



LOCAL BUSINESS LEADERS MUST LEAD TRANSITION TO LOWER-CARBON WORLD

Houston optimally positioned to champion clean energy for future

by Bobby Tudor | February 2, 2020

The economic vitality and growth of Houston's economy is inextricably tied to the energy industry. We are globally known and revered for being the world capital of this mission-critical industry.

It's a key driver of most everything — including the philanthropy that has given us first class cultural institutions, universities, parks and health care. The wealth generated by the industry has been widely impactful in our city, and we all owe a debt of gratitude to those who have made it all happen.

We must acknowledge, however, that the energy business is changing, and that change is coming at a rapid pace.

Part of this change is coming in response to the consensus among scientists, business leaders and the general public that climate change is a real problem that requires urgent attention from everyone. While I am certainly not a climate scientist, the evidence seems compelling to me that high levels of CO2 emissions are impacting our climate. It's a problem that must be addressed.

And whether you individually agree with that assessment, it's hard to argue that we are not facing a dominant secular trend that has great momentum in the investment world and with the general public, and we must respond in a responsible and rational way.

That said, the demonization of the energy business is hypocritical and just plain wrong. It is not helpful to finding a path to a cleaner future.

At its most basic level, I think we can all agree that having less CO2 emissions in the atmosphere would be a good thing. The trick, of course, is how to do that and at the same time meet the world's energy needs.

To be clear, the traditional oil and gas industry isn't going away anytime soon. This idea may be contested by some, but even the most ardent advocates for an abrupt transition away from fossil fuels will admit it is likely that, absent some unexpected technological breakthrough in battery or other industrial technology, global demand for fossil fuels will continue to grow, peak in the middle of the 2030s, level out and then enter a slow decline. In fact, we will likely be consuming as much oil globally in 2050 as we are today.

Despite what some critics say, energy has been a force for good in the world, helping to elevate the global economy and lift billions around the world out of poverty. In order to avoid massive economic disruption and hardship, especially in the developing world, we will need to continue to produce and consume large amounts of hydrocarbon-based fuels for many decades to come.

According to BP OECD countries accounted for almost two-thirds of global energy demand in 1990; the developing world just one-third. By 2040, energy demand will have more than doubled, and demand will have completely flipped with emerging economies accounting for over two-thirds of demand. Essentially, the demand for affordable, reliable energy will continue to grow as these countries expand their economies and improve the quality of life for their citizens.

At the same time, we must acknowledge that the oil and gas business is not likely to be the same engine for Houston's growth over the next 25 years that it's been for the past 25 years.

The shale revolution of the last decade turned the global oil and gas industry on its head, making the U.S. a net exporter of hydrocarbons; giving the US petrochemical industry a huge feedstock cost advantage and turning Houston into the fastest growing major metro area in the United States.

In short, we became a boom town again. But I have a former boss who used to say, "When something feels too good to be true, it usually is," and sure enough, the shale-driven growth cycle hit a pothole or two.

While we were growing, we became even more efficient. Energy-related employment in Houston peaked in early 2015 and then sharply declined during the oil downturn. We are still 50,000 jobs off the high, yet oil and gas production has continued to grow at a fast rate. We are creating more with less: 40 percent more oil production with 20 percent fewer people. That trend is likely to continue.

So while demand for oil and gas will continue to grow for 10, 15, 20 more years, how do we in Houston plan for a longer term future in which oil and gas demand eventually ceases to grow and employment in the traditional energy industry further declines? And in the face of climate change, what role do Houston companies play in helping meet the dual challenge — meeting global energy demand while lowering the world's carbon footprint?

As Houston business leaders, we have both the opportunity and responsibility to lead the transition to a cleaner, more efficient and more sustainable lower carbon world — and maintain Houston's position as the epicenter of the energy industry.

How do we do this?

We should publicly commit to lowering the carbon emissions in our own businesses. This is something all Houston businesses can do, whether you are an energy company or not. But within energy, committing to lowering methane emissions and drastically reducing the flaring of natural gas is critically important and entirely doable.

Second, we should put our scientific, academic and commercial brains to work to innovate and develop technolo-

gies that address the dual challenge. This can range from smart grid technology to water recycling and reuse, to more sustainable commercial and residential building practices. Major solar and wind companies are already operating from Houston. These innovative companies should be a powerful new engine for growth in our region.

Third, we should leverage our strength in natural gas to accelerate the transition away from coal-fired power generation and towards this cleaner burning fuel. There will not be lower carbon emissions without natural gas being a large part of the solution.

Fourth, we can lead the charge in Carbon Capture Use and Storage (CCUS) technology development, which many experts believe is absolutely necessary if we are to dramatically reduce carbon emissions. Houston has the knowledge, physical infrastructure, and incentive to make this work.

And finally, we can become outspoken leaders in the area of energy efficiency, conservation and sustainability along with building a leading "smart city." Conservation can be hugely impactful in reducing carbon emissions. The City of Houston is already the national leader as far as sourcing its electricity from sustainable sources and The Ion Smart Cities accelerator is already working to build Houston into a leading smart city that extends these efficiency gains across the community.

So, where do we go from here? We should rally our companies, political leaders and fellow residents to position Houston as the city that will lead this energy transition.

The Partnership has been working to identify and attract the key companies across the new energy spectrum to Houston. We are exploring the policy dimensions of CCUS and will work at the state and federal levels to ensure the Texas Gulf Coast is positioned to lead. We are also launching a broader 'Energy Transition' initiative where we will explore the key levers in this evolution and work to ensure Houston is the leader.

Houston is about making things happen, and we can lead this transition to an era of low-cost, reliable and climate-friendly energy. Nowhere else in the world is there such a concentration of talent who understand energy systems and can affect the necessary change.

Let's be the driver, not the passenger. We will get there more quickly; we will make a huge contribution to the future of humanity; and we will ensure that Houston continues to be one of the best places in the world to live, work and build a business.

Tudor is the incoming board chair of the Greater Houston Partnership and chairman of Tudor, Pickering, Holt, and Co. The above is an edited and condensed version of his remarks at the 2020 GHP annual meeting on Jan. 22, 2020.