



GETTING TO ZERO: A REGIONAL CLIMATE ROUNDTABLE

Houston, Texas

April 14 – May 5, 2020

Key Takeaways

As part of its [Climate Innovation 2050](#) initiative, the Center for Climate and Energy Solutions (C2ES) convened a virtual roundtable of companies, policymakers, experts and other stakeholders in the Houston/Gulf Coast region. This was the first of four regional roundtables C2ES is organizing this year building on its recent report, [Getting to Zero: A U.S. Climate Agenda](#). The private discussions took place through a series of weekly virtual sessions. Topics included:

- Industrial Competitiveness in a Decarbonizing Economy
- Houston's Mobility Future
- Oil and Gas in a Net-Zero Future

C2ES is grateful to the roundtable speakers and participants. This document summarizes C2ES's key takeaways.

General Takeaways

- Even in the face of the ongoing COVID-19 pandemic, companies continue to recognize the imperative of addressing climate change and are acting accordingly. Pressure from investors, customers and markets, as well as the prospect of new economic opportunities, are all helping to drive action to reduce greenhouse gas emissions and advance low-carbon solutions.
- Leadership and partnerships, both within and between the public and private sectors, will be essential to helping Houston and the rest of the country meet their climate goals. Enabling policies will help companies capitalize on new business opportunities and will be key to leveraging the private capital needed to drive the transition to a carbon-neutral economy. These policies will need to be coordinated across multiple geographies and levels of government.
- Technological innovation will play a vital enabling role as companies that have already succeeded in reducing emissions now move beyond low-hanging fruit to achieve deeper emissions cuts. Policy support is critical and must align incentives to speed development and deployment.

- Ensuring a just transition must be a priority. This includes addressing the needs of historically disadvantaged and vulnerable communities, such as those neighboring industrial facilities; ensuring equitable access to lower-carbon goods and services; and helping displaced workers find meaningful opportunities in a decarbonizing economy.
- There is growing recognition among stakeholders and policymakers of the urgency of climate action and the important role it can play in ensuring the long-term vitality of the region. Initiatives like the city's new Climate Action Plan provide an essential roadmap and are helping to drive collaborative efforts. But stronger political and business leadership are needed to enact and implement the policies needed to achieve long-term climate goals.
- The economic turmoil resulting from the COVID-19 pandemic presents near-term obstacles, but the crisis may provide valuable lessons, and recovery efforts may provide new impetus, for efforts to address the long-term challenge of climate change.

Industrial Competitiveness in a Decarbonizing Economy

- The Houston/Gulf Coast region is an exemplar of the challenges and opportunities facing the industrial sector in a decarbonizing economy. Many in the region's industrial community are working actively to understand the implications and to respond in ways that ensure the region's continued competitiveness.
- Favorable energy markets have generated billions of dollars of investment in the region's industrial base in recent years. These new facilities are state of the art and highly energy efficient. Achieving significant further reductions in the carbon intensity of the region's manufacturing base will require technological advances and policy support.
- Manufacturers are finding new opportunities in providing the materials and goods needed to help decarbonize other sectors of the economy. Examples include materials needed for solar arrays and electric vehicles and to make buildings more energy efficient.
- Industry is responding to increased societal expectations for greater sustainability. Investors now regularly ask companies about their sustainability profiles, as do prospective employees. Companies are increasing their disclosure of climate-related risks but face challenges in meeting the recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD) and would benefit from greater consistency in reporting requirements. In reducing their carbon footprints, companies must prioritize co-benefits such as improving public health in neighboring communities.
- Important technologies to advance decarbonization of the industrial sector include combined heat and power, carbon capture, nuclear energy, hydrogen and alternative sources of process heat.
- In many respects, the region's industrial community is ahead of policymakers in responding to the climate challenge. Smart, consistent policies can help ensure alignment between climate solutions and strong competitiveness. Policies are needed to advance research and development,

provide technical support, improve life-cycle analysis of products, create incentives to deploy new technologies, and drive efficiency improvements in other sectors such as buildings and transportation.

Houston's Mobility Future

- Houston is a car-centric city and suburbanization has lengthened commutes, particularly for lower-income families, contributing to nearly half the city's emissions coming from transportation.
- Efforts to decarbonize the region's transportation system can produce important co-benefits, such as reduced congestion and improved public health through lower NO_x and ozone levels.
- The development of a comprehensive electric vehicle (EV) charging infrastructure plan will be critical to achieve efficiencies, enable commercial opportunities, and mobilize investment. Policy leadership and public-private partnerships that help foster an ecosystem approach will be critical. EVs will help reduce emissions, but there is still a need to reduce vehicle-miles-traveled.
- To play a stronger role, transit needs to be incentivized, safe, and accessible. Recent bond passage will allow Metro to borrow \$3.5 billion to expand the transit system, which will increase accessibility. Transit will not replace cars, but every avoided trip is helpful.
- Incentives like tolling can help influence behavior and fund transportation projects, but revenue must be channeled toward investments in alternative, affordable modes of transportation.
- The surge in walking and biking driven by COVID-19 provides an opportunity to improve our understanding of how people would use bike lanes and sidewalks to get around, and data will provide key insights to help improve planning.
- Policy frameworks – for everything from charging infrastructure to nighttime freight – will be critical enablers for businesses to accelerate the transition to cleaner transportation. The success of these frameworks will require multi-jurisdictional collaboration and the close integration of top-down and bottom-up efforts. The city's Climate Action Plan provides a critical foundation for next steps.

Oil and Gas in a Net-Zero Future

- Multiple factors are driving oil and gas companies to address climate risks and implement strategies to decarbonize their value chains. These include pressure from investors, lenders, insurance markets and customers, as well as the threat of climate change.
- The severe economic disruptions caused by the coronavirus pandemic will preoccupy companies for the immediate future and will likely result in some form of industry shakeout. However, companies will continue to confront the overriding challenge of aligning long-term business

models with the need to decarbonize. The COVID-19 response may offer lessons or even help to accelerate these efforts.

- Increasingly, companies are taking a comprehensive view of carbon emissions across their entire value chain. They are setting overarching carbon reduction goals, tightening emission controls and monitoring throughout their systems, and working with suppliers and customers on opportunities to decarbonize.
- Successful decarbonization requires rapid innovation on multiple fronts. Key technologies and practices to advance include digitalization, hydrogen, carbon capture, direct air capture, nature-based sequestration, and carbon utilization, such as the bioengineered conversion of CO₂ to feedstocks. These pathways offer the potential for new growth opportunities and business models.
- Internally, success requires leadership from the top and close collaboration across departments. It is important to involve everyone from the C-suite to plant operators to make sure they understand the company's climate commitment and have a part in meeting it.
- Externally, success similarly requires close collaboration with a wide array of stakeholders. This includes partnering with neighboring communities to address local concerns and engaging in continuous dialogue with the advocacy community to establish trust and demonstrate results. Transparent, quantified verification of results is essential.
- Success will also require clear, common-sense policies, especially those that put a value on not putting carbon into the atmosphere. Both on their own and through their trade associations, companies will need to show their support for policies enabling an effective and just transition to a net-zero future.