

# City of San Antonio

# SA CLIMATE READY

## Climate Action & Adaptation Plan



SA  
**CLIMATE  
READY**

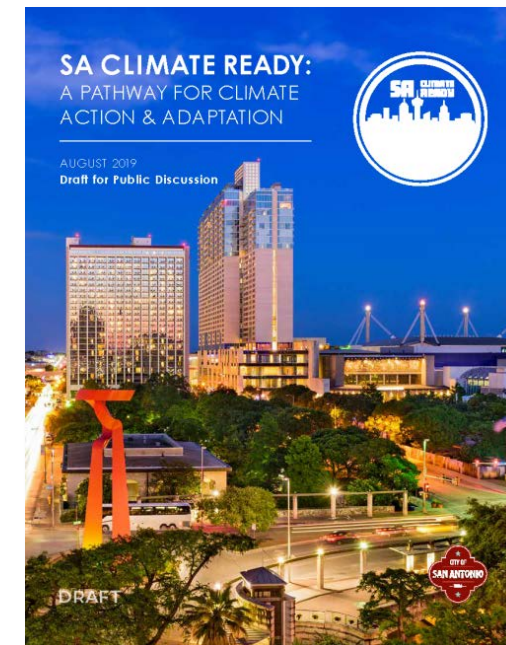
Presented by: Douglas Melnick, AICP, ISSP-SA, CNU-A  
City Council A Session, August 22, 2019



# Background Information and Policy Direction



- The SA Tomorrow Sustainability Plan, adopted on August 11, 2016, is a roadmap for enhancing our community's quality of life and overall resilience while balancing the impact of our expected growth of 1.1 million people by 2040.
- City Council Resolution # 2017-06-22-0031R, passed on June 22, 2017, supports the Paris Climate Agreement with goals to reduce greenhouse gas emissions and prepare for climate change.
- The City has been designated in marginal non-attainment for ground-level ozone, a public health issue, by the Environmental Protection Agency and is developing a plan with emissions reduction control strategies.



# Climate Projections, End of Century



	Low Emissions Pathway	High Emissions Pathway
Summer Maximum Temperature	+6°F	+10°F
Hot Days (Maximum Temperature >100 °F)	+48 days	+94 days
Warm Nights (Minimum Temperature >80 °F)	+10 nights	+55 nights
Annual Precipitation	-3 inches	-4 inches

- Completed by Dr. Hatim Sharif, UTSA
- Down-scaled for San Antonio
- Consistent with best practices

# What is SA Climate Ready?



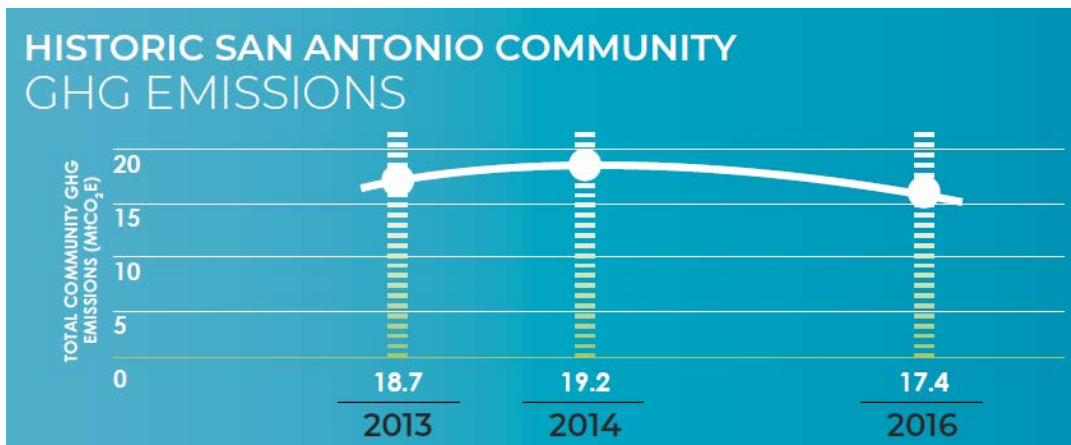
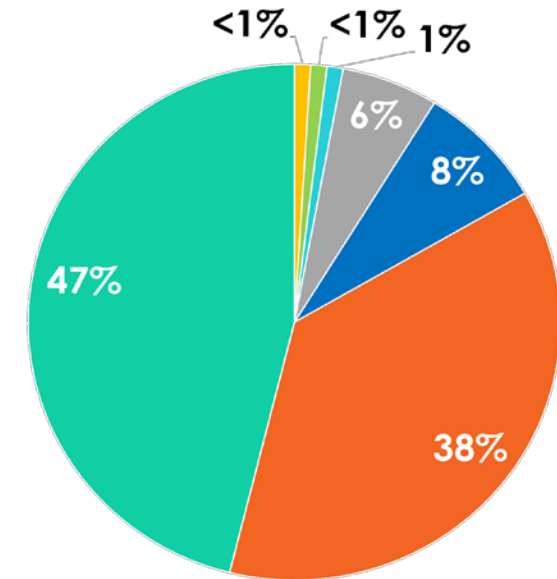
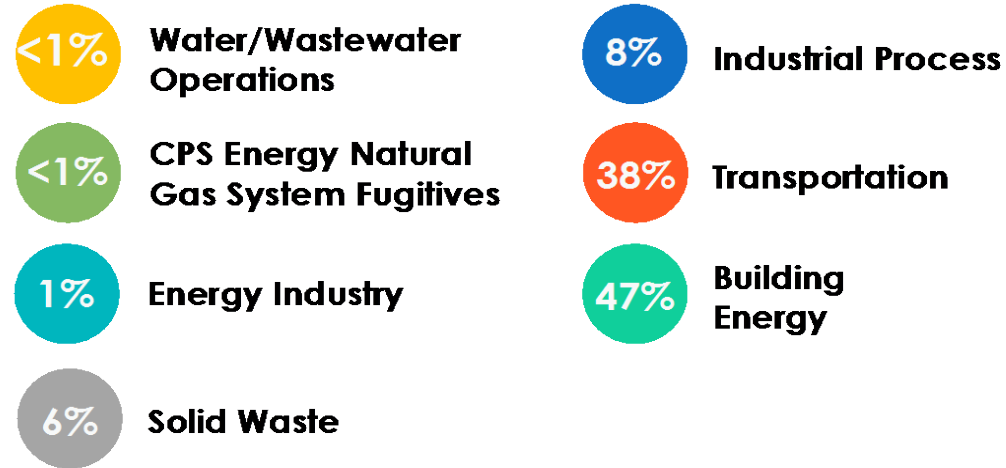
CLIMATE CHANGE  
IMPACTS US DAILY.  
LET'S GET  
CLIMATE READY.

- ✓ SA Climate Ready is San Antonio's climate action & adaptation plan to meet the present and future challenges of climate change.
- ✓ SA Climate Ready provides strategies for ensuring economic prosperity and quality of life.
- ✓ SA Climate Ready prioritizes clean air, public health, water quality and conservation, good jobs, transportation choices, clean and secure energy and emergency preparedness.
- ✓ SA Climate Ready supports market transitions, consumer options, and prepares residents, businesses, and institutions for an unpredictable climate.
- ✓ SA Climate Ready identifies a process for equity and affordability to ensure that a Climate Ready San Antonio benefits all of our residents.
- ✓ SA Climate Ready is grounded in best available climate science and best practices.



# Greenhouse Gas Inventory

In 2016, building energy and transportation accounted for 85% of San Antonio's greenhouse gas emissions.



# Greenhouse Gas Mitigation & Adaptation Framework



## MITIGATION

Reducing or preventing emissions from greenhouse gases

### EXAMPLE:

Increasing renewable energy

Reducing energy use in buildings

Increasing cleaner and more efficient vehicle use

## ADAPTATION

Actions that help to reduce the negative effects of climate change

### EXAMPLE:

Flood-proof roadways & critical infrastructure

Develop a community wildfire protection plan

Increase tree canopy

## Greenhouse Gas Reduction Strategies

- 1) Increase Carbon-Free Energy
- 2) Reduce Building Energy Consumption
- 3) Reduce Transportation Energy Consumption
- 4) Advance the Circular Economy
- 5) Promote Biodiversity and Healthy Ecosystems
- 6) Educate & Empower

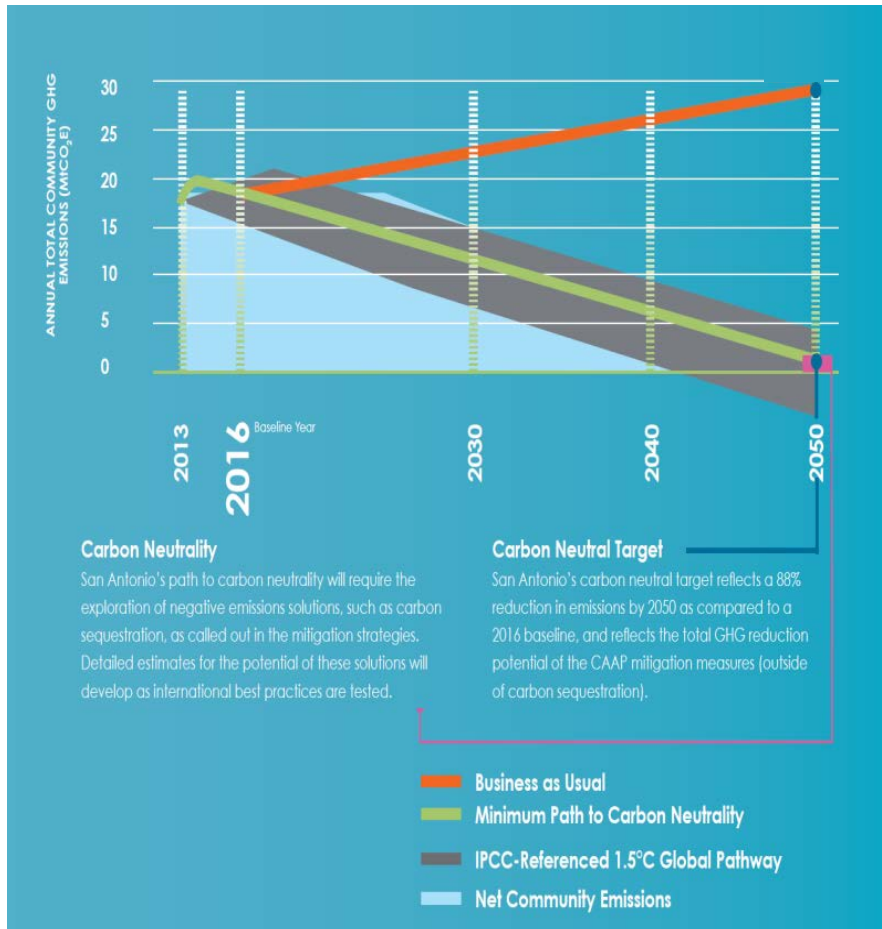
- **28 Community Strategies**
- **13 Municipal Strategies**

## Adaptation Strategies

- 1) Increase Infrastructure Resilience
- 2) Strengthen Public Health Systems
- 3) Enhance Emergency Management & Community Preparedness
- 4) Promote, Restore, and Protect Green Infrastructure & Ecosystems
- 5) Protect Local Food Security
- 6) Increase Resiliency Awareness & Outreach
- 7) Ensure Equity in Adaptation

- **45 Community & Municipal Strategies**

# Greenhouse Gas Reduction Pathway



INTERIM GHG REDUCTION TARGETS	2030	2040	2050
<b>Total Emissions:</b> percent reduction over 2016 GHG emissions	41%	71%	100%
INTERIM GHG REDUCTION TARGETS	2030	2040	
Stationary emissions	41%	74%	
Transportation emissions	47%	75%	
Solid waste emissions	32%	54%	
Water supply emissions	<1%	<1%	
Industrial process emissions	23%	56%	

In 2018 the Intergovernmental Panel on Climate Change (IPPC) released the "Special Report: Global Warming of 1.5°C" that states "For reduction pathways that are technically feasible currently, i.e. include no or limited overshoot of 1.5°C, "global anthropogenic CO<sub>2</sub> emissions need to decline by about 45% from 2010 levels by 2030, reaching net zero around 2050."

# A Commitment to Climate Equity

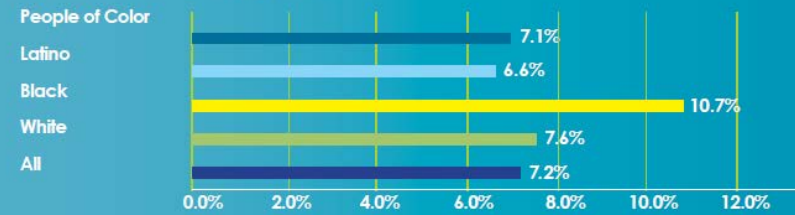


Due to these different histories and challenges, in the City of San Antonio, not all community members are contributing equally to climate change, and not all community members have the same resources or capabilities to protect themselves from its negative effects. A climate equity framework prioritizes the communities burdened the most by climate change, those that contribute the least to climate change, and those that are socially vulnerable to climate change. Climate equity ensures that these communities play a central role in the just transformation of the systems that have established, and continue to perpetuate, the unequal burden of climate impacts. This means that intentional policies and projects to mitigate or adapt to climate change must:

- 1 Actively seek, include, and prioritize direction from these communities,
- 2 Prioritize benefit to these communities
- 3 Reduce existing burdens and bar additional burdens to these communities

Developed by the Climate Equity Technical Working Group. The definition will be updated as continued climate equity discussions occur through plan implementation.

## ASTHMA RATES SAN ANTONIO, TX



Original graph: [https://nationalequityatlas.org/indicators/Asthma/By\\_race-ethnicity:27246/San\\_Antonio\\_TX\\_Metro\\_Area/false/](https://nationalequityatlas.org/indicators/Asthma/By_race-ethnicity:27246/San_Antonio_TX_Metro_Area/false/)

## MEDIAN WAGES SAN ANTONIO, TX



Original graph: [http://nationalequityatlas.org/indicators/Wages\\_Median/trend:40186/San\\_Antonio\\_City\\_TX/false/](http://nationalequityatlas.org/indicators/Wages_Median/trend:40186/San_Antonio_City_TX/false/)

## IMPLEMENTING CLIMATE EQUITY: SCREENING TOOL

NOTE: This tool requires additional evaluation, refinement, and testing to ensure effectiveness.

STRATEGY/PROGRAM TO BE EVALUATED:

### THEME 1: ACCESS AND ACCESSIBILITY

Desired Outcome: Results in increased access to jobs, housing, transportation, funding, education, healthy foods, and clean air for vulnerable populations.

SAMPLE SUPPLEMENTAL QUESTIONS	IMPACT Does it have the ability to positively/negatively impact or have no impact on the desired outcome? Include explanation.	RECOMMENDATIONS
Could this expand access to healthy/clean transport systems, such as walking paths, bike routes, and public transit?		
Could this increase amenities and walkability in traditionally underserved geographies/neighborhoods?		
Could this reduce food insecurity in low-income areas by increasing access to healthy, local food sources?		
Could this increase access to information around climate, i.e. impacts, benefits, and programs?		
Could this increase access to quality parks/greenspaces in the most vulnerable communities?		
Could this increase opportunities for living wage jobs in the same zip code as people live?		
Will this offer workforce or support training programs?		
Other considerations?		
SUMMARY:		

### THEME 2: AFFORDABILITY

Desired Outcome: Results in lower / more predictable costs related to basic living needs (housing, food, utilities, healthcare, transportation, etc.) for vulnerable populations.

SAMPLE SUPPLEMENTAL QUESTIONS	IMPACT Does it have the ability to positively/negatively impact or have no impact on the desired outcome? Include explanation.	RECOMMENDATIONS
Could this reduce the number of families that are cost burdened by housing + transportation (defined as spending more than 33% of income on H+T)?		
Could this limit displacement of residents and small businesses when surrounding property values rise?		
Could this increase energy price stability?		
Could this reduce barriers to home ownership?		
Does this offer inclusive financing strategies that prioritize the most income-burdened populations?		
Could this increase quality affordable (30-60% AMI) housing stock?		
Other considerations?		
SUMMARY:		



# Draft Plan Update Objectives



- Refine the plan based on stakeholder engagement and serve as a solid foundation for climate action.
- Ensure the plan is consistent with meeting the objectives of City Council's resolution in support of the Paris Climate Agreement.
- Retain all strategies that were identified in the initial draft.
- Improve readability by condensing, streamlining and rearranging content.
- Adjust language and images to make the document more San Antonio specific.
- Provide a clear process for reporting, updates, and implementation.



# SA CLIMATE READY Draft Plan Updates



- Majority of content preserved from the original draft.
- As SA Climate Ready is a framework, specific costs removed due to uncertainty of future technologies and implementation options.
- Sections streamlined and rearranged for better flow, context and readability.
- New images and language better reflect the San Antonio community.
- Added Constraints and In Current City Plan to mitigation strategies.
- Greenhouse gas reduction goals by sector now listed for 2030 and 2040.

INTERIM GHG REDUCTION TARGETS	2030	2040	2050
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## Constraints

<b>A</b>	Awareness
<b>BC</b>	Behavior Change
<b>I</b>	Investment
<b>P</b>	Policy
<b>T</b>	Technology

## In Current City Plan

<b>Y</b>	Yes
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# Implementation Edits



Implementation criteria will include the following analysis based upon applicability, strategy type, and data availability:

- **Strategy Costs**

Potential fiscal costs by sector; Co-benefits; Cost avoidance; Cost per ton of CO<sub>2</sub>e reduction; Funding mechanisms, if needed.

- **Technological Feasibility**

Consideration of proposed technology or strategy against technological constraints; Assessment of the carbon footprint or lifecycle emissions of specific technologies being proposed compared to other options; Reliability or proposed technology to meet expected performance.

- **Timeline**

For both implementation and resulting emissions reductions.

- **Equity**

Assessment to determine potential impacts on vulnerable populations.

## IMPLEMENTATION PROCESS



# Implementation – Governance & Reporting



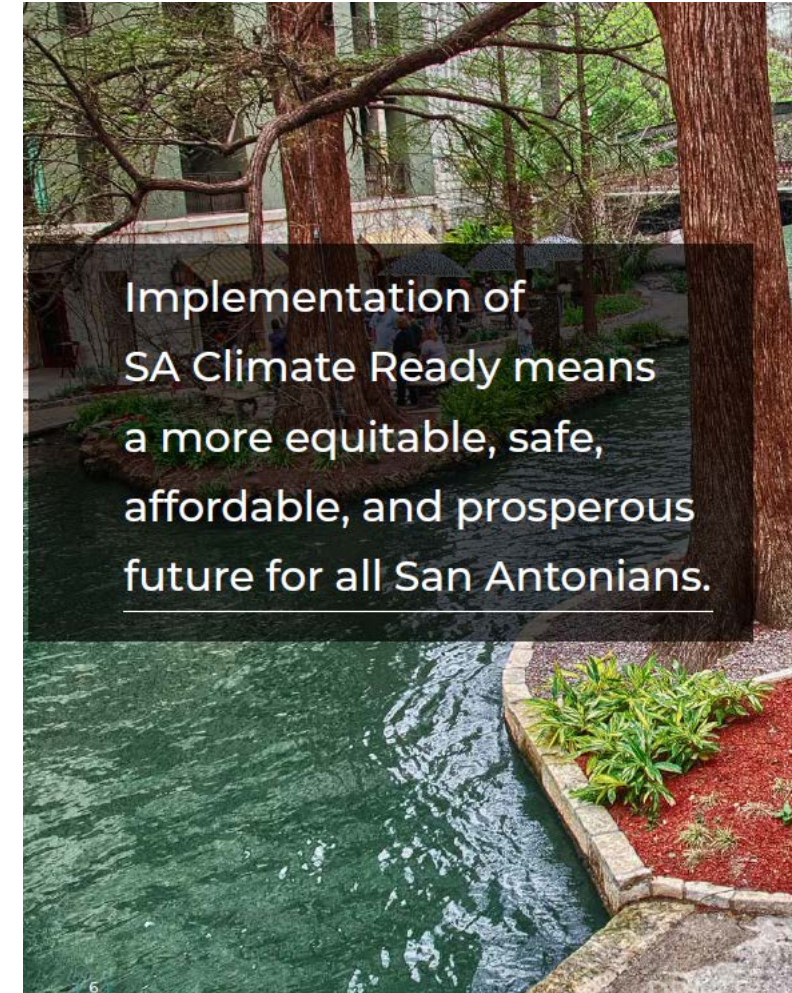
CAAP Technical  
and Community  
Advisory  
Committee

CAAP Climate  
Equity  
Committee

CoSA CAAP  
Executive Team

CoSA CAAP  
Delivery Team

- Complete a full GHG inventory assessment every two years starting with 2018 data.
- Reassess and update the CAAP every three to five years from the adoption date.





# Public Engagement Summary

## TOTAL ENGAGEMENT SUMMARY

### Events

- 288

### Total Attendees

- 9,677

### Total Surveys Completed

- 5,731

## DRAFT PLAN COMMENT SUMMARY

### Total Written Comments

- 4,569

### Positive Survey Responses

- 78%

### Neutral Survey Responses

- 8%

### Negative Survey Responses

- 14%

# Timeline and Next Steps



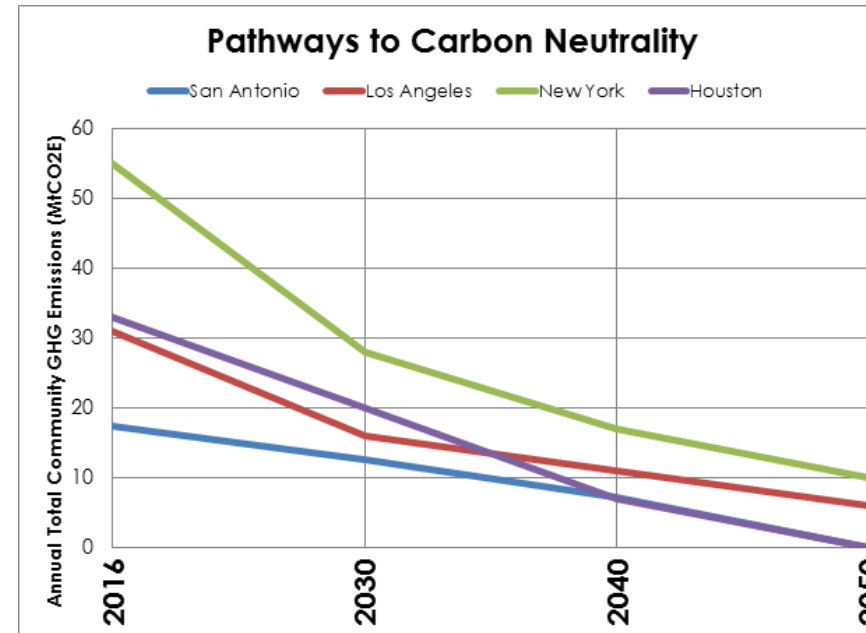
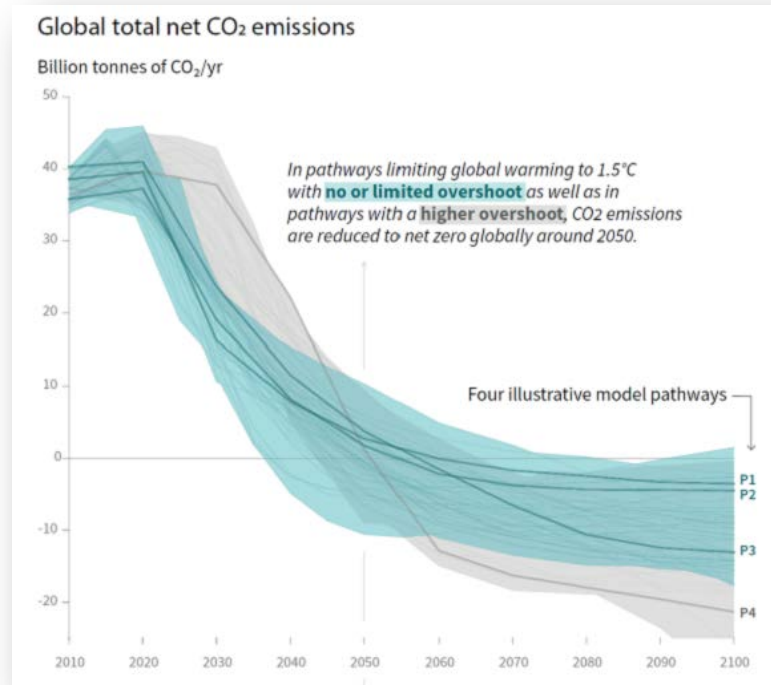
Date	Milestone
8/12	Facilitated Draft Review Meeting with TWGs
8/14	Facilitated Draft Review Meeting with SC
8/22	A-Session Briefing
8/23	Full public release
8/28	Planning Commission #1
9/6	Public review closes
9/11	Planning Commission #2
9/20	Community Health & Equity Committee
10/2	City Council B-Session
10/17	City Council A-Session



# Backup Slides



# SA Climate Ready and IPCC



City and Baseline Year	2020	2025	2030	2035	2040	2050
Denver - 2005	15%	30%	45%	55%	65%	80%
Houston - 2014			40%		75%	100%
Los Angeles - 2015		50%		73%		100%
New York - 2005	no interim reduction targets determined					80%
San Antonio - 2016			41%		71%	100%
San Diego - 2010	24%		41%	51%		80%
Vancouver - 2007	33%		50%			at least 80%

# Peer Cities and Climate Action



Population Rank	City	Climate Action Plan
1	New York	Yes
2	Los Angeles	Yes
3	Chicago	Yes
4	Houston	Draft Released July 2019
5	Phoenix	Municipal - Yes Community - In Development
6	Philadelphia	Yes
7	San Antonio	Draft Released January 2019
8	San Diego	Yes
9	Dallas	In Development
10	San Jose	Yes
11	Austin	Yes
18	Seattle	Yes
19	Denver	Yes
20	Washington DC	Yes
21	Boston	Yes
38	Kansas City	Yes
50	New Orleans	Yes
114	Salt Lake City	Yes

Source: US Census Bureau 2018



# Climate Plans & Economic Analysis



City	Year	Name of Plan	Strategy-Level Economic Analysis
Anchorage	2019	Anchorage Climate Action Plan	None
Austin	2015	Community Climate Plan	None
Baltimore	2012	Baltimore Climate Action Plan	None
Boulder	2016	Climate Commitment	None
Cambridge	2015	Net Zero 25-Year Action Plan	None
Chicago	2008	Chicago Climate Action Plan	None
Cleveland	2018	Climate Action Plan Update	None
Columbus	2015	Columbus Green Community Plan	None
Denver	2018	80x50 Climate Action Plan	None
Evanston	2019	Climate Action and Resilience Plan	None
Flagstaff	2018	Climate Action and Adaptation Plan	Low to High
Indianapolis	2018	Thrive Indianapolis	\$-\$\$\$
Iowa City	2018	Climate Action and Adaptation Plan	\$-\$\$\$
Kansas City	2008	Climate Protection Plan	None
Los Angeles	2015	Sustainable City Plan	None

City	Year	Name of Plan	Strategy-Level Economic Analysis
Minneapolis	2013	Minneapolis Climate Action Plan	None
New Haven	2018	Climate & Sustainability Framework	None
New Orleans	2017	Climate Action Strategy	None
New York City	2017	1.5°C: Aligning New York City with the Paris Climate Agreement	\$-\$\$\$\$
Orlando	2018	2018 Community Action Plan	None
Palo Alto	2016	Sustainability/Climate Action Plan (S/CAP) Framework	None
Philadelphia	2016	Greenworks: A Vision for a Sustainable Philadelphia	None
Pittsburgh	2018	Climate Action Plan 3.0	None
Portland OR	2015	2015 Climate Action Plan	None
Providence	2016	Sustainable Providence Plan	None
Salt Lake City	2017	Climate Positive 2040	None
San Diego	2015	Climate Action Plan	None
San Francisco	2013	SF Climate Action Strategy	None
Seattle	2013	Seattle Climate Action Plan	None
St. Louis	2017	Climate Action & Adaptation Report	None
Washington DC	2018	Sustainable DC 2.0	None