

# City of San Antonio **SA CLIMATE READY** Climate Action & Adaptation Plan



**SA**  
**CLIMATE**  
**READY**

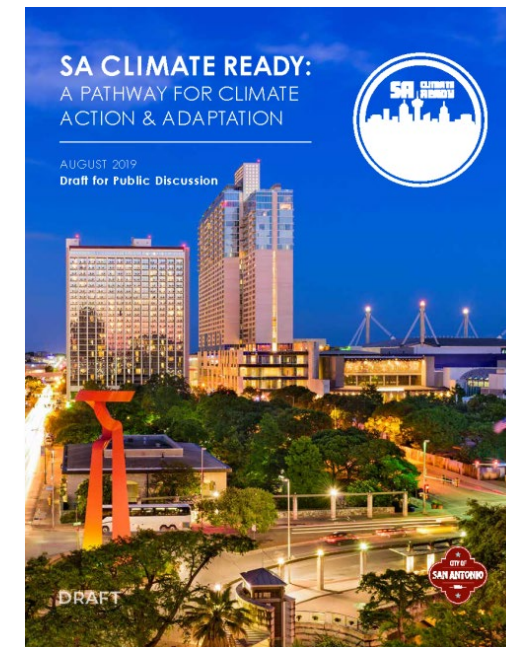
**Presented by: Douglas Melnick, AICP, ISSP-SA, CNU-A**  
**B-Session, October 2, 2019**



# Background Information and Policy Direction



- 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.



# Public Engagement Summary as of 9/23/2019

## TOTAL ENGAGEMENT SUMMARY

### Events

- 368

### Total Attendees

- 11,453

### Total Surveys Completed

- 6,557

## DRAFT PLAN COMMENT SUMMARY

### Total Written Comments

- 4,862

### Positive Survey Responses

- 78%

### Neutral Survey Responses

- 8%

### Negative Survey Responses

- 14%

# Endorsements to Date



*Planning Commission*



# Climate Projections, End of Century



MOODY'S

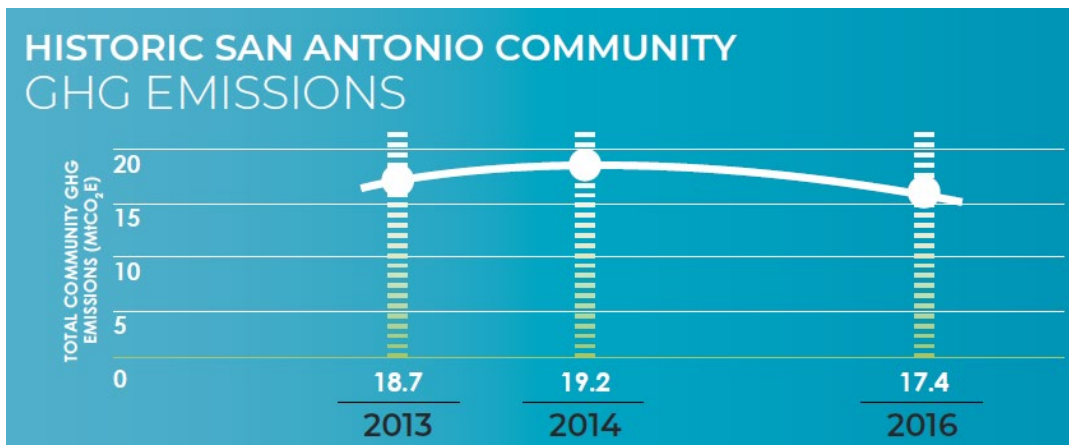
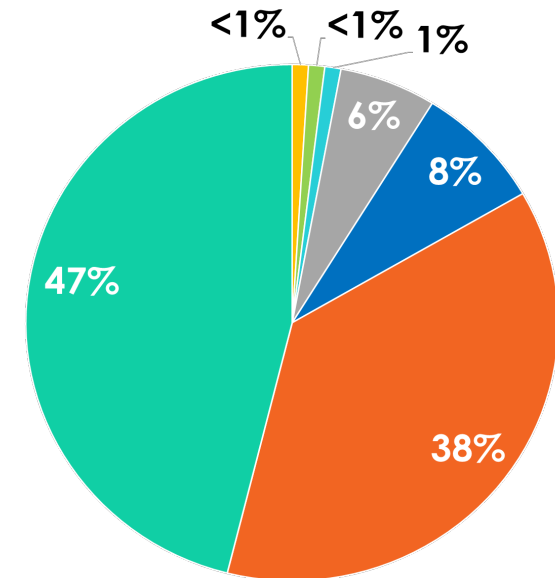
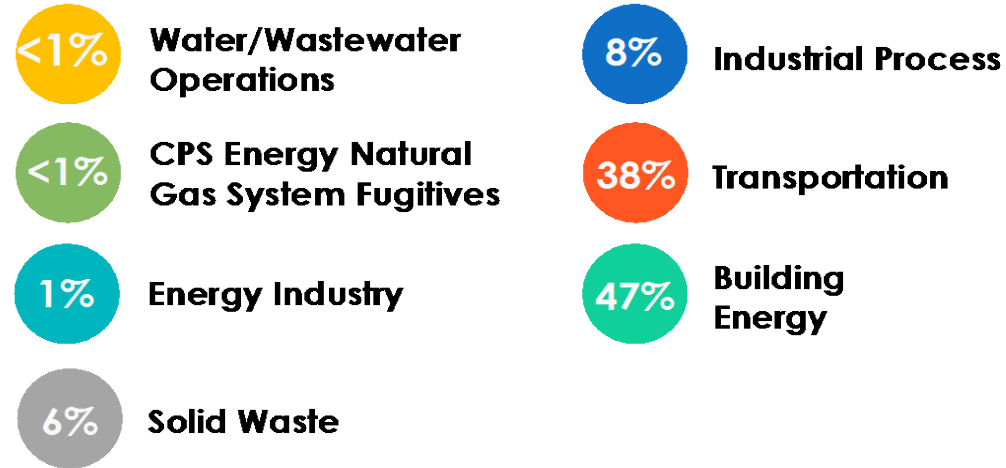


	Low Emissions Pathway	High Emissions Pathway
Summer Maximum Temperature	+6°F	+10°F
Hot Days (Maximum Temperature >100 °F)	+48 days	+94 days
Warm Nights (Minimum Temperature >80 °F)	+10 nights	+55 nights
Annual Precipitation	-3 inches	-4 inches

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

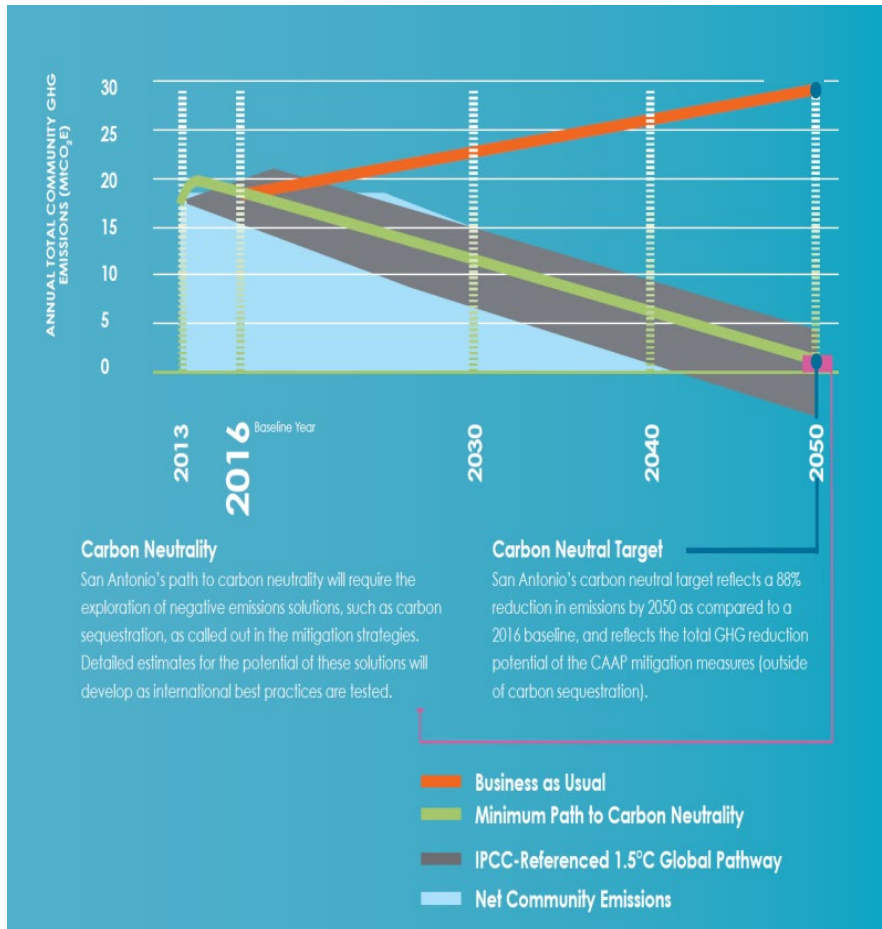
# Greenhouse Gas Inventory

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





# 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 CO2 emissions need to decline by about 45% from 2010 levels by 2030, reaching net zero around 2050.”

# 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**



# Post August 2019 Draft Edits



## Strategies

- Added additional Lead & Partner Agencies.
- Mitigation Strategy #8 amended to include broad community responsibility for water conservation.
- Adaptation Strategy # 45 amended to include "Clear Title", "Energy Burdened Households & Thermal Health".

## Implementation

- Amended plan update frequency every 3 – 5 years or "as directed by City Council".
- Added Community Engagement & Education Principles.
- Changed Climate Equity Advisory "Sub-Committee" to "Committee".

# Benchmarking U.S. Climate Plans & Strategy-Level Economic Analysis

- Reviewed thirty-one climate plans from U.S. Cities
- Twenty-six did not have any economic analysis

Flagstaff	Climate Action and Adaptation Plan	Low to High
Indianapolis	Thrive Indianapolis	\$-\$\$\$
Iowa City	Climate Action and Adaptation Plan	\$-\$\$\$
New York City	1.5°C: Aligning New York City with the Paris Climate Agreement	\$-\$\$\$\$
San Jose	Climate Smart San Jose	Marginal Abatement Curve

- Cities primarily focus on economic evaluation as part of plan implementation.
- Several city climate plans stated issues with projecting long-term implementation costs:
  - *"It is unrealistic to extrapolate today's cost relation between the fossil system and its renewable alternative into the future."* (Berlin)
  - *"There are significant uncertainties associated with the cost of each scenario."* (London)
  - *"It is exceedingly difficult to estimate costs with any level of confidence now, given rapid evolution of technologies and market conditions."* (Fort Collins)

# FY 2020 SA Climate Ready Implementation Priorities



SA Climate Ready Near-Term Strategies : Initiated by 2021

20 Municipal & Community  
Mitigation Strategies

22 Adaptation Strategies



## Communications & Engagement

- Initiate SA Climate Ready Communications & Engagement Campaign
- Neighborhood & Community Outreach
- Business Outreach & Recognition
- Social Media



## Buildings

- Property Assessed Clean Energy (PACE)
- EV and Solar Readiness Requirements
- Benchmarking and Disclosure for Existing Commercial Buildings



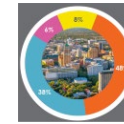
## Transportation

- EV for SA Public Information Campaign
- Electric vehicle (EV) Charging Infrastructure
- Anti-Idling at Schools Initiative



## Municipal – Leading By Example

- Energy Efficiency Fund Projects
- Municipal Renewable Energy
- Energy Policy for Municipal Facilities
- Fleet Electrification & Update Green Fleet Policy
- Departmental Climate and Sustainability Plans



## Monitoring, Assessment & Transparency

- Establish CAAP Technical & Community and Climate Equity Committees
- Develop SA Climate Ready and SA Tomorrow Sustainability Plan Implementation Tracking Tool
- Develop GHG Impact/Cost-Benefit Tool
- 2018 Greenhouse Gas Inventory



# Draft Advisory Committees

## Technical and Community

21 Council Appointed Members (15 At-Large and 6 Organizational)

## Climate Equity

15 Council Appointed representatives from community-based organizations and other key stakeholders representing the interests of low-income populations, communities of color, marginalized populations, and other frontline communities.

Provide expertise and input.

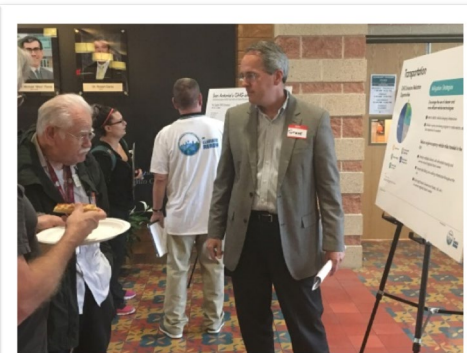
Deliver an annual reports to City Council on committee activities.

Work collaboratively with other City Board and Commissions.

Engage the general public and leverage Committee Member networks.

Provide input on the implementation of the CAAP to ensure an equity-centered approach.

Utilize the Climate Equity Screening Tool and provide feedback to the Technical and Community Advisory Committee.



# 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
<b>10/2</b>	<b>City Council B-Session</b>
10/17	City Council A-Session



# Questions?

Douglas Melnick, AICP, CNU-A, ISSP-SA

*Chief Sustainability Officer*

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# Backup Slides



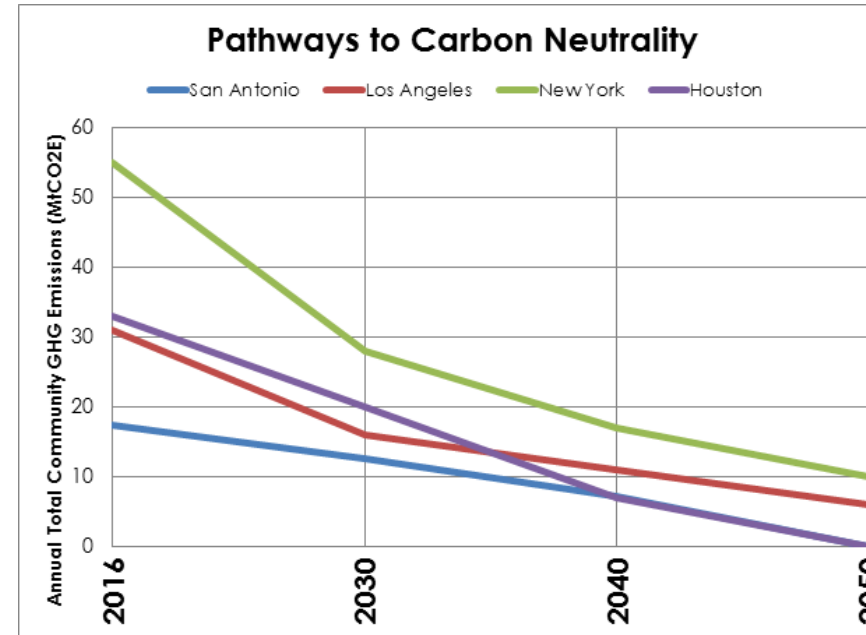
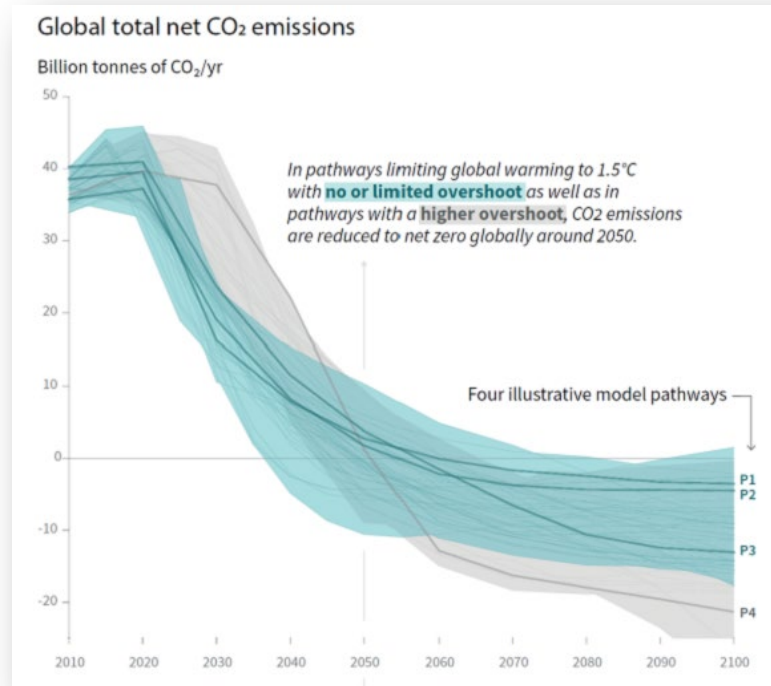
# Peer Cities and Climate Action



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	October 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
50	New Orleans	Yes
114	Salt Lake City	Yes

\* Source: US Census Bureau 2018

# 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%



# Benchmarking U.S. Climate Plans & Strategy-Level Economic Analysis

City	Name of Plan	Economic Analysis
Anchorage	Anchorage Climate Action Plan	None
Austin	Community Climate Plan	None
Baltimore	Baltimore Climate Action Plan	None
Boulder	Climate Commitment	None
Cambridge	Net Zero 25-Year Action Plan	None
Chicago	Chicago Climate Action Plan	None
Cleveland	Climate Action Plan Update	None
Columbus	Columbus Green Community Plan	None
Denver	80x50 Climate Action Plan	None
Evanston	Climate Action and Resilience Plan	None
Flagstaff	Climate Action and Adaptation Plan	Low to High
Indianapolis	Thrive Indianapolis	\$-\$\$\$
Iowa City	Climate Action and Adaptation Plan	\$-\$\$\$
Kansas City	Climate Protection Plan	None
Minneapolis	Minneapolis Climate Action Plan	None
New Haven	Climate & Sustainability Framework	None

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

# Benchmarking Climate Plans: ROI



City	Plan	ROI determined	Notes	Population
Seoul	Promise of Seoul	N		11,244,000
London	Zero Carbon London	N	Cost of energy transformation scenarios included, ROI not found	8,787,892
New York	1.5C	N	Cost of strategies included, ROI not found	8,398,748
Sydney	Environmental Action Strategy	N	Cost of strategies included, ROI not found	5,730,000
Melbourne	Climate Change Adaptation Strategy Refresh	N		4,800,000
<b>Los Angeles</b>	Sustainable City pLAN	Y	ROI provided on implemented strategies	3,990,456
<b>Berlin</b>	Berlin Energy and Climate Protection Programme	Y	Overall costs and savings identified	3,500,000
Madrid	Plan A	N		3,223,334
<b>Toronto</b>	TransformTO	Y	Overall costs and savings identified, displayed in marginal abatement curve	2,800,000
Paris	Paris Climate Action Plan	N	Cost of all strategies included, ROI not found	2,140,526

City	Plan	ROI determined	Notes	Population
Hamburg	Hamburg Climate Action Plan	N	Cost of strategies included, ROI not found	1,791,000
Philadelphia	Greenworks	N		1,584,138
San Diego	Climate Action Plan	N	Benefit to the local economy included, ROI not found	1,425,976
Copenhagen	CPH 2025 Climate Plan	N	Cost of strategies included and impact to local economy estimated	1,333,888
<b>San Jose</b>	Climate Smart San Jose	Y	Overall costs and savings identified, displayed in tables & marginal abatement curve	1,030,119
Edmonton	Climate Resilient Edmonton	N	Estimated costs on the impact to the city	972,223
Seattle	Climate Action Plan	N	Strategies listed with emissions savings	744,955
Denver	80 X 50 Climate Action Plan	N		716,492
Portland	Climate Action Plan	N	Benefit to the local economy included, ROI not found	650,618
<b>Fort Collins</b>	Climate Action Plan	Y	Overall costs and savings identified, displayed in tables	167,830