City of Houston
Climate Action Plan

AWMA Lunch
September 25, 2019
Why Houston is taking Climate Action

Hurricane Harvey

CITIES ARE BEING PUSHED TO THE LIMIT

By 2050 more than 66% of the world’s energy is likely to be consumed in cities²

Pressure on cities, their infrastructure and the economy causes...

1. Source: World Bank Group
2. Source: World Bank Group
Houston’s Commitment to Climate Action

• June 1, 2017: The U.S. withdraws from the 2015 Paris Agreement

• June 24, 2017: Mayor Turner, co-chair of Climate Mayors, commits to adopt Paris Agreement goals in Houston

427 Climate Mayors represent nearly 20% of the U.S. population
What is a Climate Action Plan?
What is a Climate Action Plan (CAP)?

The CAP will outline goals, strategies, and actions that we as a City and community plan to take in order to reduce our greenhouse gas emissions and help Houston prepare for a changing climate.

**Co-benefits:**

- ✓ Increase and improve mobility
- ✓ Improve air quality
- ✓ Reduce energy costs
- ✓ Expand renewable energy usage
- ✓ Enhance resilience
- ✓ Improve community equity and quality of life
- ✓ Regional economic growth
Goal: Carbon Neutral by 2050

To meet the Paris Agreement, this plan has set an ambitious goal of becoming **Carbon Neutral by 2050**, which means that we must **reduce** or **offset** any carbon dioxide that we release into the atmosphere.

Data measurement is completed on current emissions.

Data is analyzed by sector to better understand city-wide footprint.

Outputs & recommendations are summarized in policy brief.

Stakeholders evaluate and propose potential actions for likelihood of adoption, accessibility, and local impact.

Data is input into the C40 Pathways tool to drive scenario planning and action steps.

City and Community take measures to support science-based targets.
Strategic Areas of the Houston CAP

1. TRANSPORTATION
2. ENERGY TRANSITION
3. BUILDING OPTIMIZATION
4. MATERIALS MANAGEMENT

EQUITY
Stakeholder Engagement and Dialogue

- +30 stakeholder meetings
- 25 working group meetings
- 150+ individual discussions with private sector stakeholders and subject matter experts
Complementary Initiatives

CROSS-CUTTING
- Climate Mayors
- Green Building Resource Center
- Hire Houston Youth
- Our Great Region (H-GAC)
- Plan Houston
- Resilient Houston
- Smart Cities

TRANSPORTATION
- Active Living Plan
- Bayou Greenways 2020
- Complete Communities
- Houston Bike Plan
- Houston ConnectSmart (TxDOT)
- EVolve Houston
- Green Fleet Study
- Livable Centers (H-GAC)
- METRONext (METRO)
- Vision Zero
- Walkable Places Committee

BUILDING OPTIMIZATION
- City Energy Efficiency Policy
- Green Building Advisory Council
- Houston Green Office Challenge
- Residential Energy Efficiency Program
- Regional Water Plan
- TX-PACE

MATERIALS MANAGEMENT
- Long Range Solid Waste Plan

ENERGY TRANSITION
- Baker Institute and Mitchell Foundation CCUS Initiative
- Green Power Program
- Houston Parks Board
- Solarize Houston
- TRES Program
- 50-for-50 initiative
For 2030, 2040, 2050 milestones:

- Set emission reduction goals of 40%, 75%, and 100%, respectively
- Project emissions with no action and model emission reduction potential of actions

*Baseline= Measured*
DRAFT Goals and Strategies
Transportation

Goals:

T1 Shift regional fleet to EV and alternative renewable fuels.

T2 Reduce vehicle miles traveled (VMT) per capita.

T3 Provide equitable mobility.

Strategies:

T1.1 Increase infrastructure and incentives for EV and alternative renewable fuels.

T1.2 Convert 100% of the non-emergency, light-duty municipal fleet (cars and trucks) to EV technologies by 2030.

T2.1 Implement integrated multi-modal transportation systems.

T2.2 Build and retrofit complete, transit-oriented neighborhoods.

T2.3 Implement traffic demand reduction programs.

T3.1 Reduce the costs of early adoption of transportation technologies and services for vulnerable populations.

T3.2 Improve interconnectedness and safety of pedestrian and transit networks.
Energy Transition

Goals:

**E1**
Increase local solar generation and storage.

**E2**
Increase renewable energy generated outside the city limits.

**E3**
Invest in green infrastructure and carbon capture technology to offset emissions.

Strategies:

- **E1.1** Support installation of rooftop and community solar
- **E1.2** Advance investment and workforce development in renewable energy across business, financial, and transportation sectors
- **E2.1** Promote the purchase of retail renewable power by residents and businesses
- **E2.2** Advocate for renewable energy policies at the state and federal levels
- **E3.1** Utilize Houston’s abundant greenspace to capture and store carbon
- **E3.2** Offset municipal emissions (e.g. Fleet)
- **E3.3** Promote Carbon Capture, Utilization, and Sequestration (CCUS) from industrial processes
## Building Optimization

### Goals:

- **B1** Reduce energy use from buildings and maximize savings.
- **B2** Expand investment in energy efficiency.
- **B3** Optimize building operations through investing in skilled local jobs.

### Strategies:

- **B1.1** Update energy code and increase compliance
- **B1.2** Develop programs that improve building energy efficiency
- **B1.3** Reduce DWO and WWTP energy consumption 10% through optimization of facility operations and water conservation
- **B2.1** Promote clean energy financing programs
- **B2.2** Expand utility energy efficiency programs
- **B3.1** Provide training in the operation, management and maintenance of relevant building systems.
Materials Management

Goals:

M1 Improve public awareness of sustainable material consumption and disposal choices.

M2 Reduce tonnage of landfilled waste.

M3 Protect public health and the environment through optimized solid waste operations and management.

Strategies:

M1.1 Engage public on waste reduction solutions

M1.2 Develop, implement, and promote sustainable municipal procurement strategies

M1.3 Promote upstream solutions to reduce/manage disaster debris systems

M2.1 Expand and innovate recycling opportunities to all Houston residents and businesses

M2.2 Strengthen and support efforts to reduce food waste and create infrastructure for food organics collection and composting

M2.3 Support and expand market development and diversion infrastructure

M3.1 Improve efficiency of all landfill, transfer stations and waste transportation

M3.2 Ensure long-term disposable capacity and solid waste infrastructure
Next Steps
Public Feedback Request

http://www.greenhoustontx.gov/climateactionplan/index.html

1. Provide Feedback on Draft Recommendations
   Deadline: September 30, 2019

2. Continue to share stories, resources, and photos of *Climate Champions* to feature in the CAP

3. Draft CAP Released for Public Comment
   ETA: Late 2019
Questions?

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Thank you!

Learn more: