

RESILIENCE & SUSTAINABILITY Overview

May 7, 2024





Resilience and Sustainability Office

The ARA Resilience and Sustainability Office leads and supports projects to reduce greenhouse gas emissions and promote resilience for the health and safety of Houstonians, and the financial betterment of City government and the community.





Sustainability Ordinance

Sec. 2-523. - Purpose; climate action plan.



- (a) The office of sustainability shall provide support for greenhouse gas mitigation initiatives and shall serve as liaison among the mayor, city council, city departments, and other public and private entities on matters pertaining to greenhouse gas mitigation. To this end, the city shall establish, adopt, implement, and maintain a climate action plan describing and incorporating the city's goals, strategies, action plans, and policies for the reduction of greenhouse gas.
- (b) The climate action plan shall include, but not be limited to:
 - (1) A greenhouse gas emission inventory compliant with the latest national and international standards and completed using the latest available data;
 - (2) Reasonable, practical, and cost-effective measures to reduce or offset community-wide greenhouse gas emissions to zero percent of the 2014 baseline by the year 2050;
 - (3) Updates to the plan which shall take place not later than five years after the adoption of the most recent climate action plan and include quantitative and qualitative analysis of progress toward the goals specified therein; and
 - (4) Implementation and coordination strategies to achieve the objectives of the climate action plan.

[\(Ord. No. 2020-911, § 2, 10-21-2020\)](#)

Sec. 2-525. - Director's authority; duties.



The director shall:


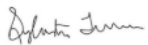
- (1) Oversee the maintenance of the climate action plan;
- (2) Establish an open, inclusive, public process for engaging the diverse ethnic, cultural, and economic communities in the development of the climate action plan, any proposed amendments, and any implementation actions;
- (3) Develop policies and procedures to guide city departments in implementing the climate action plan and other greenhouse gas mitigation activities as needed;
- (4) Lead day-to-day climate action plan implementation across all city departments;
- (5) Implement greenhouse gas mitigation into a strategic function that optimizes the city's strategic and operational climate action plan objectives;
- (6) Make recommendations to the mayor and city council regarding greenhouse gas mitigation and promulgate climate action plan policies in conjunction with department directors; and
- (7) When appropriate, consult with legal counsel when making decisions regarding climate action plan implementation; and
- (8) Report annually to the mayor and city council on progress toward the goals of the climate action plan.

[\(Ord. No. 2020-911, § 2, 10-21-2020\)](#)





Resilience Executive Order

	EXECUTIVE ORDER RESILIENT HOUSTON	
	EO No.	EO 1-66
	Effective Date:	Upon Approval
<p>1. PREFACE</p> <p>In August 2018, the one-year anniversary of Hurricane Harvey, the City of Houston, Shell, and 100 Resilient Cities— Pioneered by the Rockefeller Foundation partnered to name Houston as the 101st member of the 100 Resilient Cities Network, now known as the Global Resilient Cities Network. Through this partnership Houston has developed <i>Resilient Houston</i> with specific goals, targets and actions to help prepare for, withstand, and rebound from the shocks and stresses that impact Houston.</p> <p><i>Resilient Houston</i> provides a framework for collective action for every Houstonian, our diverse neighborhoods and watersheds, City departments, and local, regional, and global partners. The strategy links existing efforts with new ones that will collectively work to protect Houston against future disasters, from hurricanes to extreme heat waves and chronic stresses, such as aging infrastructure, poor air quality, and flooding.</p> <p>2. SCOPE</p> <p>This Executive Order is applicable to all City departments, divisions, and personnel.</p> <p>3. DEFINITIONS</p> <p><i>Resilient Houston</i>: The city's resilience strategy developed as a component of Houston's membership in 100 Resilient Cities as a framework for addressing chronic stresses and acute shocks to improve resilience. The strategy is available at https://www.houstonix.gov/mayor/chief-resilience-officer.html</p> <p>Chief Resilience Officer (CRO): A city director-level position in the Mayor's Office that leads all resilience building efforts for the city and coordinates with external partners to develop and implement the city's resilience strategy, <i>Resilient Houston</i>. More information about the CRO is located at https://www.houstonix.gov/mayor/chief-resilience-officer.html</p> <p>Department Director: A person appointed by the mayor and confirmed by City Council to assume the administrative duties of a City department.</p> <p>Division: For the purposes of administering this policy, a division is an organizational unit of the city, that usually consists of fewer employees than a department, where the head of the unit is appointed by the Mayor but not approved by City Council. Divisions include but are not limited to: Office of Economic Development, Office of Complete Communities, Office for People with Disabilities, Office of Recovery, etc.</p> <p>Department Resilience Officer (DRO): A member of the senior management team of each City department appointed to coordinate resilience efforts within and between each department in coordination with the CRO.</p> <p>4. PURPOSE</p> <p><i>Resilient Houston</i> frames five thematic visions for a more resilient future for Houston and organizes actions to achieve them at five scales. Resilient Houston's five thematic visions illustrate Houston as a healthy place to live, an equitable, inclusive and affordable city, a leader in climate adaptation, a city that grows up, not out, and a transformative economy that builds forward. These themes are reflected in Resilient Houston's</p>		
Approved: 	Date Approved: 02/12/2020	Page 1 of 3

5. GENERAL PROVISIONS

- 5.1. All Department Directors and divisions shall use *Resilient Houston* as a tool in the strategic planning and prioritization of department and division programs.
- 5.2. All departments and divisions shall take ownership of the *Resilient Houston* components under their respective jurisdictions and shall collaborate with other Departments and divisions on coordinating city functions and increasing multiple-benefit outcomes across programs.
- 5.3. To ensure accountability and alignment with *Resilient Houston*, all departments and divisions shall track and provide regular reports, quarterly at minimum, to the Chief Resilience Officer on their implementation progress.
- 5.4. All Department Directors shall use *Resilient Houston* to help establish budget priorities.
- 5.5. The Chief Resilience Officer will work with departments and divisions to increase real-time data collection and sharing tools to support data sharing and dashboard efforts and implement the Open Data AP, 8-7, in order to improve capacity, decision making and increase alignment.
- 5.6. All Department Directors shall designate a deputy director or senior manager as their Departmental Resilience Officer (DRO). This position shall be responsible for working with the Department Director to implement the goals, targets, and actions of *Resilient Houston*. Each DRO will work directly with the Chief Resilience Officer (CRO) and attend regular meetings to coordinate the implementation of *Resilient Houston* and other resilience building efforts. Each Department Director shall notify the CRO of the DRO's name and contact information within 60 days of the effective date, and within 30 days when there is a subsequent personnel change. At the request of a Department Director or the CRO, a department may have more than one DRO, if approved by the CRO.



How the Action Plans Work

Action Plans



HOUSTON'S RESILIENCE TARGETS

Resilient Houston focuses on the pressing challenges and opportunities that will shape Houston's future today and for future generations. The 30 targets below correspond with the 18 Goals outlined in this strategy. These High-level Targets will be used to measure the impact of Resilient Houston. Each Target will be achieved through the implementation of multiple Actions, often across multiple Sectors.

1. Provide at least 300,000 Houstonians with affordable housing by 2035.
2. Offer 50,000 new Houston Youth Center jobs by 2032.
3. Remove more than 100,000 pounds of lead paint from homes by 2035.
4. Remove 500,000 pounds of lead paint from homes by 2035.
5. Invest \$5 billion to fund at least 100 affordable, accessible, accessible apartments across the city by 2035.
6. Plant 2.5 million new native trees by 2035.
7. Build at least 275,000 new smart homes that are resilient by 2035 in addition to those built by the City of Houston.
8. Remove all hazardous waste from the city by 2035.
9. Construct at least 100 miles of bike and pedestrian paths by 2035.
10. Achieve carbon-neutrality by 2050 in accordance with the Paris Agreement.
11. Increase 10% net zero-emission infrastructure projects by 2035.
12. Increase green job opportunities by 2035.
13. Support Sustainable Houston Initiative to meet 20% of Houston's energy needs by 2035.
14. Roll out at least 100 EV Energy 2.0 charging stations in Greater Houston by 2035.
15. Provide 100% of Houstonians access to high frequency public transportation options within a half mile by 2035.
16. Convert 20% of unutilized regulatory permits to public space by 2035.
17. Remove 20% of Houston's and reduce low-income to available, and their emergency housing by 2035.
18. Invest \$10 billion in clean energy, acquisition, and water-related projects to all increase resilience by 2035.

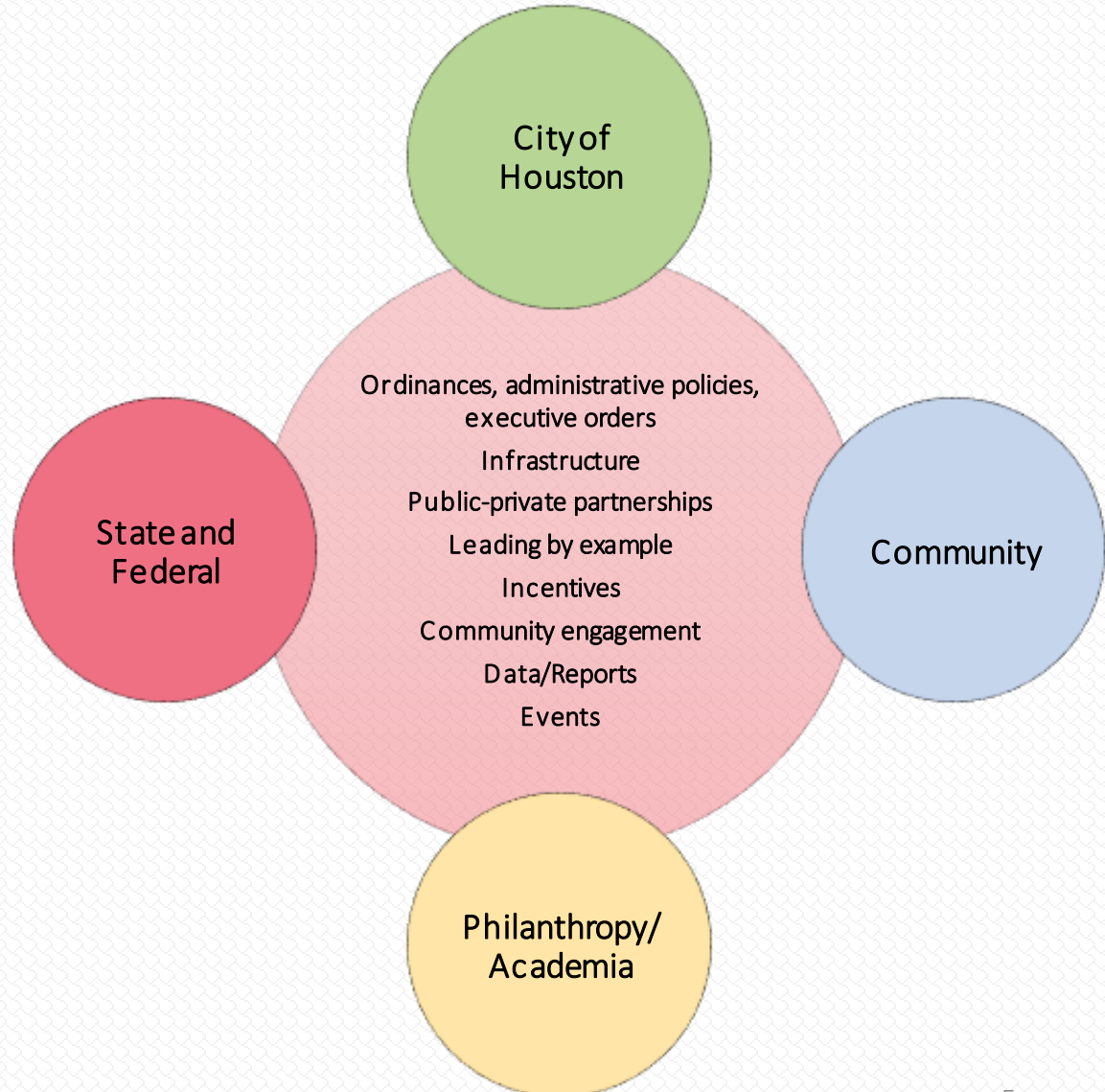
GOALS AND TARGETS

TRANSPORTATION	TARGET
Goal 1: Shift regional travel to electric and low-carbon vehicles.	1. Convert from conventional light-duty passenger fleet to 100% EV by 2035.
Goal 2: Reduce vehicle miles traveled (VMT) per capita.	2. Reduce VMT per capita 20% by 2035.
Goal 3: Provide walkability and safe mobility options.	3. Have 30% of total miles traveled on routes that are walkable or bicycle friendly by 2035.

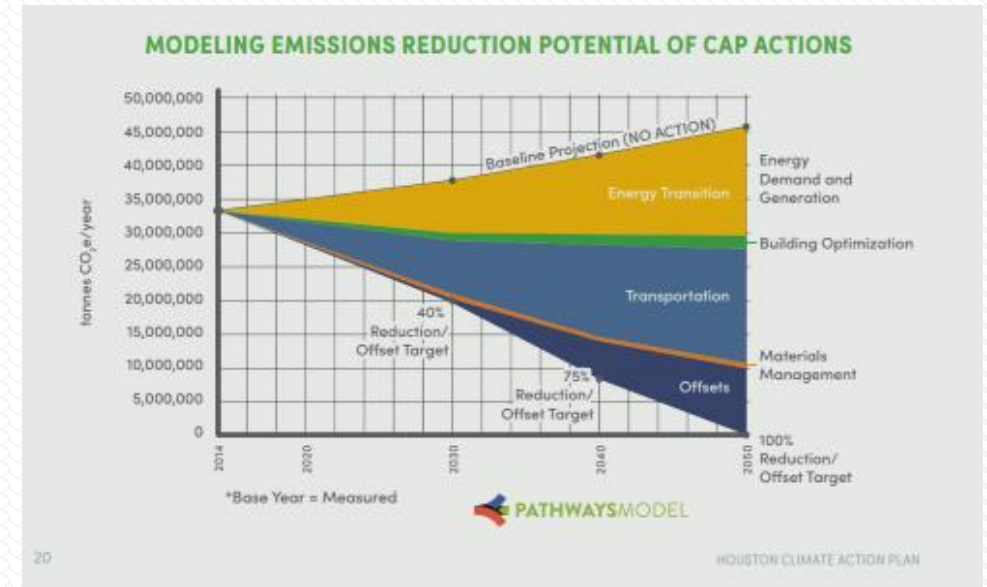
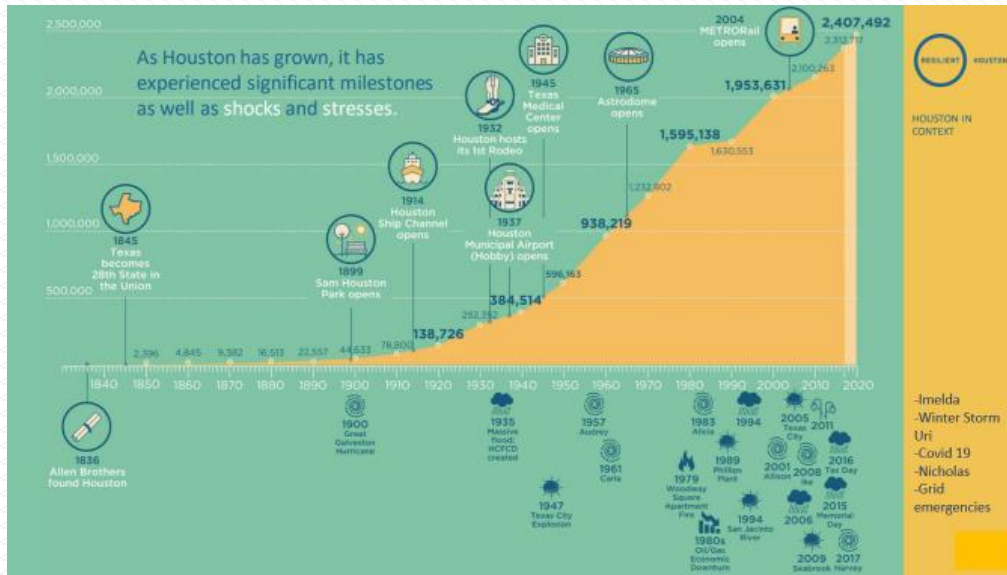
ENERGY TRANSITION	TARGET
Goal 1: Make Houston's investment in renewable and resilient energy.	1. Invest \$10 billion in clean energy by 2035.
Goal 2: Make Houston the leader in carbon capture technology and energy innovation.	2. Attract or incubate 50 Energy 2.0 companies in Greater Houston by 2035.
Goal 3: Reduce, produce, and utilize Houston's natural ability to capture and store carbon.	3. Add 10 million tons of carbon storage by 2035.

BUILDING OPTIMIZATION	TARGET
Goal 1: Reduce building energy use and achieve savings.	1. Achieve 10% energy savings in all buildings by 2035.
Goal 2: Expand investment in energy efficiency.	2. Deploy the largest number of EECS projects by 2035.
Goal 3: Invest in skilled labor jobs to optimize building operations.	3. 70% of new residential buildings provided by trained workforce by 2035.

MATERIALS MANAGEMENT	TARGET
Goal 1: Reduce waste and transform the circular economy.	1. Reduce residential waste 30% by 2035.
Goal 2: Optimize waste operations and create new jobs.	2. Create 10,000 new jobs in the waste sector by 2035.
Goal 3: Create safe and cost-effective long-term waste capacity.	3. Adopt long-range solid waste plan by 2035.



How the Action Plans Work



“To protect Houston against future disasters, from hurricanes to extreme heat waves and chronic stresses, such as aging infrastructure, poor air quality, and flooding.”

“Reasonable, practical, and cost-effective measures to reduce or offset community-wide greenhouse gas emissions to zero percent of the 2014 baseline by the year 2050”



Partnerships and Agreements

- **Non-Profit**
 - Houston Advanced Research Center (HARC)
 - Evolve Houston
 - Solar United Neighbors (SUN) / Texas Solar Switch Houston (TSSH)
 - Houston Property Assessed Clean Energy (PACE)
 - Hershey Foundation
 - Greater Houston Partnership / Center for Houston's Future
 - C40, USDN
 - Resilient Cities Network
- **Inter-Government**
 - H-GAC (CPRG)
 - City of Copenhagen, Denmark
 - City of Rotterdam, Kingdom of the Netherlands
 - Climate Mayors
- **Industry**
 - CenterPoint
 - bp
 - Shell
 - NRG
 - Apache Corporation
 - Houston Recycling Collaborative
- **Academia**
 - University of Houston
 - Rice
 - Houston Community College



Current Projects*

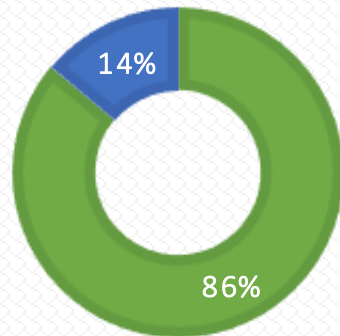
- Climate Action/ Resilience Plan Update
- Building Benchmarking and Decarbonization Program
- EV Charging at Public-Facing City Facilities
- PACE Program
- Solar United Neighbors
- Resilience Hubs
- 4.6 M Trees by 2030
- MF and COM Recycling
- Urban Prairie Development Projects
- Commercial Food Waste Pilot
- Green Stormwater Projects
- Emergency Preparedness Training
- City Fleet Electrification
- Microgrids and Generators
- Sunnyside Solar Farm
- Building/Energy Code Update Process
- HyVelocity Hydrogen Hub

Implementation Progress



RESILIENT HOUSTON PLAN PROGRESS

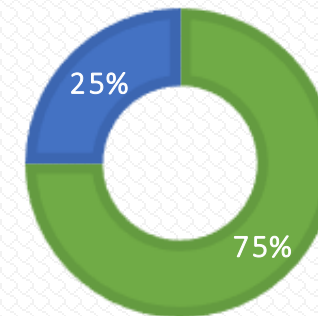
■ Completed/Started ■ Incomplete/Not Started



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CLIMATE ACTION PLAN PROGRESS

■ Complete/Started ■ Incomplete/Not Started



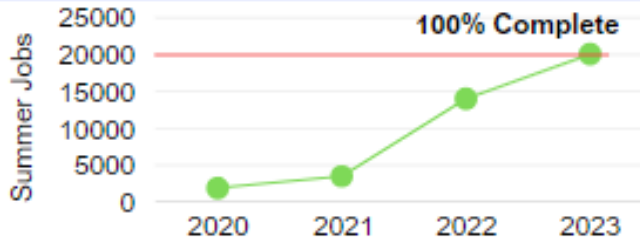
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Four Year Report – Resilient Houston Plan

Prepared and Thriving Houstonians


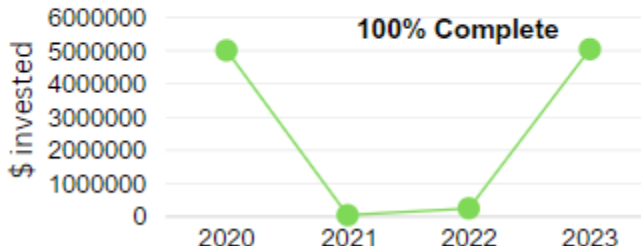
Target 1: Provide at least 500,000 Houstonians with preparedness training by 2025.	Progress: As of year-end 2023, 197,943 Houstonians have been provided resilience training, including disaster preparedness and resilience literacy.
Activity in 2023: <ul style="list-style-type: none">• 448 CERT participants trained• 4,576 participants trained in preparedness presentations• 16,020 participants trained resilience and disaster literacy• 38,000 preparedness materials distributed	 <p>40% Complete</p> <p>Source: City of Houston Office of Emergency Management and Mayor's Office of Homeland Security</p>

Target 2: Offer 20,000 Hire Houston Youth Summer Jobs.	Progress: 39,485 jobs have been provided through Hire Houston Youth as of 2023.
The Mayor's Office of Education and Engagement aims to develop a full "youth life cycle" providing wraparound services for opportunity youth 16-29 years old. For more information, visit: https://hirehoustonyouth.org/	 <p>100% Complete</p> <p>Source: City of Houston Mayor's Office of Education and Engagement</p>



Four Year Report – Resilient Houston Plan

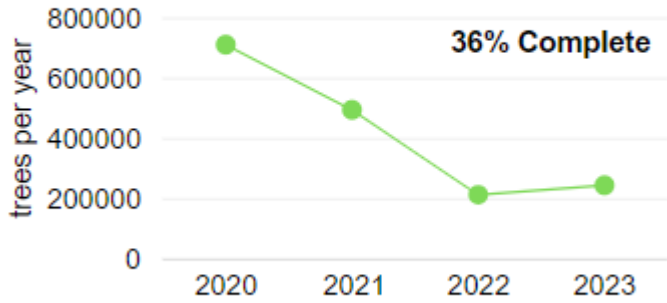
Safe and Equitable Neighborhoods

<p>Target 4: Develop 50 neighborhood plans by 2030.</p> <p>Strong neighborhoods exist through social infrastructure and social bonds that help neighbors prepare for, survive, and recover from emergencies. For more information, visit: https://houstontx.gov/planning/nrp/</p>	<p>Progress: Three neighborhood plans were developed in 2023: Braeburn, Greater Fifth Ward, and Greater Inwood.</p>  <p>34% Complete</p> <p>Source: City of Houston Planning and Development Department</p>
<p>Target 5: Invest \$5 million in local artists to create resilience awareness projects across the city by 2025.</p> <p>New and existing programs support artists and culture-bearers and enable Houston's arts and diversity of cultural traditions to thrive. For more information, visit: https://www.houstontx.gov/culturalaffairs/</p>	<p>Progress: Target completed in 2021. This year, the City dedicated an additional \$5 million in ARPA funds and \$46,000 was granted through a City Initiative.</p>  <p>100% Complete</p> <p>Source: City of Houston Mayor's Office of Cultural Affairs</p>




Four Year Report – Resilient Houston Plan


Safe and Equitable Neighborhoods

Target 6: Plant 4.6 million new native trees by 2030.	Progress: Since the inception of the goal in 2020, the City's partners report that 1.6M new trees have been planted.										
<p>The city is focused on increasing tree planting in areas with the strongest urban heat island effect, air pollution issues, and inequitable tree canopy cover.</p> <p>In collaboration with 10 partners, 245,990 trees were planted in 2023.</p> <p>To add your trees, visit https://pg-cloud.com/HoustonTX/</p>	 <table border="1"><caption>Trees Planted per Year</caption><thead><tr><th>Year</th><th>Trees per Year</th></tr></thead><tbody><tr><td>2020</td><td>~700,000</td></tr><tr><td>2021</td><td>~500,000</td></tr><tr><td>2022</td><td>~200,000</td></tr><tr><td>2023</td><td>245,990</td></tr></tbody></table> <p>2023 Source: HPARD, HCFCD, HCPC1, HCPC 4, Trees for Houston, Houston Parks Board, Buffalo Bayou Partnership, Texas Forest Service, Houston Wilderness, RES</p>	Year	Trees per Year	2020	~700,000	2021	~500,000	2022	~200,000	2023	245,990
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Four Year Report – Resilient Houston Plan

Healthy and Connected Bayous

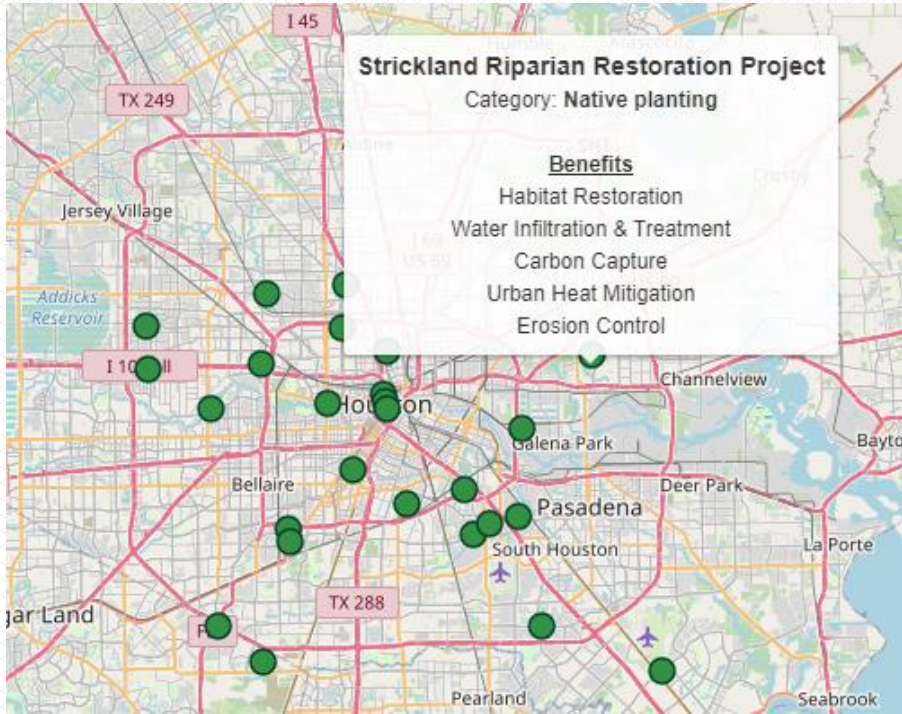
Target 7: Build at least 375,000 new homes across every income level by 2050 to welcome new residents to the City of Houston.	Progress: 2023 data analysis is underway, target will be updated later in the year. As of 2022, almost 52,000 new homes have been built.
Houston is one of the fastest growing cities in the U.S. and is the core of one of the nation's fastest growing metropolitan regions.	 <p>14% Complete</p>
<small>Source: Houston Permitting Center</small>	

Target 9: Construct at least 500 miles of trails and bike lanes by 2025.	Progress: 26 miles of high-comfort bike facilities were built in 2023, bringing the total to 432 miles of trails and bike lanes.
Having more mobility options contributes to a healthier population, less traffic congestion, and a stimulated economy.	 <p>86% Complete</p>
Built in 2023: <ul style="list-style-type: none"> • 13 miles dedicated on-street bikeways • 2 miles of shared on-street bikeways • 11 miles of off-street bikeways 	<small>Source: City of Houston Planning and Development Department</small>

Four Year Report – Resilient Houston Plan

Accessible and Adaptive City


<p>Target 11: Complete 100 new green stormwater infrastructure projects by 2025.</p>	<p>Progress: In 2023, 25 green stormwater infrastructure projects were completed, bringing the total to 111.</p>										
<p>Green stormwater infrastructure (GSI) improves the adaptability of the overall drainage system, bringing additional benefits to all communities as a result. For more information, visit: https://www.houstontx.gov/igd/</p>	<p style="text-align: center;">Target Complete</p> <table border="1"> <caption>Projects per Year Data</caption> <thead> <tr> <th>Year</th> <th>Projects per Year</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>30</td> </tr> <tr> <td>2021</td> <td>40</td> </tr> <tr> <td>2022</td> <td>15</td> </tr> <tr> <td>2023</td> <td>25</td> </tr> </tbody> </table> <p>Source: Houston Permitting Center, Houston Public Works, Houston Parks and Recreation Department, ARA</p>	Year	Projects per Year	2020	30	2021	40	2022	15	2023	25
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2020	30										
2021	40										
2022	15										
2023	25										







Four Year Report – Resilient Houston Plan

Innovative and Integrated Region

Target 15: Provide 100% of Houstonians access to high-frequency public transportation choices within a half-mile by 2050.	Progress: Data analysis is underway for 2023, target will be updated later this year. A 5% increase each year is necessary to accomplish this goal.
Several projects are in development under the broader umbrella of the METRONext Moving Forward plan.	 <p>49% Complete</p> <p>Source: Kinder Institute for Urban Research</p>

Four Year Report – Resilient Houston Plan

Innovative and Integrated Region

<p>Target 16: Conserve 24% of undeveloped regional lands as natural spaces by 2040.</p>	<p>Progress: As of 2023, 16% of undeveloped land has been conserved as natural spaces.</p>
<p>As the region continues to grow, it will be imperative to protect and enhance undeveloped lands to serve as nature-based infrastructure. For more information, visit: http://www.houstonwilderness.org/GULF-HOUSTON-REGIONAL-CONSERVATION-PLAN</p>	 <p>66% Complete</p> <p><small>Source: Houston Wilderness</small></p>
<p>Target 17: Ensure that 100% of Houstonians and visitors have access to accurate, real-time emergency alerting by 2030.</p>	<p>Progress: As of 2023, 203,646 contacts are signed up to receive Alert Houston notifications.</p>
<p>The goal is to increase enrollment, traffic to the city's emergency information website, and the public's awareness of periods of severe weather and other hazards. For more information and to sign up for alerts, visit: https://www.houstonoem.org/pages/alert-houston</p>	 <p>12% Complete</p> <p><small>Source: City of Houston Office of Emergency Management</small></p>



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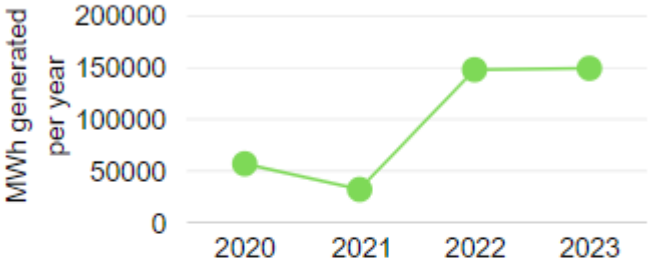
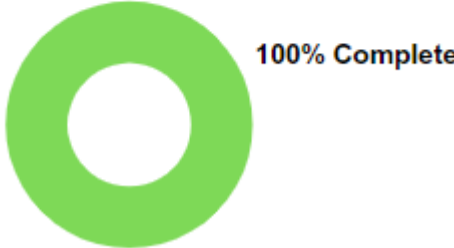
Transportation

Target 1: Convert non-emergency, light-duty municipal fleet to 100% EV by 2030.	Progress: As of April 2024, 387 of the City's 3,445 light-duty vehicles are battery (4%), hybrid (7%), or plug-in hybrid electric (0.1%).																
In 2024, the City has 217 electric vehicles (EVs) on order and is processing procurements for an additional 147 EVs.	<table border="1"><thead><tr><th>Vehicle Type</th><th>Count</th></tr></thead><tbody><tr><td>Unleaded</td><td>2982</td></tr><tr><td>Unleaded Hybrid</td><td>252</td></tr><tr><td>Battery</td><td>132</td></tr><tr><td>Diesel</td><td>73</td></tr><tr><td>Plug-in hybrid</td><td>3</td></tr><tr><td>Propane</td><td>3</td></tr><tr><td>Flex fuel</td><td>0</td></tr></tbody></table> <p>Source: City of Houston Fleet Management Department</p>	Vehicle Type	Count	Unleaded	2982	Unleaded Hybrid	252	Battery	132	Diesel	73	Plug-in hybrid	3	Propane	3	Flex fuel	0
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Target 2: Reduce vehicle miles traveled (VMT) per capita 20% by 2050.	Progress: Data analysis for 2023 is underway, target will be updated later this year. There was 16,012 VMT per capita in 2021, a 16% decrease from 2020.										
The baseline established in 2020 was 18,574 VMT per capita. In order to achieve a 20% reduction, annual per capita VMT must be less than 14,859.	<table border="1"><thead><tr><th>Year</th><th>VMT per year</th></tr></thead><tbody><tr><td>2020</td><td>18,574</td></tr><tr><td>2021</td><td>16,012</td></tr><tr><td>2022</td><td>-</td></tr><tr><td>2023</td><td>-</td></tr></tbody></table> <p>Source: ARA Resilience and Sustainability Office</p>	Year	VMT per year	2020	18,574	2021	16,012	2022	-	2023	-
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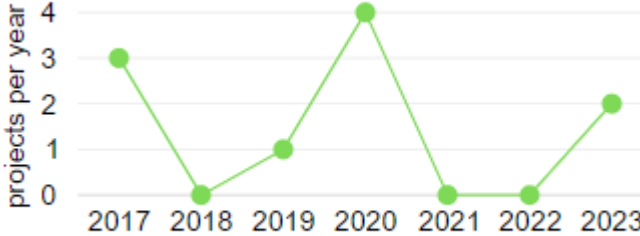
Energy Transition

<p>Target 4: Produce five million MWh local solar per year by 2050.</p>	<p>Progress: Solar panels in Houston produced an estimated 149,352 MWh in 2023.</p>
<p>While the Houston area's potential for solar energy is high, public and private sectors must work together to accelerate GHG emissions reductions.</p> <p>For more information, visit: https://environmentamerica.org/center/resources/shining-cities-2022/</p>	 <p>Source: CenterPoint Energy, City of Houston</p>
<p>Target 5: Attract or incubate 50 Energy 2.0 companies in Greater Houston by 2025.</p>	<p>Progress: This target was accomplished in 2022. In 2023, 81 companies were attracted or incubated in Houston bringing the total to 148.</p>
<p>Continued investment is required to solidify Houston as an interconnected and inclusive innovation ecosystem.</p>	 <p>Source: GreenTown Labs</p>

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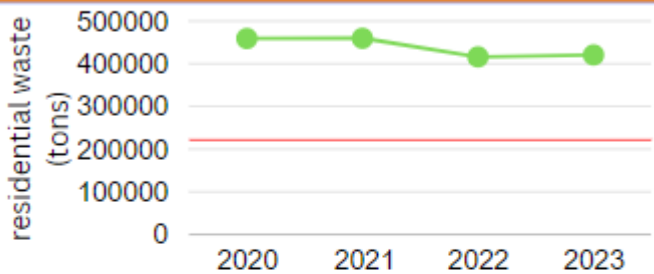
Building Optimization



<p>Target 7: Adopt the 2021 international Code Council (ICC) model building code by 2025.</p>	<p>Progress: Houston City Council adopted the 2021 Building Codes on October 25, 2023. The codes went into effect on January 1, 2024.</p>
<p>Following the ICC's lead will significantly improve the safety and energy efficiency of Houston's buildings.</p> <p>For more information, visit: https://www.houstonpermittingcenter.org/construction-code-modernization</p>	<div style="text-align: right;">  <p>100% Complete</p> </div> <p><small>Source: Houston Public Works</small></p>

<p>Target 8: Double the 2020 number of Property Assessed Clean Energy (PACE) projects by 2025.</p>	<p>Progress: This target was met in 2021 and PACE projects continue to develop. Two additional PACE projects were completed in 2023, for 10 total completed projects.</p>																
<p>Property Assessed Clean Energy (PACE) is a program for business and property owners to lower their operating costs and use the savings to pay for energy efficient upgrades.</p> <p>For more information, visit: http://www.greenhoustontx.gov/pace/</p>	<div style="text-align: center;">  <table border="1"> <caption>PACE Projects per Year</caption> <thead> <tr> <th>Year</th> <th>Projects per Year</th> </tr> </thead> <tbody> <tr> <td>2017</td> <td>3</td> </tr> <tr> <td>2018</td> <td>0</td> </tr> <tr> <td>2019</td> <td>1</td> </tr> <tr> <td>2020</td> <td>4</td> </tr> <tr> <td>2021</td> <td>0</td> </tr> <tr> <td>2022</td> <td>0</td> </tr> <tr> <td>2023</td> <td>2</td> </tr> </tbody> </table> <p><small>Source: Texas Pace Authority and HARC</small></p> </div>	Year	Projects per Year	2017	3	2018	0	2019	1	2020	4	2021	0	2022	0	2023	2
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Four Year Report - CAP

Materials Management

Target 10: Reduce residential waste 50% by 2040.	Progress: 420,608 tons of residential waste was collected in 2023, down 8% from 459,104 tons collected in 2020.
Recycling and composting decreases environmental risks of waste disposal and preserves limited landfill space. For more information, visit: https://www.houstontx.gov/solidwaste/	 <p>residential waste (tons)</p> <p>Source: City of Houston Solid Waste Department</p>

Target 11: Convert municipal solid waste fleet (heavy duty) to low-emission vehicles by 2030.	Progress: Low-sulfur diesel fuel can contribute to improved air quality.
Solid Waste Department uses low emission low-sulfur fuel in 100% of its heavy duty vehicles, but has no active heavy duty hybrid or EVs.	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Low-Sulfur Fuel 100% Complete</p> </div> <div style="text-align: center;">  <p>Hybrid/EV 0% Complete</p> </div> </div> <p>Source: City of Houston Solid Waste Department</p>



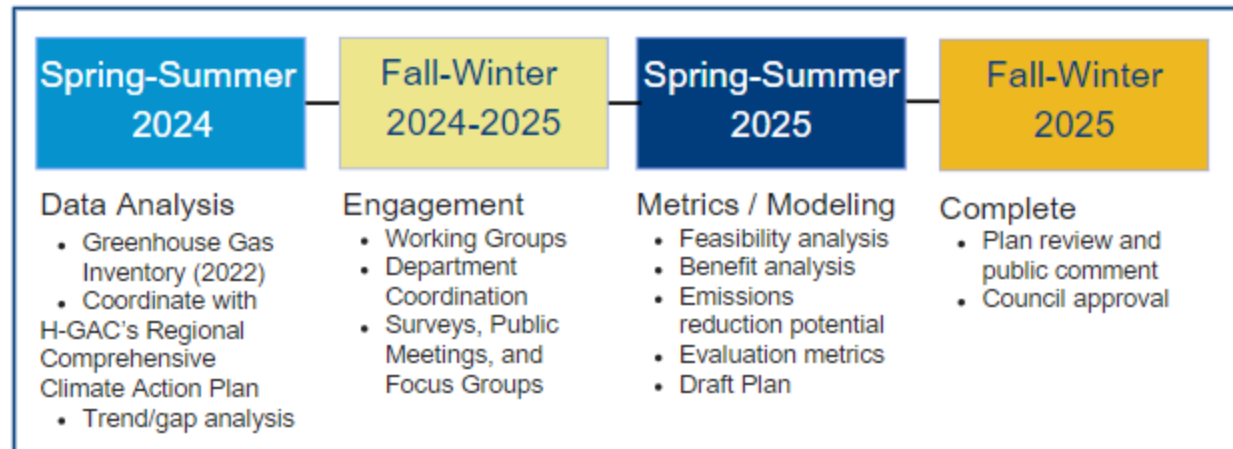
Year Five

In the upcoming year, the City intends to reintroduce Resilient Houston and the Climate Action Plan as a unified framework. Plan objectives will be reviewed and adapted to meet the current needs of Houston. Furthermore, the RSO will:

- Apply for federal funding to expand ongoing projects
- Implement grants like [Solar For All](#)
- Collaborate closely with Harris County and Houston-Galveston Area Council in crafting a [regional climate strategy](#)
- Invite the community to participate in developing and implementing the plan(s)

- New plan will include:
 - Updated Modeling
 - Updated and Revised Goals and Targets
 - Updated and Revised Actions

RESILIENT HOUSTON AND CLIMATE ACTION PLAN UPDATE 2025 TIMELINE





Appendix



History

Sustainability and Resilience over the years

Mayor Lee Brown

- Mayor's Clean Air Team
- COH Emissions Reduction Plan

Mayor Bill White

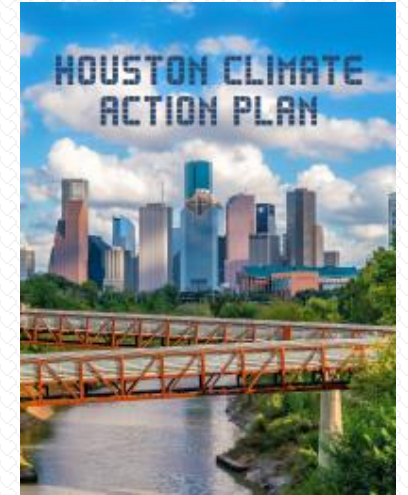
- Mayor's Office of Environmental Policy
- COH Emissions Reduction Plan
- Houston Regional Benzene Air Pollution Reduction Plan

Mayor Annise Parker

- Mayor's Office of Environmental Planning
- Mayor's Office of Sustainability
- Carbon Disclosure Project Reporting

Mayor Sylvester Turner

- Sustainability moves to ARA
- Climate Action Plan
- Mayor's Resilience Office, Chief Resilience Officer, and Resilient Houston Plan
- Mayor's Office of Resilience and Sustainability in ARA/Mayor's Office





Areas We Cannot Regulate

SB 1017- No ability to regulate energy sources or engines

19 Sec. 247.002. RESTRICTION ON REGULATION OF ENERGY SOURCES.
20 (a) A political subdivision may not adopt or enforce an ordinance,
21 order, regulation, or similar measure that limits access to or use
22 of an energy source or that results in the effective prohibition of
23 infrastructure that is necessary to provide access to a specific
24 energy source, including a wholesaler, retailer, energy producer,

13 Sec. 247.003. RESTRICTION ON REGULATION OF ENGINES. (a) A
14 political subdivision may not adopt or enforce an ordinance, order,
15 regulation, or similar measure that directly prohibits or restricts
16 the use, sale, or lease of an engine based on its fuel source.

SB 784 – No ability to regulate packaging, plastic bags

Sec. 361.0961. RESTRICTIONS ON AUTHORITY OF LOCAL GOVERNMENT OR OTHER POLITICAL SUBDIVISION. (a) A local government or other political subdivision may not adopt an ordinance, rule, or regulation to:
(1) prohibit or restrict, for solid waste management purposes, the sale or use of a container or package in a manner not authorized by state law;
(2) prohibit or restrict the processing of solid waste by a solid waste facility, except for a solid waste facility owned by the local government, permitted by the commission for that purpose in a manner not authorized by state law; or
(3) assess a fee or deposit on the sale or use of a container or package.
(b) This section does not prevent a local government or other political subdivision from complying with federal or state law or regulation. A local government or other political subdivision may take any action otherwise prohibited by this section in order to comply with federal requirements or to avoid federal or state penalties or fines.
(c) This section does not limit the authority of a local government to enact zoning ordinances.

Added by Acts 1993, 73rd Leg., ch. 1045, Sec. 12, eff. Sept. 1, 1993.

SB 1860 – No ability to create a climate charter amendment

12 Sec. 9.0045. APPROVAL OF CLIMATE CHARTER OR AMENDMENT TO
13 CHARTER BY LEGISLATURE REQUIRED. A municipality may not hold an
14 election for voter approval of a proposed climate charter unless
15 the legislature adopts a resolution approving the proposed climate
16 charter.

SB 784 – No ability to regulate GHG

8 Sec. 382.005. EXCLUSIVE JURISDICTION TO REGULATE
9 GREENHOUSE GAS EMISSIONS AND EXPRESS PREEMPTION OF LOCAL
10 REGULATIONS. (a) In this section, "greenhouse gas emissions" has
11 the meaning assigned by Section 382.05102.
12 (b) To the extent not preempted by federal law, the state
13 has exclusive jurisdiction over the regulation of greenhouse gas
14 emissions in this state.
15 (c) A municipality or other political subdivision may not
16 enact or enforce an ordinance or other measure that directly
17 regulates greenhouse gas emissions.



THANK YOU