

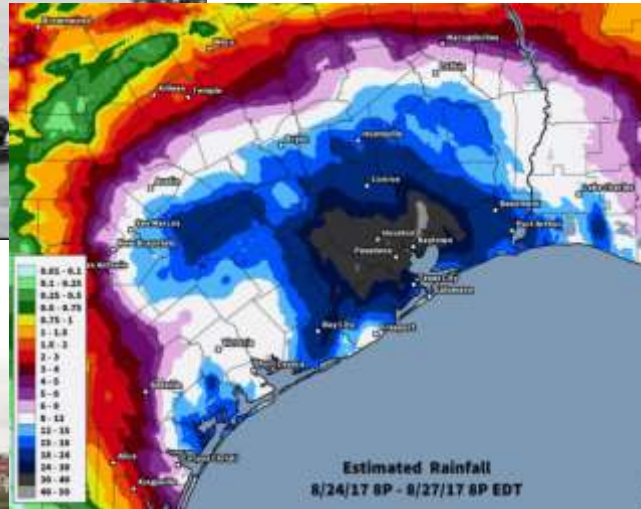


City of Houston Climate Action Plan

Greater Houston Environmental Summit

August 2, 2019

Why Houston is taking Climate Action

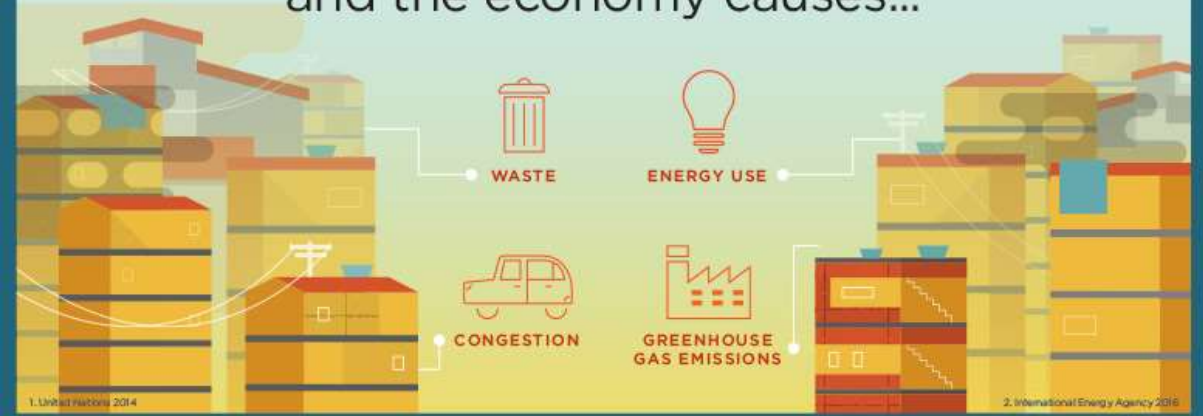


Hurricane Harvey

CITIES ARE BEING PUSHED TO THE LIMIT

By 2050 more than **66%** of the world's 10 billion people will live in cities¹ of the world's energy is likely to be consumed in cities²

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



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:

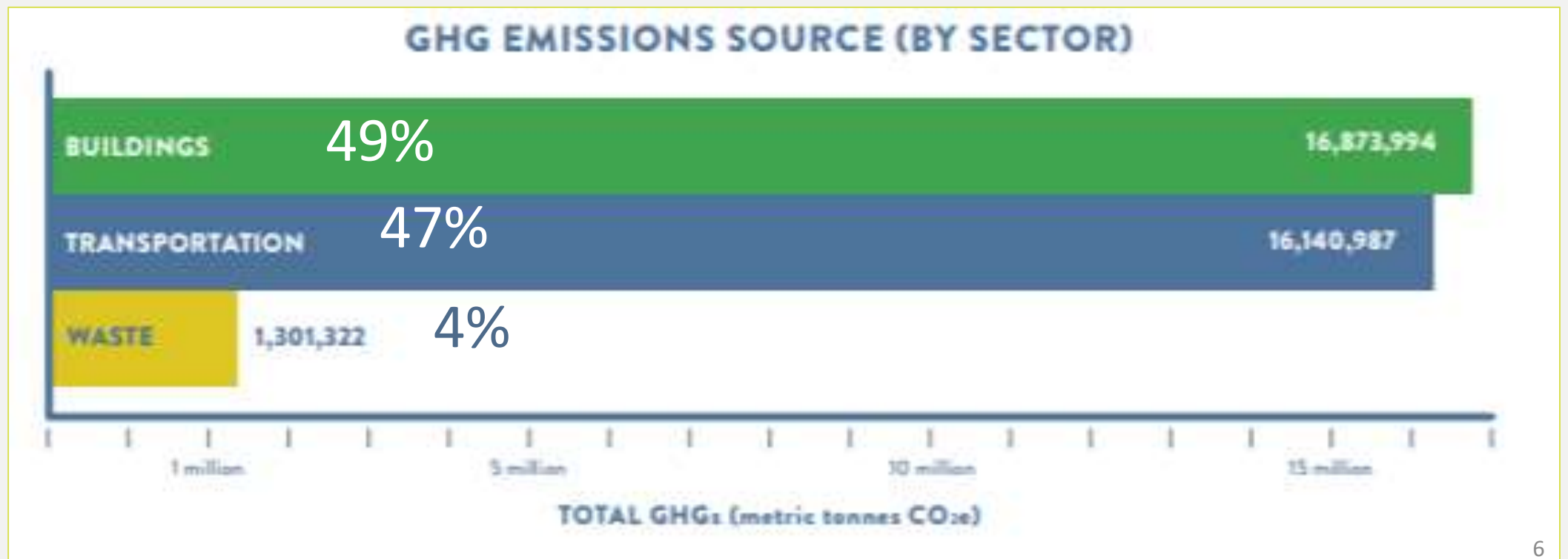
- ✓ Increase and improve mobility
- ✓ Enhance resilience
- ✓ Improve air quality
- ✓ Improve community equity and quality of life
- ✓ Reduce energy costs
- ✓ Regional economic growth
- ✓ Expand renewable energy usage



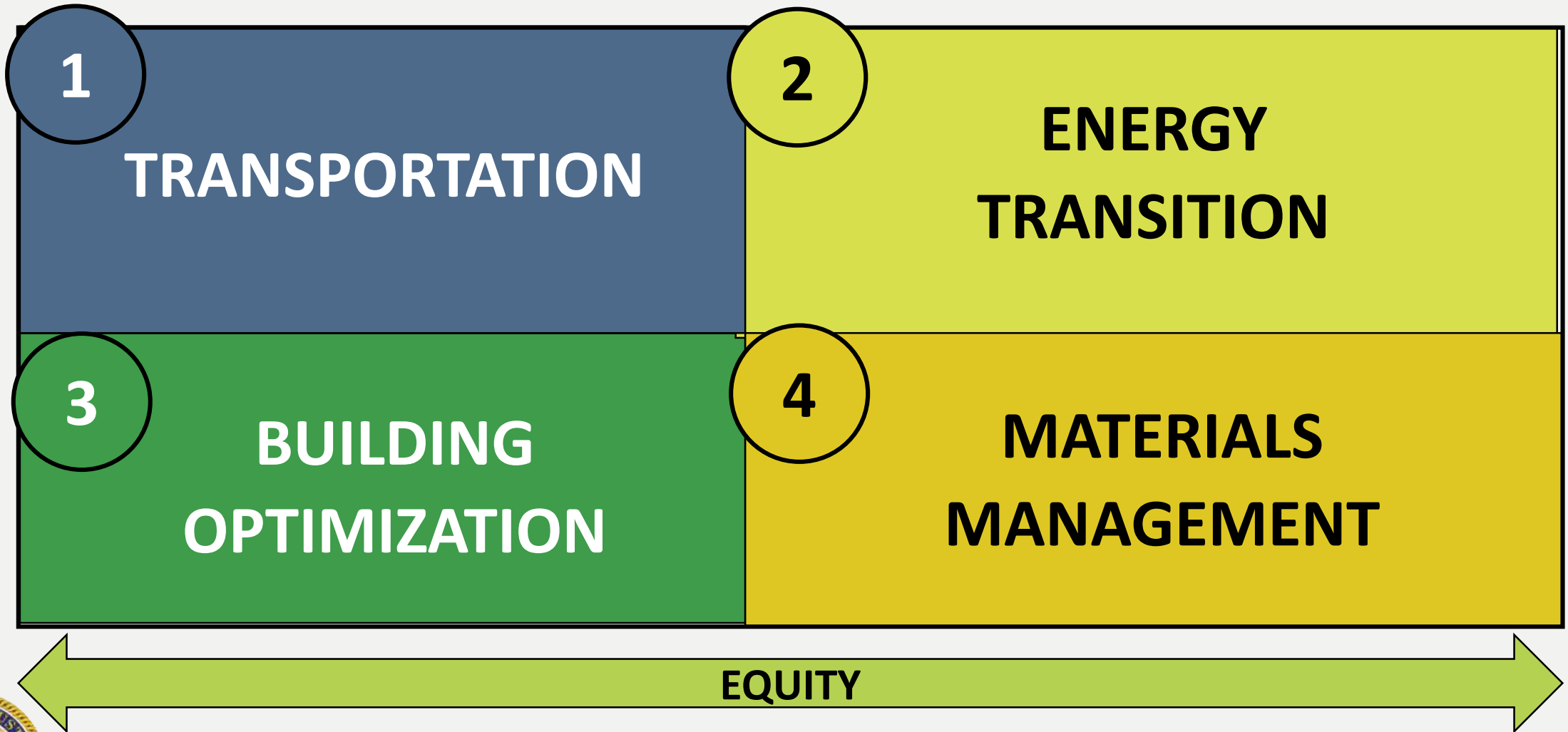
Goal: Carbon Neutral by 2050

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.

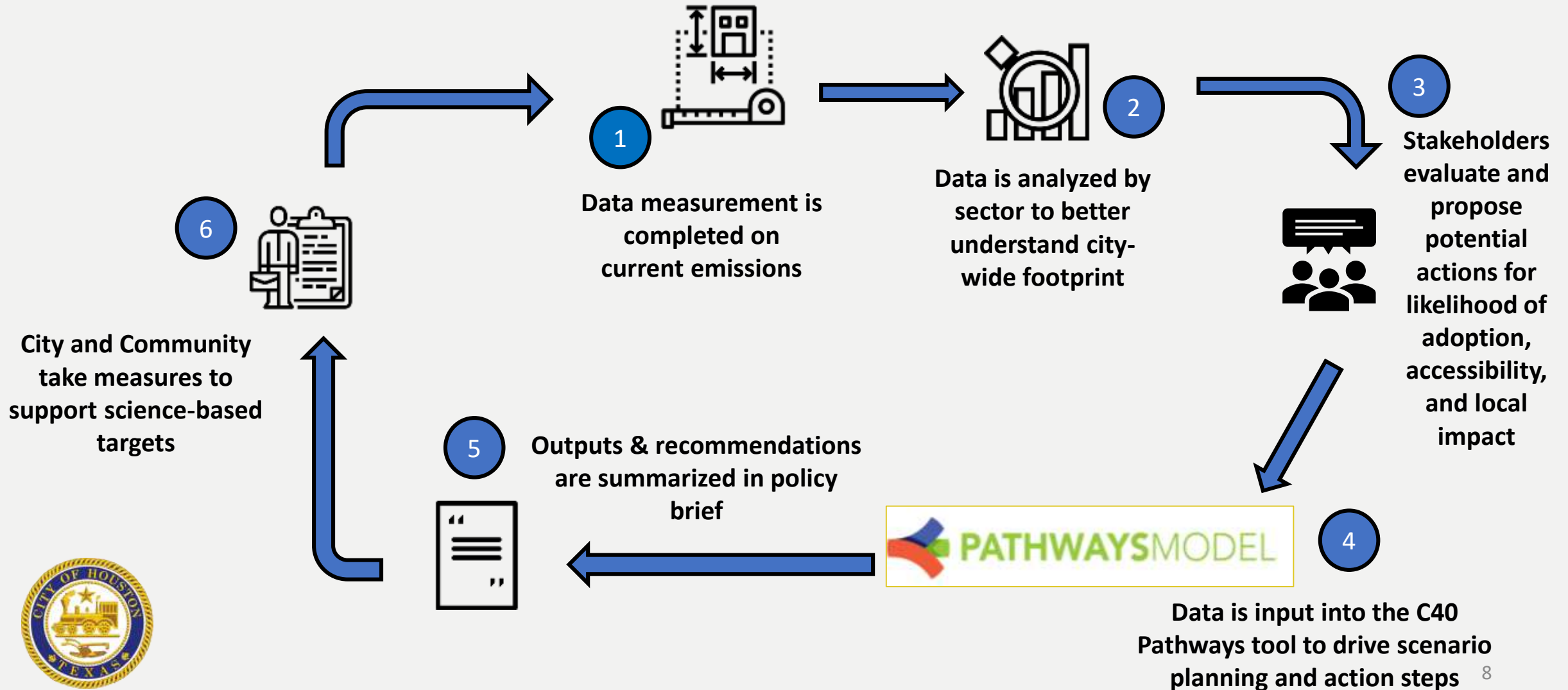
Houston's Greenhouse Gas (GHG) Emissions Baseline (2014)



Strategic Areas of the Houston CAP

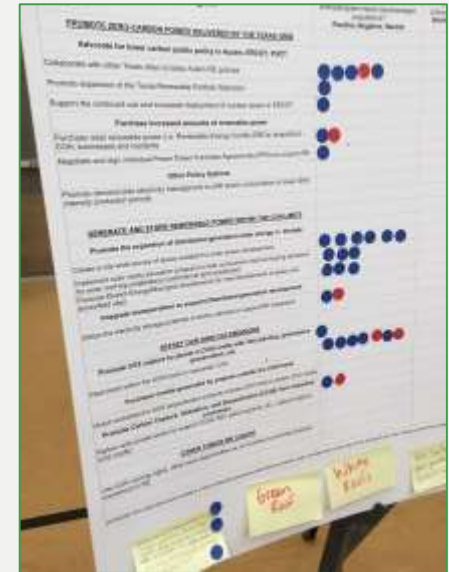


A Data and Stakeholder-Driven Process



Stakeholder Engagement and Dialogue

- +30 stakeholder meetings
- 25 working group meetings
- Numerous 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

MATERIALS MANAGEMENT

- Long Range Solid Waste Plan

BUILDING OPTIMIZATION

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

ENERGY TRANSITION

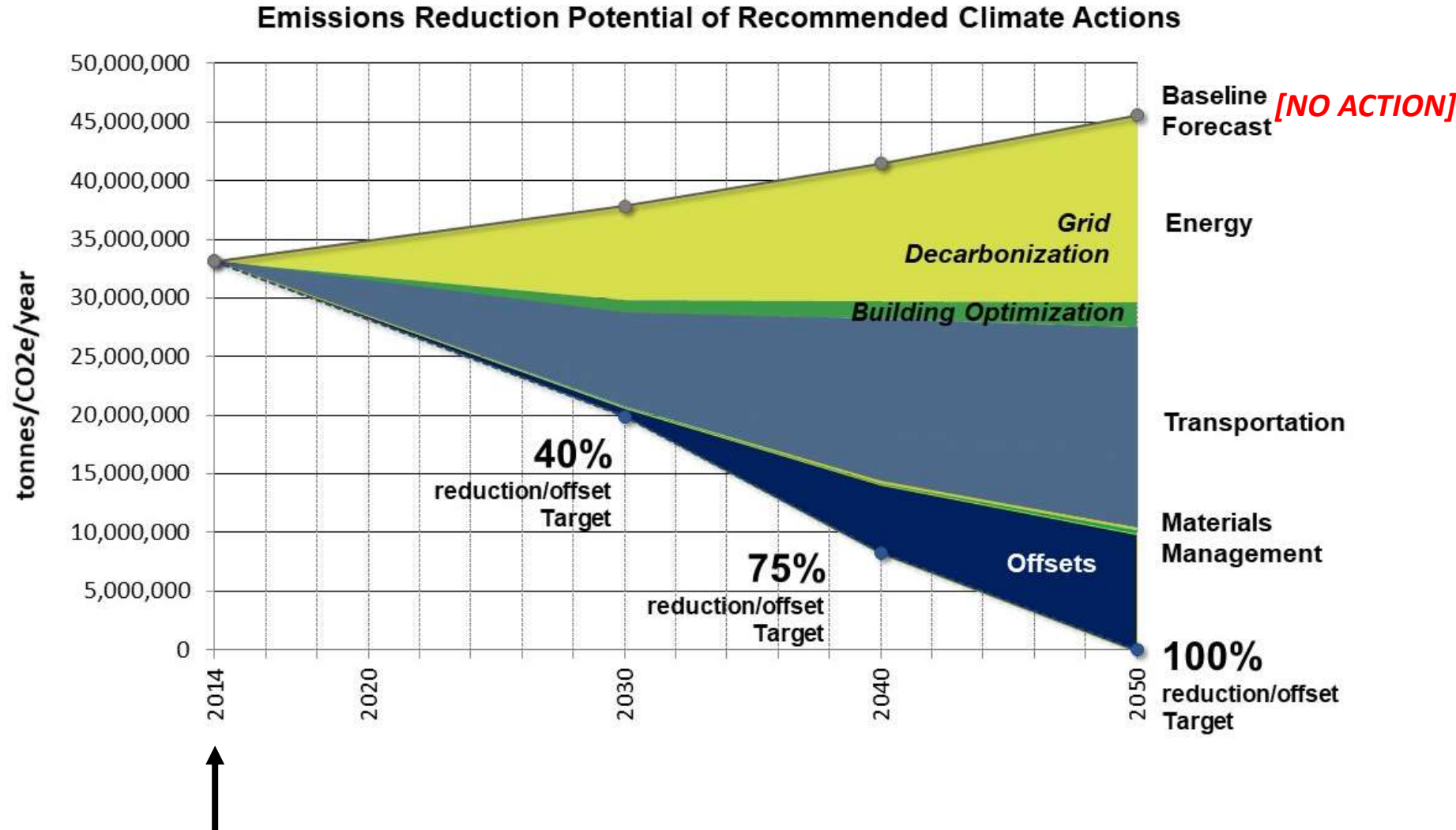
- Baker Institute and Mitchell Foundation CCUS Initiative
- Green Power Program
- Houston Parks Board
- Solarize Houston
- TREES Program
- 50-for-50 initiative



Projecting Baseline and Target Emissions

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

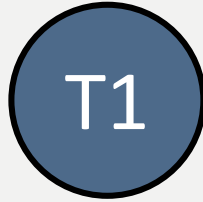


DRAFT Goals and Strategies

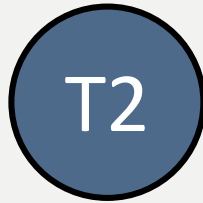


Transportation

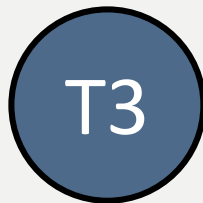
Goals:



Shift regional fleet to EV and alternative renewable fuels.



Reduce vehicle miles traveled (VMT) per capita



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:



Reduce energy use from buildings and maximize savings.



Expand investment in energy efficiency.



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: August 31, 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 October



Questions?

Contact Information:

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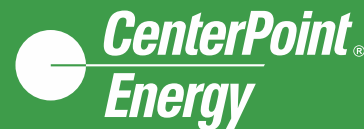
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832-393-8503

Thank you!



Learn more:
<http://bit.ly/Houston-CAP>



HARC

