

CITYAGE

EXECUTIVE ROUNDTABLE: DECARBONIZE HOUSTON

SEPTEMBER 7, 2023 | HOUSTON, TEXAS

In partnership with



Shell
ENERGY





EXECUTIVE SUMMARY:

Key leaders from Houston assembled on September 7th for a half-day roundtable at the Shell Energy Stadium to cross-pollinate ideas: how can we work together to meet the City of Houston's goal of reaching net-zero greenhouse gas (GHG) emissions by 2050?

CityAge and Shell Energy hosted this event with representatives from key sectors – including private real estate, city government, ports and transportation, medical and institutional campuses, and more. At the heart of the discourse was a facilitated discussion aimed at teasing out common challenges and opportunities to achieve the decarbonization targets of the City and stakeholder organizations. What emerged were concrete solutions that have the potential to enable the group to act collectively – going further and faster together on the road of decarbonization.

Under the proposed solutions, there is a clear desire for a multi-pronged approach. This involves bolstering public awareness on decarbonization, advocating for climate-forward policy and incentives, and encouraging innovation through joint development and swift trials. The participants discussed the need to harness federal and state resources, especially for establishing pilot projects, test facilities, and enhancing public awareness. Additionally, the introduction of carbon markets and pricing mechanisms emerged as a promising strategy to stimulate emission reductions.

The meeting was held under Chatham House Rules, meaning all ideas were open but non-attributed, to allow for the free flow of ideas.

PARTICIPANTS INCLUDED:



SHAY BLONDER

Vice-President, Citizens



JOEL BRACEWELL

Managing Director, Colliers Property Management Services



CASEY BROWN

President and Executive Director, Evolve Houston



TRAE GAMBLE

Director of Environmental Affairs, Port Houston



ANDREW CROLL

Senior Sales Director, Shell Energy



ANNA DEANS

Vice President, Investment + Development, Midway



TERRY ELLIOTT

Senior Project Manager, Harris Health System



JASON FISCHER

Director, Office of Sustainability, Houston Methodist Hospital



JULIANA GARAIZAR

Chief Development and Investment Officer, Greentown Labs



LAURA GOLDBERG

Senior Vice President, Strategic Initiatives, Communications & Community Engagement, Center for Houston's Future



OSCAR HERDOCIA

Shell U.S. Energy Transition & Sustainability Advisor, Shell Energy



KURT KARGOU

Manager, RMI



KEVIN KREJCI

Vice-President, Engineering, Hines



POUYAN LAYEGH

AVP Engineering & Building Systems, The University of Texas MD Anderson Cancer Center



LISA LIN

Director of Sustainability, Harris County



DAVID OWEN

Director of Electrification, CenterPoint Energy



ANNIE PETER

Sector Marketing Manager, Shell Energy



LANA RAMIREZ

General Manager, Facilities, Shell Energy Stadium and Houston Sports Park, Houston Dynamo FC



CHRIS RECTOR

Chief Operating Officer - Southwest US/ Mexico/Central America, Hines



JESSE SALDIVAR

GM Cities and Hubs Decarbonization, Americas, Shell Energy

PARTICIPANTS INCLUDED (CONTINUED):



NOUR SALMEN GUZMAN
City Solutions Manager, Renewables and Energy Solutions, Shell Energy



TRAVIS SHEEHAN
Lead for City Solutions, North America, Shell Energy



ADAM SHOEMAKER
Corporate Sustainability Manager, Clark Dietrich®



JANE STRICKER
Senior Vice President, Energy Transition & Executive Director, Houston Energy Transition Initiative



FATEN TAYEH
Project Manager, Rice University



ELIJAH J. WILLIAMS
Executive Director, Energy Corridor



KIMBERLY WILLIAMS
Chief Innovation Officer, Metropolitan Transit Authority of Harris County



CHRIS WOOD
Co-Founder / Co-President, Moonshot Compost



INITIAL DISCUSSIONS AND THOUGHTS:

At the roundtable, Houston’s leaders came together to strategize the decarbonization of major facilities, industries, and infrastructure. The first phase of the discussion centered on solutions, challenges, and ways to enable action. This section presents those essential insights and proposed strategies, paving the way for collaborative actions to diminish Houston’s carbon footprint.



SOLUTIONS

Multifaceted and interdisciplinary collaboration is essential.

Key solutions aimed at reducing carbon emissions, fostering sustainability while driving economic growth include:

Education: Enhance public awareness and understanding of decarbonization, energy savings, and the importance of reduced power consumption.

Efficiency: Reducing energy consumption for environmental and economic gains for both the private sector and public agencies and utilities.

Pricing carbon: Set clear voluntary and regulated carbon pricing mechanisms using platforms for carbon credit trading to incentivize reductions in overall carbon emissions.

Priorities: Establish clear priorities for what the objectives are for region-wide decarbonization results.

Innovative business models: Encourage models that involve joint development, piloting, “fail-fast” methodologies, and third-party investments.

Test facilities: Create a common platform for testing and validating new technologies for commercial use.

Federal funding: Leverage federal resources to facilitate test facilities and public education.

“Innovation and collaboration are essential because doing things differently is the key to progress.”

2. CHALLENGES

Participants illuminated a range of challenges they currently experience.

Key challenges include:


Focusing conversations: A need for more targeted and purposeful dialogues, as siloed and unfocused discussions have been unproductive.

Poor business models: Adjusting business models for more clarity and faster results.

Old-style procurement: Traditional procurement methods were perceived as outdated, making it difficult to match supply and demand to the decarbonization agenda.

Lack of investment: Challenges in identifying suitable capital markets, financing, and innovative business models to support decarbonization.

Slow innovation: Uncertainty in choosing new technology adoption and lack of established validation platforms makes stakeholders risk adverse to making decarbonization investments.



“Clear value demonstrations and universal standards can help build confidence in new technologies and projects, bridging the gap between public acceptance and sustainable solutions.”

3. ENABLERS

Finding the enablers to drive Houston’s path to sustainability is essential, and participants outlined enabling practices that could streamline the path of decarbonization.

Key enablers include:

Carbon strategy: Establish a tangible cost for carbon emissions at the state and federal levels, implement penalties for excessive emitters, and introduce rewards for GHG reduction practices.

No penalty data transparency: Standardize carbon data reporting at federal, state and municipal levels to ensure accountability and ensure those that make data open are rewarded, not penalized, by regulators.

Decarbonization incentives: Provide federal-level incentives, such as tax relief, grants and low-interest investments, for low-carbon business practices.

Boost public awareness: Boost awareness campaigns on benefits of decarbonization, for the private sector, as well as state and municipal agencies, leveraging business communities like the US Chamber of Commerce, the Greater Houston Partnership, the US Council of Mayors and more.

Drive technology demand: Develop strategies to increase demand for new technologies through the creation of testing centers and multi-stakeholder cooperation on specific carbon reduction projects.

Aggressive legislative measures: Draft legislation and regulatory measures at the state and municipal levels to enforce carbon reduction standards, particularly in construction and the MUSH (municipal, university, schools and hospital) sectors.

Set public decarbonization targets at the state and municipal levels: Declare long-term but realistic commitments for decarbonization efforts from key stakeholders; set these out in public documents, perhaps even a Decarbonization Declaration to catalyze public and government support.

“Commitment is key, especially in the face of technology uncertainty. Stakeholders need to put stakes in the ground to build the necessary infrastructure.”

PRIORITIES FOR ACTION:

Following the initial group discussions, the stakeholders suggested the following initiatives to actively advance decarbonization in Houston, leveraging their unique resources and partnerships.

1. Standards and regional framework

Analyze city, region, and county framework to identify common measurement standards for facility-level climate actions, carbon reduction, and building energy efficiency.

Develop a cohesive blueprint for climate actions and impact measurement that can be utilized in the greater Houston metropolitan region.*

2. Education and knowledge sharing

Compile and share case studies and success stories in a centralized and neutral database. The idea posed was to create multi-sector working groups, composed of private sector, NGOs and local government, to manage this initiative.

Establish consistent terminology and language for the private, government and NGO sectors, to ensure clarity of targets and progress.

Design an educational program to increase clarity on language used across sectors.

3. Incentives

Explore tax incentive structures to encourage companies to develop low-carbon procurement standards.

Investigate green procurement models that can be supported by tax incentives.

4. Measure success

Understand and establish a framework for measuring and acknowledging city and regional CO2 reductions.

Measure resilience metrics to understand the robustness of current infrastructure, services and the local environment to measure their future decarbonization path.

5. Public relations and marketing

Launch working groups that focus on PR and marketing across key sectors.

Leverage existing public engagement programs to disseminate the sustainability message.

Consider a Decarbonization Declaration, to galvanize public and political support.

*<https://www.houston.org/houston-data/houston-metropolitan-statistical-area-profile>



6. Funding and financial benefits

Develop an education program to access federal funds and tax benefits.

Host strategy sessions to take a collaborative strategy to achieve funding.

7. Collaborative testing facilities

Engage with local universities, schools, and innovation hubs to develop testing facilities for low-carbon initiatives.

8. Data reporting and transparency

Advocate for no-fault transparency in data sharing.

Propose a citizen-level carbon scoring system to foster healthy competition between cities/counties, perhaps through the creation of a publicly accessible decarbonization app that could be placed on citizens/leaders smartphones, to track both community and individual decarbonization progress.

9. Incentives for behavior change

Establish internal organizational key performance indicators (KPIs) that align with decarbonization efforts.

Recognize and incentivize champions within organizations and communities advocating for green initiatives.

10. Task forces

Create time-bound, specific task forces to address pressing challenges.

Implement a sprint-like methodology where cross-sector teams come together for rapid problem-solving.

CONCLUSION

By 2050, 70% of global emissions will be generated by cities. Houston is primed to prove that rapid decarbonization is possible and can be enabled through collaboration. Houston is poised to lead the Energy Transition as a proof-point to a global audience.

Decarbonization efforts in Houston are progressing, but stakeholders made it clear this should, and can, be accelerated. This can only happen, the participants concluded, through deeper collaborations. This will entail commitment to transition to more low-carbon business models, better navigating complex capital markets and financing structures, and addressing uncertainties surrounding technology adoption. Notably, there's concern about potential resistance from businesses and the public when it comes to embracing new decarbonization technologies that are seen as expensive and risky.

To address these challenges, several key enabling strategies were identified. These include the establishment of clear carbon emission costs and awards for reducing emissions, the standardization of carbon data

reporting for increased transparency, and the implementation of stringent carbon reduction standards through legislation and regulation. These measures have the potential to create powerful incentives to accelerate Houston's decarbonization.

Looking ahead, a set of priority actions have been outlined. These involve the establishment of standardized regional metrics, an intensified focus on education and awareness, the introduction of tax incentives for low-carbon procurement and CO2 emissions reductions, as well as collaborations with educational institutions for testing green initiatives.

Houston stands at a crucial juncture in America's decarbonization journey. Success requires a concerted effort in areas such as standardization, education, incentives, transparency, and collaboration. With the enthusiasm witnessed at the CityAge Executive Roundtable, Houston appears poised to take a leading role in this important national and global mission to build low-carbon cities that can continue to grow and drive future prosperity.



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