

2024 Annual Report

INTRODUCTION

The Center for Houston's Future (CHF) had significant impacts on the community and underwent major changes in 2024, all of which set us up to do work of critical importance this year, as we mark our 25th anniversary in 2025.

In 2024, we saw major success across our clean hydrogen work as we collaborated with partners to develop a thriving Gulf Coast clean hydrogen ecosystem that will help bolster our region's economic future. We released groundbreaking healthcare research that is spurring concrete action, held a range of well-attended community and thought-leadership events, including our most successful Dinner & Conversation ever, and continued our long-standing legacy of developing leaders who impact our community.

One result of our expanding and deepening hydrogen work was a change in leadership at CHF. That initiative grew so much that it required a full-time leader, and Brett Perlman, president and CEO since August 2017, elected to step aside to concentrate on hydrogen as managing director.

David Gow, the Houston entrepreneur and business executive, and founder of Gow Media, joined CHF as president and CEO in September, bringing 40 years of experience in consulting, media, retail, investing, and fundraising. David was tasked by the Board of Directors to shape and implement the regional strategic planning initiative, Vision 2050 project, and to chart a new course for the Center's years ahead.

MISSION

Since the Center's founding in 2000, our focus has been unchanged: to look "over the horizon" at global, national, and local trends that will shape the future of our city and our region. We implement our mission through our theory of change: "We bring business, government, and community stakeholders together to engage in fact-based strategic planning, collaboration and action on issues of great importance to the Houston region."

We identify issues, engage, and inform the community, build consensus, and propose innovative solutions, relying on our fact-based strategic planning and research, broad stakeholder engagement and leadership training.

In accomplishing this work, we retain a close working relationship with the Greater Houston Partnership as an independent affiliate, collaborating and sharing information as opportunities present themselves to better our region. The Center, in general, works in three ways: Strategic Initiatives, our Business/Civic Leadership Forum, and community engagement/thought leadership.

STRATEGIC INITIATIVES

The Center's Strategic Initiatives focus on issues that are critical to the region's future. We aim to identify gaps and opportunities, drive consensus around solutions and bring parties together to act.

From 2017 to 2023, the Center's work focused on three initiatives: the energy transition and climate change; health care and health equity; and immigration. In 2024, we concluded our immigration focus and started structuring an exploration of future issues via a new initiative, Vision 2050.

Energy Transition Leadership

Our energy transition work focuses on ensuring that Houston remains the world's energy capital as the world moves toward a low-carbon future. Based on our research and extensive collaboration with many partners, we've identified multiple opportunities in the energy transition to build on Houston's infrastructure base, expertise of energy companies, skilled workforce, research universities, and energy innovation ecosystem.

For over five years, we have been leading regional efforts to develop and expand a regional and Gulf Coast clean hydrogen ecosystem

CHF has been a key driver, alongside GTI Energy, University of Texas, and other nonprofits, in creating the strategy and vision for the HyVelocity Hub. HyVelocity, which launched in November, will receive a \$1.2 billion grant, the largest in the history of the Department of Energy. It will form the core of the Gulf Coast clean hydrogen ecosystem.

Separately, as part of our collaboration with the Greater Houston Partnership on its Houston Energy Transition Initiative, the Center has created and leads a Clean Hydrogen Steering Committee focused on ecosystem development. In 2024, we had 45 companies and over 200 individuals participating in various activities, including steering committee meetings, working group sessions, workshops, and trade missions.

Our five working groups – in sector development, supply chain creation, international trade, marketplace development, and demand creation – each completed efforts that contributed to the region's clean hydrogen ecosystem. We also started several projects that will ultimately define the infrastructure required to build out the ecosystem, including holding a grid interconnection workshop and co-producing a hydrogen pipeline regulatory whitepaper.

Building upon our successful trade mission to Europe in 2023, we planned and implemented an international trade mission to Japan and Korea. 25 delegates from 21 Gulf Coast companies participated in the Asian clean hydrogen trade mission which included organizing an industry roundtable in Tokyo and participating in a major international conference in Seoul. The Center signed MOUs with the Japan Hydrogen Association and H2Korea. We also built our relationships in Europe, signing an MOU with the

German Chamber of Commerce and Industry, Germany's largest trade association.

In 2024, we also continued work with Accenture and the Greater Houston Partnership's UpSkill Houston program on clean hydrogen workforce development, creating a framework and a model to provide jobs and career paths in the hydrogen economy for residents of underserved communities.

Much more detail on our clean hydrogen work is included in this report in Appendix A and Appendix B.

Climate and Energy Education

In partnership with Children's Museum Houston and with sponsorship from CenterPoint Energy Foundation and bp, we expanded Driving the Future, our out-of-school enrichment program for students in grades 3-8 to learn about achieving a low-carbon future. In 2024, we offered the program at Galena Park ISD both as part of its summer school enrichment program and an afterschool program at two elementary schools in both spring and fall semesters, directly reaching more than 300 elementary students in 2024.

Health Care and Health Equity

Building on the strong foundation established by our three health care reports since 2020, the Center continues to expand its health care and health equity work. This year, we've broadened our focus to include important emerging topics, particularly the intersection of climate change with health and the transformative potential of artificial intelligence in healthcare. Our ongoing efforts explore opportunities for collaboration among leaders in health care, business, and social services to improve community health and economic well-being in Greater Houston. Through our multifaceted approach, we identify pressing community health issues, actively pursue funding to support health equity initiatives, and conduct ongoing research and coalition building. These endeavors aim to create a more resilient, equitable, and technologically advanced healthcare landscape for all residents of the Greater Houston community.

In 2024, the Center made significant strides in advancing health and health equity, with a particular focus on climate health and artificial intelligence. Our work was bolstered by St. Luke's Health's support of two research papers, further enhancing the depth and credibility of our initiatives.

Climate Change and Healthcare

In April, we released our Climate Change and Health Care Report, which garnered media attention. The report was featured in prominent publications such as the Houston Chronicle, Houston Business Journal, InnovationMap and in an interview on Houston Public Media, broadening its reach and impact. This report delved into the escalating health threats posed by climate change, including heat-related illnesses and mosquito-borne diseases, while outlining critical recommendations for healthcare leaders to address these challenges.

To further explore the implications of our findings, CHF hosted two expert roundtable discussions. These events brought together climate health experts from major local health systems, academic institutions, and national organizations, fostering collaboration and knowledge sharing to enhance community resilience in the face of climate-related health challenges.

AI in Healthcare

Our focus on technological advancements in healthcare culminated in the publication of our AI and Healthcare report in October. This report generated significant interest and spurred a series of follow-up discussions with leaders from healthcare systems, the Texas Medical Center, the Greater Houston Health Collaborative, academia, and biotech startups. These collaborative efforts have laid the groundwork for establishing a medical AI hub in Houston, positioning us as a leader in AI-driven healthcare innovations.

Conference Presentations

CHF's expertise was showcased at two notable conferences:

- At the Texas Heart Institute Cardiometabolic Disease Conference, we presented "An Employer Perspective on Community Health Initiatives," highlighting the crucial role employers play in promoting community health.
- At the HCPC Maternal and Child Health Conference, we delivered a presentation on "Employer Action to Improve Maternal and Child Health," emphasizing the importance of workplace policies and employer led community health initiatives in supporting maternal and child well-being.

CHF continues to demonstrate its commitment to improving health outcomes and promoting equity across Houston's communities. Our work spotlights and catalyzes Houston leadership in pioneering solutions for climate health and healthcare technology, paving the way for a healthier and more resilient future.

Vision 2050

We kicked off Vision 2050 last year, which is an exciting addition to our ongoing work that builds on the Center's long legacy of using scenarios and visioning exercises to guide our work. Vision 2050 will engage with the community to create a long-range plan for the region, starting with identifying key aspirations and areas of concern for the future of the region. Interviews with key Houston leaders in 2024 last year helped to shape this initiative. We begin to assess the landscape to understand what the major issues are, who/what entities are working in the area, and to identify gaps or overlaps in current efforts.

This year, with community input, we intend to select 3-5 high impact initiatives to further explore, in addition to putting a spotlight on areas with work in progress in the community.

Leadership: Business/Civic Leadership Forum

We're not just planning Houston's future; we're cultivating the leaders who will drive it forward. Our leadership development programs identify, train, and support emerging civic and professional leaders committed to Houston's growth. These are the innovators, problem-solvers, and visionaries who will transform our region.

Center for Houston's Future's Business/Civic Leadership Forum has been central to our mission and to our strategy since our founding in 2000. We encourage strong civic leadership by bringing together diverse business and community leaders, informing them about regional issues and giving them the tools and inspiration to get more involved in the community.

About 1,400 Forum alumni have used the program to build social capital and become more informed about regional issues. Through the years we have created a network of community leaders interested in civic engagement: Our alumni have run for public office, served on nonprofit boards, and launched community projects and other initiatives.

The Leadership Forum program has adapted to changing circumstances over time. For example, a significant change occurred in 2020, when, due to COVID-19, we switched to a virtual format and used the opportunity to focus the program on systemic social issues raised by the pandemic, the economy, and heightened awareness of racial injustice. The virtual format allowed us to add more high-profile speakers, and we extended the topic presentations to multiple meetings throughout the forum. In 2023, we returned to a mostly in-person format, regaining the in-person connections as a key element of the program while retaining improvements implemented during the pandemic.

In 2024, we had 50 participants. The session's seven program presenters came from across corporate, nonprofit, and political arenas, including new Greater Houston Partnership President Steve Kean, CHF Board Chair Cindy Yeilding, and subject matter experts such as Baylor College of Medicine's Dr. Andrea Bradford, HETI Vice President Sophia Cunningham, and Collaborative for Children President Dr. Melanie Johnson.

The cohorts completed "Learning Journey" projects on energy transition, workforce, education, housing, public safety, and health care.

The Center also works to expand the reach and impact of the Leadership Forum with alumni engagement activities. In 2024, these included the following:

- <u>Alumni Directory</u>: This year, we unveiled our Leadership Forum Alumni Directory an online platform created to strengthen connections and engagement in the alumni community. The directory provides users with key information such job titles and graduation years, while offering alumni a more detailed view of other's profiles, including personal bios and their Leadership Forum Learning Journeys. This powerful tool is designed to foster meaningful connections, broaden networking opportunities, and promote collaboration within our alumni network.
- <u>Alumni-driven programming</u>: This includes our in-person Alumni Reunions and events cosponsored with other leadership organizations, such as Leadership Houston and American Leadership Forum, that align with the Center's Strategic Initiatives. In 2024, we co-sponsored three events: Bridging and Belonging, featuring Ben McBride; Building a New Table: Leadership and Belonging, featuring Kim Dabbs; and Making Differences Work featuring Dr. Eli Jones, Making Differences Work.

A group of leadership alumni are exploring the creation of an alumni-driven podcast to feature discussions on issues raised in the forum and/or explored in their Learning Journeys. Forum Alumni sit on the Center's Board and provide input on the Center's strategic direction.

Community Engagement

Community engagement is the Center's third area of focus. Knowledge is power, and we're empowering Houstonians. Through town halls, research publications, and interactive forums, we bring critical conversations about our region's future directly to the community. We translate complex urban challenges into accessible dialogue, ensuring every Houstonian can understand and participate in shaping our collective future.

Our high-impact major events have featured nationally recognized speakers like Ford Foundation President Darren Walker, Washington Post publisher Donald Graham, and Pulitzer Prize winners Larry McMurtry and Larry Wright. Over the years, the Center has hosted community events on topics ranging from smart cities, digital inclusion, leadership in times of crisis, resilience, and flooding.

2024 Event Highlights

In 2024, we once again sponsored an energy conference with Greater Houston Partnership, offered a fall version of our Summer Salon programming, and hosted our signature fall Dinner and Conversation.

- <u>Future of Global Energy</u>: The 2024 Future of Global Energy Conference was cohosted by the Center for Houston's Future, the Greater Houston Partnership, and the Houston Energy Transition Initiative in October. It spanned three days and drew about 800 attendees.
- <u>Summer Salon Fall Edition</u>: The Center offered a primer and discussion of Carbon Capture and Storage: A Critical Tool for a Low-Carbon Future. Presented by bp, the discussion featured a short presentation from bp's Chris Walker, followed by a panel discussion with Walker, Ken B. Medlock from Rice University's Baker Institute, Colin Young from DexMat, and John Hall of Houston Advanced Research Center.
- <u>Signature Event</u>: In November, the Center hosted our most successful Dinner and Conversation. Stan Marek was honored with the Eugene H. Vaughan Civic Leadership Award for his lifetime of service. Award-winning author Steven Harrigan and Texas Tribune CEO Sonal Shah engaged in an exciting conversation, "A Texas Talk, Reflecting on the Past, Envisioning the Future." David E. Harvey, Jr., and Joe Cleary, co-chairs of the board of Harvey/Harvey-Cleary, served as event chairs and more than 300 people attended.
- <u>Other Energy Events</u>: The Center hosted hydrogen thought-leadership events at major international energy conferences including CERAWeek and Gastech; convened clean hydrogen stakeholders to discuss Texas power grid gaps and opportunities related to hydrogen, with sponsorship by CenterPoint Energy; co-sponsored a hydrogen-workforce event and co-

sponsored an event to release a national DOE-requested study on advancing the nation's hydrogen market.

• <u>Thought Leadership</u>: The Center continued to exhibit thought leadership by appearing at a range of conferences, panels, and events to discuss climate and energy, leadership, and health equity; appearing in videos; and engaging with traditional and social media. All told, Center staff had more than 25 speaking engagements.

Communications & Marketing

We continue to garner media attention for our initiatives and build our brand and followership.

The Center had almost 30 mentions/interviews in a range of media outlets – local, national, international, trade – mostly on hydrogen and energy transition but also on health, and appeared at more than 25 panels, conferences, and events.

We launched our new website in January of last year, which was created to prominently feature our Strategic Initiatives, Leadership Forum, events, research and more. The site drew nearly 90,000 views from more than 15,000 unique users in 2024.

The Center's social media following grew by over 35% in 2024. We drew more than 5,000 unique visitors to our LinkedIn page and received more than 118,000 impressions on our posts highlighting our work.

CONCLUSION

Our significant accomplishments in 2024 set the stage for continued success and impact in 2025. We continue to help imagine, shape, and create our region's future.

APPENDIX A – 2024 CLEAN HYDROGEN WORK

For 2024, we had 45 companies and over 200 individuals participate in our Clean Hydrogen Steering Committee and its various activities, including our Steering Committee meetings, working group sessions, workshops, and trade missions.

Of particular note, we would like to acknowledge our working group co-chairs: Roman Dzombak, Chendhil Periasamy, Grayson Perry, Abdul-Aziz Rashad, Jeff Simmons and Kirk Waltz. And our trade mission sponsors: ANA, CenterPoint Energy, Doosan, HyAxiom, King and Spalding, Neuventus, Roland Berger and Woodside Energy. We also appreciate the Greater Houston Partnership's support of the Steering Committee and our Asian trade mission.

In addition, CHF has been a key driver, alongside GTI Energy, University of Texas, and other nonprofits, in creating the strategy and vision for the HyVelocity Hub. HyVelocity, which launched in November, will receive a \$1.2 billion grant, the largest in the history of the Department of Energy (DOE). It will form the core of the Gulf Coast clean hydrogen ecosystem.

We have been working extensively together this year to build a Gulf Coast clean hydrogen ecosystem which will not only address climate change but also create global markets and grow our regional economy.

Our vision is that our clean hydrogen efforts will someday be recognized as ranked alongside Houston's other major economic development achievements, like the development of the Houston Ship Channel and the creation of the Johnson Space Center.

Clean Hydrogen Steering Committee – 2024 Accomplishments

<u>Asian Trade Mission</u>: 25 delegates from 21 companies participated in a jam-packed week of activities in Japan and Korea. 100 Japanese companies and government officials participated in a clean hydrogen roundtable in Tokyo and the Center signed an MOU with the Japan Hydrogen Association. We also went on a series of site visits in Japan to see Chiyoda's LOHC project, heard about exciting plans from the cities of Yokohama and Kawasaki, and visited the hydrogen transportation project at the former Olympic village. In Korea, we attended H2Week, a major international conference sponsored by H2Korea, and signed an MOU. We visited four interesting sites outside of Seoul on Thursday, including first-of-a-kind projects in hydrogen power generation and heavy-duty transportation.

Thanks also to our sponsors, HyAxiom/Doosan, Woodside, CenterPoint, King and Spalding, Roland Berger, Neuventus and ANA.

<u>European Hydrogen Work</u>: As a follow-up to our 2023 Trade Mission to Germany, the Center developed a collaboration with the German Chamber of Commerce and Industry (DIHK) to support the DOE/BWMK's Germany-U.S. Climate and Energy Partnership (CEP). Our kickoff meeting was attended by 35 participants from companies in both the U.S. and Germany and then followed with a November meeting led by Dr. Sunita Satyapal, director of DOE's Hydrogen and Fuel Cell Technologies Office, and the BMWK's Dr. Falk Bömeke, division head for Bilateral Climate and Energy Cooperation.

<u>Mexico Twin Cities Project</u>: We were selected last year by the U.S. Department of Energy as a mentor to Nuevo Leon Mexico as part of the DOE's Twin Cities initiative, one of just four international clean hydrogen partnerships sponsored by the DOE.

Hydrogen Infrastructure Development

Last year, the Center started several projects which will ultimately define the infrastructure required to build the Gulf Coast's clean hydrogen ecosystem. We took the following first steps to develop the foundation for that larger effort next year:

- <u>Grid Interconnection Workshop</u>: We hosted a clean hydrogen grid interconnection workshop, sponsored by CenterPoint Energy, to discuss ERCOT and utility grid interconnection policies for clean hydrogen projects. This workshop created a discussion forum for hydrogen-related load growth, infrastructure needs, and strategies to support the region's transition to a clean energy economy. The dialogue among hydrogen developers, industrial users, utilities, and regulators will help to identify challenges and opportunities in building a sustainable hydrogen ecosystem.
- <u>Hydrogen Pipeline Regulatory Whitepaper</u>: Generously written as a <u>pro bono</u> project by the highly respected law firm Steptoe, this whitepaper summarizes issues regarding the existing federal and Texas state regulatory regimes governing the transportation of hydrogen by pipeline. The paper explores potential changes to these regimes, including possible paths to regulation under existing statutory authority and identifies potential hurdles from both governmental and private actor perspectives in four key areas: (1) transportation rates; (2) hydrogen pipeline siting; (3) environmental externalities; and (4) pipeline safety and security.

<u>Steering Committee</u>: The Center hosted four quarterly steering committee meetings which served both to provide updates on market developments as well as provide an opportunity for informal networking. Our Q4 2024 Steering Committee meeting is summarized below:

Our Q4 2024 Steering Committee meeting was attended by 70 members and provided updates on a number of topics: (1) HyVelocity overview; (2) an update by Soaradh Enterprise Partners on Gulf Coast clean hydrogen project development; (3) highlights from our Asian trade mission; (4) overviews of the two infrastructure white papers discussed above; and (5) a review of working group materials.

<u>Working Groups</u>: The Center's five working groups in sector development, supply chain cluster development, international trade, marketplace development, and demand creation, met quarterly and participation averaged over 20 members.

Below is a summary of the conclusions from each of the workgroups:

- Transportation: This working group identified approximately \$200 MM in clean hydrogen mobility
 grants across the Gulf Coast and created a first of a kind forum to bring together players from
 across the value chain to discuss building a vision and framework for clean hydrogen mobility. Key
 takeaways include the need to develop a statewide master plan for hydrogen transportation that
 could help to aggregate demand both in the state but also across the country.
- Supply Chain: Houston's regional competitive advantages in energy manufacturing, such as its scale and high concentration of existing energy manufacturing firms, create significant potential to develop a clean hydrogen manufacturing cluster. At the same time, this work group identified

several concrete actions required to support market development.

- Marketplace Development: We have identified 5 key elements required to build a liquid tradeable market in clean hydrogen, which include creating a standard contract, and open and transparent measurement and verification and development of mechanisms to facilitate the delivery of clean hydrogen across various forms of infrastructure. This year, we encouraged the North American Energy Standards Board and the Association of Energy Negotiators to collaborate on developing standard contracts.
- Demand Creation: We worked to better understand the barriers to switching to clean hydrogen adoption. We also worked with the Hydrogen Demand Initiative on their mechanism to auction \$1 billion to spur demand for clean hydrogen.
- International Trade: As discussed above, our extensive international clean hydrogen project consisted of work in Asia, Europe, and Mexico. We discussed all this work in our Q4 working group meeting.

Public and Media Presence:

This year, CHF appeared at more than 25 conferences, panels, or events, including a major rollout event for the National Petroleum Council's Hydrogen study. This year, the Center has had more than 25 hydrogen media mentions, including a recent national story on NPR's Marketplace. <u>https://www.marketplace.org/2024/12/20/hydrogen-hub-carbon-refining-refinery-houston-clean-energy/</u>

APPENDIX B: Japen/Korea Trade Mission

We conveyed important messages about the Gulf Coast clean hydrogen market, gained knowledge about Japanese and Korean markets and created relationships that prove important to the development of our Gulf Coast clean hydrogen ecosystem.

Key Trade Mission Accomplishments

- Roundtables and Conferences: At a Tokyo roundtable, we had 80 Japanese delegates register for the event, and close to 60 Japanese delegates in attendance. At the H2Korea conference in Seoul, more than 200 attended our reception.
- Cooperative Agreements: Our MOUs with the Japan Hydrogen Association and H2Korea will become the foundation for growing the relationship on clean hydrogen issues between Japan and Korea and the Gulf Coast clean hydrogen ecosystem.
- Deepening Government Relationships: At the roundtable and in separate one-on-one meetings, we developed personal relationships with key Japanese and Korean energy policy makers. As a

result, METI and NEDO have indicated that they will continue to support our work with Japanese industry partners. In Korea, we met key MOTIE officials that will allow us to develop comparable relationships.

- U.S. Government relationships: We developed key relationships with U.S. Embassy staff in both Tokyo and Korea and at the U.S. Departments of Energy and State that will transcend the upcoming change in Administrations.
- Clean Hydrogen Applications: In Japan, we got a small glimpse of practical applications for hydrogen in public transportation, liquid organic hydrogen carriers and at ports that have clear applications for the Gulf Coast market. In Korea, we saw a first-of-a-kind fuel cell power plant using byproduct hydrogen and the world's largest hydrogen liquefaction facility for transportation.