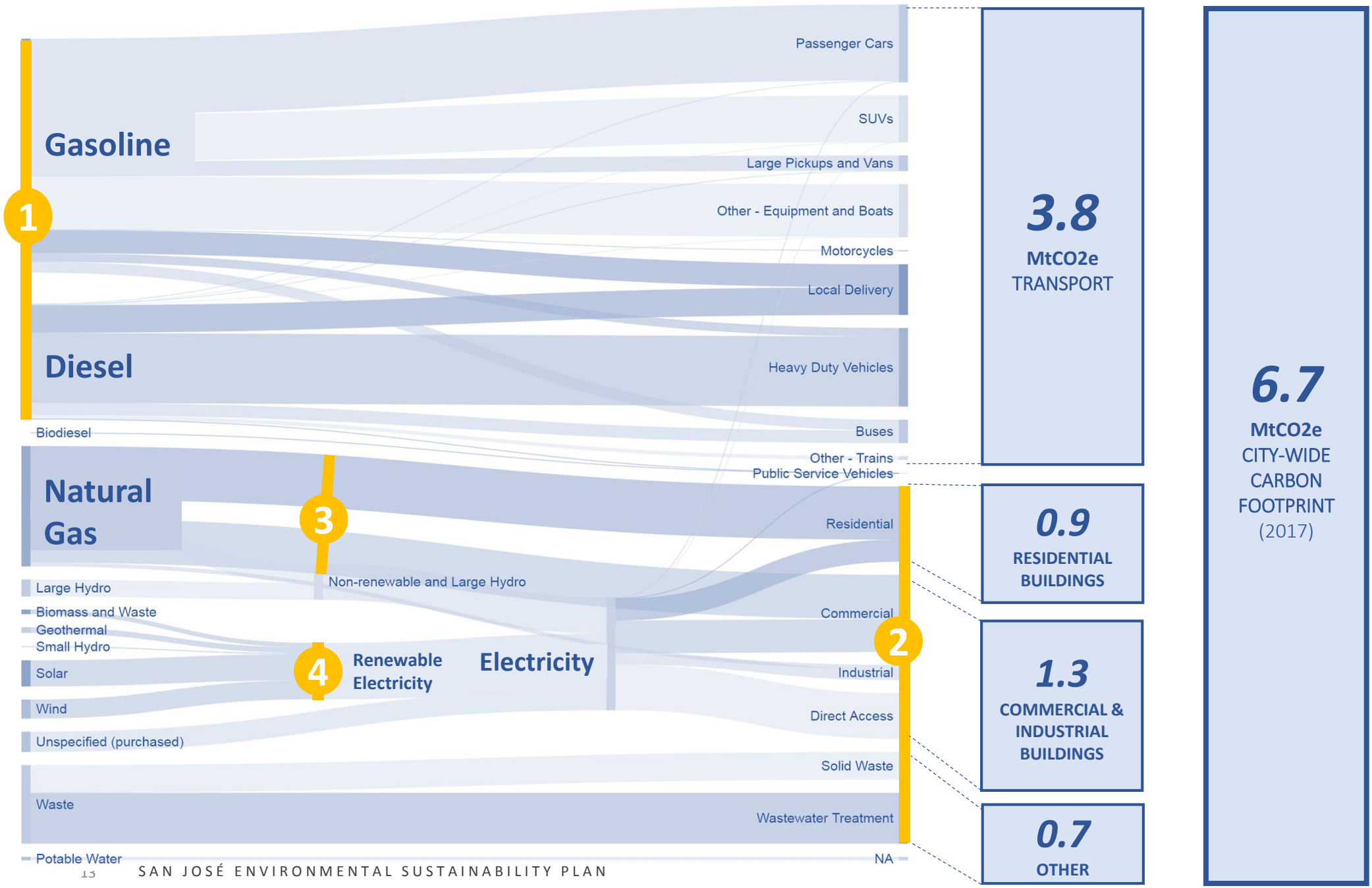



One tonne
of CO2

WE STARTED BY LOOKING AT SAN JOSÉ'S CLIMATE PROFILE

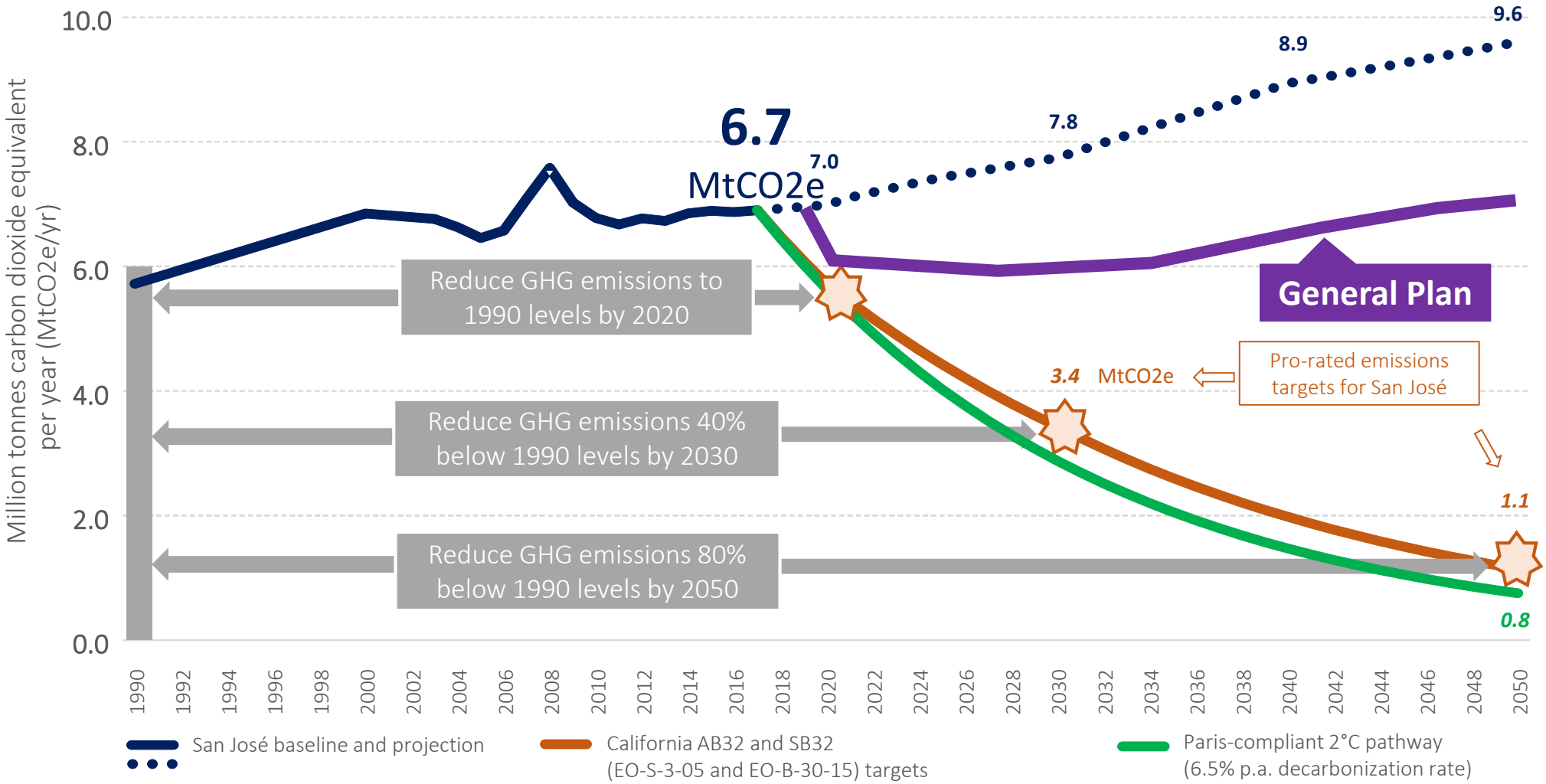


...AND ITS DRIVERS, WHICH TOLD US WHERE TO FOCUS



INCORPORATING PLANNED POLICIES TO UNDERSTAND THE GAP THAT NEEDS TO BE BRIDGED

The General Plan (specifically those related clean energy, densification, city vehicles and building retrofit) takes us part of the way there, but not far enough



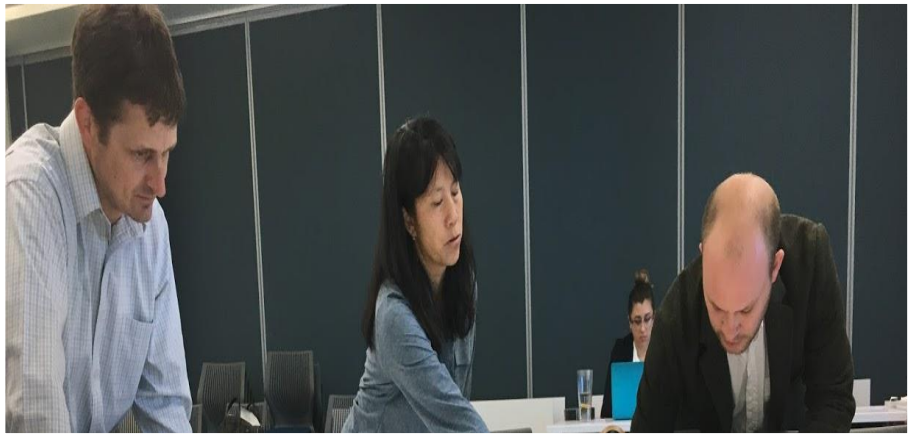
WE ENGAGED THE BAY AREA'S LEADING CLIMATE AND WATER EXPERTS

Expert Survey - April

- Collect ideas on innovations and leading edge measures
- 119 responses

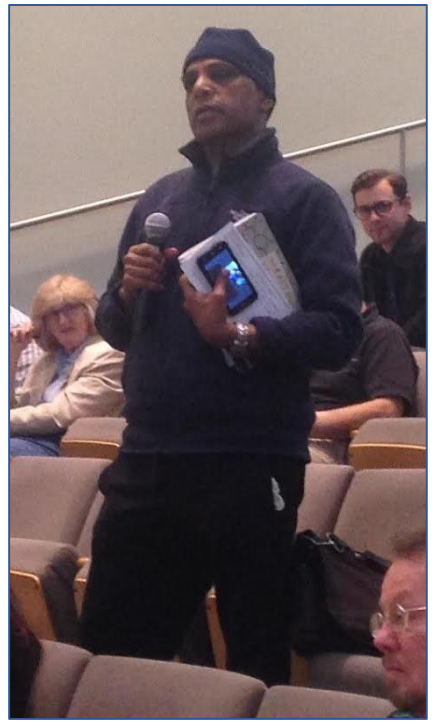
Technical Workshops May-June

- Three workshops focused on energy water and mobility
- Approx. 100 attendees



AND INVITED THE VIEWS OF SAN JOSÉ RESIDENTS AND COMMUNITY GROUPS

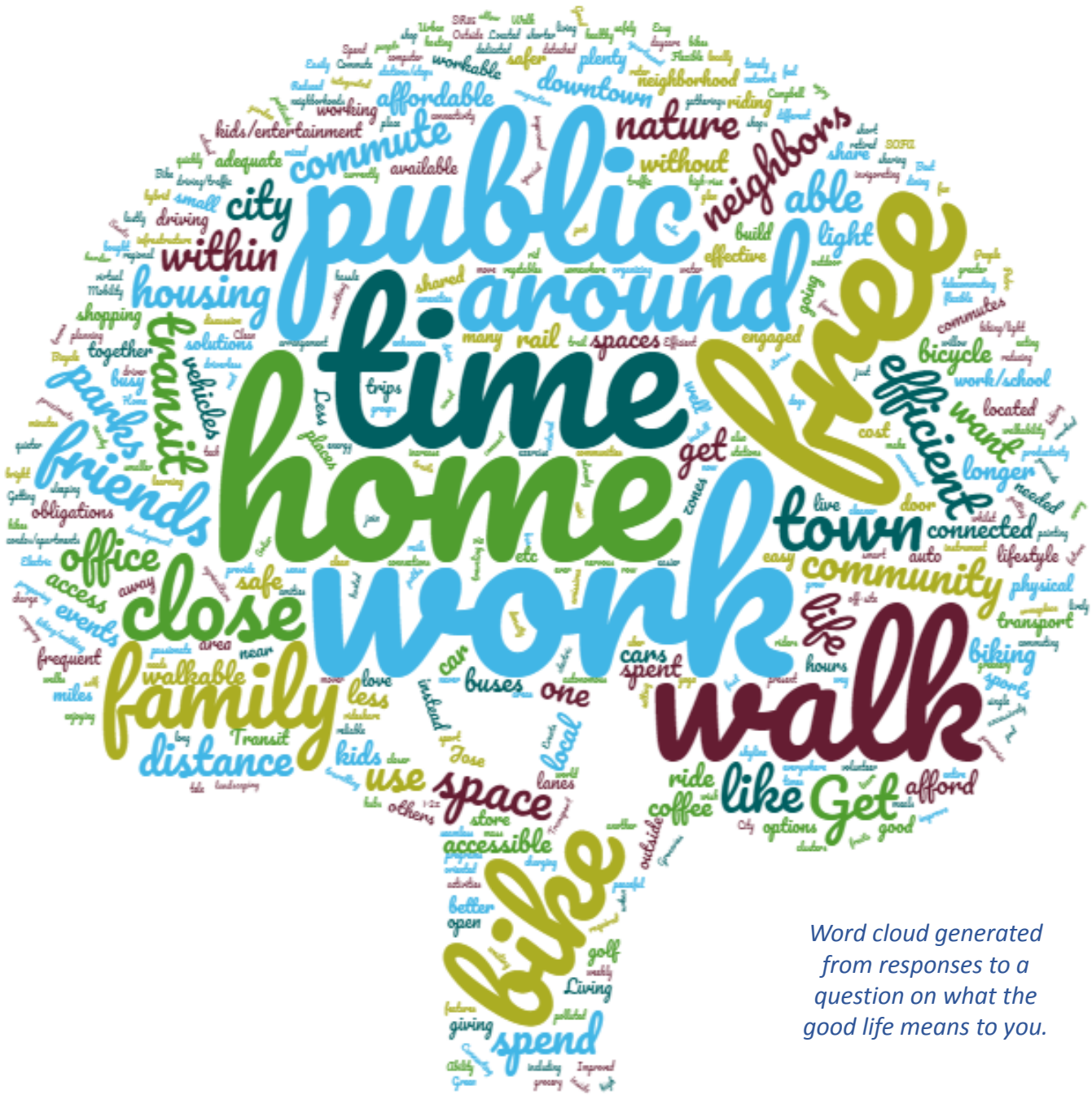
- April 19 Town Hall
- 5 District meetings
- Youth Council
- June 17th Earthquakes game



WHICH HELPED US DEVELOP A VISION FOR THE GOOD LIFE, AND WHAT IT MEANS FOR RESIDENTS OF THE CITY

Objective

- Understand people's feelings, perspectives, and actions on sustainability issues and The Good Life
- **2,100** responses
- **1,800** ideas submitted



Word cloud generated from responses to a question on what the good life means to you.

THIS HELPED US COMPILE A LONG LIST OF SUSTAINABILITY MEASURES

80+

Documents we've reviewed

88

City benchmarks

119

Expert survey responses

100

Town hall attendees

710

Ideas for sustainability measures

...WHICH WAS NARROWED DOWN TO A SHORTER LIST OF 53 CLIMATE AND WATER MEASURES

SJCE


San José Clean Energy


Distributed solar generation

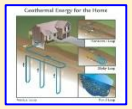

LED lighting retrofit


Energy efficient electronics


Energy efficient refrigerators


Gas to electric stove replacement


Gas to electric water heater replacement


Gas to electric ground source heat pumps

Smart thermostats


Residential building thermal envelope retrofit

Residential building thermal envelope new-build


Commercial building thermal envelope retrofit


Commercial building thermal envelope new-build


Commercial building energy efficient HVAC new-build


Commercial building HVAC recommissioning


Commercial building LED lighting


Commercial building data center energy efficiency


Residential dishwasher efficiency


Residential clothes washer efficiency

Electric vehicles

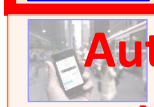

Passenger car EV


SUV EV


Passenger car autonomous EV


SUV autonomous EV

Autonomous vehicles

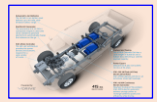

Ride-sharing shuttles


Ride-sharing autonomous cars


Ride-sharing autonomous shuttles


Large pick-up EVs

Local delivery EVs


Hybrid heavy goods vehicle (HGVs)


Electric heavy goods vehicle (HGVs)


CNG heavy goods vehicle (HGVs)


Fuel cell heavy goods vehicle (HGVs)

Public transport


Caltrain electrification


BART extension


California High Speed Rail


VTA Bus Rapid Transit and Light Rail


VTA Next Network and future bus expansion


City Bike Plan


Creating local jobs


Densification / focused growth


Water efficient landscaping

Walkable neighborhoods


Drip irrigation in landscaping


Domestic rainwater storage


Low flush toilets (residential)


Low flow showers


Showers instead of baths


Aerated faucets in homes


Fixing leaks in homes


Residential greywater


Aerated faucets commercial buildings


Low flush toilets (commercial)


Commercial greywater reuse

KEY

ENERGY

TRANSPORT

LAND USE

WATER

WE STRUCTURED THIS INTO 3 PILLARS AND 9 STRATEGIES THAT WOULD TAILOR THE 'GOOD LIFE' FOR SAN JOSÉ

PILLARS of what residents want

Climate and water **STRATEGIES**

1	2	3
A SUSTAINABLE AND CLIMATE-SMART CITY	**A VIBRANT CITY OF CONNECTED AND FOCUSED GROWTH**	**AN ECONOMICALLY INCLUSIVE CITY OF OPPORTUNITY**
1.1 Transition to a renewable energy future	2.1 Densify our city to accommodate our future neighbors	2.3 Create clean, personalized mobility choices	3.1 Create local jobs	3.3 Make commercial goods movement clean and efficient
1.2 Embrace our Californian climate	2.2 Make homes efficient and affordable for our families	2.4 Develop integrated, accessible public transport infrastructure	3.2 Improve our commercial building stock	

PILLAR 1: A SUSTAINABLE AND CLIMATE-SMART CITY

San José has all the ingredients to be a sustainable and climate-smart city; it has abundant renewable resources, a skilled workforce and a willingness to innovate. San José will become the model for what a truly Californian approach to being a sustainable and climate-smart city looks like.

STRATEGY 1.1

TRANSITION TO A RENEWABLE ENERGY FUTURE

WHY THIS IS IMPORTANT

Whether it's electricity to power our buildings, natural gas to warm and cook in our homes, and gasoline to fuel our cars, San José depends on the use of energy derived from fossil fuel source. Using these sources accounts for the majority of our carbon footprint.

While efforts on the demand side are important from a cost management point of view, transitioning our energy sources to renewables is the single most important move that we can make to reduce our emissions.

STRATEGY 1.2

EMBRACE OUR CALIFORNIAN CLIMATE

WHY THIS IS IMPORTANT

We're often told that climate change brings with it contradictory extremes. San José has - in just the last three years - seen first hand what this actually means. With a biting three-year drought and a flood that followed in 2017, the city has dealt first-hand with climatic events.

These events exposed our dependence on - and vulnerability to - water. Achieving climate-resilience doesn't mean punishing water use; it's an opportunity for us to embrace and make the most of our Californian climate.

PILLAR 2: A CONNECTED CITY OF VIBRANT AND FOCUSED GROWTH

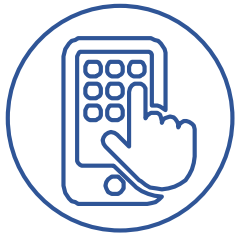
San José is the capital of Silicon Valley. We can use the best products, services and know how from our own back yard to enhance our city to be compact, smart and connected, which will combine intelligent planning with seamless mobility, solving the problems of last-mile journeys and making moving around our city clean, efficient and convenient.

STRATEGY 2.1

DENSIFY OUR CITY TO ACCOMMODATE OUR FUTURE NEIGHBORS

STRATEGY 2.2

MAKE HOMES EFFICIENT AND AFFORDABLE FOR OUR FAMILIES



STRATEGY 2.3

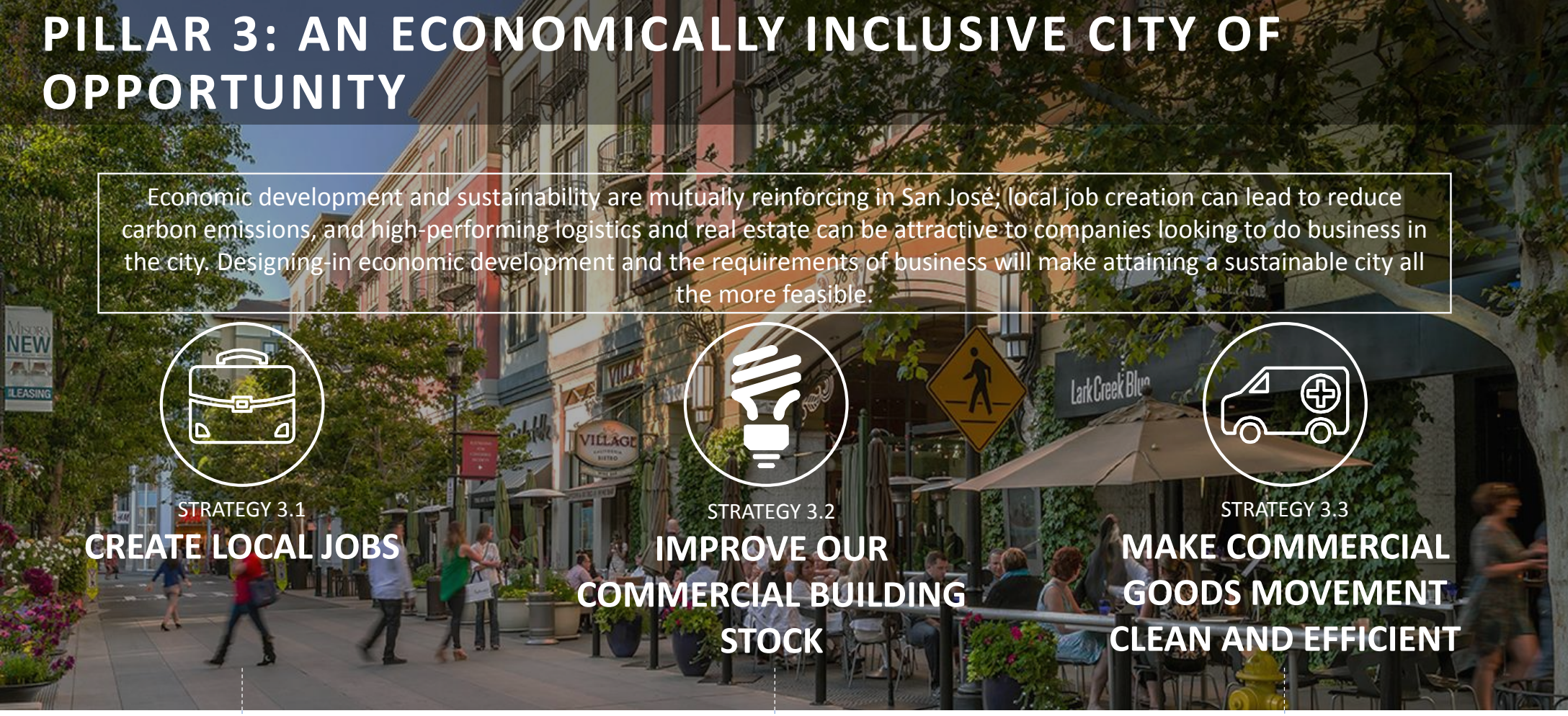
CREATE CLEAN, PERSONALIZED MOBILITY CHOICES

STRATEGY 2.4

DEVELOP INTEGRATED, ACCESSIBLE PUBLIC TRANSPORT INFRASTRUCTURE

PILLAR 3: AN ECONOMICALLY INCLUSIVE CITY OF OPPORTUNITY

Economic development and sustainability are mutually reinforcing in San José; local job creation can lead to reduce carbon emissions, and high-performing logistics and real estate can be attractive to companies looking to do business in the city. Designing-in economic development and the requirements of business will make attaining a sustainable city all the more feasible.



STRATEGY 3.1

CREATE LOCAL JOBS

WHY THIS IS IMPORTANT

Creating local jobs is not just a driver of economic development, it also brings sustainability benefits in allowing workers to live close to where they work and reduce time, money and carbon emissions spent commuting.

STRATEGY 3.2

IMPROVE OUR COMMERCIAL BUILDING STOCK

WHY THIS IS IMPORTANT

San José can offer productive, high-performance commercial real estate to businesses that reduce their energy costs and, in doing so, contribute to reduced energy demand.

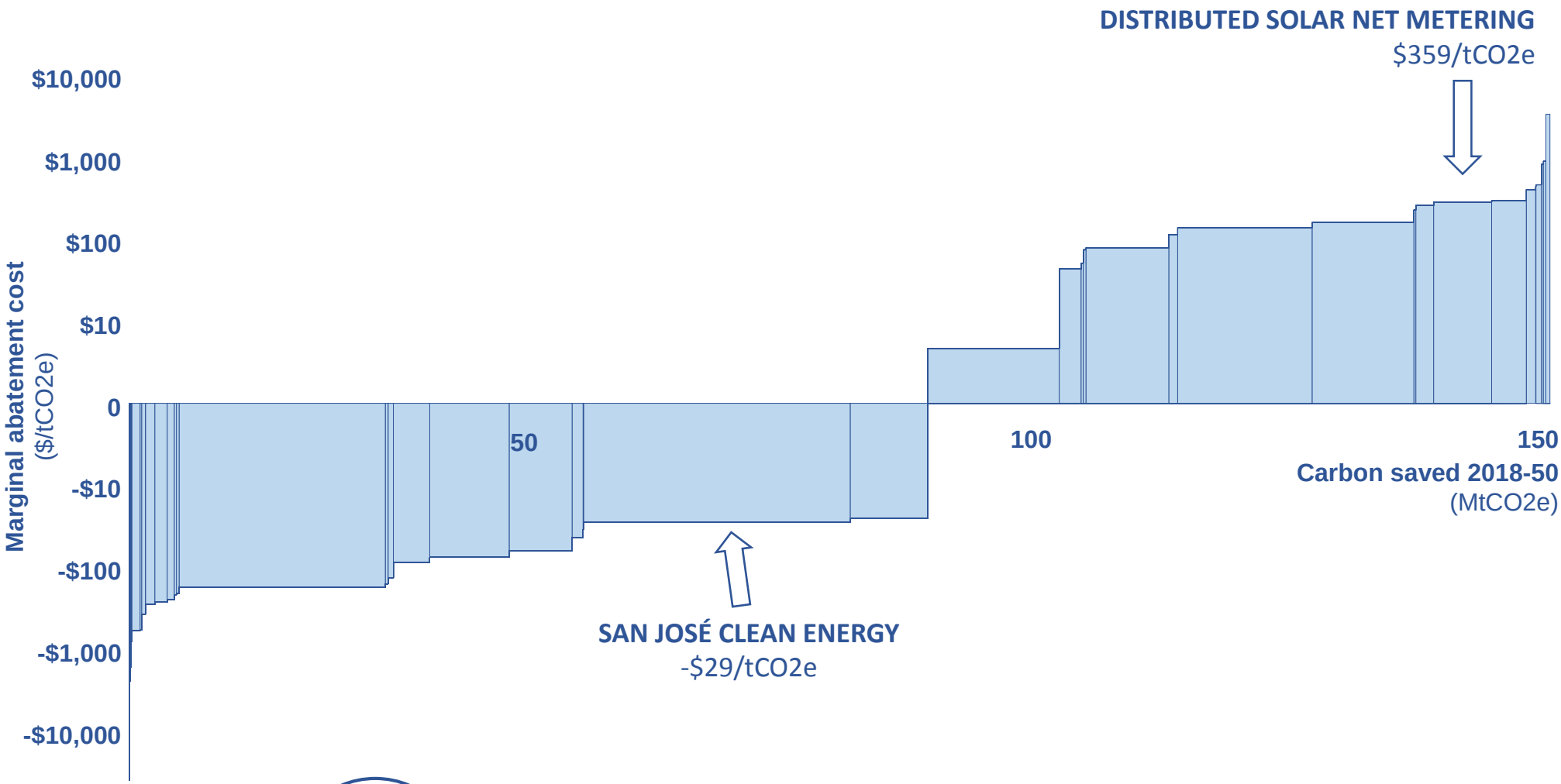
STRATEGY 3.3

MAKE COMMERCIAL GOODS MOVEMENT CLEAN AND EFFICIENT

WHY THIS IS IMPORTANT

Commercial vehicle movements in the city, including logistics and freight, contribute to the city's overall carbon footprint. Working with the commercial sector, San José can benefit from clean and efficient goods and logistics movement, contributing to sustainability.

THE COSTS & BENEFITS INFORM THE PATHWAY:
MARGINAL ABATEMENT COST CURVE



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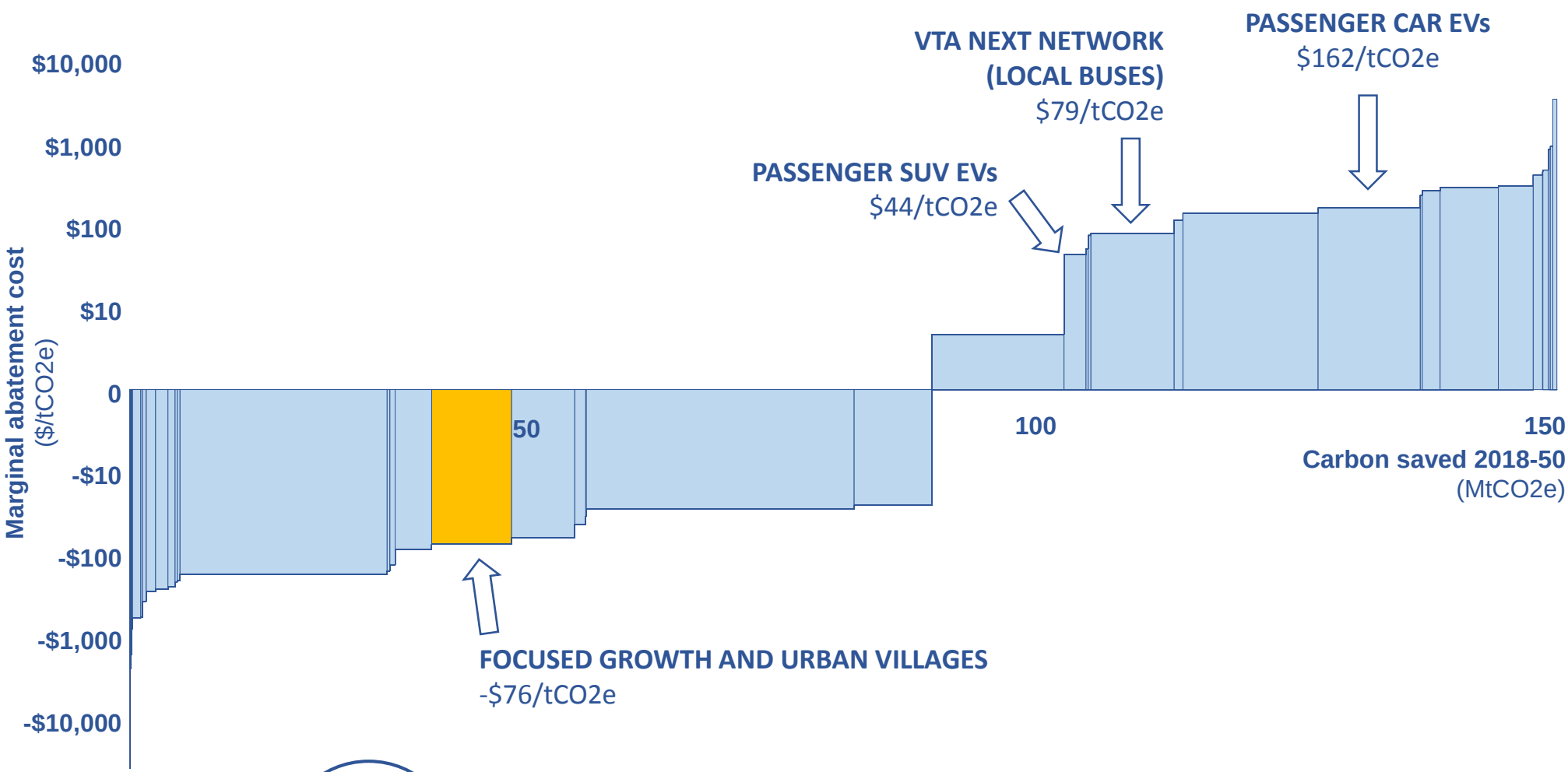

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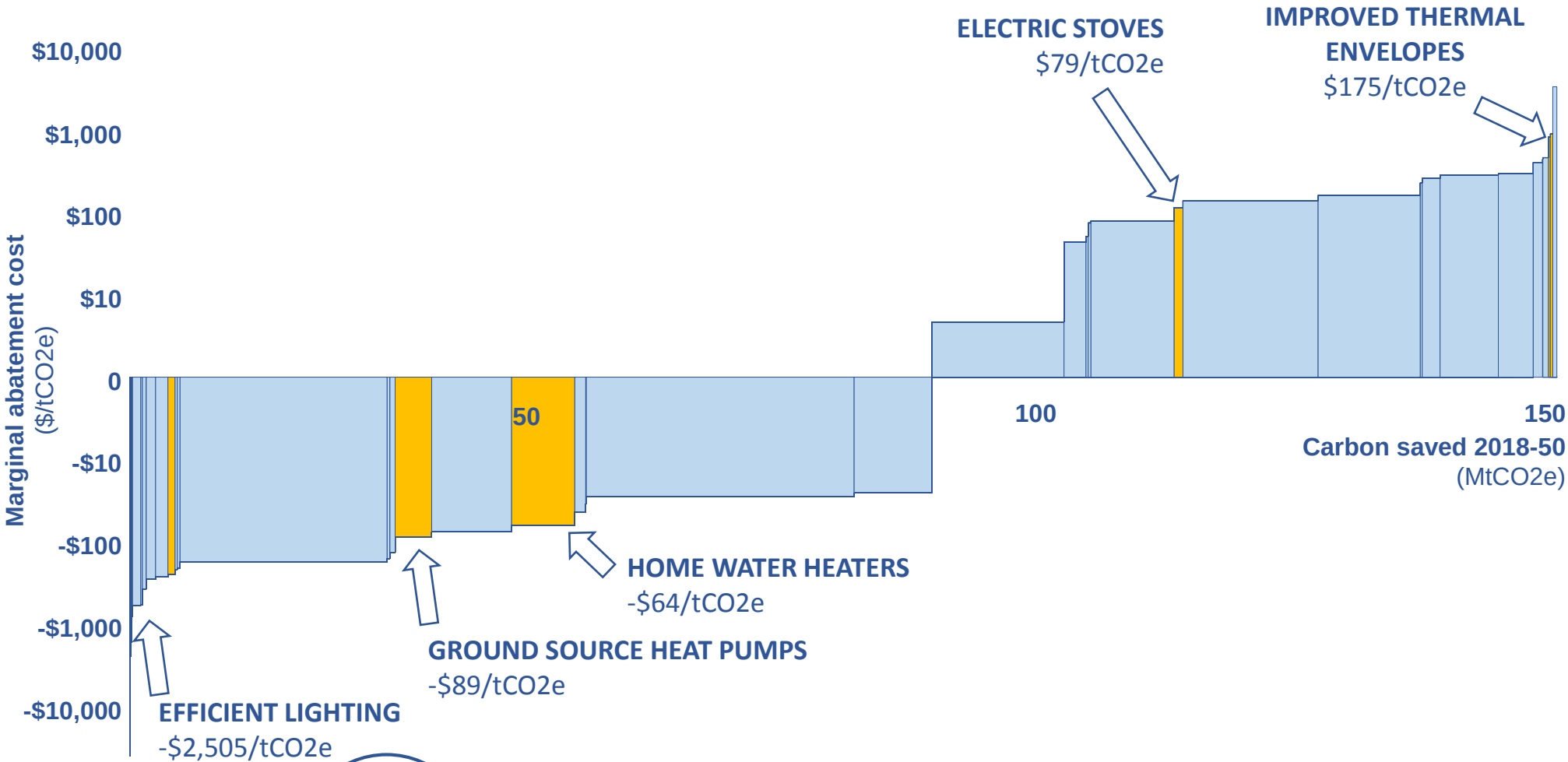

STRATEGY 2.2

MAKE HOMES EFFICIENT AND AFFORDABLE FOR OUR FAMILIES

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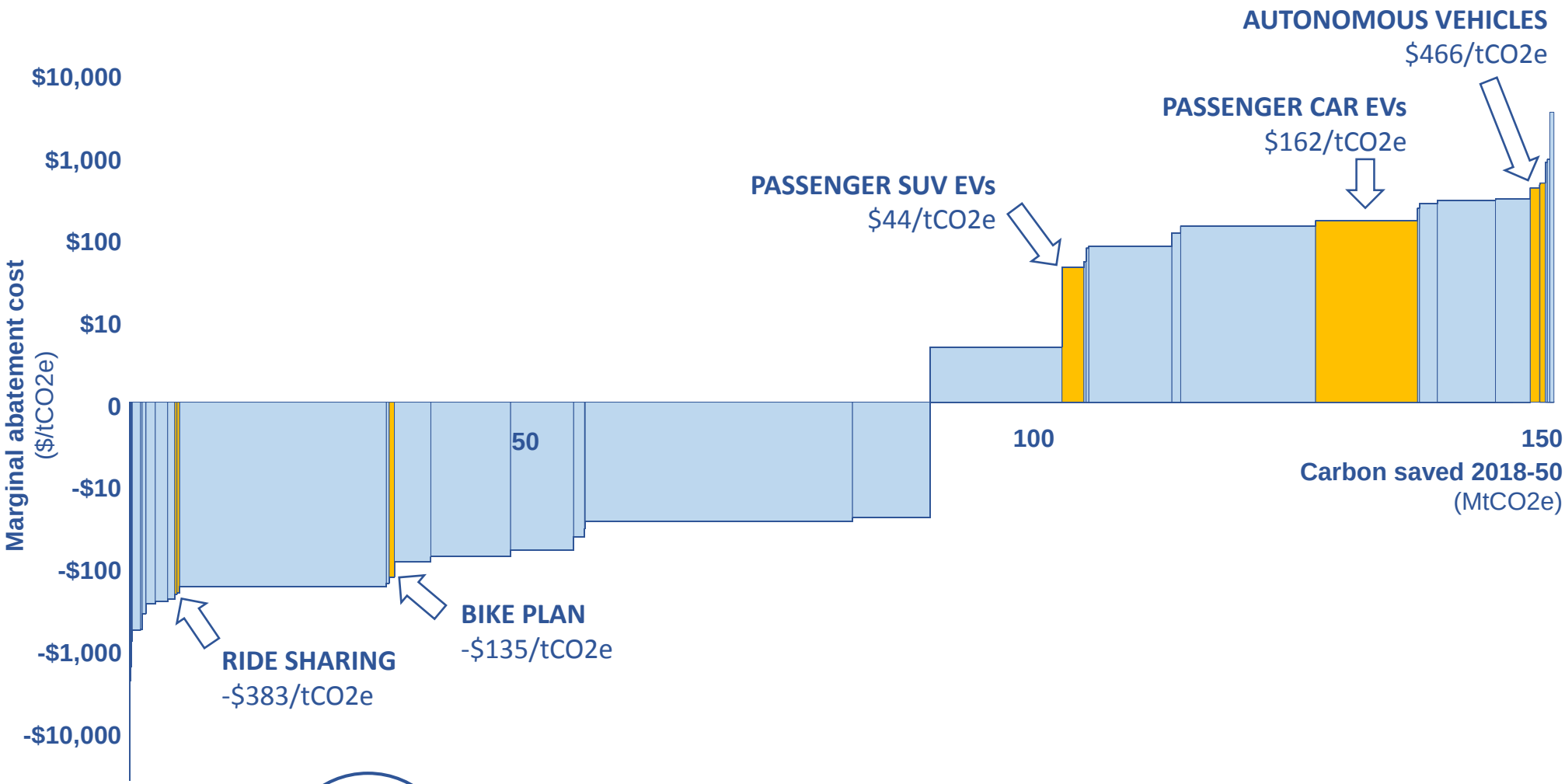

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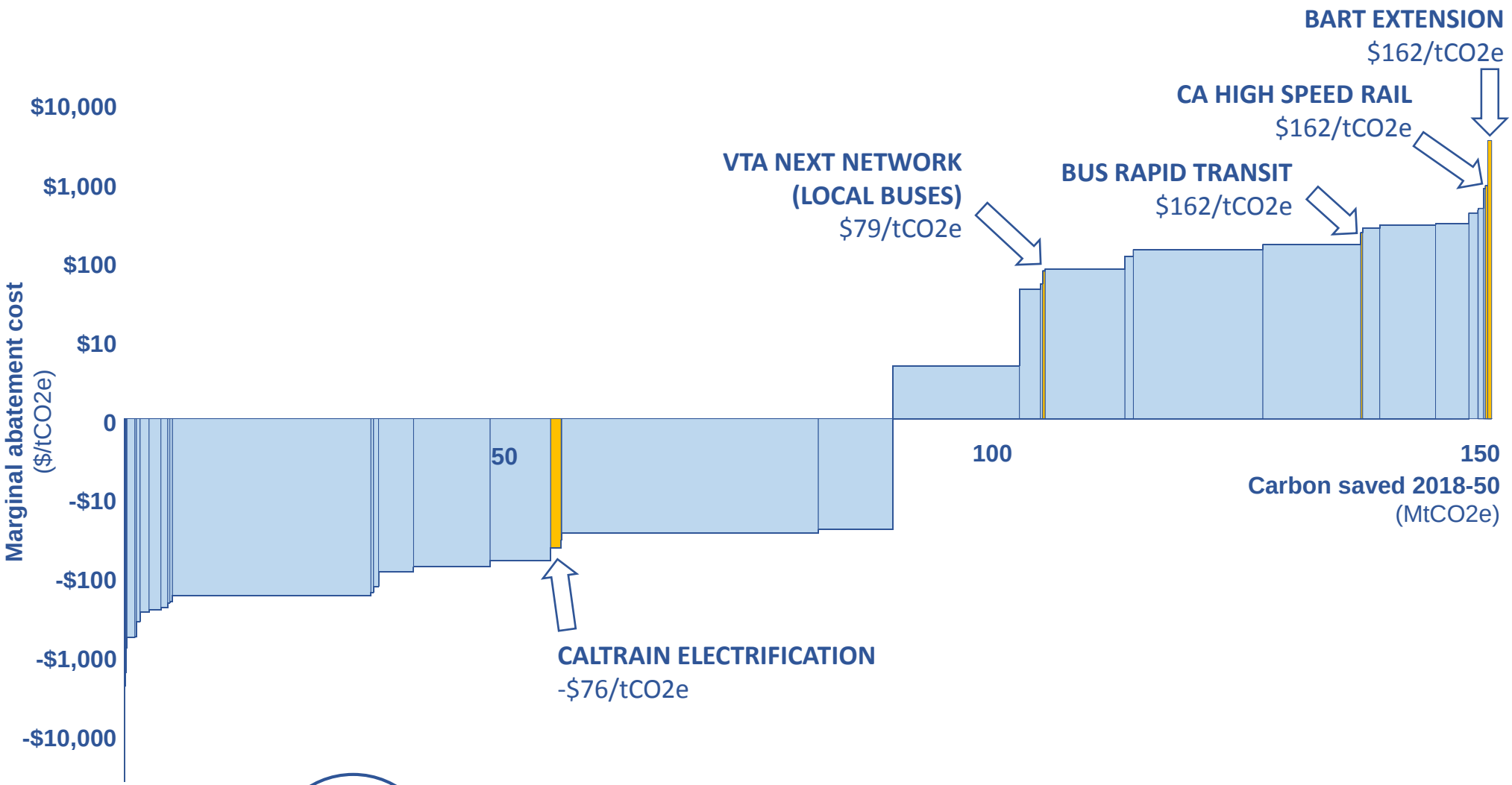

STRATEGY 2.4

DEVELOP INTEGRATED, ACCESSIBLE PUBLIC TRANSPORT INFRASTRUCTURE

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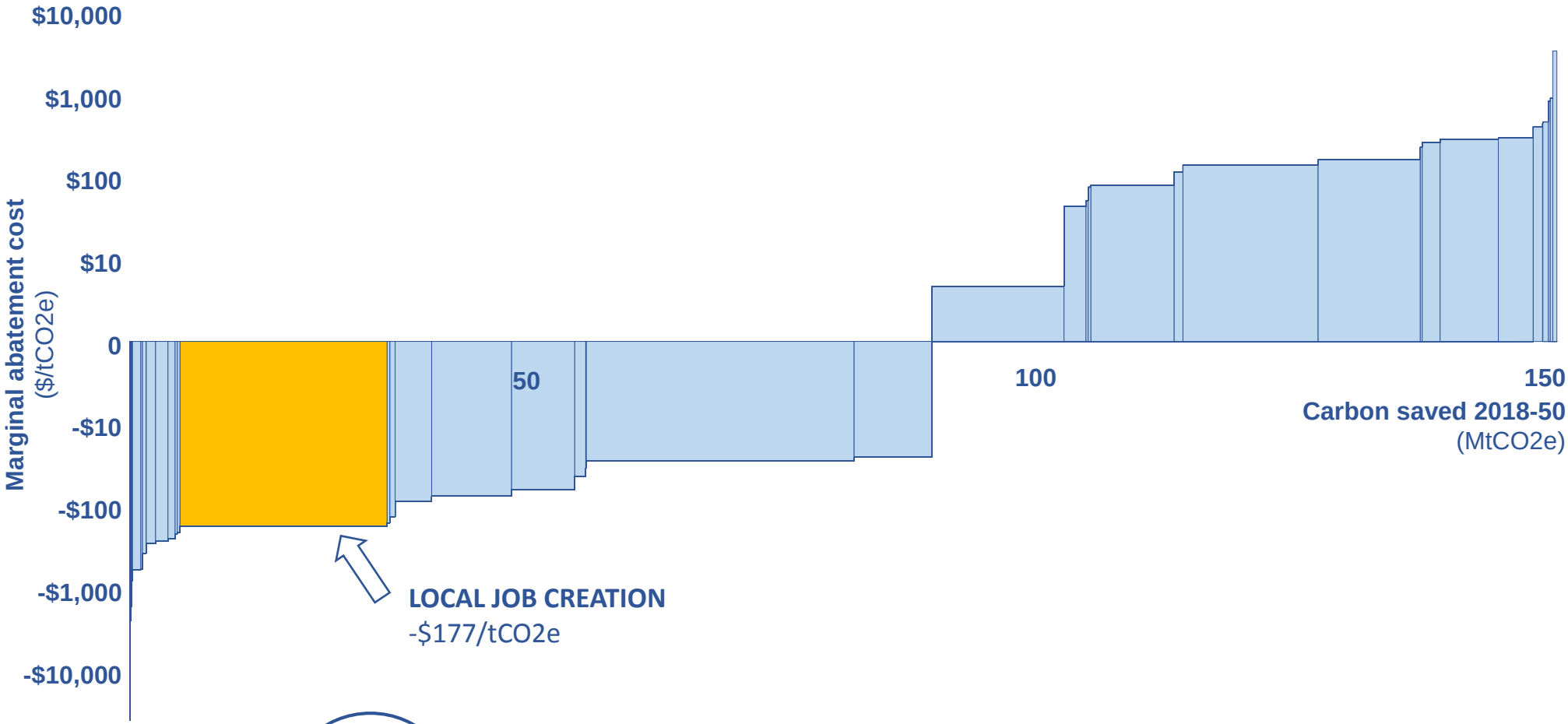

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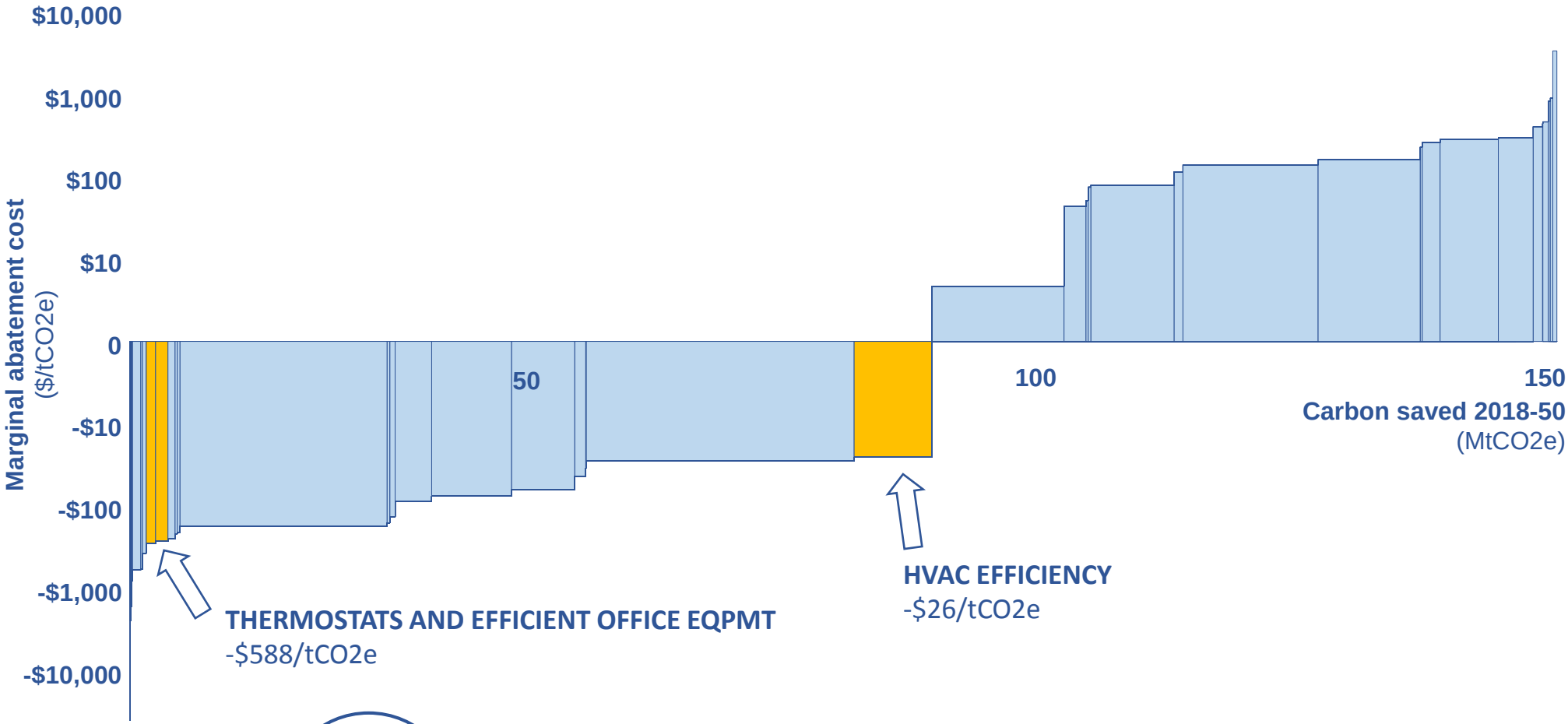

STRATEGY 3.2

IMPROVE OUR COMMERCIAL BUILDING STOCK

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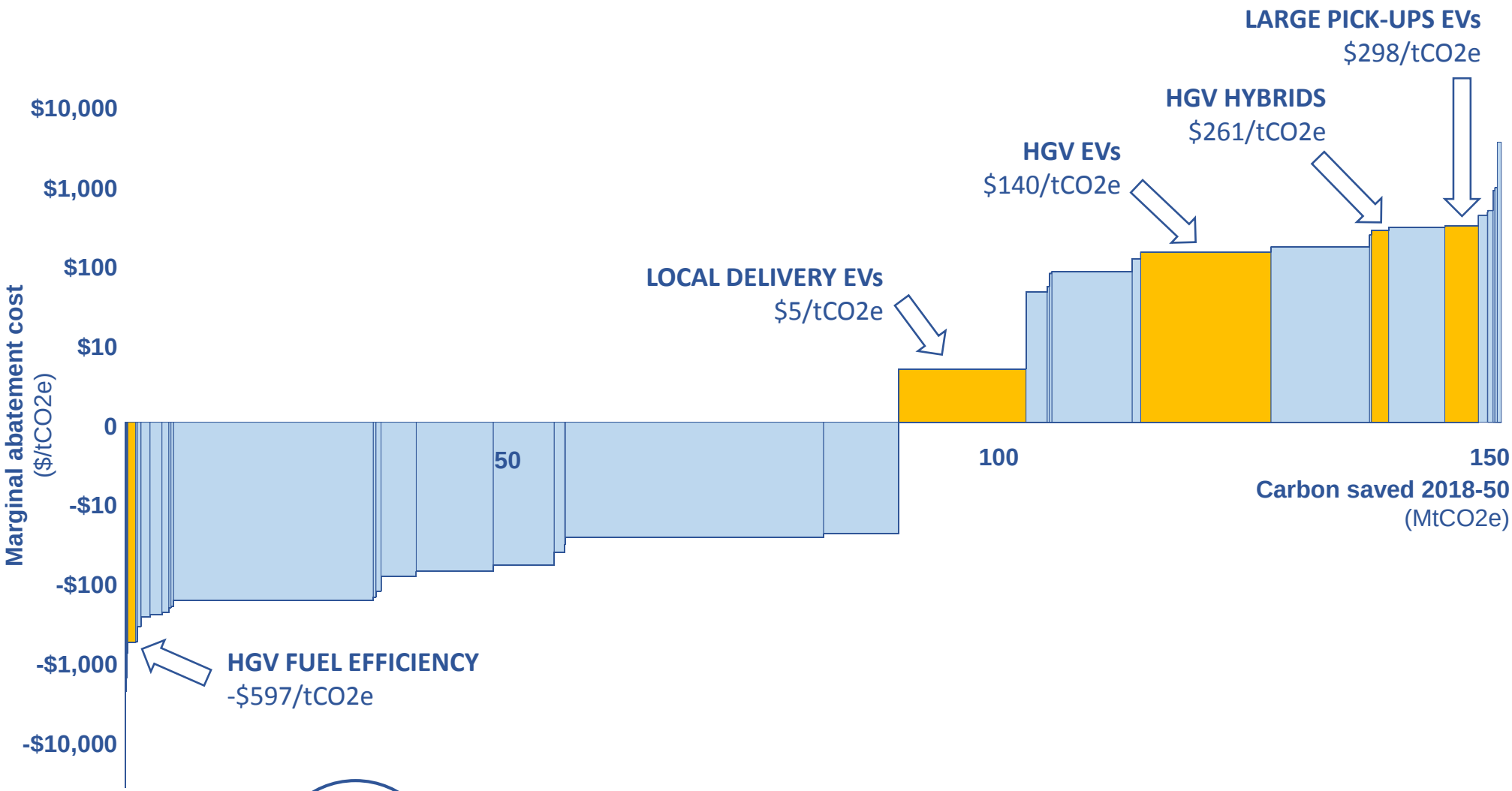
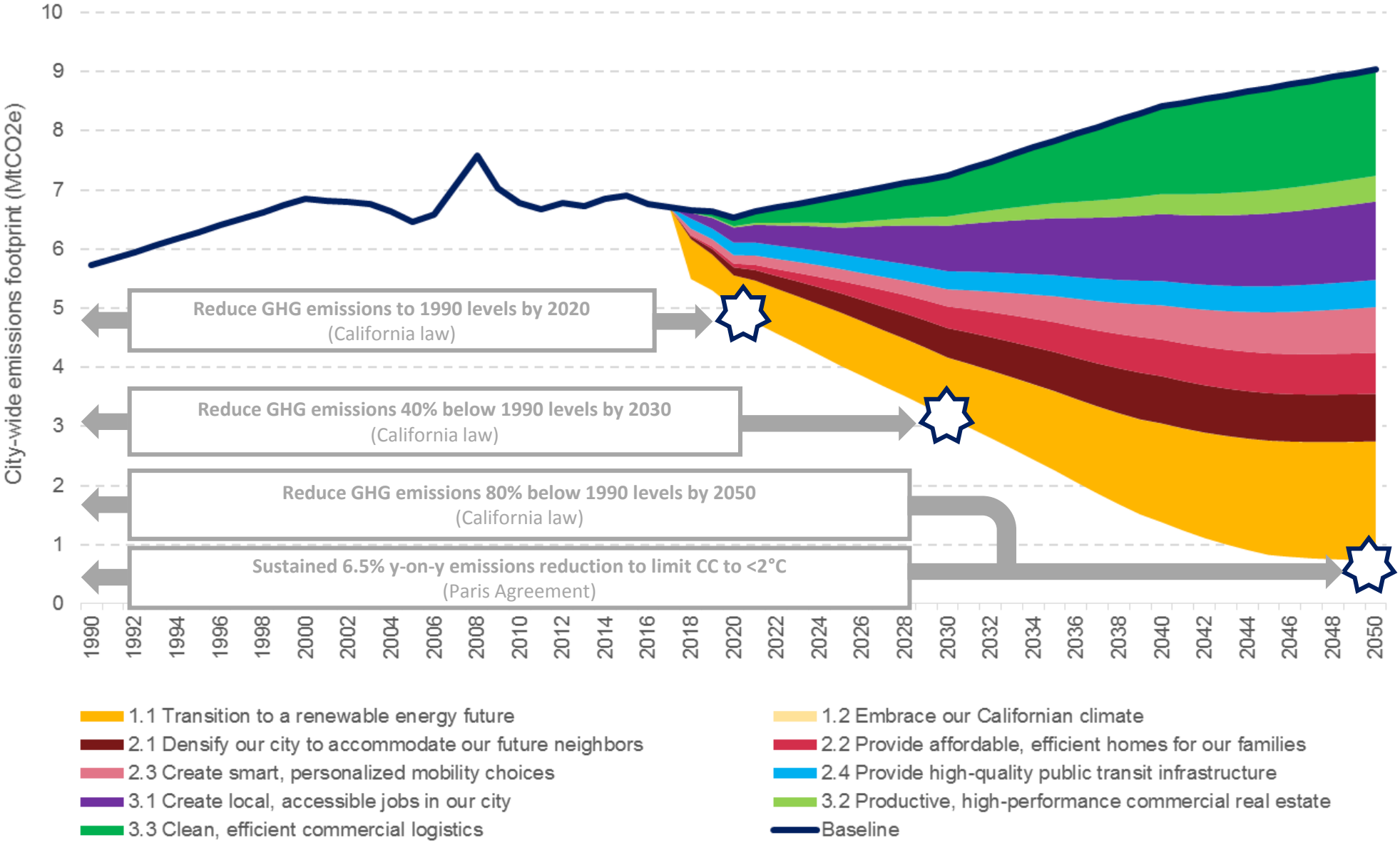


STRATEGY 3.3

MAKE COMMERCIAL GOODS MOVEMENT CLEAN AND EFFICIENT

PATHWAY TO A NEAR-ZERO CARBON FUTURE:
ACHIEVING CALIFORNIA AND PARIS CLIMATE TARGETS

San José's emissions reduction profile through the ESP



3 HOW CITY HALL AND THE COMMUNITY CAN IMPLEMENT

THE 9 STRATEGIES AREN'T SUFFICIENT ALONE:
AN ENABLING FRAMEWORK IS NEEDED

PILLARS of what residents want

Climate and water **STRATEGIES**

Tailored **PLAYBOOKS** for key audiences and stakeholders

The City's **3-YEAR ACTION PLAN**

1 A SUSTAINABLE AND CLIMATE-SMART CITY

- **1.1** Transition to a renewable energy future
- **1.2** Embrace our Californian climate

2 A VIBRANT CITY OF CONNECTED AND FOCUSED GROWTH

- **2.1** Densify our city to accommodate our future neighbors
- **2.2** Make homes efficient and affordable for our families
- **2.3** Create clean, personalized mobility choices
- **2.4** Develop integrated, accessible public transport infrastructure

3 AN ECONOMICALLY INCLUSIVE CITY OF OPPORTUNITY

- **3.1** Create local jobs
- **3.2** Improve our commercial building stock
- **3.3** Make commercial goods movement clean and efficient

BOLD CAMPAIGNS ACTIVATE THE STRATEGIES: RENEWABLES AND ELECTRIFICATION

PILLARS of what residents want

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RENEWABLES AND ELECTRIFI-CATION

BOLD CAMPAIGNS ACTIVATE THE STRATEGIES:
MEET OUR JOBS:EMPLOYED RESIDENTS TARGET

PILLARS of what residents want

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- 3.3 Make commercial goods movement clean and efficient

RENEWABLES AND ELECTRIFI-CATION

MEET OUR J:ER TARGET

BOLD CAMPAIGNS ACTIVATE THE STRATEGIES: ACHIEVE OUR FOCUSED GROWTH TARGET

PILLARS of what residents want

Climate and water **STRATEGIES**

Tailored **PLAYBOOKS** for key audiences and stakeholders

The City's **3-YEAR ACTION PLAN**

The City's **BOLD CAMPAIGNS**

1 A SUSTAINABLE AND CLIMATE-SMART CITY	2 A VIBRANT CITY OF CONNECTED AND FOCUSED GROWTH		3 AN ECONOMICALLY INCLUSIVE CITY OF OPPORTUNITY	
1.1 Transition to a renewable energy future	2.1 Densify our city to accommodate our future neighbors	2.3 Create clean, personalized mobility choices	3.1 Create local jobs	3.3 Make commercial goods movement clean and efficient
1.2 Embrace our Californian climate	2.2 Make homes efficient and affordable for our families	2.4 Develop integrated, accessible public transport infrastructure	3.2 Improve our commercial building stock	

RENEWABLES AND ELECTRIFI-CATION

MEET OUR J:ER TARGET

WORK TOWARDS OUR FOCUSED GROWTH TARGET

BOLD CAMPAIGNS ACTIVATE THE STRATEGIES:
REDUCE PER CAPITA VMT

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REDUCE PER CAPITA VMT

BOLD CAMPAIGNS ACTIVATE THE STRATEGIES:
REDUCE PER CAPITA WATER USE

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REDUCE PER CAPITA VMT

REDUCING PER CAPITA WATER USE

ACTIVATING THE STRATEGIES TO DELIVER THE GOOD LIFE: BOLD CAMPAIGNS AND BOLD GOALS

BOLD CAMPAIGNS | **BOLD GOALS**

PARIS CLIMATE AGREEMENT

The first Paris-compliant pathway of any US city

RENEWABLES AND ELECTRIFICATION

1. From 2021, SJCE will offer **100% GHG-free power** as a base product
2. By 2030, San José will be the **world's first 1 GW solar city**; doubling our rooftop solar capacity in the next 18 months
3. By 2030, **30% of all passenger vehicles in the city will be electric**, making us the electric car capital of the United States
4. By 2030, **100% of new homes** will be Zero Net Energy and **25% of existing** homes will be energy efficient and all-electric

MEET OUR JOBS:EMPLOYED RESIDENT TARGET

5. By 2030, San José will create an additional **10 million sq ft** of commercial workspace located within half a mile of transit

WORK TOWARDS OUR FOCUSED GROWTH TARGET

6. By 2030, San José will have developed **40,000 dwelling units in its urban villages** and focused growth areas

REDUCE PER CAPITA VMT

7. By 2030, only **4 out of 10 commute trips** in San José will be taken in single occupancy vehicles

REDUCE PER CAPITA WATER USE

8. By 2030, San José will reduce its **per capita residential water consumption by 30%** compared to 2009 levels

BOLD CAMPAIGNS THAT ACTIVATE THE STRATEGIES

RENEWABLES AND ELECTRIFICATION

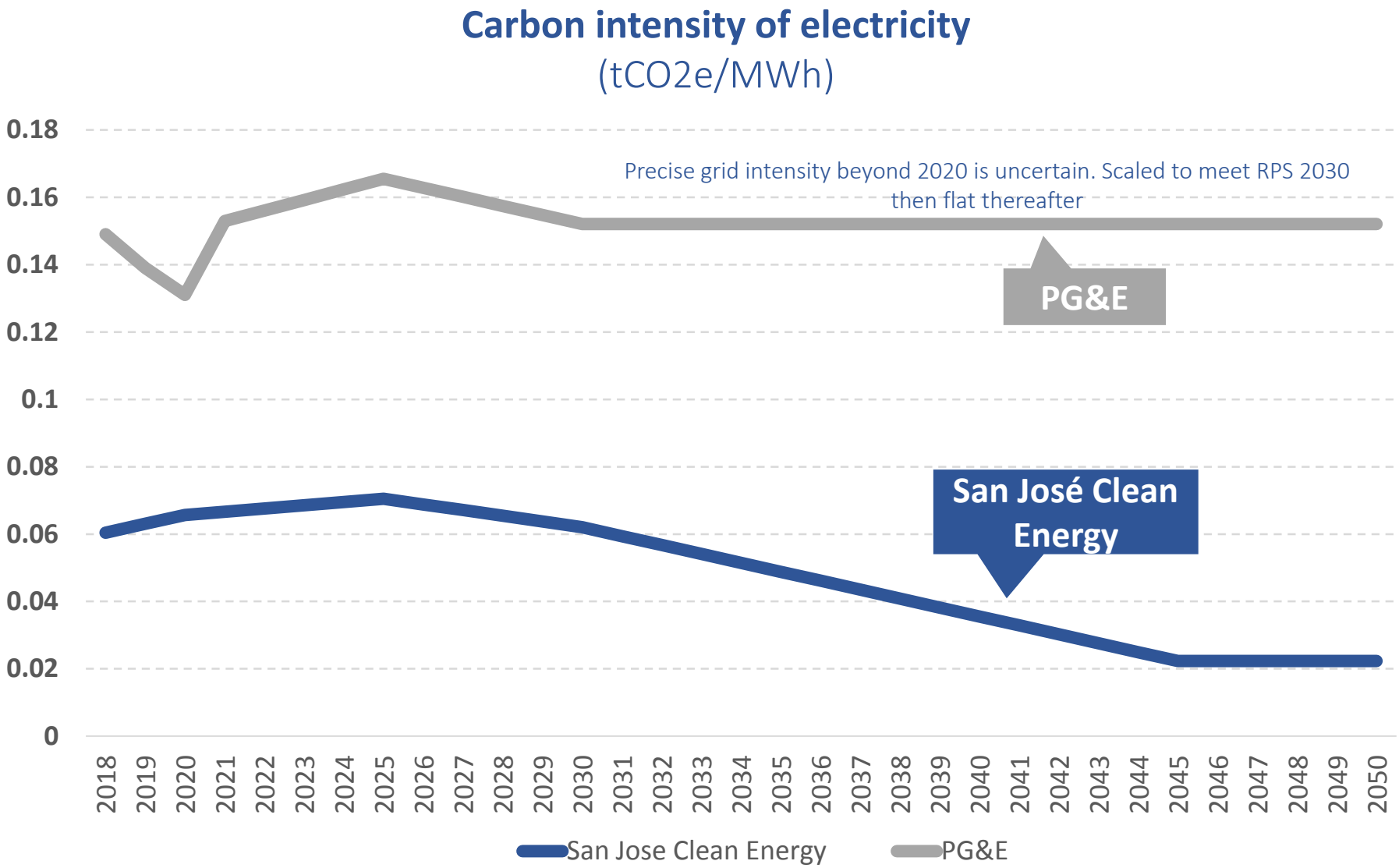
MEET OUR JOBS:EMPLOYED RESIDENT TARGET

WORK TOWARDS OUR FOCUSED GROWTH TARGET

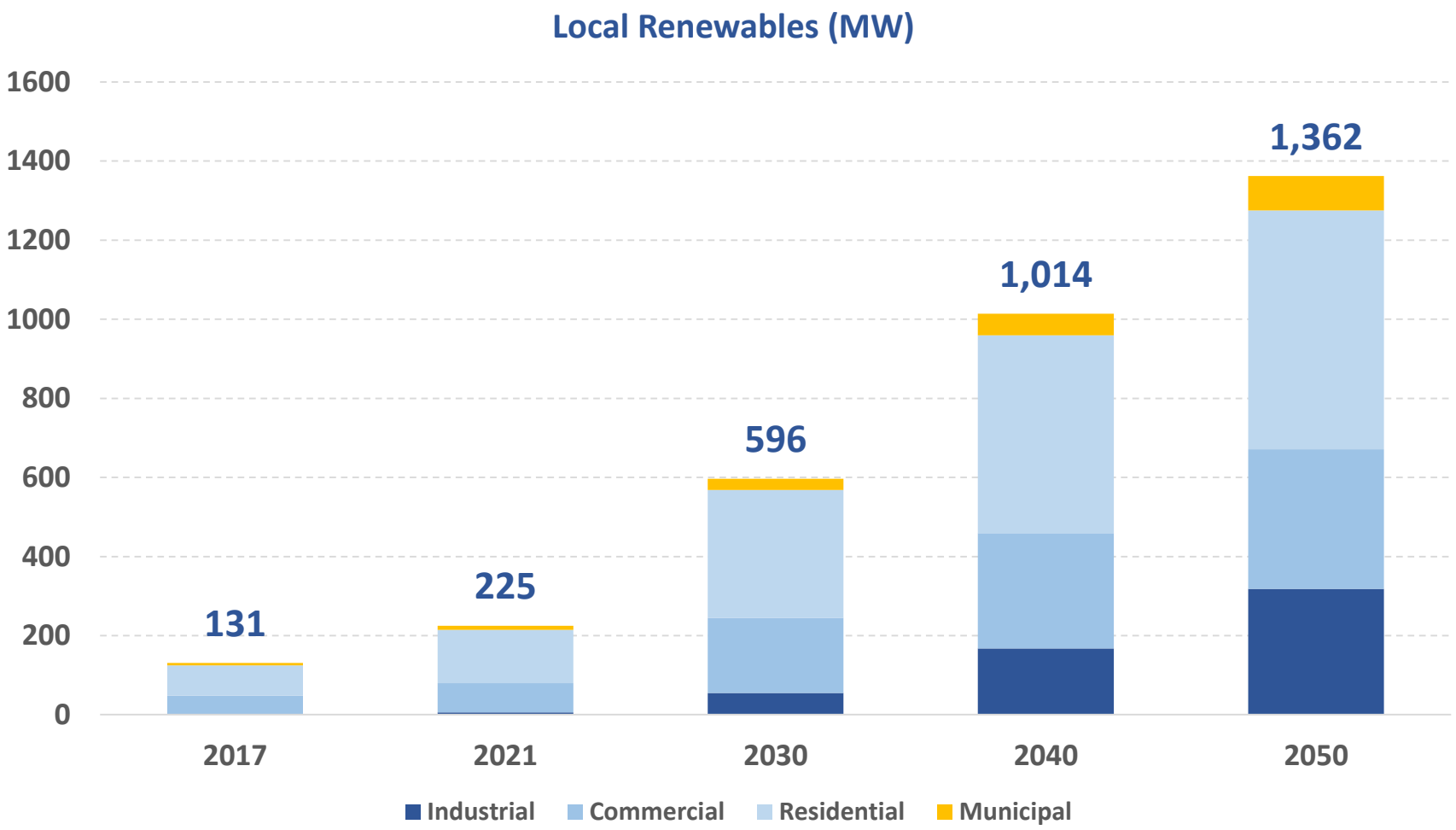
REDUCE PER CAPITA VMT

REDUCE PER CAPITA WATER USE

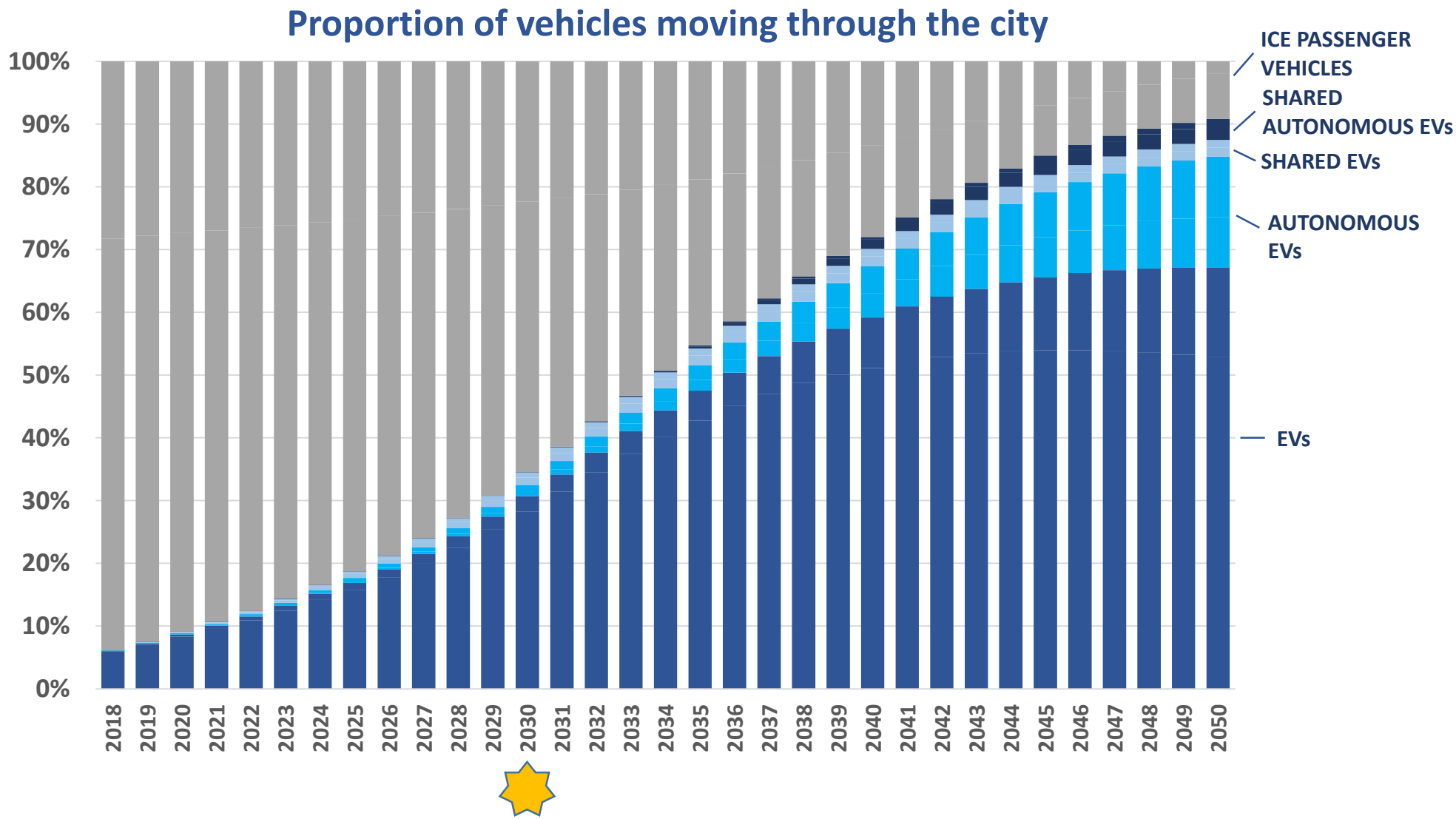
RENEWABLES AND ELECTRIFICATION:
SJCE 100% GHG-FREE POWER FROM 2021



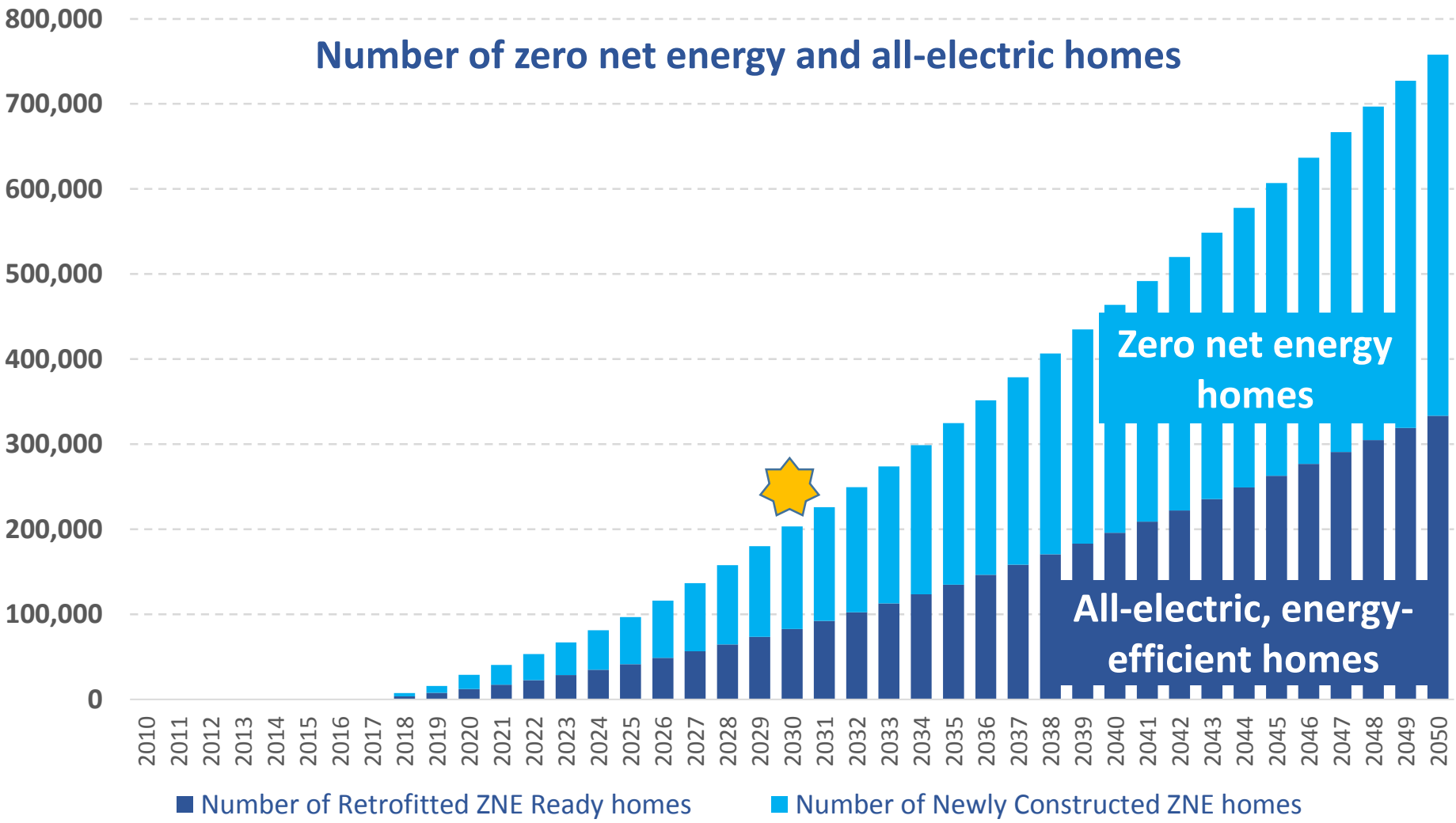
RENEWABLES AND ELECTRIFICATION:
WORLD'S FIRST 1 GW SOLAR CITY, 2x IN NEXT 18 MONTHS



RENEWABLES AND ELECTRIFICATION:
ELECTRIC CAR CAPITAL OF THE UNITED STATES



RENEWABLES AND ELECTRIFICATION:
100% OF NEW HOMES ZNE AND 25% RETROFITTED



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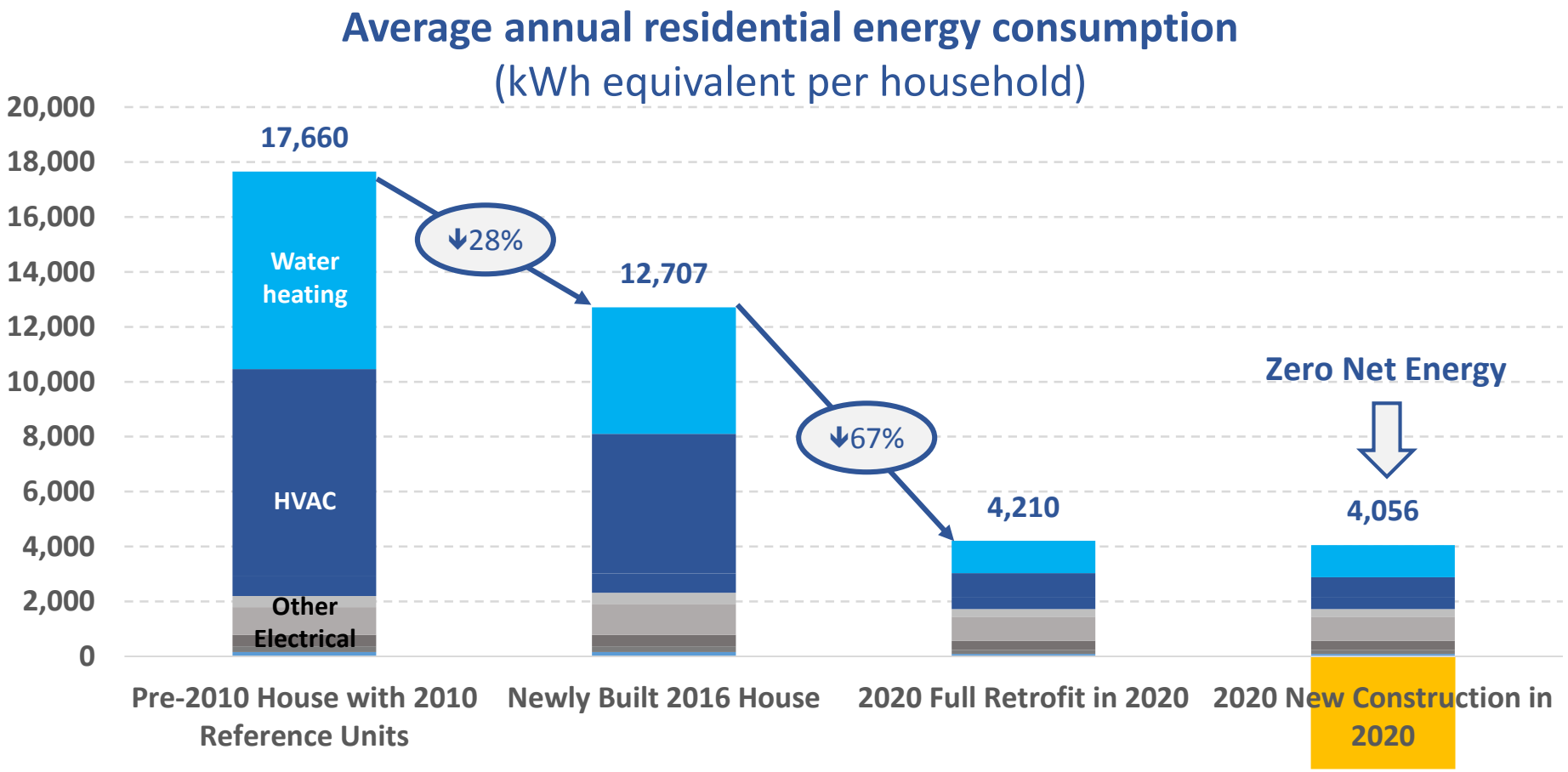
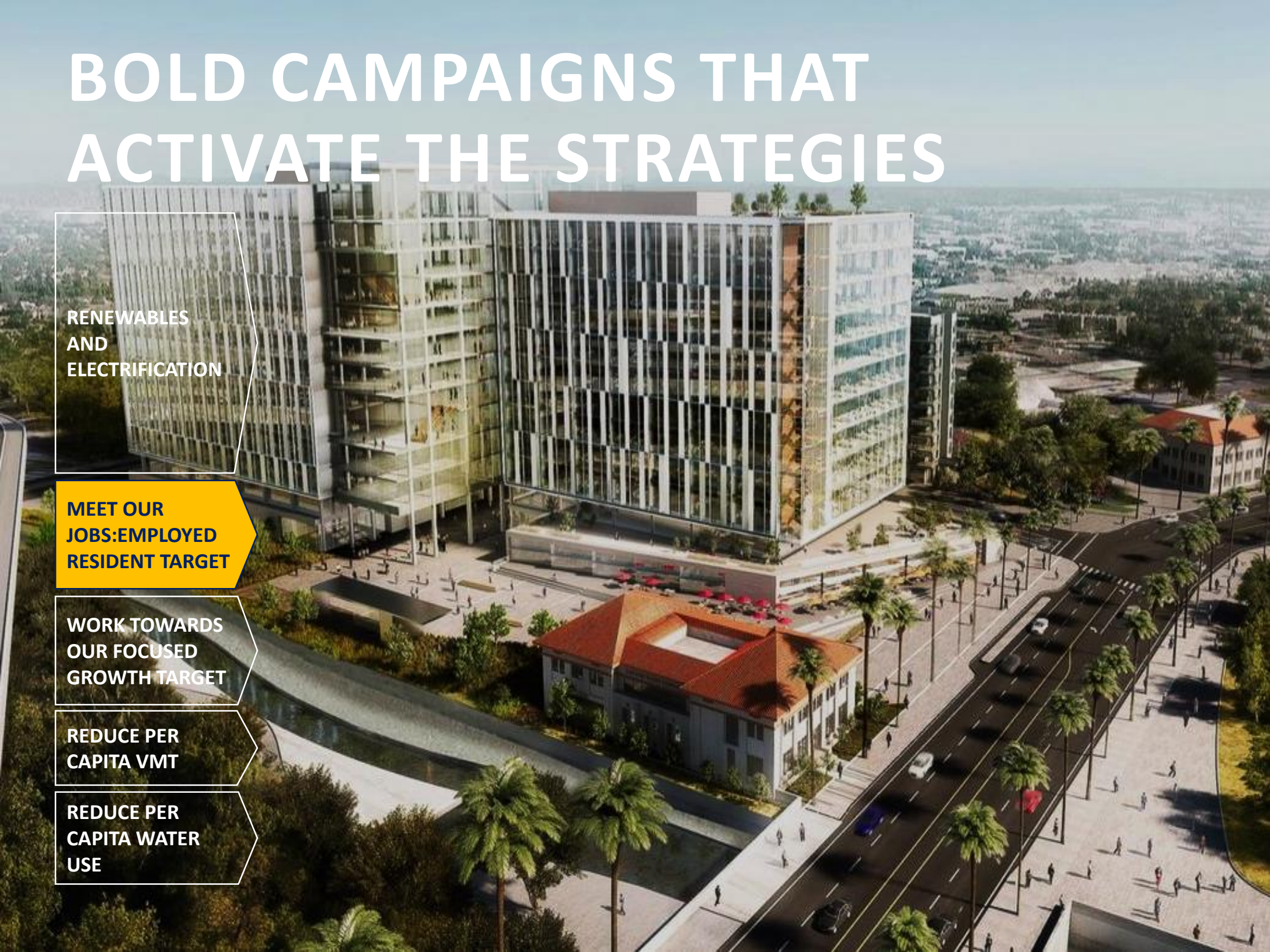
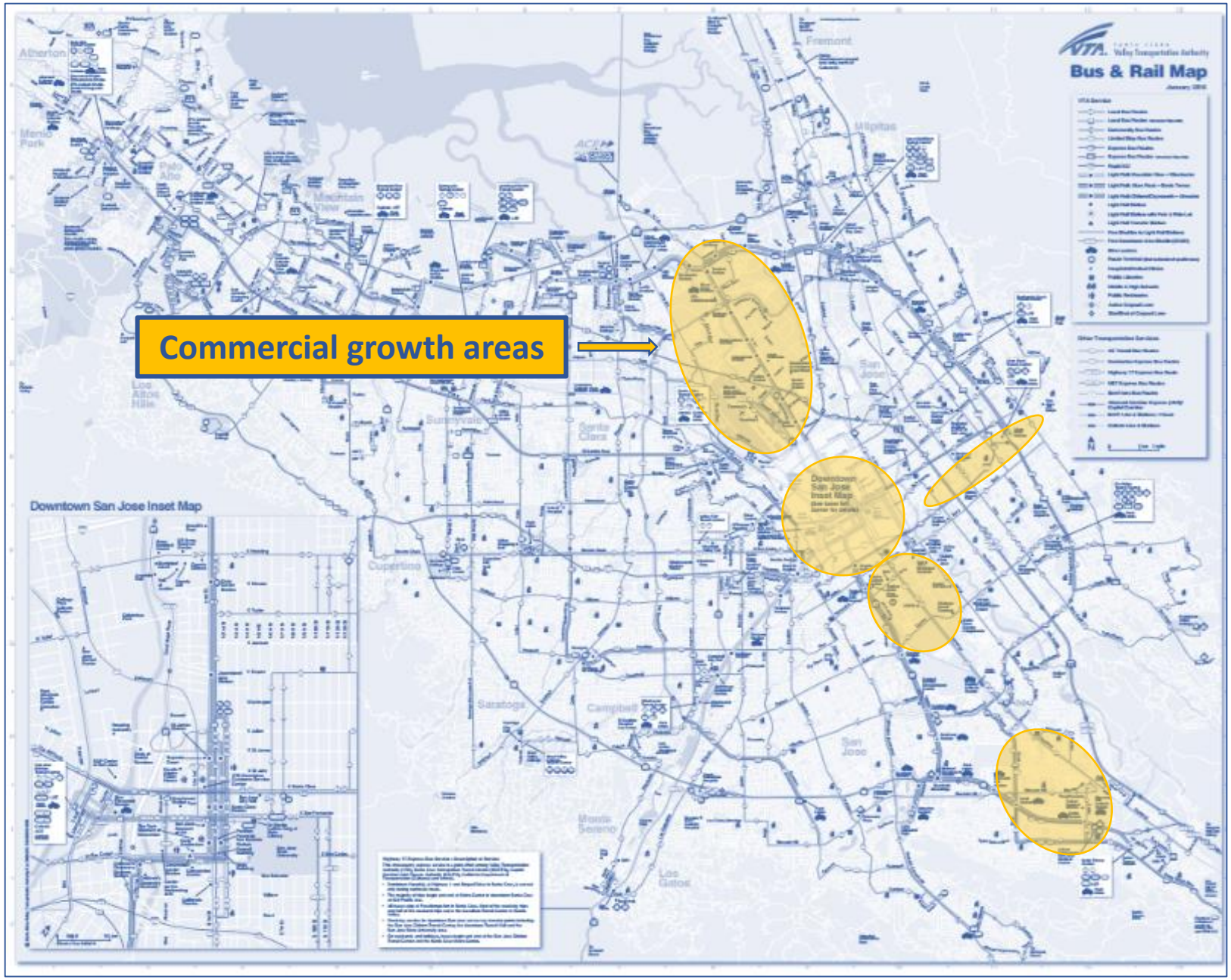


BOLD CAMPAIGNS THAT ACTIVATE THE STRATEGIES



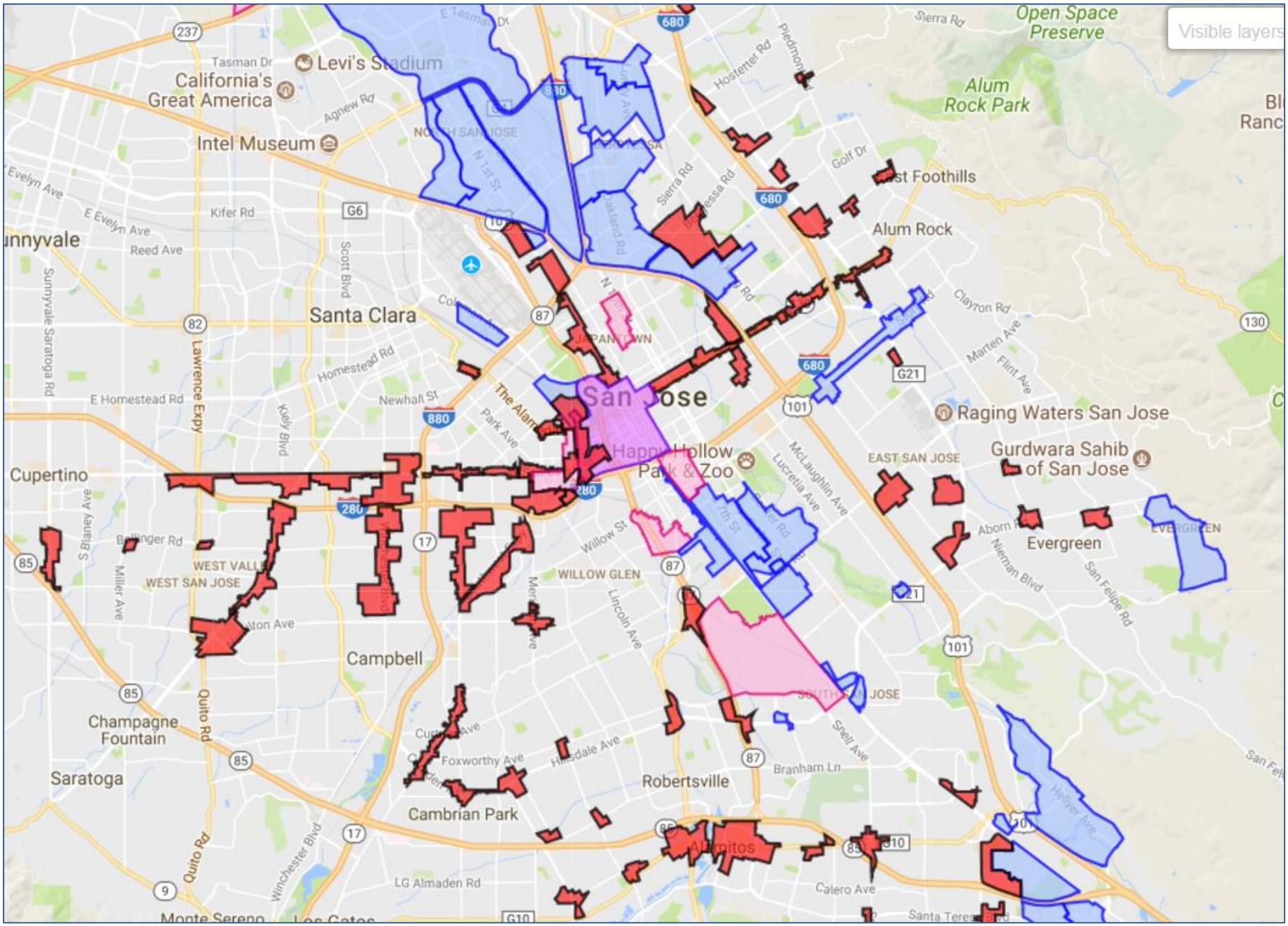
MEET OUR J:ER TARGET:
+10 MSQFT COMMERCIAL SPACE NEAR TRANSIT



BOLD CAMPAIGNS THAT ACTIVATE THE STRATEGIES

- RENEWABLES AND ELECTRIFICATION
- MEET OUR JOBS:EMPLOYED RESIDENT TARGET
- **WORK TOWARDS OUR FOCUSED GROWTH TARGET**
- REDUCE PER CAPITA VMT
- REDUCE PER CAPITA WATER USE

WORK TOWARDS OUR FOCUSED GROWTH TARGET:
40,000 DUs IN URBAN VILLAGES AND GROWTH AREAS



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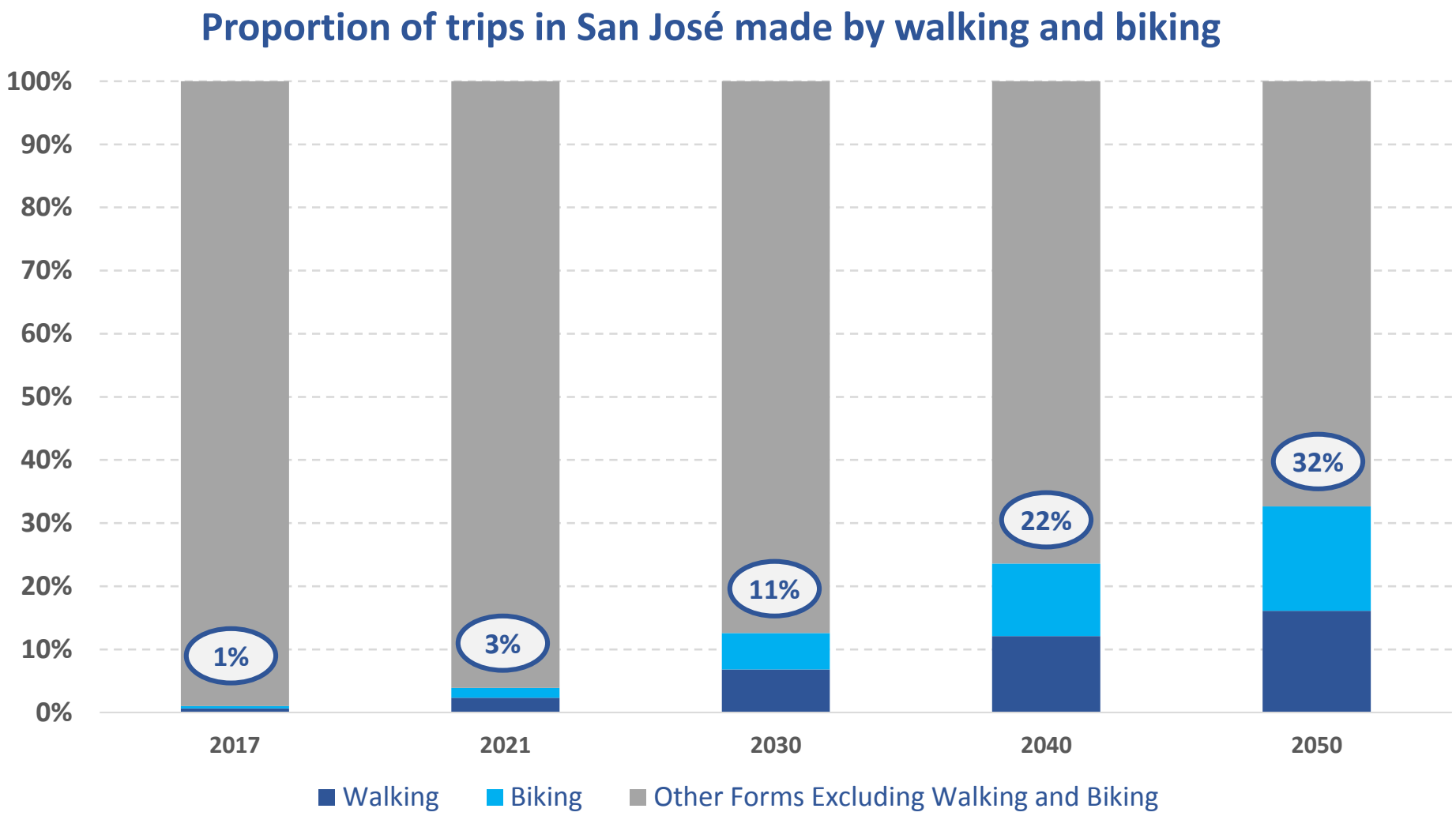
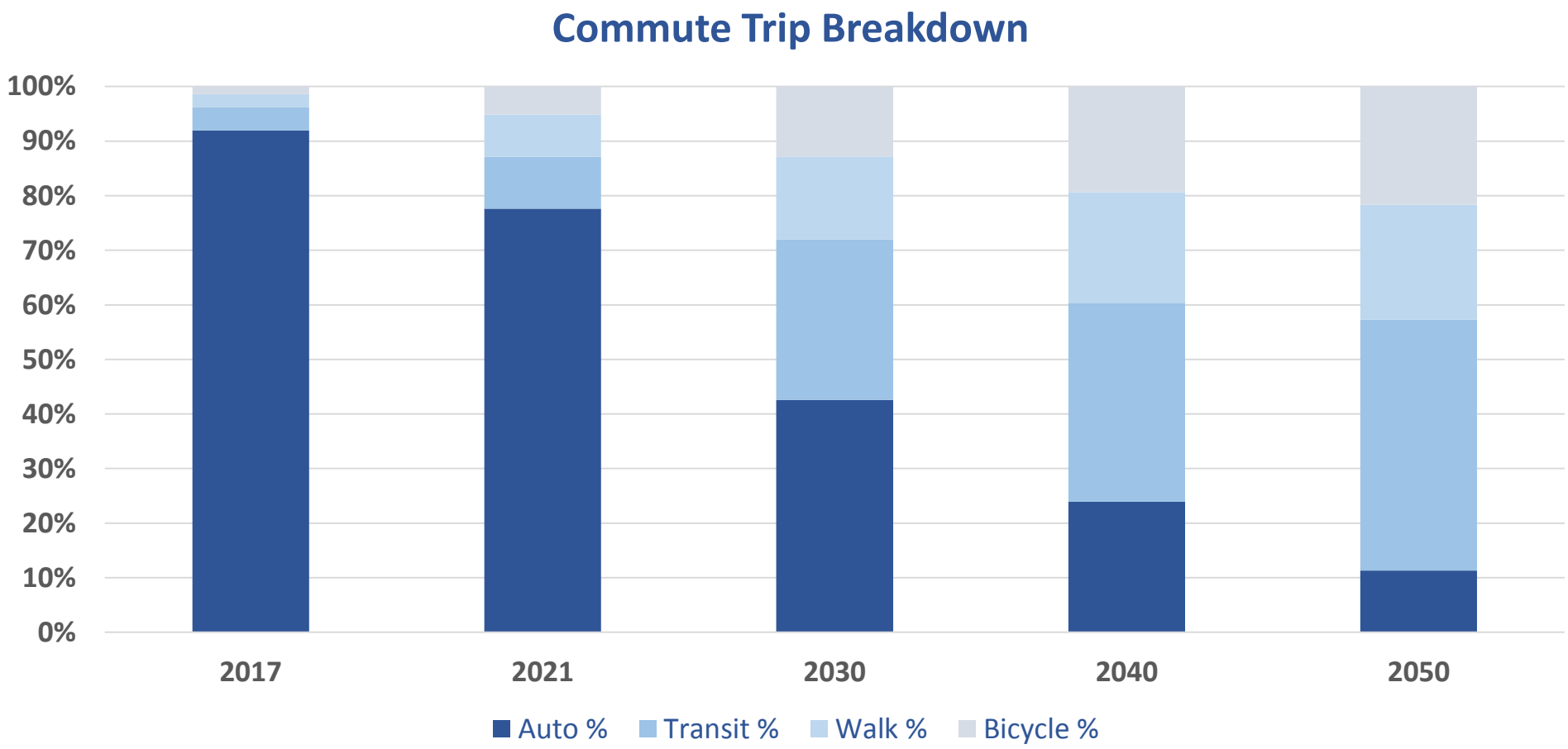


BOLD CAMPAIGNS THAT ACTIVATE THE STRATEGIES

REDUCE PER CAPITA VMT:
4 OUT OF 10 COMMUTE TRIPS IN SOVs



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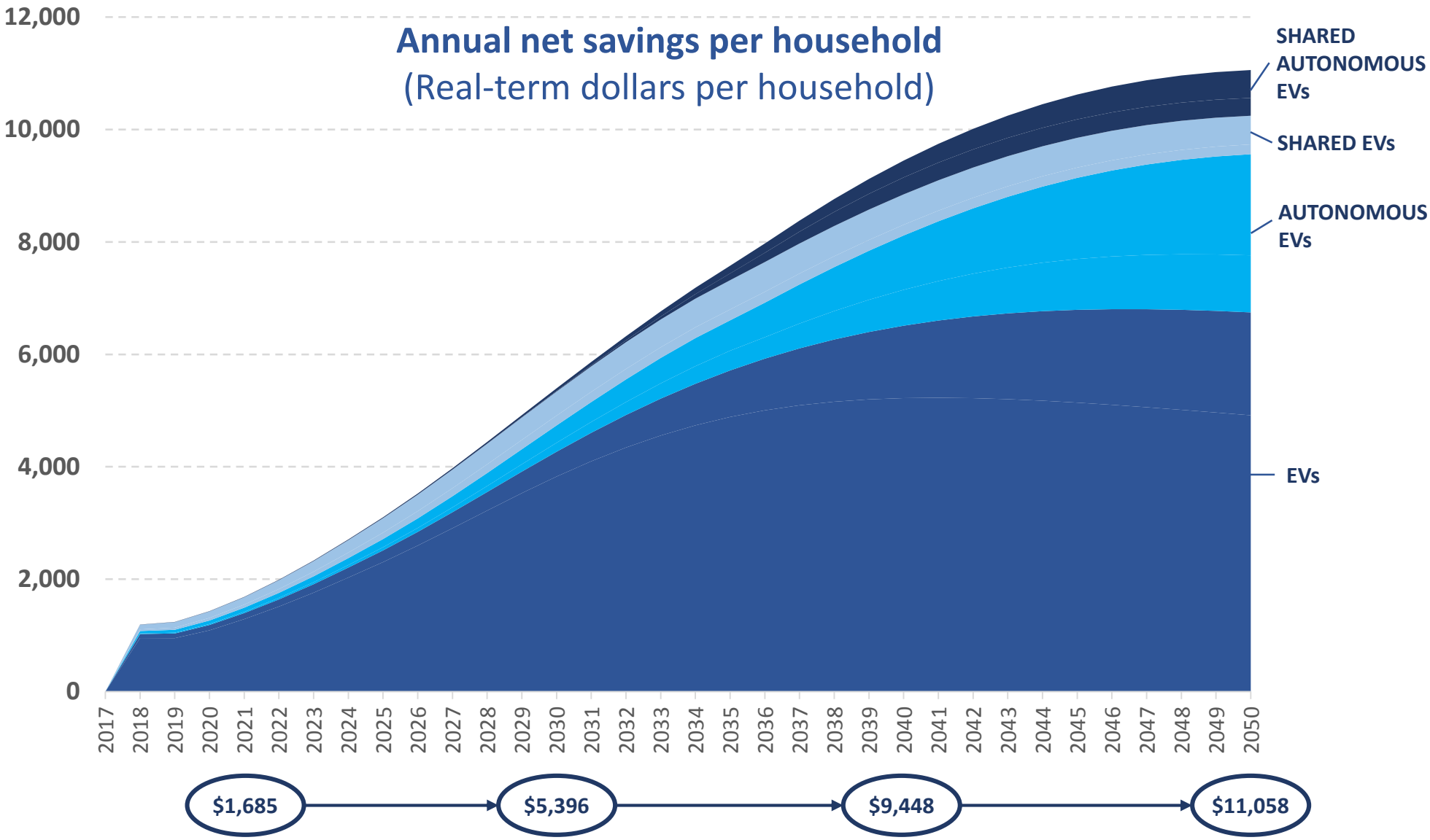
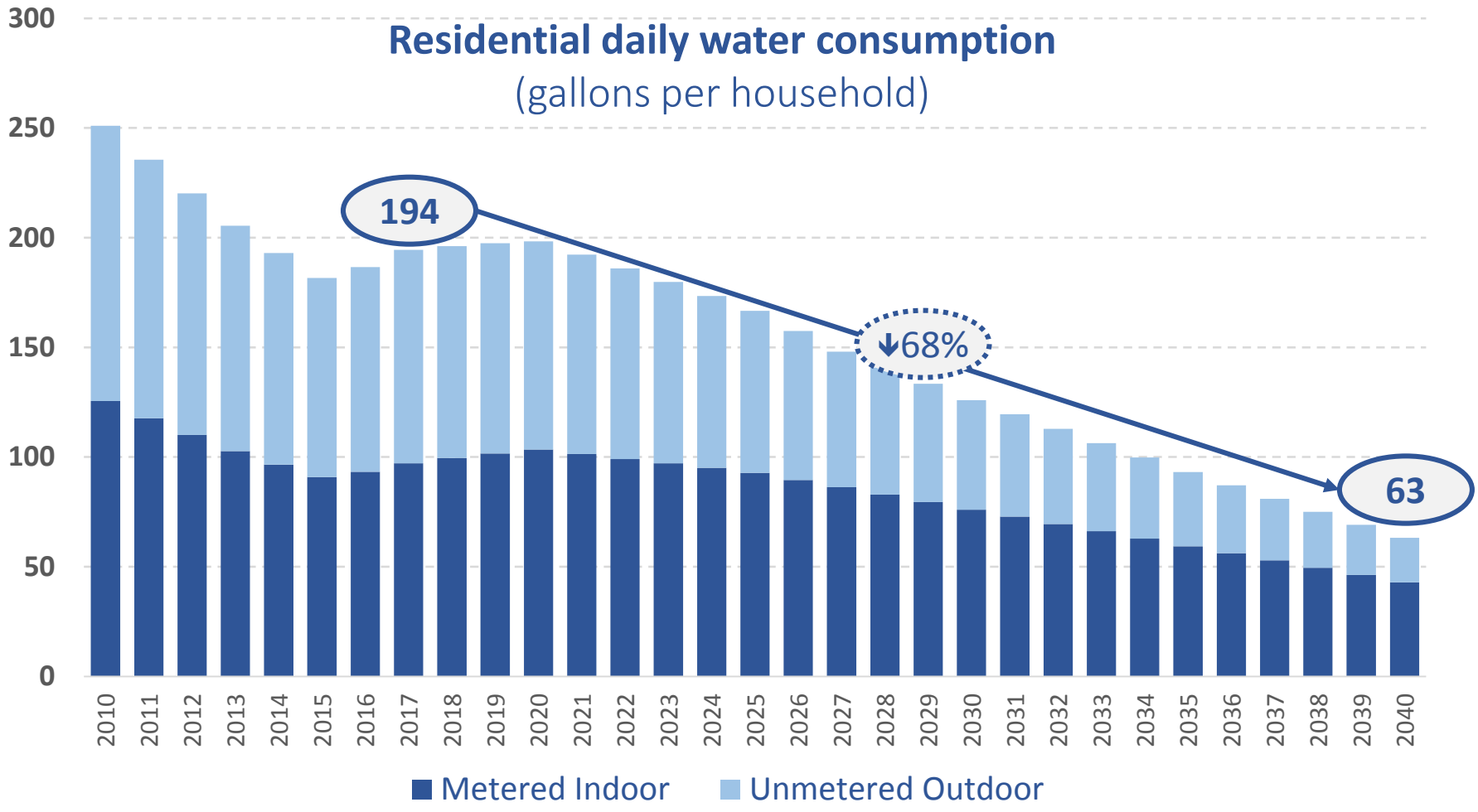


BOLD CAMPAIGNS THAT ACTIVATE THE STRATEGIES

REDUCE PER CAPITA WATER USE:
REDUCE RESIDENTIAL WATER USE BY 30%



LINING UP OUR ACTIONS TO **ENABLE OTHERS**

REVISITING THE STRATEGY ENABLING FRAMEWORK: THE ENABLING ROLE OF CITY HALL

PILLARS of what residents want

Climate and water **STRATEGIES**

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- MEET OUR J:ER TARGET
- WORK TOWARDS OUR FOCUSED GROWTH TARGET
- REDUCE PER CAPITA VMT
- REDUCING PER CAPITA WATER USE

CITY HALL CAN ENABLE ADOPTION OF THE PRODUCTS, SERVICES AND BUSINESS MODELS TO ADDRESS CLIMATE


San José Clean Energy


Distributed solar generation

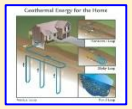

LED lighting retrofit


Energy efficient electronics


Energy efficient refrigerators


Gas to electric stove replacement


Gas to electric water heater replacement


Gas to electric ground source heat pumps

Smart thermostats


Residential building thermal envelope retrofit

Residential building thermal envelope new-build


Commercial building thermal envelope retrofit


Commercial building thermal envelope new-build


Commercial building energy efficient HVAC new-build


Commercial building HVAC recommissioning


Commercial building LED lighting


Commercial building data center energy efficiency


Residential dishwasher efficiency


Residential clotheswasher efficiency


Passenger car EV


SUV EV


Passenger car autonomous EV


SUV autonomous EV


Ride-sharing cars

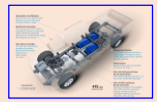

Ride-sharing shuttles


Ride-sharing autonomous cars


Ride-sharing autonomous shuttles


Large pick-up EVs

Local delivery EVs


Hybrid heavy goods vehicle (HGVs)


Electric heavy goods vehicle (HGVs)


CNG heavy goods vehicle (HGVs)


Efficient heavy goods vehicle (HGVs)


Caltrain electrification


BART extension


California High Speed Rail


VTA Bus Rapid Transit and Light rail


VTA Next Network and bus network


City Bike Plan


Creating local jobs


Densification / focused growth


Drought resilient landscaping


Drip irrigation in landscaping


Domestic rainwater storage


Low flush toilets (residential)


Low flow showers


Showers instead of baths


Aerated faucets in homes


Fixing leaks in homes


Residential greywater


Aerated faucets commercial buildings


Low flush toilets (commercial)


Commercial greywater reuse

KEY

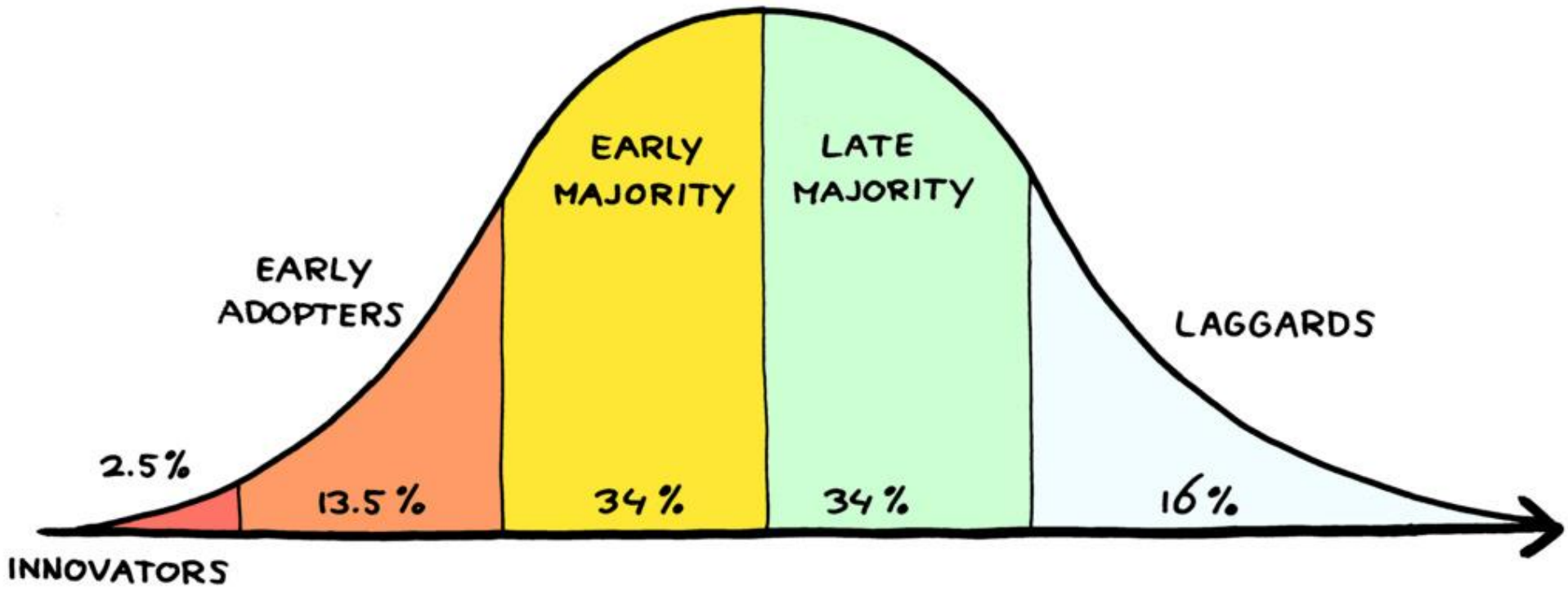
ENERGY

TRANSPORT

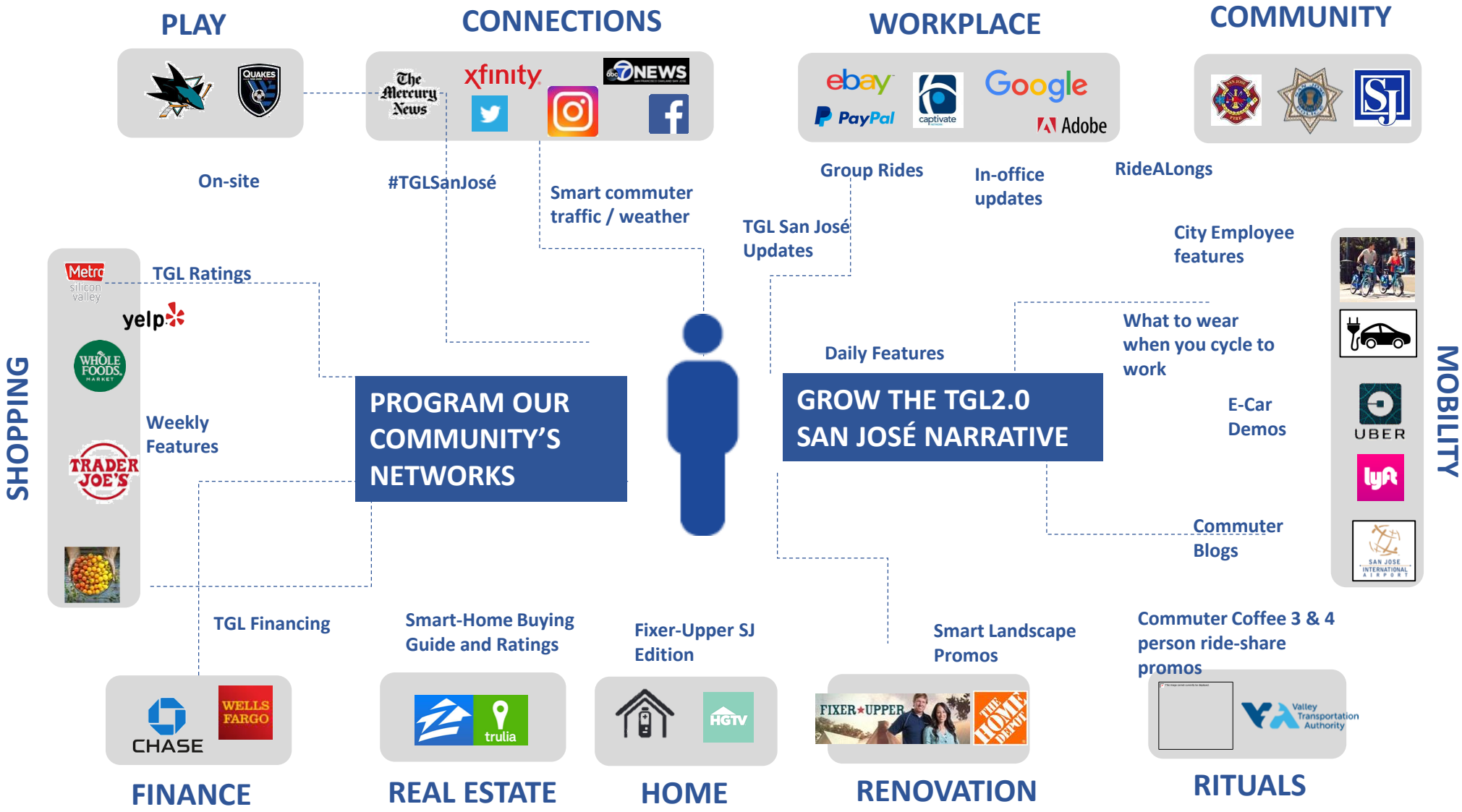
LAND USE

WATER

CITY HALL'S ROLE WILL BE TO ENABLE OTHERS:
PROGRESS THROUGH THE ADOPTION CURVE

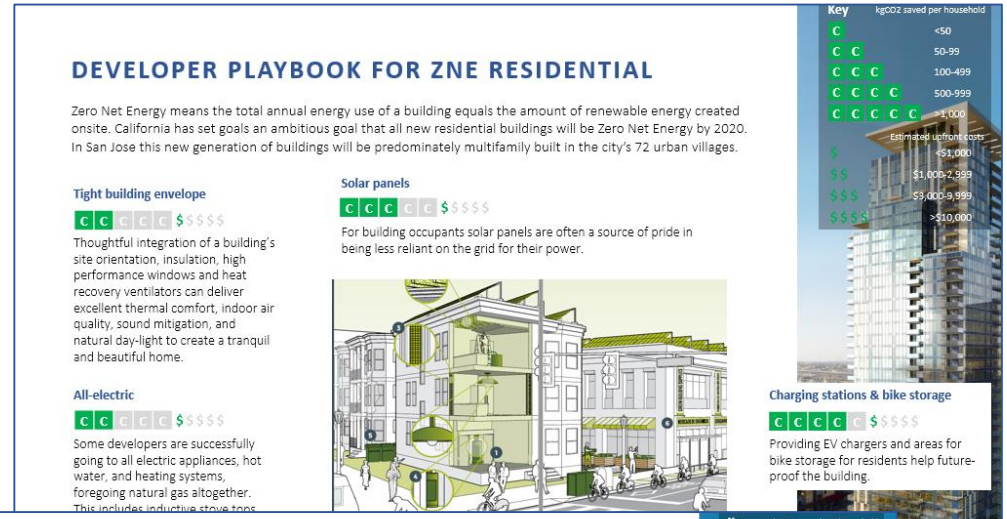


CITY HALL'S ROLE WILL BE TO ENABLE OTHERS:
PROGRAMMING COMMUNITY NETWORKS



CITY HALL'S ROLE WILL BE TO ENABLE OTHERS:
TAILORED PLAYBOOKS FOR KEY AUDIENCES

- Families
- Real estate developers
- Business community
- Regional stakeholders



DEVELOPER PLAYBOOK FOR ZNE RESIDENTIAL

Zero Net Energy means the total annual energy use of a building equals the amount of renewable energy created onsite. California has set goals an ambitious goal that all new residential buildings will be Zero Net Energy by 2020. In San Jose this new generation of buildings will be predominately multifamily built in the city's 72 urban villages.

Tight building envelope

C C C C C $ $ $ $ $

Thoughtful integration of a building's site orientation, insulation, high performance windows and heat recovery ventilators can deliver excellent thermal comfort, indoor air quality, sound mitigation, and natural day-light to create a tranquil and beautiful home.

All-electric

C C C C C $ $ $ $ $

Some developers are successfully going to all electric appliances, hot water, and heating systems, foregoing natural gas altogether. This includes inductive stove tops

Solar panels

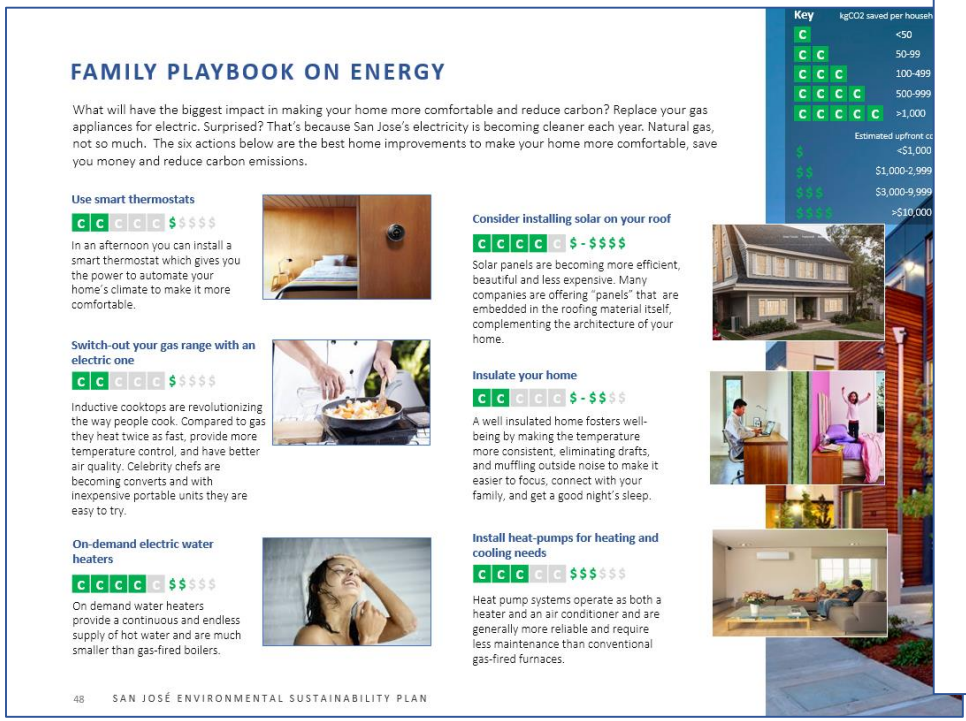
C C C C C $ $ $ $ $

For building occupants solar panels are often a source of pride in being less reliant on the grid for their power.

Charging stations & bike storage

C C C C C $ $ $ $ $

Providing EV chargers and areas for bike storage for residents help future-proof the building.



FAMILY PLAYBOOK ON ENERGY

What will have the biggest impact in making your home more comfortable and reduce carbon? Replace your gas appliances for electric. Surprised? That's because San Jose's electricity is becoming cleaner each year. Natural gas, not so much. The six actions below are the best home improvements to make your home more comfortable, save you money and reduce carbon emissions.

Use smart thermostats

C C C C C $ $ $ $ $

In an afternoon you can install a smart thermostat which gives you the power to automate your home's climate to make it more comfortable.

Switch-out your gas range with an electric one

C C C C C $ $ $ $ $

Inductive cooktops are revolutionizing the way people cook. Compared to gas they heat twice as fast, provide more temperature control, and have better air quality. Celebrity chefs are becoming converts and with inexpensive portable units they are easy to try.

On-demand electric water heaters

C C C C C $ $ $ $ $

On demand water heaters provide a continuous and endless supply of hot water and are much smaller than gas-fired boilers.

Consider installing solar on your roof

C C C C C $ - $ $ $ $

Solar panels are becoming more efficient, beautiful and less expensive. Many companies are offering "panels" that are embedded in the roofing material itself, complementing the architecture of your home.

Insulate your home

C C C C C $ - $ $ $ $

A well insulated home fosters well-being by making the temperature more consistent, eliminating drafts, and muffling outside noise to make it easier to focus, connect with your family, and get a good night's sleep.

Install heat-pumps for heating and cooling needs

C C C C C $ $ $ $ $ $

Heat pump systems operate as both a heater and an air conditioner and are generally more reliable and require less maintenance than conventional gas-fired furnaces.

FAMILY PLAYBOOK ON MOBILITY

Innovations in transportation are giving us more freedom to move than ever before. The alternatives to driving a gas-powered car in rush hour are becoming more enjoyable, reliable and less expensive.

Live close to where you work

C C C C C

Living close to where you work can radically improve the Good Life. Telecommuting, walking/biking to work, and access to good public transit mean less time stuck in traffic and more time for your friends, family and the other things you love.

Live in a walkable neighborhood

C C C C C

Making your home in a neighborhood where the grocery store, parks, and schools are within walking or biking distance create more connected communities and provides regular exercise.

Use public transit

C C C C C $ $ $ $ $

Major upgrades* in San Jose's transit system is making getting around more convenient and enjoyable. It allows you to work and be productive on your commute, or just enjoy watching your favorite television shows.

*These upgrades will include: two new BART stations, VTA's Bus Rapid Transit and California High Speed Rail

Use an electric vehicle

C C C C C $ $ $ $ $

EVs are quick, fun to drive and, with an HOV sticker, allow you to breeze past traffic jams. Their low fuel and maintenance costs and government incentives make them very affordable and even less expensive than the operating cost of your current car.

Get a good broadband package

C C C C C $ $ $ $ $

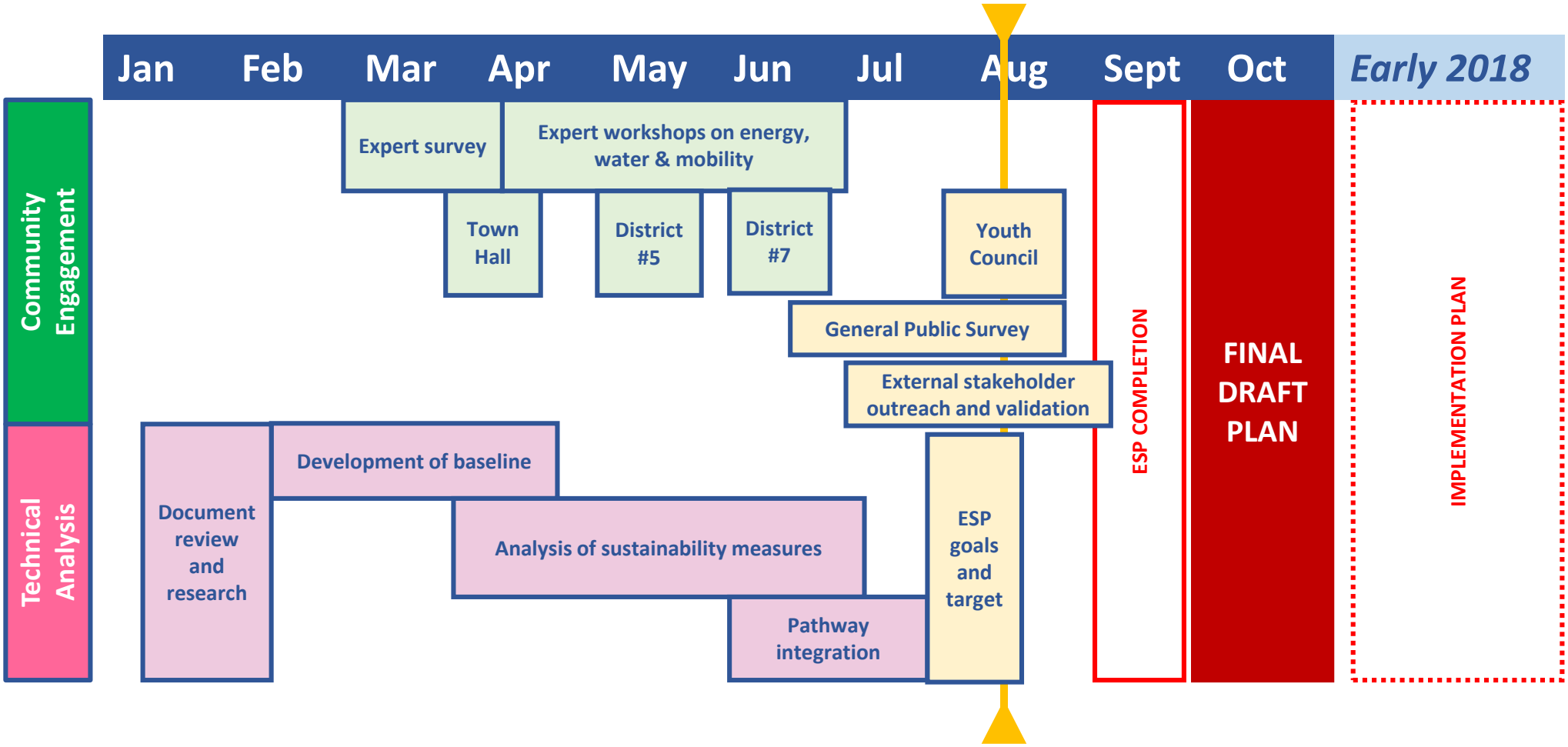
If you work in a job that allows you to do so, living in a location with reliable broadband can allow you to work from home for some days of the week.

Share your ride!

C C C C C $ $ $ $ $

Carpooling using rideshare apps is a great way to share the journey, meet new friends, save time in the carpool lane, reduce stress, and save money.

UPCOMING MILESTONES:
TOWARDS COMPLETION OF THE PLAN



Actions in the next 8 weeks to complete the Plan:

1. External stakeholder outreach and validation (August)
2. Completion of the ESP (September)
3. Council consideration of Final Draft of Plan (October)
4. Implementation Plan (early 2018, subject to Council approval)

4
Q&A

5

Comments from the General Public