

What Happens In Texas Moves The World

By Danny Boyd
Special Correspondent

AUSTIN, TX.—Despite headlines that cast a shadow over their industry, members of the Texas Independent Producers & Royalty Owners Association and other industry players are responsible for a historic oil and gas resurgence that is greatly benefitting the country and the state of Texas, association Chairman Eugene Garcia told members at TIPRO's 73rd Annual Convention and Legislative Call-Up, held Feb. 27-28 in Austin.

"We are here to focus on the upstream sector of the industry," he reflected. "This is the engine that has driven the United States to become the largest global oil producer in 2018. According to TIPRO's *State of Energy Report*, production of oil in Texas last year surpassed the previous record set in 1973 at 1.54 billion barrels, an extraordinary achievement and a lot of it is thanks to the people in this room and the companies you represent."

The unconventional oil and gas revolution has pushed U.S. hydrocarbon production to 27.5 million barrels of oil equivalent a day, reported Greg Leveille, chief technology officer at ConocoPhillips. That is more than twice the production of Saudi Arabia and several million barrels of oil equivalent a day better than the world's previous top producer, Russia, he observed. Moreover, he pointed out, "If Texas was its own country, its hydrocarbon production would rank fourth in the world.

"We expect U.S. production to continue to rise, with Texas' output likely to grow to the point where the state will be pro-

ducing more hydrocarbons than the country of Saudi Arabia before the end of the next decade," Leveille related. "Think about how dramatic a change that is, a change that no one anticipated and that frankly, I don't think most Americans have heard about it yet."

A Sizable Prize

The industry's unconventional revolution—made possible by combing hydraulic fracturing and horizontal drilling has resulted in the discovery of enormous volumes of hydrocarbon resources, Lev-

eille said.

At \$50 a barrel of oil and \$3 an Mcf gas, Permian Basin recovery is likely to range between 150 billion and 300 billion boe, which is 10-20 more than the probable ultimate recovery from the Prudhoe Bay Field in Alaska, the United States' largest conventional oil field, Leveille noted.

Considering other significant plays in Texas, the Eagle Ford Shale could yield ultimate recoveries of 20 billion-60 billion boe, he noted, and the natural gas resources in the Barnett Shale are also substantial.

In addition, resources in the Marcellus and Utica shales in the Appalachia Basin are estimated at between 600 trillion cubic feet and 900 Tcf of gas, he said, a volume so great that production has grown to the point that these formations are producing more gas on a daily basis than every country in the planet except for Russia and the United States.

"The volumes of resources the industry has discovered in the last 15 years in the United States likely equals or exceeds the 470 billion boe of oil and natural gas produced in America since the birth of the industry, 160 years ago."

This remarkable result has been enabled by the industry's paradigm switch, Leveille detailed, noting that in 2005, less than 10 percent of all wells were drilled horizontally compared with 90 percent today.

The industry also continues to benefit from numerous technological advancements such as enhanced completion designs, optimized well stacking and spacing patterns and the growing use of refracture stimulation, Leveille pointed out. For example, by using additional proppant and closer spaced perforation clusters, from



U.S. oil production has elevated the country to the world's largest producer of hydrocarbons, without output twice that of Saudi Arabia, observes Greg Leveille, chief technology officer at ConocoPhillips. He indicated that ConocoPhillips' daily production had risen to 335,000 barrels of oil equivalent a day from the Permian Basin, Eagle Ford and Bakken.



Lees Rodionov, president of North America Land for Schlumberger, details innovative partnerships between the company and producers that yield mutually beneficial results.

2012 to 2017 ConocoPhillips accelerated its Eagle Ford recovery from 300,000 boe per well after three years to the same volume in one year's time, he said.

These advancements further the position of the the United States as a global energy powerhouse, Leveille assessed. "In 12-24 months, the United States will become a net exporter of hydrocarbons," he marveled, describing that as an outcome nobody would have believed possible as recently as 10 years ago.

Easing Constraints

While estimates vary, Citi Research believes the United States has at least 8 million barrels a day of crude export capacity, much of it at attractive prices, stated Timm Schneider, managing director of midstream and MLPs at Citi Research.

Although upstream capital expenditures have slipped 5 percent, U.S. oil production is expected to rise 1.5 MMbbl/d in 2019, Schneider forecast. With exports approaching 3 MMbbl/d in early 2019, Lone Star State producers can expect to see the bottleneck in Permian pipeline take-away capacity ease in the second half of 2019 and into 2020, Schneider said.

"This is really the game changer for producers that historically have dealt with pipeline constraints, whereas now it's getting better," he said.

An additional 3 MMbbl/d of Gulf Coast-bound natural gas liquids pipeline capacity is also expected by the end of 2021, but fractionation capacity constraints on the Gulf Coast are expected to remain a bottleneck until 2020, Schneider projected.

Despite Saudi predictions, Citi Research does not envision a global oil

supply gap at \$50-\$60 a barrel, he said, which is the firm's estimated price range during the next four-five years.

Mutual Advantage

Upstream efficiency has exacted a cost from service companies, but Schlumberger is working with operators in search of innovative ways to realize mutual gains, said Lees Rodionov, president of North America Land at Schlumberger.

Efficiencies have doubled initial production rates since 2014 and trimmed well costs by 50 percent in terms of estimated ultimate recovery, she said. But the focus should shift from returns to finding the proper balance between minimizing cost and maximizing production, Rodionov suggested.

While the market outlook is generally positive, she advised, relationships between service companies and producers should change. "Service companies need to raise prices, but commodity prices didn't move in a way that allowed for enough margin across the whole value chain, so we are going to have to do something different," she said.

She cited the example of a relationship between Schlumberger and Occidental Petroleum in New Mexico's portion of the Delaware Basin. According to Rodionov, it was patterned after operator/service company relationships long established in offshore projects, but not seen in U.S. land operations. Under the arrangement, the operator agrees to stay with a service company throughout field development, with agreed-upon rules that dictate pricing changes, she detailed. In the arrangement with Oxy, she illustrated, Schlumberger operates a service facility on Oxy acreage from which the service company also

works for other producers in the region.

The agreement calls for a focus on broader well completion and treatment systems instead of individual offerings, Rodionov described. In a recent investor presentation, Oxy mentioned its expectation to realize between \$500,000 and \$750,000 a well from the partnership, she said.

Abusive Trade Relationship

"If you want to understand the American economy during the last 10-12 years, it is all summarized in four words: shale oil and gas," advised economist, political writer and pundit Stephen Moore. "It has changed everything about the American economy."

Co-author of a new book titled *Trumponomics: Inside the America First Plan to Revive Our Economy*, Moore detailed how the U.S. economy had grown faster during Trump presidency than during the Obama administration. Moore attributed much of that to the Trump administration's embrace of tax cuts, a lighter regulatory hand and pro-America energy policies.

Remarking on the nose dive oil prices took in late 2018, Moore attributed it to an unnecessarily tight money policy at the Federal Reserve under Chairman Jerome Powell. "In my opinion, Powell is a menace to the economy," Moore assessed. "He has gotten this picture completely wrong."

During a deflationary trend, the Fed



Economist, writer and commentator Stephen Moore talks about his book *Trumponomics: Inside the America First Plan to Revive Our Economy*. Less than a month after TIPRO's conference, President Trump appointed Moore to the Federal Reserve Board.

raised interest rates to tighten the money supply, a maneuver typically undertaken to curb inflation, he observed. Higher rates follow as other countries and foreign investors clamor for dollars to invest in the surging U.S. economy, while higher rates reduce the amount of available dollars.

“The Fed should be lowering interest rates, not raising them,” Moore insisted. “It should also be buying bonds rather than selling them to get dollar liquidity.”

Nevertheless, the U.S. labor market is as strong as it has been in 50 years and the nation’s economy is the envy of the world because Trump’s pro-business policies have boosted small business optimism and consumer confidence, he said. Citing a barometer of regulatory easing, Moore noted that, during Trump’s first year in

office, the number of pages in the *Federal Register* decreased 36 percent, in contrast to a 22 percent increase from 2009 to 2017, Moore said.

“That has been a major asset for your industry,” he advised. “There is no other industry in America that liberals hate more than your industry. You know it. We have seen it. They exposed themselves last month when they said they wanted to put oil and coal workers out of their jobs.”

Although higher tariffs on imported steel hurt the industry, Moore acknowledged, Trump’s moves against China were good because of that nation’s own detrimental tariffs. China also effectively steals \$300 billion a year in intellectual property and products, Moore added.

“We are in an abusive trade relationship with the Chinese,” he described. “They cheat. They steal. They lie. They are involved in international espionage. They hack into our computer systems. This is not a friendly power. I think I speak for Trump because I agree with him on this: We should no longer regard China as a friend and ally. The Chinese are an adversary and an enemy and Trump is calling them out on it.”

Meanwhile, he noted, despite environmentalists’ assertions about pollution associated with oil and gas, the last four decades had seen a decline in every type of U.S. emission, he said. Meanwhile, he contrasted, “For every coal plant we shut down in the United States, China builds 20.” □

Texas Seeks To Maintain Prosperity

AUSTIN, TX.—The Texas Independent Producers and Royalty Owners Association heard their state’s leaders pledge to back for legislation this year to repair roads in producing regions and fund technology upgrades at the Texas Railroad Commission while holding the line on taxes for an industry that officials insist is responsible for much of the state’s economic surge.

Texas Governor Gregg Abbott, Speaker of the Texas House of Representatives Dennis Bonnen, R-Angleton, and key legislative committee chairmen each voiced their support of the energy industry while speaking at TIPRO’s 73rd Annual Convention and Legislative Call-Up, held Feb. 27-28 at the Sheraton Hotel at the Capitol in Austin.

The following day, TIPRO members spent the morning meeting with lawmakers and their aides at the Capitol.

Texas Success

During his remarks to TIPRO, Governor Abbott promised to do his part to maintain a fair and balanced regulatory and tax system for the state’s oil and gas producers.

“We need to make sure that the tax burden on our citizens is minimized as much as possible to make sure we maintain this favorable regulatory environment, to make sure we prevent—among other things—misguided local regulations that create a patchwork quilt of complicated regulations like what happened a couple of years ago with the fracturing ban

passed by the city of Denton, Tx.,” recalled the governor. “Know that the state of Texas will remain vigilant to prevent a patchwork quilt of regulations.”

According to the Abbott, the upstream industry plays a major role in Texas’ leading position in exports among all 50 states and in helping the state lead the nation in job creation during both the past year and the past decade. He noted that those developments had given the Lone Star State the country’s lowest unemployment rate.

“We have been able to achieve a remarkable increase in oil and gas production while at the same time, ensuring that we are being more environmentally sensitive,” Abbott reflected.

Despite rising production, emissions of nitrogen oxide, considered a greenhouse gas and a substance in ozone, have plunged 45 percent, the equivalent of eliminating 85 million passenger vehicles, he detailed.

Turning his eyes to Washington, Abbott assured TIPRO that the Green New Deal that had surfaced in Congress (*AOGR*, March 2019, pg. 30) was nothing to fear. He described it as a socialist program with a price tag that topped trillions of dollars. “It shows the way socialism has hijacked the forces of capitalism,” the governor insisted. “Let me tell you, capitalism works, socialism fails. Texas will never be a socialist state.”

Abbott pledged to continue supporting pipeline construction from the Permian



Senator Robert Nichols (left), R-Jacksonville, accepts TIPRO’s Hat’s Off Award from TIPRO Chairman Eugene Garcia. Garcia lauded the chairman of the Senate Transportation Committee and Vice Chair of the Senate Business and Commerce Committee for supporting the oil and gas industry and credited his efforts to improve the transportation infrastructure in the Permian and Eagle Ford areas.

Basin and Eagle Ford regions to Gulf Coast refineries and export terminals, and recounted a letter he penned to President Trump as well as conversations he'd had with the president, Vice President Mike Pence and U.S. Commerce Secretary Wilbur Ross on the challenges associated with tariffs on imported steel.

During the governor's trade mission to India last spring, Abbott recalled an Indian steel company pledged to build a pipe manufacturing plant in Baytown, Tx.

Meanwhile, Abbott also assured Texas producers of his intent to address road maintenance and construction needs in areas including the Permian Basin and Eagle Ford, and said he was working with state lawmakers, the Texas Department

of Transportation and U.S. Department of Transportation, which recently awarded the state \$600 million for roads.

Furthermore, the governor urged TIPRO members to help persuade their congressional representatives to support ratification of the U.S.-Mexico-Canada Agreement trade treaty between the United States, Mexico and Canada. He deemed USMCA a crucial pact for oil and gas producers and the entire state of Texas, which counts Mexico as its top trading partner, and Canada as its second-place one. Abbott insisted that support from all of Texas' congressional delegation would mean ratification, and noted that both U.S. senators John Cornyn, R-Tx., and Ted Cruz, R-Tx., already had pledged their support.

The governor also expressed support for property tax reform that would cap proposed rate hikes at 2.5 percent before an automatic election is triggered. During the past decade, property taxes had increased twice as fast as the combination of inflation and population growth, he indicated. Local officials must be forced to justify tax hikes by showing where additional revenues will be spent, Abbott added. He also suggested that property tax reform should be coupled with school finance reform to improve education.

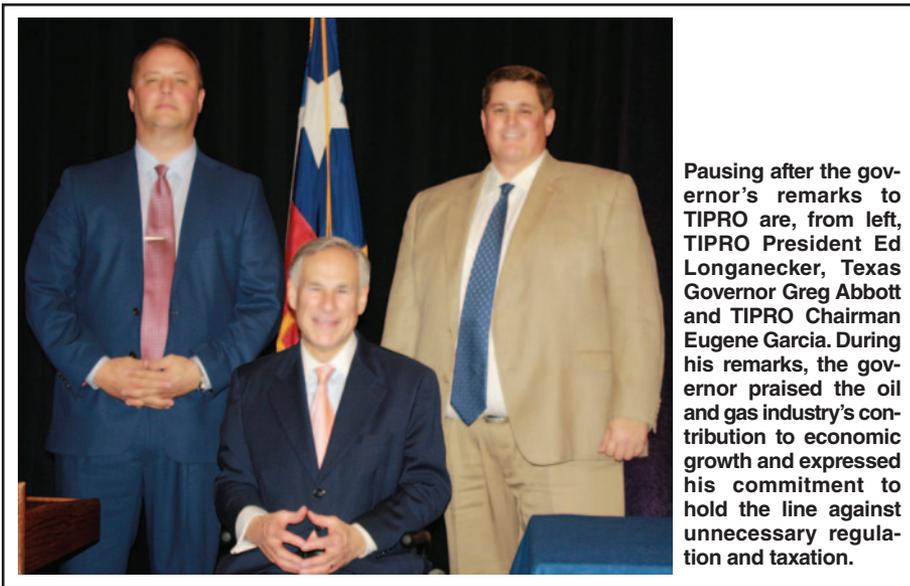
"If we fail in our efforts to contain the growing property taxes in Texas, one of these days we too will be one of those states that businesses flee because it costs too much to do business here," he warned.

Abbott concluded by pondering how



ABOVE: TIPRO Participants pause during the Capitol Call-Up that concluded the 2019 annual meeting. **LEFT:** Engaging in a call-up meeting in the Capitol office of Senator Peter Flores, R-San Antonio, are, from left, Jennifer Coffee, legislative director and general counsel for Senator Flores; J. Tommy Chung, president and chief executive officer of Everhart Energy Technology Inc.; Joshua Pourteau, production analyst with El Ran Inc.; Brett Munkres, engineer drilling and completions for EnerVest Operating LLC; Paula Barnett, senior director of government and public affairs at BP America; and Gil Bujano, regulatory engineering adviser for BPX Energy.





Pausing after the governor's remarks to TIPRO are, from left, TIPRO President Ed Longanecker, Texas Governor Greg Abbott and TIPRO Chairman Eugene Garcia. During his remarks, the governor praised the oil and gas industry's contribution to economic growth and expressed his commitment to hold the line against unnecessary regulation and taxation.

modern oil and gas innovations, which are extensions of historical advances that include the first use of rotary drilling at Spindletop near Beaumont, Tx., more than a century ago, demonstrate Texas' trademark resilience.

"We want you all to succeed," Abbott said. "When the oil and gas industry succeeds, Texas succeeds."

Meeting Needs

Oil and gas industry-induced growth is providing state lawmakers the flexibility to examine educational offerings and consider school finance alternatives, thanks to \$14 billion in statewide revenue from industry severance and property taxes, Speaker Bonnen told TIPRO.

"Energy independence is the greatest issue with which we can revive our country. We are doing that right here in Texas and you are a massive part of that security and energy independence, which is a distinction we will have by next year," Bonnen said.

With three LNG export terminals under construction in Freeport, Tx., talk already has surfaced about adding a fourth, he pointed out. Industry growth, including downstream facilities and expanding LNG exports in his Gulf Coast district, requires lawmakers to consider how to bolster high schools' technical and vocational offerings. Therefore, he reasoned, meeting labor demands may require schools to focus less exclusively on core educational offerings.

"It's not bad to have a vocational and technical education right out of high school that allows you to make a solid living," Bonnen reflected. "It changes the lives of young people in my district to raise them out of poverty and helps them be successful."

Industry growth is driving deliberation

on school finance reform and Bonnen said some lawmakers increasingly were focused on reducing diversion of local funds from oil and gas producing districts to other areas. "It is not good for the industry to have significant dollars swept away from the community in which it is operating," Bonnen assessed.

The Road To Prosperity

Representative Chris Paddie, R-Marshall, chairman of the House Energy Resources Committee, expressed his commitment to working with other legislators on transportation funding to improve roads in producing areas.

"I will advocate this session for increased funding for that infrastructure, specifically for ways to address problems with the roads you guys use every day that are certainly being affected by the activity," Paddie pledged.

With early proposals that include \$500 million for road upgrades, long-term solutions backed by a sustainable source of revenue are necessary to solve the problem, he reasoned.

Texas Railroad Commission funding, including the agency's desire for \$100 million over six years for technology upgrades, also is a major priority for the session, Paddie reported, with about \$9.8 million needed this year.

Despite the price tag, upgrading systems at the RRC will save the agency \$10 million-\$15 million a year in the future, Paddie said. "That's a pretty good investment even at \$100 million, so I am very optimistic that we are going to get it done," he concluded.

Later, TIPRO presented Senator Robert Nichols, R-Jacksonville, chairman of the Senate Transportation Committee and Vice Chair of the Senate Business and Commerce Committee, with its 2019

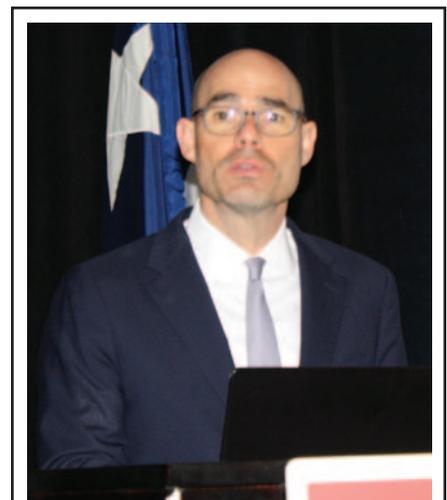
Hat's Off Award for his commitment to helping the state and industry, including the representative's work to improve the state's roadways.

"His ambition to support our industry and help us with transportation infrastructure in the Permian and Eagle Ford is second to none," praised TIPRO Chairman Eugene Garcia during the Chairman's Reception and Dinner.

Nichols recounted his efforts to improve roads in producing areas and pledged to continue the search for solutions this session. Undertakings in the past to assess Eagle Ford area road needs and weigh various proposals that sought to extract the revenue for upgrades from oil and gas companies led Nichols to conclude that the industry already paid its fair share to fix and maintain roadways, he recounted.

"When that well comes into production in that county, that property value increases," he pointed out. "You are paying a large amount to that county. We found that the counties were not spending the money on that road. They kept lowering property taxes—which sounded like a good, Republican approach—but in the meantime they let the infrastructure go to pot."

He recounted passage of Proposition 1 in 2013 for road upgrades and legislation—which was later ruled to be unconstitutional—to set aside funds in energy sector zones. Legislation passed last session to rectify portions of that, and TxDOT created a fund for energy sector roads, with \$1.8 billion currently going to the Permian Basin and funds also earmarked for the Eagle Ford, Nichols said.



Speaker of the Texas House of Representatives Dennis Bonnen, R-Angleton, reviews legislative initiatives that include the possibility of lawmakers setting aside funds for transportation projects in oil and gas producing regions experiencing congestion and deteriorating road conditions.

Updated Plan

Texas Comptroller Glenn Hegar urged TIPRO members to take part in the Texas Conservation Plan that had been created to preserve the dunes sagebrush lizard in the Permian Basin. The document recently was updated to reflect changes made necessary by the development of mines in the region to provide sand for hydraulic fracturing, he said.

“I ask you to participate in the plan,” Hegar advised. “It is critical for us to be able to shore up and make sure we have a strong plan with good participation.”

Hegar pointed to Texas’ position as the world’s 10th largest economy and its 391,000 new jobs in 2018.

“During the last 18 months, it is almost as if we have been through an economic boom in this state,” he said. “Part of that is thanks to your industry.”

He cited as an example the volume of the state’s imports and exports. According to Hegar, that totaled \$650 billion in value, which exceeded that of any other state, and exceeded the combined total of second- and third-place California and Washington State.

Industry Impact

During the final day of TIPRO’s convention, members of the association participated in TIPRO’s Capitol Call-Up.

Equipped with data from TIPRO’s

2019 State of Energy Report, as well as specific oil and natural gas production information for each legislative district, TIPRO members from across the state visited with several dozen legislative offices to reinforce the positive economic contributions of the Texas oil and gas industry and the importance of maintaining a favorable business environment by supporting sound, science-based policies throughout the legislative process.

During the TIPRO Capitol Call-Up, the association notes, members also discussed the importance of supporting a well-funded and functioning regulatory system for oil and natural gas in Texas. □