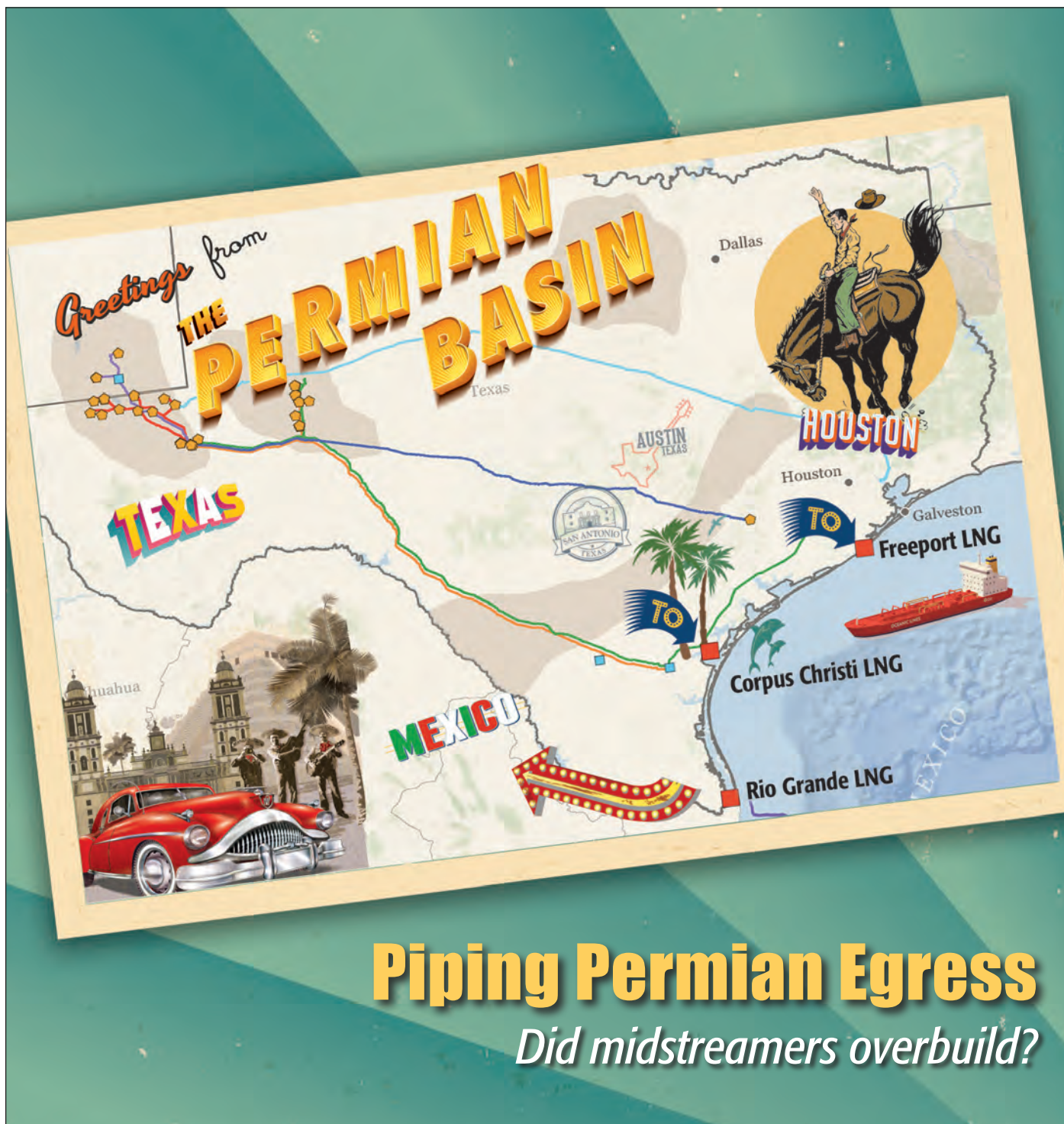


# MIDSTREAM

*Business*



## Piping Permian Egress

*Did midstreamers overbuild?*

This announcement appears as a matter of record only.

Energy Spectrum Capital is pleased to announce the closing of its eighth midstream venture capital fund.



## **ENERGY SPECTRUM PARTNERS VIII LP**

**\$969,000,000**

---

**The Fund provides venture capital to growth-oriented companies that acquire, develop and operate midstream energy assets in North America.**

---

**Peter W. Augustini**

**Alison K. Fischer**

**Chandler A. Phillips**

**James P. Benson**

**Mark S. Honeybone**

**James W. Spann**

**Benjamin H. Davis**

**Michael C. Mayon**

**Thomas O. Whitener, Jr.**

**Energy Spectrum Capital**  
5956 Sherry Lane, Suite 900  
Dallas, TX 75225  
Phone (214) 987-6100  
[www.EnergySpectrum.com](http://www.EnergySpectrum.com)

**April 2020**

**EDITOR-IN-CHIEF**

Steve Toon  
stoon@hartenergy.com

**MANAGING EDITOR**

Brandy Fidler  
bfidler@hartenergy.com

**EXECUTIVE EDITOR-AT-LARGE**

Leslie Haines  
lhaines@hartenergy.com

**GROUP SENIOR EDITOR**

Velda Addison  
vaddison@hartenergy.com

**SENIOR EDITOR**

Darren Barbee  
dbarbee@hartenergy.com

**SENIOR EDITOR**

Joseph Markman  
jmarkman@hartenergy.com

**SENIOR EDITOR**

Brian Walzel  
bwalzel@hartenergy.com

**ACTIVITY EDITOR**

Larry Prado  
lprado@hartenergy.com

**ASSOCIATE EDITORS**

Mary Holcomb, Faiza Rizvi

**EDITOR-AT-LARGE**

Nissa Darbonne  
ndarbonne@hartenergy.com

**DIRECTOR OF VIDEO CONTENT**

Jessica Morales  
jmorales@hartenergy.com

**SENIOR MANAGING EDITOR, PUBLICATIONS**

Ariana Hurtado  
ahurtado@hartenergy.com

**SENIOR MANAGING EDITOR, DIGITAL MEDIA**

Emily Patsy  
epatsy@hartenergy.com

**CREATIVE DIRECTOR**

Alexa Sanders

**PUBLISHER**

Kevin C. Holmes  
kholmes@hartenergy.com | 713-260-4639

**VICE PRESIDENT, SALES**

Darrin West  
dwest@hartenergy.com | 713-260-6449

**DIRECTOR, BUSINESS DEVELOPMENT**

Chantal Hagen  
chagen@hartenergy.com | 713-260-5204

**DIRECTOR, BUSINESS DEVELOPMENT**

Taylor Moser  
tmoser@hartenergy.com | 713-260-4612

**AD MATERIALS COORDINATORS**

Carol Nunez  
Neresa Williamson  
iosubmission@hartenergy.com

## HARTENERGY

EVENTS | MEDIA | RESEARCH | DATA

**EDITORIAL DIRECTOR**

Len Vermillion

**CHIEF FINANCIAL OFFICER**

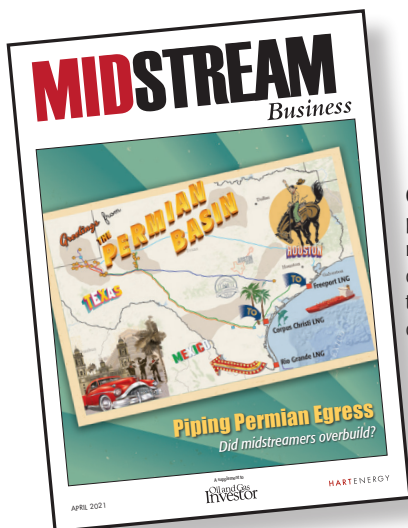
Chris Arndt

**CHIEF EXECUTIVE OFFICER**

Richard A. Eichler

# CONTENTS

<b>News Flow</b> .....	<b>2</b>
<b>Permian Basin Takeaway</b> .....	<b>10</b>
The loss of demand for Permian Basin crude oil collided with the completion of an aggressive campaign to build pipelines, but the story of natural gas balance in the region is unfolding nicely.	
<b>Starting In The Midland Basin</b> .....	<b>18</b>
Pinnacle Midstream founder Greg Sargent is confident in the Permian Basin and the industry's ability to "conform and prosper as we always have" to new conditions and regulations.	
<b>Midstream Contends With A Producer Bankruptcy Wave</b> .....	<b>22</b>
The midstream sector escaped 2020 with no bankruptcies but is struggling with sweeping counterparty risks if existing contracts are thrown out or renegotiated in E&P bankruptcy settlements.	
<b>What Midstream Wants</b> .....	<b>26</b>
Tailwater Capital's premise is that demand for affordable, reliable energy isn't going anywhere. The private equity firm's deals are designed to help supply it.	
<b>The Last Greenfield Pipeline?</b> .....	<b>34</b>
High costs, regulatory hurdles and environmentalist opponents have made it difficult to construct major natural gas pipelines out of Appalachia..	
<b>Permian Pipeliners Push Forward</b> .....	<b>38</b>
Midstream construction projects for November 2020 to March 2021.	
<b>Industry Briefs</b> .....	<b>42</b>



**On the cover:** The Permian Basin became the favored destination of producers over the past few years and production soared. Pipeliners responded with access to new international markets, but global oversupply and COVID-related demand destruction has left Permian takeaway capacity with room to spare. (Images courtesy of Shutterstock.com; Design by Alexa Sanders)



## Energy Transfer to acquire Enable Midstream

Energy Transfer LP agreed on Feb. 17 to acquire Enable Midstream Partners LP in an all-stock deal described as a “bolt-on acquisition” by Energy Transfer as part of a push for natural gas.

“Energy Transfer will further enhance its connectivity to the global LNG market and the growing global demand for natural gas as the world transitions to cleaner power and fuel sources,” the company said in a joint release announcing the transaction.

The all-equity transaction for Enable, valued at about \$7.2 billion including debt, comes weeks after a U.S. appeals court dealt a blow that could shut down the Dakota Access crude pipeline operated by Energy Transfer.

In the Feb. 17 release, Energy Transfer said it expects the acquisition of Enable to generate more than \$100 million of annual run-rate cost and efficiency savings plus immediately add free-cash-flow (FCF) post-distributions.

“Inclusive of the full \$100 million in cost synergies, we see the transaction coming at approximately 6.6x EV/EBITDA which is consistent with ET management’s position that the deal is accretive to both excess FCF and leverage metrics,” analysts with Tudor, Pickering, Holt & Co. (TPH) wrote in a research note.

Based in Oklahoma City, Enable Midstream operates natural gas

gathering and processing assets in the Anadarko Basin in Oklahoma, which Energy Transfer said will significantly strengthen its NGL infrastructure in the Midcontinent region. The acquisition will also provide significant gas gathering and processing assets in the Arkoma Basin across Oklahoma and Arkansas and the Haynesville Shale in East Texas and North Louisiana, the companies said.

Additionally, Energy Transfer expects to integrate Enable’s Anadarko gathering and processing complex with Energy Transfer’s existing NGL transportation and fractionation assets on the U.S. Gulf Coast, which Energy Transfer said could result in significant incremental earnings from potential commercial synergies.

In addition to these synergies, Energy Transfer expects the combination of its infrastructure with the Enable assets will allow “the combined company to pursue additional commercial opportunities,” Energy Transfer said in a joint release.

“While we view increased scale as necessary in the midstream sector, we expect today’s reaction to be mixed as ENBL metrics screen attractively but ET will need to reiterate that M&A is not the only outcome of increased financial flexibility,” TPH analysts said.

The Enable transaction is expected to close in mid-2021.

As part of the deal terms, Enable unitholders will receive 0.8595 of Energy Transfer’s units for each Enable unit.

Enable’s assets include approximately 2.6 Bcf/d of natural gas processing capacity and seven natural gas storage facilities comprising 84.5 Bcf of storage capacity. (Source: Enable Midstream Partners LP)

In addition, each outstanding Enable Series A preferred unit will be exchanged for 0.0265 Series G preferred units of Energy Transfer. The deal also includes a \$10 million cash payment for Enable’s general partner.

The two largest unitholders of Enable—CenterPoint Energy Inc. and OGE Energy Corp.—have entered into support agreements to vote in favor of the merger, which TPH analysts said will provide the transaction with the necessary level of unitholder support needed to proceed.

According to TPH, CenterPoint and OGE Energy own roughly 79.2% of Enable outstanding units.

Citi and RBC Capital Markets are advisers to Energy Transfer and Latham & Watkins LLP is legal counsel. Goldman Sachs & Co. LLC is adviser to Enable while Vinson & Elkins LLP is legal counsel. Intrepid Partners LLC is financial adviser and Richards, Layton & Finger PA is legal counsel to Enable’s conflicts committee. Gibson Dunn advised Intrepid Partners as financial adviser to the conflicts committee of Enable Midstream Partners.

—Emily Patsy

## CERAWeek: Midstream’s got pipe, needs capital

The pipeline sector is primed to transport the cleaner fuels of the future but attracting capital has emerged as a huge challenge because of what was termed the “tobaccification” of the oil and gas industry, members of a North American infrastructure panel said during the recent CERAWeek by IHS Markit virtual conference.

“In terms of equity capital, the markets are severely depressed,” said Peter Bowden, managing director and global head of energy investment banking for Jefferies. “Our view is that most of these companies trade well below where we see intrinsic value.”



TAILWATER  
CAPITAL

FULL  
*immersion*  
INVESTING

INFORMED PARTNERS  
TO HELP YOU CAPITALIZE  
ON WHAT'S COMING IN THE  
ENERGY VALUE CHAIN

150+

YEARS COMBINED  
INVESTING EXPERIENCE

\$3.7B

COMMITTED CAPITAL

40+

PROFESSIONALS

\$20B

TOTAL TRANSACTION  
VALUE



☎ 214.269.1183

🌐 [tailwatercapital.com](http://tailwatercapital.com)

# News Flow

In 2013 through 2015, average equity issuance a year for midstream companies was \$25 billion, Bowden said. In 2018 through 2020, that average nosedived to \$1 billion. MLPs alone were raising about \$4 billion a year in the middle of the last decade. Since 2016, they've raised effectively zero, he said. Oil and gas has become a social and investing pariah, much like the tobacco industry.

"The reality is that the infrastructure companies have made real returns from a shareholder perspective," Bowden said. "It's not a black and white issue—if it's fossil fuels, it's bad; if it's not, it's good. People confuse all aspects of the energy industry with negative impacts to climate which I think is a blanket conclusion and it's just simply not factually accurate."

The conclusion may be simplistic, but it also may be a reflection of an era in which public discourse is not marked by nuance.

"The reality is, these disconnects that we're talking about, this polarization, have real impacts on public companies today," Al Monaco, president and CEO of Enbridge Inc., said. "The good news ... is the value of the pipe we have in the ground is increasing. We haven't seen that reflected yet in equity prices but it's got to get there. You simply can't replicate this pipe in the ground and it's going to be generating cash flow for a very long time."

But in the near term, it could feel to energy executives like capitalism has passed them by.

"The thing that we forget as energy guys is, look at how much money has been made in health care and tech and other sectors," Bowden said. It's not that the buy-side firms and hedge funds abandoned energy because they didn't make money. It's just that there's more money to be made elsewhere.

"Once the 30-person desk focused on energy at the hedge fund becomes a five-person desk or, even worse, a zero-person desk, it no longer matters whether earnings are up and to the right," he said. "You can perform as a business and, recently, it seems like the

public equity markets don't care much."

The response, Monaco said, is for companies to focus on how they allocate capital. First, forget greenfield projects—"those are a huge leap," he said. Instead, prioritize expansions, repurposing and extensions of what the company already has. Then, work from the ground up.

"Before you proceed with a project, you need to establish the value proposition with local communities, regions and cities, in particular," Monaco said. "That's a tough one but it's got to happen."

A solid level of community support is a must along with an ironclad regulatory and permitting application. The days are past when a company could move a project along and spend money with the assumption of getting a fair shake on the regulatory front, he said.

"When you actually evaluate projects today, you need to reflect a higher cost of capital to reflect these risks, there's just no doubt about that," Monaco said. "And that may include carbon price. You've got to have more contingency in your capital cost estimate."

Where the midstream is extremely well-positioned for the energy transition is its national natural gas network of pipelines that can carry hydrogen, as well.

"We see there is a real market in the public's desire for decarbonization and so where there are opportunities to do that in an economically feasible manner, we're certainly doing that," said Alan Armstrong, president and CEO of The Williams Cos. "Our gas pipeline network does allow us to take advantage of excess renewable power."

What is imperative, Armstrong advised, is moving forward now. Williams' goal is a 56% reduction in greenhouse gas emissions in 2030 compared to 2005. While he admitted that he didn't know which technology would propel the company to that point, he noted that neither do most companies that have made those commitments.

"When you talk about net-zero for 2050, we simply have said that the 2030

goal puts us on a trajectory to get there," he said. "If you really are serious about greenhouse-gas emissions reduction and getting there by 2050, you need to be taking advantage of the tools and the technology we have here today and not waiting on a pie in the sky."

If committing to emission reductions by relying on technology that is yet to exist seems nerve-racking, stepping back to devise a path might be a good choice. Enbridge took two years to develop a model based on supply and demand scenarios to pick its options. The Canadian pipeline company's goal is net-zero by 2050 and a 35% reduction in energy intensity by 2030 from 2018 levels. Monaco described four pillars:

- Modernizing assets;
- Using new technology, including predictive analytics to optimize power use;
- Employing solar panels to power pumps and compressors; and
- Using Enbridge's renewables business to provide offsets for use in the rest of the company.

Among the technological challenges is figuring out how to bring hydrogen to a scale in which the cost is comparable to natural gas. At the moment, hydrogen is four to seven times as expensive. It is incompatible with older pipes and requires more compression. On the plus side, Monaco said, hydrogen enjoys plenty of support from the government and along the value chain.

Even if hydrogen causes embrittlement problems with steel pipes, it can still be moved in a blend with natural gas. And as far as the atmosphere is concerned, Armstrong said, burning hydrogen either by itself or with natural gas provides an emissions reduction impact.

"The ability to blend 5% into our national grid is an enormous amount of hydrogen, a lot more than people are talking about, actually," he said. "As an industry, we need to make sure that we are communicating well on that topic and that we're seizing the opportunity on that."

—Joseph Markman



6500 BPD Two Tower Stabilizer

550 GPM Amine Unit



VERITAS  
GAS PROCESSING



VULCAN  
FIELD CONSTRUCTION



VANGUARD  
PROCESSING SOLUTIONS



VIKING  
DEW POINT CONDITIONING

The Jasper Ventures family of companies has been serving the needs of oil and gas industry customers since 1992, and our track record of delivering cost-effective, on-time and efficient solutions speaks for itself. We are an end-to-end turn-key provider who engineers, designs, fabricates, installs, operates and leases a wide variety state-of-the-art modular gas processing solutions.

Please call us at 903-939-1555 x117 to learn more about how we can help you maximize ROI on your next project.

101 Glenda St. | Whitehouse, TX | 75791

JasperVenturesInc.com

Facebook.com/JasperVenturesInc

LinkedIn.com/company/JasperVenturesInc



## Sheffield: Focus remains on Permian Basin flaring

New pipeline takeaway capacity online with more to come is expected to help operators reduce the amount of gas flared in the Permian Basin amid a push by some for tougher environmental controls.

Speaking during a recent energy conference, Pioneer Natural Resources Co. CEO Scott Sheffield briefly addressed emissions during a conversation with Goldman Sachs managing director Brian Singer that covered topics such as production and price forecasts, OPEC and U.S. shale behavior, consolidation, variable dividends and investor relations.

Pioneer, considered a leader among peers for having low emissions intensity rate, aims to eliminate routine flaring by 2025. Other companies, including Occidental Petroleum Corp., have also set ambitious targets to reduce greenhouse-gas emissions.

Levels of flared gas have decreased in recent years in the Permian Basin as some companies have made emission reduction targets a priority, opting to use vapor recovery in operations, emissions monitoring technology to find leaks and making sure infrastructure is in place before bringing a well online among other efforts. The recent slowdown in activity, driven by the coronavirus pandemic impacting demand, has also played a role.

“We’ve gone from 600 million a day flaring to 300 million a day,” Sheffield said of producers in the Permian Basin. “I think with these two new pipelines, it wouldn’t surprise me if we get to 150 million a day.”

The additional pipeline capacity from the Permian Highway Pipeline, Kinder Morgan Inc.’s \$2 billion project that entered full service on Jan. 1, has given operators an alternative to burning or flaring associated gas that comes along with oil being targeted. Designed to transport up to 2.1 Bcf/d of natural gas, the 42-in. pipeline carries gas some 430 miles from the Waha, Texas, area to the U.S. Gulf Coast and Mexico markets.

Kinder Morgan also put into service in 2020 the Lockridge natural gas pipeline.

Plans are progressing for additional infrastructure, which could remove the lack of pipeline capacity being among the chief reasons for flaring in the Permian Basin. Pipelines scheduled to come online in 2021 include Stonepeak Infrastructure Partners’ 2 Bcf/d Whistler Pipeline, and WhiteWater Midstream LLC and MPLX LP’s 1.8 Bcf/d Agua Blanca pipeline system which connects nearly 20 gas processing sites in the Delaware Basin to the Waha hub.

Still, more can be done to improve flaring rates, according to Sheffield.

“We got to have the commissions of both New Mexico and Texas really take charge and put out stricter guidelines,” he said. “We can only do so much.” He noted investors are also helping. They are pressuring companies to become more environmentally conscious by operating cleaner.

Texas regulators took steps toward flaring mitigation efforts in November when the Railroad Commission (RRC) approved changes to a data sheet. It requires companies seeking exceptions to flaring rules to more thoroughly document

Burning excess natural gas at a crude oil storage site is a common practice when gas prices deem it uneconomical to transport the gas to market. (Source: Sean Hannon/Shutterstock.com)

the need to flare gas and provide the RRC accurate information to assess compliance. Companies are required to use the new data sheet in April.

However, more controls could be in store if two bills introduced by Rep. Ron Reynolds in the Texas House eventually become law. HB 896 would require the Texas Commission on Environmental Quality (TCEQ) to devise rules to limit flaring and venting by oil and gas facilities, and HB 897 directs the TCEQ—working with the RRC—to find ways to improve safety and prevent emissions from oil and gas equipment and suggest incentives.

A Rystad Energy study on flaring in the Permian Basin found that:

- Flaring issues are not distributed evenly across the basin. Research covering a five-year period showed, for example, the worst-performing leases contributed 57% of all flaring but only 10% of gross gas production;
- At 56%, event-driven flares—such as midstream outages—are the most common; and
- Flaring intensity could rise above 3.5% if operators resume business-as-usual, surpassing 450 MMcf/d by 2025; however, the RRC’s revised form could lead to more flaring reductions, pushing flaring intensity to around 2.7%.

Rystad, which presented its study during a Baker Institute webinar in December, said it is possible for Permian operators to lower flaring intensity below 2%. Essential to achieving such level is “better collaboration upstream and midstream” with “a combination of better planning, investments and a realignment of incentives to remedy.”

Pioneer, which completed its acquisition of Parsley Energy Inc. on Jan. 12, said the company aims to limit its annual flaring intensity to less than 1%, including Parsley assets by year-end 2022.

—Velda Addison



# COMMITTED TO ENERGY

Many Say They Are, But Actions  
Speak Louder Than Words.



**MORE THAN  
100 YEARS IN THE  
ENERGY INDUSTRY.**



**ONE OF THE LARGEST  
IN-HOUSE PETROLEUM  
ENGINEERING GROUPS.**



**MORE THAN 200 HEDGING  
RELATIONSHIPS ACROSS ALL  
PRODUCING U.S. BASINS.**



**FIVE ENERGY OFFICES TO  
BETTER SERVE OUR CLIENTS.**

DALLAS, DENVER, HOUSTON, OKLAHOMA CITY AND TULSA



**LEAD ARRANGER ON MORE THAN 100  
SYNDICATED COMMERCIAL TRANSACTIONS.**

WITH HALF OF THE TRANSACTIONS BEING ENERGY RELATED

**We're committed to energy. Let us be committed to you.**



**Coy Gallatin | 713.870.0426 | [www.bokfinancial.com](http://www.bokfinancial.com)**

---

## Noble Midstream agrees to Chevron buyout

Noble Midstream LP has agreed to Chevron Corp.'s offer to acquire all shares of Noble Midstream it doesn't already own in an all-stock transaction valued at roughly \$1.32 billion. The U.S. oil major said it had reached the agreement with Noble Midstream on March 5, roughly a month after announcing a slightly smaller offer to buy out the pipeline operator.

Chevron became Noble Midstream's largest customer following its all-stock acquisition of Noble valued at \$13 billion last year. The U.S. oil major cited increased alignment on governance of the Noble Midstream assets as the primary strategic rationale.

"We believe this buy-in transaction is the best solution for all stakeholders, enabling us to simplify the governance structure and capture value in support of our leading positions in the D-J [Denver-Julesburg] and Permian basins," Colin Parfitt, vice president of Chevron Midstream, said in a statement. Parfitt also serves as board chairman of Noble Midstream's general partner.

Noble Midstream is an MLP originally formed by Noble Energy and indirectly majority-owned by Chevron. The company provides crude oil, natural gas and water-related midstream services and owns equity interests in oil pipelines in the D-J Basin in Colorado and the Permian's Delaware Basin in Texas.

Chevron holds a roughly 62.5% stake in Noble Midstream, according to a filing from October.

Under the new agreement, Chevron offered to acquire all 33.925 million publicly held common units representing the LP interests in Noble Midstream not already owned by Chevron and its affiliates in exchange for 0.1393 Chevron shares.

As of the closing price of Chevron stock on March 4, the offer translates to about \$14.56 per Noble Midstream share. Under the original offer, announced in early February, Noble Midstream shareholders would have been paid roughly \$12.47 per share.

The transaction is expected to close

in the second quarter, according to a Chevron release. A subsidiary of Chevron, as the holder of a majority of the outstanding common units, has voted its units to approve the transaction.

The conflicts committee of the Noble Midstream board, comprised entirely of independent directors, unanimously approved the merger following consultation with its independent legal and financial advisers. The merger was subsequently approved by Noble Midstream's board.

Citi is financial adviser to Chevron, and Latham & Watkins LLP is legal adviser, Janney Montgomery Scott is financial adviser, and Baker Botts LLP is legal adviser to the conflicts committee of the Noble Midstream board.

—Emily Patsy

---

## ArcLight buys stake in Kinder Morgan, Brookfield JV

Kinder Morgan Inc. and Brookfield Infrastructure Partners LP agreed to sell a 25% minority interest in jointly owned Natural Gas Pipeline Co. of America LLC (NGPL) to a fund controlled by ArcLight Capital Partners LLC for \$830 million.

NGPL is the largest transporter of natural gas into the high-demand Chicago-area market as well as one of the largest interstate pipeline systems in the country. It is also a major transporter of natural gas to large LNG export facilities and other markets located on the Texas and Louisiana Gulf Coast.

The value of the 25% stake implies an enterprise value of approximately \$5.2 billion for NGPL, which is roughly 11.2 times its 2020 EBITDA, according to a Kinder Morgan company release on Feb. 22.

Analysts with Tudor, Pickering, Holt & Co. (TPH) described the deal's price tag as a "sizeable premium" to recent comparable transactions including last year's roll-up of TC PipeLines by TC Energy Corp. and the acquisition of Dominion Energy Inc.'s gas business by Berkshire Hathaway Inc.

The "valuation premium [is] likely attributable in part to high-quality demand-oriented counterparty list and the pipeline's geographic position serving

the Chicago market with north-south integration to Gulf Coast LNG facilities," the TPH analysts wrote in a Feb. 23 research note.

NGPL has approximately 9,100 miles of pipeline, more than 1 million compression horsepower and 288 Bcf of working natural gas storage. The entity, which has a dedicated management team, is jointly owned by Kinder Morgan and Brookfield Infrastructure Partners.

"Kinder Morgan and Brookfield Infrastructure are pleased to welcome ArcLight into the NGPL joint venture," said Kinder Morgan natural gas pipelines president Tom Martin in a statement. "We believe this investment shows the value of natural gas infrastructure both today and in the decades to come."

The proceeds from the NGPL sale to ArcLight will be shared equally between Kinder Morgan and Brookfield Infrastructure, the company release said.

After paying down "leverage-neutral debt" of about \$170 million, TPH estimates Kinder Morgan will have \$245 million remaining, which the firm expects to be largely allocated to further debt reduction. The analysts also noted the company has highlighted a willingness to repurchase shares contingent on valuation.

"While the transaction's scale limits materiality to KMI, it is positive to see management actively looking for opportunities to realize portfolio value and pull forward cash to allocate toward the balance sheet," the TPH analysts added in the note.

Barclays is exclusive financial adviser to ArcLight and provided a committed debt financing to ArcLight to support the acquisition. Latham & Watkins LLP is legal adviser to ArcLight. RBC Capital Markets is the exclusive financial adviser to NGPL, and King and Spalding is legal adviser.

The transaction was expected to close in the first quarter of 2021.

Upon closing of the transaction, Kinder Morgan and Brookfield Infrastructure will each hold a 37.5% interest in NGPL. Kinder Morgan will continue to operate the pipeline.

—Emily Patsy

**SAVE  
THE  
DATE**

**May 26-27, 2021**

**Shreveport, Louisiana  
Shreveport Convention Center**

***DUG Haynesville will  
be in-person this May!***

CONFERENCE & EXHIBITION

**DUG**  
HAYNESVILLE

**Hart Energy's DUG Haynesville Conference & Exhibition** returns to its standard in-person format **May 26-27, 2021** at the **Shreveport Convention Center!** This hybrid event will provide a comprehensive view of Louisiana's drilling and production activity.

It promises to deliver unsurpassed opportunity to get face-to-face with major players and make valuable business connections.

DUG Haynesville conference sessions and related exhibits historically attract a deep group of qualified professionals.

After a quarantine year, they're eager to network with like-minded peers and colleagues and share the latest industry trends and technology applications. Attendees can expect to walk away with actionable intelligence for planning and managing successful operations.

**For information on attending,  
exhibiting or sponsorship, visit  
[dughaynesville.com](http://dughaynesville.com).**

Presented by:

**HARTENERGY**

Hosted by:

**E+P**  
plus

Oil and Gas  
**Investor**

**MIDSTREAM**  
Business



The Waha gas storage facilities will provide material storage capacities to customers of both the Agua Blanca and Whistler pipelines in the Permian Basin. (Source: Pictured is the construction of the Whistler pipeline by WhiteWater Midstream LLC)

# Permian Basin Takeaway

**The loss of demand for Permian Basin crude oil collided with the completion of an aggressive campaign to build pipelines, but the story of natural gas balance in the region is unfolding nicely.**

*By Joseph Markman, Senior Editor*

**I**n the story of takeaway capacity for the Permian Basin, crude oil pipelines represent Papa Bear—too big, too much capacity for current production. Natural gas pipelines are Baby Bear—just right, i.e., capacity in sync with output (at least for the moment).

And Mama Bear? In this metaphor, the overworked mom is saddled with the “not enough” label. She has been laboring to overcome bottlenecks and transport hydrocarbons to market for so long that she deserves some hibernation time. At least until production ramps up enough to warrant another round of infrastructure overbuilding.

The cyclical nature of the oil and gas business could buttress the argument that “overbuild” is just another term for “ahead of its time.” What cannot be argued is that, in 2021, oil pipeline projects in service and on the way offer considerably more capacity than production can fill.

“Production is probably going to stay flat at best this year,” Peter Fasullo, principal at EnVantage Inc., told *Midstream Business*. “The reason why so much crude takeaway was built is because everybody was anticipating the growth would continue. I think what’s going to happen is, there’s going to be a real fight for market share over time.”

Fasullo estimates that oil pipeline takeaway utilization in the Permian is less than 60%. That figure comes from subtracting production from capacity, then subtracting the volume of crude delivered to local refineries. Historically, the lion’s share of Permian production headed to the Cushing, Okla., oil storage hub. Then the unconventional revolution came to town.

#### **Houston vs. Corpus Christi**

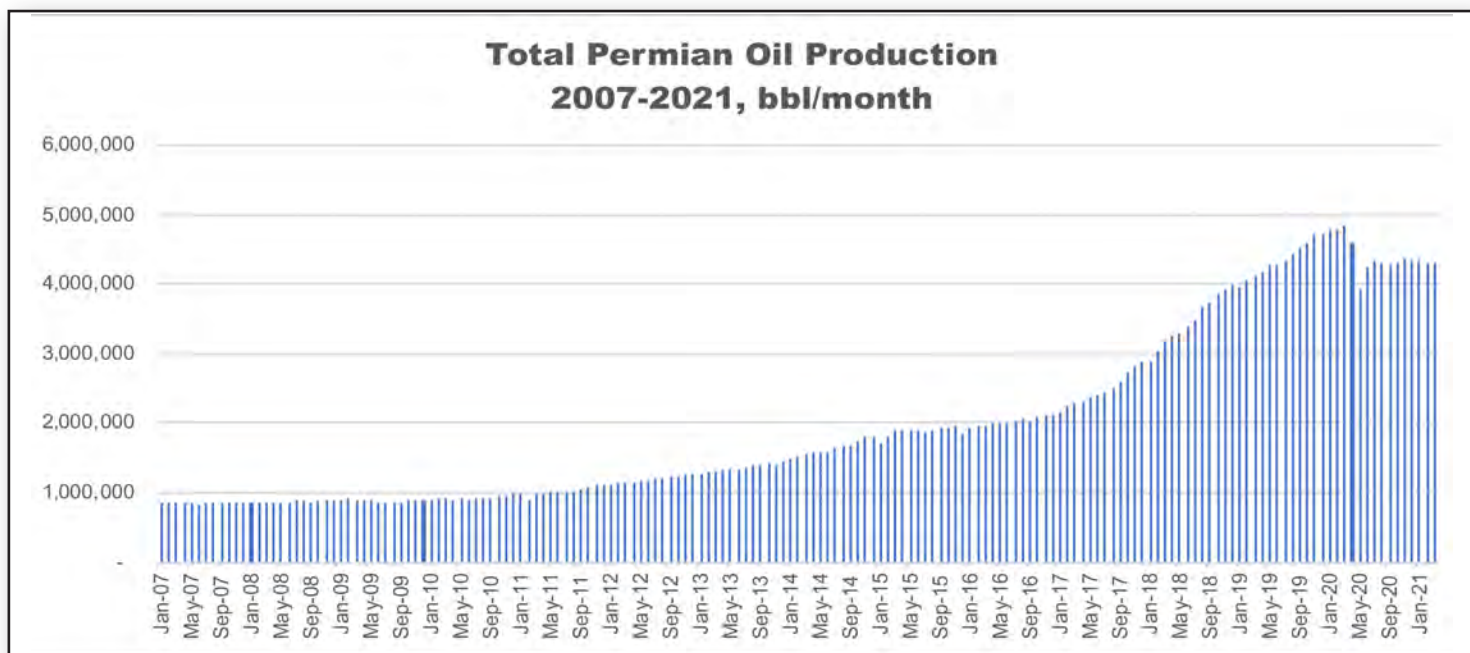
The Permian’s meteoric rise in production in the past decade roused the midstream into a buildout frenzy. Basin oil production passed 1 million barrels (MMbbl) per month

in May 2011, according to Energy Information Administration data. It would take more than five years to crack 2 MMbbl in July 2016. Only 19 months later, production topped 3 MMbbl in February 2018 and just 12 months later, in February 2019, Permian production eclipsed 4 MMbbl. Production peaked at 4.85 MMbbl in March 2020, just as the COVID-19 pandemic kneecapped the global economy and energy demand plummeted. Even so, Permian production since that time has only dipped below 4 MMbbl per month once, in May 2020. Production in February 2021 was about 4.3 MMbbl.



“The reason why so much crude takeaway was built is because everybody was anticipating the growth would continue. I think what’s going to happen is, there’s going to be a real fight for market share over time.”

—Peter Fasullo  
Principal  
EnVantage Inc.



(Source: U.S. Energy Information Administration)

“In 2015, ’16, ’17, we were operating well over 90% of capacity on the crude takeaway situation,” Fasullo said. “That’s what spurred a lot of people to say, ‘Hey, we need more pipe if the Permian’s going to continue to grow.’ And they did their job. They put more pipe in, and the problem is, it’s just too much right now given where production is ending up.”

As pipeline companies scrambled to build and keep up with ever-greater volumes coming out of the basin, two primary targets emerged as destinations on the Gulf Coast: Houston and Corpus Christi.

The Port of Corpus Christi offered less congestion and is closer to deep water than the Port of Houston, allowing it to handle larger tankers. It’s also cheaper to transport oil to the smaller port.

“However, Corpus lacks the optionality you have in the Houston area where you can network with more pipelines. You get more refinery capacity in the greater Houston area, and you’ve got more storage,” Fasullo said. There is also a slightly higher price to be gained at Houston, he said. “It’s kind of like going to Grand Central Station versus going to just a regional terminal.”

But the battle over moving scarce oil is not just between ports. Pipeline operators are also fiercely defending

their market share while seeking to poach volumes off of competitors’ pipes, especially volumes that belong to the strongest producers. Even those

producers that were not in the best financial shape may be able to score a better deal by switching to a different pipeline, Fasullo said, but the larger,



The *MT Nordic Apollo*, a Suezmax-size crude oil tanker, makes its way through the Houston Ship Channel at the Port of Houston. The port offers more optionality to pipeline operators than its rival down the Texas Gulf Coast, the Port of Corpus Christi. (Source: Port of Houston Authority)

more stable E&Ps can count on being wooed the most. If and when the producers switch, their oil will probably be headed to Houston.

“I think [pipelines] going to the Houston area will have an advantage over the long run over those going through the Corpus area if production stays fairly flat for a while,” he said.

### Gas status

“Right now, we are adequately piped for natural gas evacuation from the Permian,” Terry Ciliske, principal at EnVantage, told *Midstream Business*. That is partly due to wintertime demand. “By summer, we should have excess capacity.”

The game-changer is Kinder Morgan Inc.’s Permian Highway Pipeline, which went into commercial service in January. The 430-mile, 42-in. pipe delivers natural gas from the Waha hub to Katy, Texas area, with connections to the U.S. Gulf Coast and Mexico markets with a capacity of 2.1 billion cubic feet per day (Bcf/d). Kinder, EagleClaw Midstream and Altus Midstream each own a 26.6% interest in the line, with Kinder as operator. The remaining share is held by a shipper.

Permian Highway is fully subscribed under 10-year agreements. There are seven committed shippers, East Daley Capital Advisors said in a recent East Daley Midstream Navigator report. Most of the committed capacity is taken up by original partners Apache Corp., EagleClaw and Exxon Mobil Corp. Other Permian producers likely make up the rest of the list, East Daley said.

“The agreements likely offer producer counterparties a fixed Gulf Coast price discount, effectively eliminating spread risk for KMI,” the analysts said.

Sometime around mid-year, Ciliske expects the Whistler Pipeline to come online. The project is a joint venture of WhiteWater Midstream LLC, MPLX LP, West Texas Gas Inc. and Stonepeak Infrastructure Partners and will be able to move up to 2 Bcf/d from the Permian to the Agua Dulce hub southwest of Corpus Christi. Also on the plus side, he said, are infrastructure completions in Mexico, enhancing the amount of

gas that can be transported from the Permian to northwestern Mexico.

“All these changes have taken the pressure off pricing in the Permian,” Ciliske said. “Natural gas basis has improved considerably, such that there are relatively tight differentials between Waha, for example, and other parts of Texas.”

Rig counts are starting to move up again but that trend is oil-driven, and the numbers are still well below the peaks of the past two to three years. In late February, the U.S. total count was just under 400 rigs, or about half the count of a year earlier. Still, it was well above the record low of 244 in August 2020. That means, he said, that declines in oil and gas production are likely to have bottomed out. Production growth during the next two years is expected to be modest.

EnVantage projects a Permian production increase of 1.5 Bcf/d to 2 Bcf/d by year-end 2022 from current levels.

“We’ve just started up a 2 Bcf pipeline,” Ciliske said. “We’re getting ready to start up another 2 Bcf/d pipeline, so there should be more than adequate capacity to handle the growth of natural gas over the next couple of years.”

The projection relies on some presumptions:

- Volumes of gas heading east and to California remain within norms of recent years;
- Exports to Mexico continue to increase modestly; and
- There continues to be adequate demand on the Permian’s older pipelines and its three new ones—Kinder’s Permian Highway and Gulf Coast Express, and the consortium’s Whistler—to absorb the volume.

“Now, what could be happening is that there is a competition on the eastern end of those new pipes vis-à-vis gas that’s sourced off of the interstates that have been bringing gas in from points East, whether it’s from the Marcellus or the Haynesville,” he said. “So, there may be some gas-on-gas competition in the region between Agua Dulce and Katy, Texas.”

### Where will it go?

There are a lot of moving molecules in this market. Much of the increased

production has been absorbed by two new LNG facilities on the Gulf Coast—Freeport LNG (15 mtpa capacity) and Cheniere Corpus Christi (15 mtpa capacity when the third train goes into service), both of which went into service in 2019. The startup of TC Energy Corp.’s Sur de Texas–Tuxpan Pipeline, which moves gas from near Brownsville, Texas, below the Gulf of Mexico to power plants in Altamira, Tamaulipas and Tuxpan in the Mexican state of Veracruz.

The 478-mile Sur de Texas–Tuxpan has a nameplate capacity of 2.6 Bcf/d but has been flowing in the range of 600 MMcf/d to 800 MMcf/d in recent months because infrastructure construction has lagged on the tail end of the pipe.

“Theoretically, if the infrastructure and the demand in central/southern Mexico can be adequately piped and the demand is there, there is sufficient capacity to move incrementally roughly about 1 Bcf/d of gas south of the border, which would help alleviate some of this gas-on-gas competition in South Texas,” Ciliske said.

In the near term, LNG demand in the Gulf Coast region has topped out. Freeport and Cheniere Corpus Christi can handle between 4 Bcf/d and 4.5 Bcf/d at peak, but that demand is met now, before Whistler goes into service. Assuming there is sufficient gas to fill up Whistler, gas-on-gas competition could intensify during the shoulder months.

Longer term, continued drilling and growth in the Permian beyond 2022 would support new pipeline projects aimed toward the Gulf Coast. If modest demand growth continues in Mexico, the existing systems would be better utilized, he said, and additional volumes could start flowing on Sur de Texas–Tuxpan to help absorb any additional growth out of the Permian. But the key word regarding growth expectations remains “modest.”

“At the growth rates that we’re looking at right now, based on rig counts etc., we would not anticipate that additional gas capacity out of the Permian would be necessary prior to about 2024,” Ciliske said.

If more gas pipeline capacity is added too soon, it could create gas-on-gas competition between West Texas and eastern-sourced gas (from Appalachia) and result in a short-term price weakness. Whether that happens depends to some extent on how the second round of LNG export terminals shakes out. As terminals come online, they will provide demand for higher volumes of gas—that is, if they are built. In late January, NextDecade Corp. scrapped its Galveston Bay LNG site in Texas City, Texas, citing the potential for prolonged uncertainty over whether it would be able to proceed with construction. In fact, it would have taken a literal act of Congress to allow for the environmental development of the site.

NextDecade's Rio Grande LNG, in late-stage development at the Port of Brownsville, Texas, will definitely move forward, the company said. But even that project's status has raised eyebrows. In November, French gas and power utility Engie SA withdrew from its \$7 billion deal to purchase LNG from the terminal under pressure from the French government over climate concerns. The deal breaker was the feedstock natural



**“Capacity is going to a good, valued market as opposed to taking the route in which it would have to compete with Canadian gas and Rockies gas in the Midwest. That was the least desirable path for Permian gas.”**

**—Terry Ciliske**  
Principal  
EnVantage Inc.

gas that was extracted via fracking and the methane emissions that accompany it. As new trains come online (or not) at existing facilities in the region, the demand scenario could experience other shifts. But those factors really don't come into play until 2024. For now, Permian gas takeaway is in Baby Bear status. This is as good as it gets.

“It's the best news the Permian has seen in a number of years with regard to capacity,” Ciliske said. “And capacity is going to a good, valued market as opposed to taking the route in which it

would have to compete with Canadian gas and Rockies gas in the Midwest. That was the least desirable path for Permian gas.”

### **More discipline**

Downcycles have led customarily to upcycles in the oil patch when a glut depressed prices so much that demand naturally increased. Soon, increased production would fill up the formerly overbuilt pipeline system, and the “capacity constraint” mantra would be heard again. And it very well might happen that way again. And it might not.



**The Cushing, Okla., oil hub is still a major destination for Permian Basin crude. (Source: TC Energy Corp.)**



“The nature of the business has changed to some degree to where producers are going to have more discipline,” Fasullo said. “In the past, say, prior to 2020, the main goal was, in a lot of cases, increased volumes.”

For some, generating those larger volumes led to high debt situations and insufficient returns to satisfy investors. Then the COVID-19 pandemic crashed the global economy, resulting in mergers, bankruptcies and a beleaguered E&P sector licking its wounds. Even among those making a living off the celebrated rock of the Permian Basin.

“Just because prices go up, you may not see the type of runaway production that we had prior to 2020, where you just had a huge increase in production taking place,” he said. “I mean, the rock is very good, but I think it’s just going to be produced in a more disciplined way.”

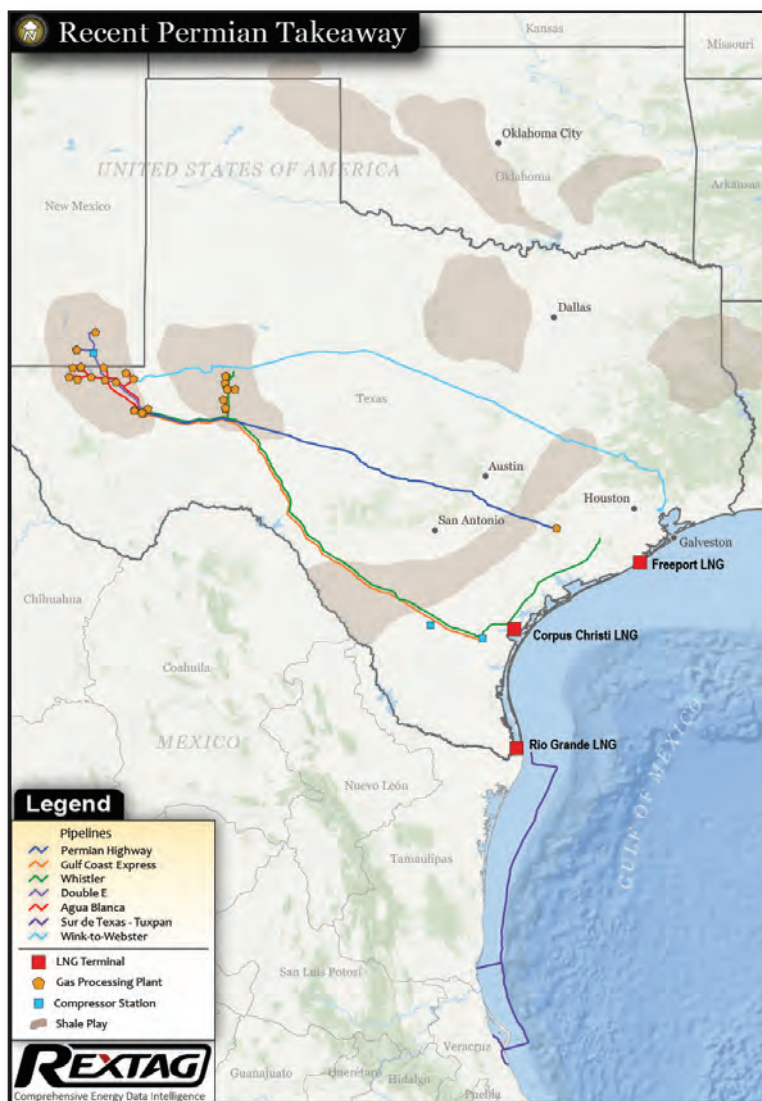
Fasullo expects production to grow again but growing oil pipeline infrastructure may take a bit longer.

“The problem is, we put a lot of capacity in the ground,” he said. “So, if you’re operating at less than 60% now, it’s just going to take time for things to get back.”

Fasullo estimates that Permian oil takeaway capacity is well above 7.6 MMbbl/d but production is only at about 4.2 MMbbl/d. The volume that goes to local refineries could total 300,000 bbl to 350,000 bbl. The rest goes into the pipes. The situation is the same for NGL. There is takeaway and fractionation capacity aplenty, which forces fights over market share.

“In a sort of ironic way, our NGL production is flat at best right now, but demand for our NGL is extremely high,” he said. “We’re exporting record amounts but the problem is, we’re having to draw down inventories to supply that international pull for LPGs. And so that’s creating a squeeze.”

The last time the propane supply was as low in number of days was in 2014, the winter of the polar vortex. But that was weather driven, Fasullo said. The market tightness now is internationally driven, although the Presidents Day freeze in Texas drove the price of propane over \$1 a gallon. Still, he said, that’s not enough



to convince a producer in the Permian to drill for crude to make money on propane.

### Wolf at the door

Back to the bears. They’re at home, strategizing about how to get by until Papa Bear’s oil pipeline overcapacity can be balanced by production growth without developing the kinds of takeaway constraints that will stress out Mama Bear again. Suddenly, the big, bad regulatory wolf appears at the door and threatens to blow their house down. Different story altogether? Actually, the essence is quite relevant so just bear with it.

“If the Trump administration had continued, you would have thought, ‘OK, maybe this industry is going to rebound,’” Fasullo said. “We knew the Biden administration was going to be tough on traditional energy. The

cancellation of [KXL] however, this may be the first of many things to come.”

It may not be the feared ban on fracking, but more regulations or actions along those lines could constrain E&P efforts going forward, he said, even if the economics warrant expanding production. Fasullo is aware of predictions that constraints on U.S. production will tighten oil supplies and bolster prices but he has his doubts. There is, after all, the reality that OPEC is holding back production of about 7 MMbbl/d.

“I’m trying to think of what could actually just catalyze production upward in a big way, and I can’t come up with a reason for it,” he said. “Over the next couple of years, at least, production is going to stay flat, or it may actually drop a little bit.” ■

# HART ENERGY

## Conferences

You should know the steps we're taking to safeguard health in our venues as we prep relevant programs to help get our industry moving. From increased sanitation and social distancing to touchless registration and catering, safety for speakers, attendees and exhibitors remains foremost in our minds.

In surveys, our attendees always cite two principle benefits from business conferences. They value *programming* – the topics addressed, by whom, and “lessons learned” – and they value *networking* – collaborative interactions with fellow professionals. Our goal is to inspire new business ideas and opportunities for every participant in any of our events.

Months of physical isolation taught all of us to work remotely, yet we value the unique benefits of face-to-face communication, whether virtual or “live” at appropriate distance. Connections between human beings propel the beating heart of business.

***Please keep the opportunities shown here top-of-mind in planning your own 2021 calendars.***



VIEW EVENTS

VIRTUAL CONFERENCE



March 25, 2021

VIRTUAL CONFERENCE



March 31, 2021

IN PERSON

CONFERENCE & EXHIBITION



May 26-27, 2021  
Shreveport, Louisiana  
Shreveport  
Convention Center

IN PERSON



June 2, 2021  
Houston, Texas  
Omni, Houston

IN PERSON



June 8-10, 2021  
Pittsburgh, Pennsylvania  
David L. Lawrence  
Convention Center

*We invite you to participate in Hart Energy's 2021 conferences and events. We're planning a potent mix of VIRTUAL, IN-PERSON and "HYBRID" experiences to deliver maximum value for you and your business.*

New in  
2021

**July 12-14, 2021**

Fort Worth, Texas  
Fort Worth  
Convention Center



**Sept. 8, 2021**



**Sept. 28-29, 2021**

Dallas, Texas  
Fairmont Hotel - Dallas



**Nov. 3-4, 2021**

Midland, Texas  
Midland County  
Horseshoe Arena



**Water Management**  
Virtual Conference  
May 19, 2021

**Energy Transition**  
Virtual Conference  
June 3, 2021

**Carbon Management**  
Virtual Conference  
August 25, 2021

**Minerals Forum**  
with A&D Conference  
September 28, 2021

**Digitalization in Energy**  
Virtual Conference  
October 6, 2021

**Natural Gas & Hydrogen**  
Virtual Conference  
November 10, 2021

*For more information, visit*  
**HartEnergyConferences.com**

# *The* Interview



The Pinnacle Dos Picos gathering system in the Midland Basin is on schedule and expected in service by the start of the second quarter. (Source: Pinnacle Midstream II)



**J. Greg Sargent**  
*CEO, Pinnacle Midstream II*

# Starting in the Midland Basin

**Pinnacle Midstream founder Greg Sargent is confident in the Permian Basin and the industry's ability to “conform and prosper as we always have” to new conditions and regulations.**

*By Gregory DL Morris*

**I**n mid-December, Houston-based Pinnacle Midstream II announced plans to build a new gas gathering and compression system in the Midland Basin, the “Dos Picos” gathering system. The gas gathering system will initially serve Midland, Martin and Glasscock counties in Texas with more than 50 miles of primarily 16-in., low- and high-pressure main lines and compression facilities. It will also provide producers in-basin processing and delivery options to multiple markets. The system is due to be in full service around the end of March, and some molecules are already moving.

DoublePoint Energy LLC will serve as the anchor customer under a 15-year gathering, processing and purchase agreement. Pinnacle is backed by Dallas-based private equity firm Energy Spectrum and funds from management.

Pinnacle's CEO, J. Greg Sargent, recently spoke with Midstream Business on the progress of the company's operations.

**MIDSTREAM BUSINESS: When the Dos Picos System was announced, the plan was to have it in service in the second quarter. Is it on schedule?**

**SARGENT:** We are on schedule. Some gas is already moving on a limited basis, and we believe we will be ready to go by the end of the first quarter, or perhaps a little bit into April. The credit for our being on time, despite the pandemic and the terrible weather, goes to our great internal team and to our contractors. They did a fabulous job of planning, mobilizing and executing within an extremely tight timeline.

We also did a lot of up-front engineering and land work, allowing us to start construction quickly. It has been a fantastic working partnership among Pinnacle, DoublePoint and our contractors. Everyone has really helped with things like right-of-way, equipment, materials and personnel.

**MIDSTREAM BUSINESS: This is not your first rodeo.**

**SARGENT:** Pinnacle II is my third company. Before Pinnacle I, I founded TransTex Gas Services. That gave me the ability to begin my relationship with many different PE [private equity] firms [in advance of forming Pinnacle II]. I have to say that the midstream sector is in good shape because we have so many quality PE firms that know the business. We decided to go with Energy Spectrum, in part because they are very patient. We reconstituted the company in April 2019 with the intent of developing midstream assets in the Permian or in the Eagle Ford. We did extensive research along the way to ensure that we are good custodians of our investment capital and partners.

**MIDSTREAM BUSINESS: Did that lead you to DoublePoint?**

**SARGENT:** Eventually. The process is a bit of a chicken-and-egg situation. Producers won't talk to anyone who does not already have backing, but the private equity providers want to know you have customers lined up. That said, there is an understanding that PE firms are going to

support your G&A for a year or two. That is the common model in the industry.

This business is all about relationships, reputations, integrity and timing. It's not six degrees of separation in the oil patch, it's just two. Our business development group knew people at DoublePoint, and they ultimately needed midstream services. What they liked about our team is that we performed a lot of up-front engineering and materials acquisition and started to work with landowners prior to the execution of the overall deal.

**“This business is all about relationships, reputations, integrity and timing. It's not six degrees of separation in the oil patch, it's just two.”**

**MIDSTREAM BUSINESS: Had DoublePoint built out at all from its wells?**

**SARGENT:** They are a pad drilling operation with tank batteries on site. We are laying up to the tanks. DoublePoint is a world-class producer. They are very active and very well funded. The Midland Basin has the best reserves in the U.S. and in deciding to develop there, we saw a lack of midstream services. We will definitely seek other customers as we continue to expand our operational footprint.

The whole paradigm has changed in the Midland area in that producers have migrated more to a pad drilling mentality that allows for more efficient use of drilling capital and above-ground facilities. That has led to eight to 12 wells being tied into one battery, and the need for larger and more robust midstream assets to handle the concentrated supply. The pipe must be able to gather and compress the supply efficiently to move into a processing plant or market.

**MIDSTREAM BUSINESS: Do you plan to build your own gas processing plant, or take advantage of the existing capacity in the area?**

**SARGENT:** At this point we are taking advantage of the existing gas processing in the area. When we feel we can underwrite a plant we will have those discussions.

**MIDSTREAM BUSINESS: Your corporate presentation mentions water. Is that an active line of development?**

**SARGENT:** We are not actively looking to develop water systems alone. Under a greenfield situation we would be happy to include water if it included a gas and/or crude component to complement the investment.

**MIDSTREAM BUSINESS: Was Pinnacle I also in the Permian Basin?**

**SARGENT:** I started Pinnacle I in December 2014 with the support of BP Energy Partners out of Dallas to develop midstream in Culberson and Reeves counties of the Delaware Basin. The Sierra Grande System eventually grew to include about 100 miles of crude and gas lines and a 60 million cubic feet per day cryogenic gas processing plant. We ultimately sold it to EagleClaw Midstream in November 2018.

After the divestiture to EagleClaw, the Pinnacle I management team stayed intact after the customary transitional period post divestiture—chief financial officer Jason Tanous, chief operating officer Michael Hillerman and chief commercial officer Drew Ward. We had not known each other before the inception of Pinnacle I, but we liked one another from the start.

**MIDSTREAM BUSINESS: How did you form your team?**

**SARGENT:** When I started Pinnacle I it was just me and Hal Guttery who did business development and was an office manager. I met and was able to

recruit Jason Tanous who came from PSI Midstream to be our CFO. He had a great understanding of both PE and banking. That took a load off me.

Pinnacle I was involved with both crude gathering as well as gas gathering, which are two very different things. It's rare to find an operational person with experience and understanding in both. But Mike Hillerman, also formerly PSI, had significant experience with developing and operating gas and crude oil facilities.

Then when Hal left I recruited Drew Ward. He has tremendous experience at such a young age. He's one of those guys who can smell a deal.

**MIDSTREAM BUSINESS: How is your relationship with Energy Spectrum?**

**SARGENT:** Excellent. They definitely want to know what's going on, which is fairly typical in this space. They come in and listen and give advice if we ask but are not actively involved in day-to-day operations. Overall, they are mostly hands-off and trust their teams to be prudent business operators and good custodians of investment capital. Because they have other teams and operations in the region, they understand the production potential of the underlying rock, can quickly understand challenges and opportunities associated with costs and available resources, and can help connect us with other teams to gain valuable insight and lessons learned. We truly appreciate the partnership mentality and experience they bring to the table.

**MIDSTREAM BUSINESS: What is their exit strategy? Or rather long-term strategy, considering that the traditional hard exit to a public entity does not seem to be mandatory for PE any more. We've seen where firms will raise a new fund, or otherwise recapitalize a portfolio operation.**

**SARGENT:** Funds definitely still have a fixed life, and at the end of that



Pictured is the installation of Dos Picos equipment this past winter. "The Midland Basin has the best reserves in the U.S. and, in deciding to develop there, we saw a lack of midstream services," said Sargent. (Source: Pinnacle Midstream II)

the portfolio operations have to be transacted somehow. We are just focused on our current development and then further growth. We are going to be aggressive and find other customers. We believe we can be a long-term player, especially as we are in the middle of the best proven and repeatable reservoirs in the U.S.

**MIDSTREAM BUSINESS: Did the winter storm in February that pounded Texas and Oklahoma affect your thinking about design or the operation of your new system?**

**SARGENT:** We do design our systems for cold weather, and we were down because of the electricity constraints which in turn caused a shortage of system supply. Still, we are reviewing operations in light of the storm.

For midstream operations, what stands out [in the recent storm] is that so many roads were closed. Freeze-offs are not unusual. But if the roads are closed you can't get someone to the site. So, it's important to have people in the area. We also know that the storm was hard on our people at home.

**MIDSTREAM BUSINESS: What is your outlook for the new regulatory environment and the growth of renewable energy?**

**SARGENT:** Renewable energy and traditional energy are all part of the

economy. We need it all. I say let's put this or that preference aside and develop it all. Oil and gas are going to be needed for many years to come.

We also believe that the regulatory environment will get more difficult, but that actually may be good for us. We strive to develop our system in a sustainable way that pays close attention to our environmental, social and governance responsibilities. We will try to implement new ideas and strategies that help us to be good stewards of our resources and the environment, as well as be good partners with our communities. As new regulations are promulgated we will conform, and we will prosper as we always have.

**MIDSTREAM BUSINESS: How did you get your start in the oil and gas industry?**

**SARGENT:** I grew up in Borger, Texas, where Phillips has a big refinery. [Today a 50:50 joint venture with Cenovus Energy.] I started as a roustabout at a very young age and have always been fond of the oil field. I got a scholarship to Texas Tech in mechanical engineering, and worked at the refinery summers.

I graduated in 1982, which was a very difficult time in the industry, so it took me some time to get on my feet. I started with the Tri-Star Energy in Dallas, then Stellar Energy in Houston. After Stellar [was] sold I worked at Hanover installing turn-key compressor stations and processing plants worldwide. I then started TransTex Gas Services in 2006 and sold it in 2011. ■



# Midstream Contends With A Producer Bankruptcy Wave

**The midstream sector escaped 2020 with no bankruptcies but is struggling with sweeping counterparty risks if existing contracts are thrown out or renegotiated in E&P bankruptcy settlements.**

*By East Daley Capital*

**T**he 2020 market downturn has precipitated the third, and in some respects the worst, bankruptcy event to rock the oil and gas sector in the past five years. A total of 41 energy companies with \$56.3 billion in combined debt entered Chapter 11 in 2020, according to data from law firm Haynes and Boone LLP and East Daley Capital's research.

East Daley's accounting of the year's

bankruptcies is comprised entirely of E&P companies. COVID-19-related market disruptions in the March-to-June period caused unprecedented volatility, including negative oil prices in April, and sparked the latest industry bankruptcy wave.

Boom-and-bust cycles also are shorter than ever, reflecting both high leverage in the upstream space and the potential for rapid supply growth and oversupply

from shale development.

The midstream sector will exit 2020 with no bankrupt names but far from unscathed, contending with the collateral uncertainty of counterparty and rate risks owing to the many upstream bankruptcies in Chapter 11 litigation.

Midstream providers lose out when contracts with producers are not honored or rates are negotiated down



## Top 10 E&P Bankruptcies, by Debt Level

Company	Filing Date	Basins	Top 4 G&P Counterparties	Debt (B\$)
Chesapeake Energy	28-Jun	Northeast, ArkLaTex, Eagle Ford, Anadarko	WMB, UGI, EPD, KMI	\$ 11.80
Ultra Petroleum	14-May	Green River	EPD, WMB, MPLX, XOM	\$ 5.56
Unit Petroleum	22-May	Anadarko, ArkLaTex, Eagle Ford	UNT, ENBL, DCP, ET	\$ 4.81
Whiting Petroleum	1-Apr	Bakken, DJ	OKE, MPLX, HESM, WLL	\$ 3.57
Chaparral Energy	16-Aug	Anadarko	ENLC, TRGP, ENBL, Mustang	\$ 3.54
Gulfport Energy	13-Nov	Northeast, Anadarko	MPLX, EQM, Woodford Express, SMLP	\$ 2.54
Extraction Oil & Gas	14-Jun	DJ	DCP, WMB, WES, Rimrock	\$ 2.52
Denbury Resources	30-Jul	Eagle Ford, Bakken, Powder River	SXE, ET, KMI, WES	\$ 2.50
Oasis Petroleum	30-Sep	Bakken, Permian	OMP, OKE, TRGP, HESM	\$ 2.27
Sable Permian Resources	25-Jun	Permian	Cogent, TRGP, WTG South, ET	\$ 1.43
<b>Total (10 Companies)</b>				<b>\$ 40.53</b>
<b>2020 Total (40 Companies)</b>				<b>\$ 56.25</b>

Source: Haynes and Boone Bankruptcy Monitor, Bloomberg, East Daley Research

in settlements. Owners of gathering and processing (G&P) assets are particularly exposed if financially moribund E&Ps slow future drilling and their volume contributions decline.

East Daley identified Williams Cos. Inc. (WMB) by quite a distance as the midstream name with the most throughput on its G&P systems from bankrupt E&Ps. WMB gathered and processed 3.4 Bcf/d in second-quarter 2020 from producers that declared bankruptcy this year, or about 26% of company-wide G&P volumes. Enterprise Products Partners LP (EPD), the company with the next-largest volume exposure, gathered 0.5 Bcf/d, or 4% of company volumes from bankrupt E&Ps. WMB's extensive business with Chesapeake Energy Corp. (CHK) is the primary reason for its high counterparty exposure. UGI Corp. and Oasis Midstream Partners LP (OMP) own small systems with over 50% exposure to bankrupt E&Ps. UGI gathers for CHK in the Northeast, and OMP gathers for bankrupt parent Oasis Petroleum Inc. (OAS) in the Bakken Shale. Other midstream companies with notable G&P system exposure to bankruptcies include DCP Midstream Partners LP (DCP), MPLX and Energy Transfer (ET).

In this report, East Daley identified which midstream names have been most exposed to counterparty bankruptcy risks. The firm also investigated prior oil and gas industry bankruptcy waves to better understand the long-term performance effects to drilling activity once E&Ps exit the Chapter 11 process.

While midstream operators have gone through cycles before, the latest pandemic-fueled crash creates different challenges caused by the size and scale of several large drillers that entered Chapter 11.

### **COVID-19-related market disruptions in the March-to-June period caused unprecedented volatility, including negative oil prices in April, and sparked the latest industry bankruptcy wave.**

#### **This time is different—less volume, but more debt**

The three bankruptcy waves in the past half-decade had different sources and impacts on the oil and gas sector. WTI in 2015 to 2016 fell from over \$60/bbl to \$32/bbl on oversupply, marking the end of the growth-at-all-cost era for shale. The second wave, in late 2018, was short-lived following a \$20 swing lower in oil prices, spurred by an unexpectedly lenient stance from President Donald Trump on Iran sanctions. The latest wave has been driven by lower demand, a result of pandemic shut-ins in

response to COVID-19 that forced economies to shut down and has curtailed transportation demand. Each of these crashes led to spikes in the number of bankruptcy declarations in the oil and gas sector.

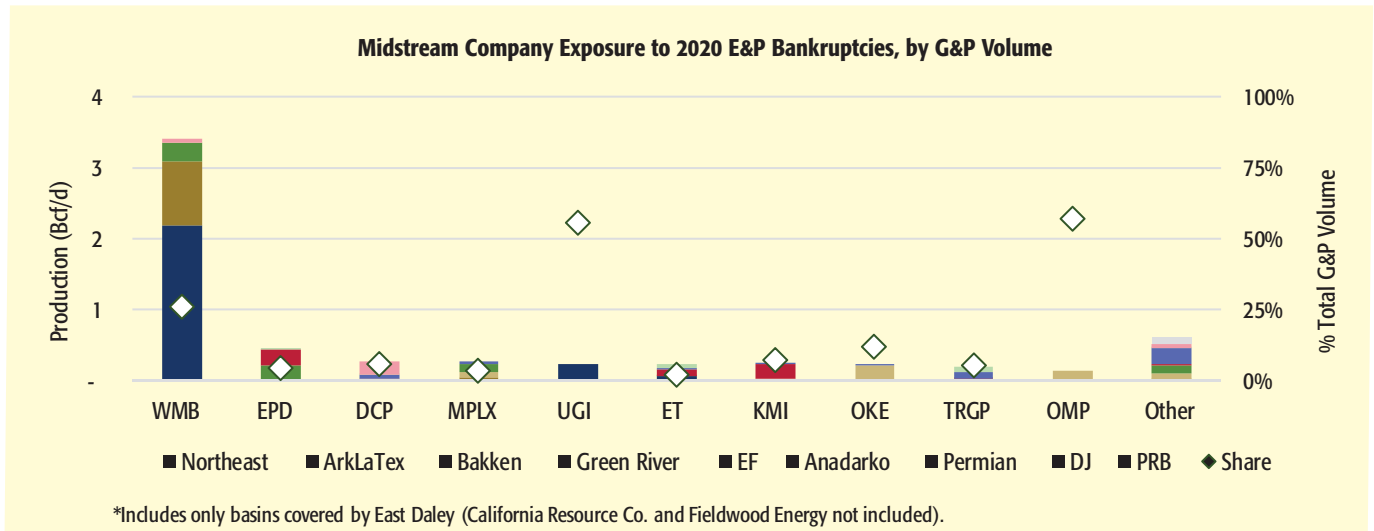
The crash of 2015 to 2016 was historic due to the number of companies entering Chapter 11 reorganization and the amount of debt defaulted on. Producers large and small took advantage of low interest rates to lever up and grow production as fast as possible, in the process outrunning cash flows.

Many companies were unable to adjust and bring their breakeven costs down when WTI fell below \$40/bbl, caught in basins that were only economical when oil was priced at \$80/bbl. The 2018 to 2019 crash saw another spike in bankruptcies, but the dollar value of the debt was minimal, indicating it wiped out mostly small industry players.

The latest crash of 2020 is different, driven by lower demand rather than excess supply. The types of companies that filed for bankruptcy are also different. While the number of companies declaring bankruptcy is about 50% fewer than in the 2015 to 2016 cycle, the total value of defaulted debt is almost the same. The 2015 to 2016 crash forced many smaller producers into default, but the largest producers were able to navigate that downturn by selling assets and/or restructuring debt.

CHK is the most prominent of these highly leveraged E&Ps, as well as California

## 2020 Bankrupt E&P Production by G&P and Basin, 2Q 2020 Data

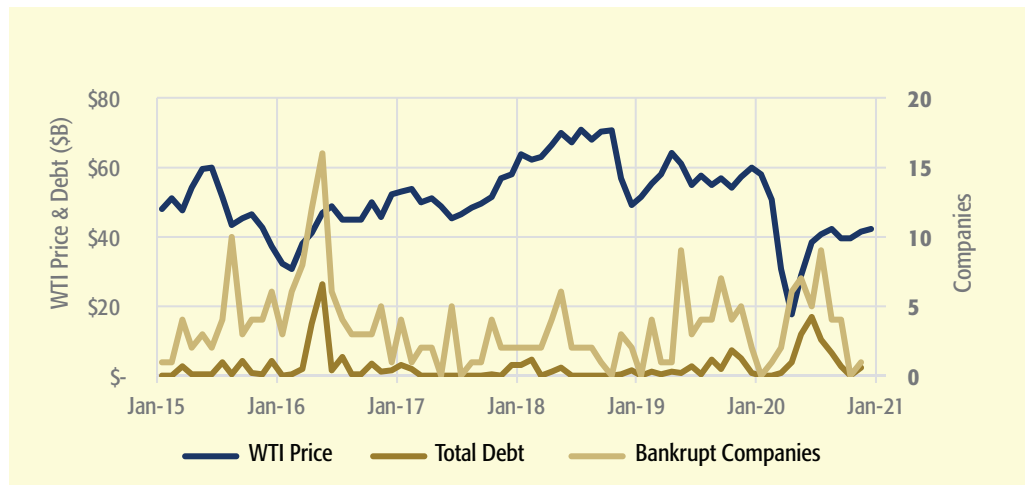


Source: East Daley G&P Allocation Tool

### E&P Bankruptcies

Resources Corp. (CRC), Whiting Petroleum Corp. (WLL) and OAS. These companies could not escape the 2020 crash, which saw WTI crude turn negative for the first time ever. With no demand recovery in sight until a COVID-19 vaccine is widely available, the damage is not likely done.

In addition to these bigger names, 2020 saw two “Chapter 22” repeats, Ultra Petroleum Corp. and Chaparral Energy Inc., which declared bankruptcy between 2015 to 2016 and entered Chapter 11 again in 2020. The resulting effect is larger bankruptcies, as most of the smaller E&Ps had already been wiped out or previously consolidated.



Source: Haynes and Boone Bankruptcy Monitor, East Daley Research

### The hangover effect of E&P bankruptcies

East Daley examined pre- and post-bankruptcy drilling activity for the 42 largest E&P bankruptcies since 2015 by the amount of debt in default. These 42 bankruptcies comprise about 80% of the total debt restructured through Chapter 11.

Eleven E&P reorganizations were excluded that were either repeat bankruptcies, involved significant international operations, or resulted in transformative acquisitions or dispositions to the company. East Daley’s sample of E&P bankruptcies have operations across the Lower 48, representing samples in all major

producing areas. By reviewing each E&P, we determined the total number of wells drilled by the company as a function of time. We normalized each company’s well count vs. time relationship by setting time 0 at the date of the bankruptcy filing. We also normalized each company’s portfolio, setting the well count at the time of its bankruptcy filing (t=0) as the baseline.

East Daley found that most E&Ps add very few wells to their portfolios once exiting bankruptcy. Well counts on average are only 1% higher for producers in the three years following a bankruptcy filing. One outlier, Penn Virginia Corp., stood out for rapidly expanding its drilling program



**With no demand recovery in sight until a COVID-19 vaccine is widely available, the damage is not likely done.**



1.5 years after entering bankruptcy filing, but post-bankruptcy activity otherwise was moribund in the sample. This is ominous for future growth expectations for midstream companies that serve now-bankrupt counterparties.

E&Ps that declared bankruptcy in 2020 accounted for about 6% of 2018 rig activity, but their share dropped to 2% currently. Except for WMB (buoyed by CHK's rigs), nearly every other G&P operator has lost rigs. The report concluded that unless assets are sold off or consolidated, midstream operators will see little to no recovery from these bankrupt E&Ps.

**The impact**

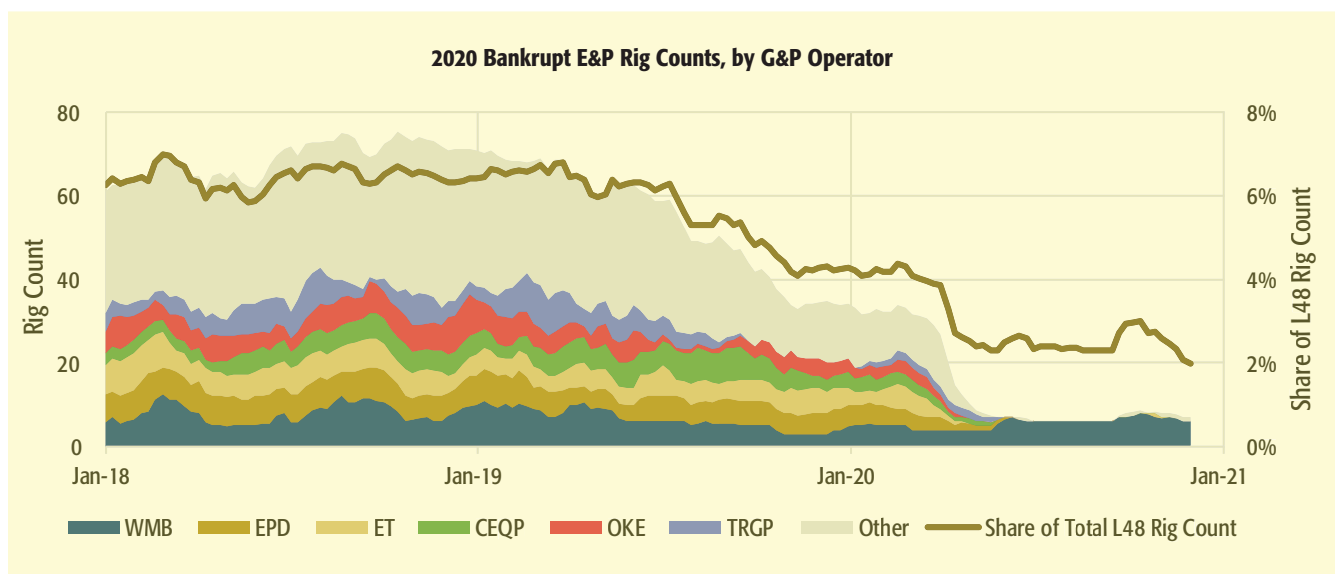
In conclusion, the 2020 crash has been marked by a significant number of E&Ps filing for bankruptcy. While the number of companies in bankruptcy is lower, this year is on par with 2016 for the most distressed debt in default because of the large size of several bankrupt companies. The analysis shows that with few exceptions, E&Ps do not recover and restart drilling even three years after filing for Chapter 11. Bankruptcy may solve for E&Ps' solvency problems, but it is not an elixir to jumpstart capital investing.

Given that about 6% of 2018 rigs were operated by producers that eventually

went bankrupt in 2020, midstream companies should not expect a rebound in drilling and development from these counterparties. E&P bankruptcies impact nearly the whole midstream sector, especially those with significant G&P assets. While WMB has lowered its exposure to CHK since 2016, it still collects most of CHK's gas production, and individual systems and assets remain highly exposed to the company. Other midstream companies also face risks akin to WMB and its CHK exposure.

The overall EBITDA impact should be manageable for midstream companies with diverse portfolios, but impacts will vary by system and company. ■

**Figure 7: 2020 Bankrupt E&P Rig Count by G&P Operator (DrillingInfo, East Daley Research)**



Source: DrillingInfo, East Daley Research



# What Midstream Wants

**Tailwater Capital's premise is that demand for affordable, reliable energy isn't going anywhere. The private equity firm's deals are designed to help supply it.**

*By Darren Barbee, Senior Editor*

**J**ason Downie, co-founder and managing partner of Dallas-based Tailwater Capital LLC, has a take on the irresistible topic of the weather—and specifically one of the coldest and deadliest winter storms Texas has seen in decades: Solve it.

In mid-February, temperatures in the state averaged just 11.8 degrees Fahrenheit, caused by an “Arctic air insurgence.” With power knocked out

for millions, Texans were left cold, miserable and uncertain. The storm even claimed more than four dozen lives. Downie and his team want to help challenge and solve the state's power generation shortcomings to prevent this from happening again.

“I hope people view this event as a nonpartisan issue, asking, ‘What really was the root of the problem here?’ The root cause is you can't have large percentages of renewables on your

grid without real redundancy from nonintermittent, reliable energy sources until we have cost-effective battery efficiency to provide the redundancy for renewable fuel sources.”

Downie's perspective on the need for reliable natural gas can be seen firsthand in Tailwater's most recent flurry of transactions: the acquisitions of Tall Oak Midstream II and III in January, as well as NorTex Midstream Partners LLC in February. [At press time, Tailwater



Crisscrossing more than 750 miles, Tall Oak II's Midcontinent assets include low- and high-pressure gathering lines across eight Oklahoma counties. Tall Oak III consists of more than 320 miles. (Source: Tall Oak)

announced another deal to buy Redcliff Midstream with gas gathering, treating and processing services in Oklahoma's STACK play.]

And these deals are just a precursor to what he sees as an active year in the midstream space.

**NorTex Midstream:  
Positioning near growth**

Tailwater's announcement to acquire NorTex, a Houston-based natural gas storage and transportation company with storage assets that serve the North Texas market and Tailwater's second announcement of the New Year, came just as Texas was warming up from its Arctic deep freeze and at the end of extended and widespread power outages.

NorTex's two storage facilities connect with several major pipeline systems serving the North Texas energy markets with natural gas sourced from the Permian Basin, the Barnett Shale and Oklahoma's SCOOP/STACK plays.

Founded in 2007, NorTex operates the largest portfolio of non-utility gas storage facilities in North Texas including 36 Bcf of depleted reservoir working gas capacity, 83 miles of natural gas transportation pipelines and the Tolar Hub—the largest natural gas hub in North Texas. NorTex's storage facilities have served the Dallas-Fort Worth market for nearly 60 years.

While wellhead freeze offs created production shutdowns in the field when temperatures dropped below zero, Downie explained that NorTex's facilities were able to maintain operations during that time. "The NorTex storage facilities delivered gas reliably throughout the entire weather event," he said. "It is possible to have storage work effectively even in extremely low temperatures, as long as you have a comprehensive plan and are prepared."

Tailwater said the NorTex facilities are positioned alongside a high-

growth population center that will be reliant on increased amounts of natural gas to sustain reliable power. As more intermittent, renewable power sources are added to the electrical grid, "thermal generation will be critical to deliver power at a moment's notice," Downie said.

The Texas Demographic Center's 2019 projections called for the state's population centers, including suburban counties surrounding Dallas-Fort Worth, Houston, San Antonio and Austin, to more than double their populations by 2050.

"We think storage serving large growing demographic markets like Dallas or Houston or even San Antonio and Austin make sense," he added. "But it can be Atlanta or Florida. You've just got to have the right geographic and geologic areas for gas storage. And so, for us, why leave Texas? We've got it right here. We know this market really well, and this same thesis could carry into other markets."

## Anatomy of a Deal

The combination of Texas' rapid population growth and its expected increase in intermittent renewable power generation will not always mesh well. Natural gas will play a pivotal role in filling the gaps where renewable power isn't quite enough. For natural gas to continue playing a major role, however, there will need to be more storage.

"You're going to need to have access to functioning storage sites near your markets to support the power generation and, quite frankly, the industrial and residential uses of gas as well," he said.

### Tall Oak Midstream: Match made in Oklahoma

Ryan D. Lewellyn, president, CEO and founding partner of Tall Oak Midstream, recalled running into the management team of Oklahoma City-based Connect Midstream at a local restaurant in 2017 on what was probably their first day in business. He wished them well, with little foresight that their portfolios would soon become one.

Connect, a Tailwater portfolio company, launched with a \$150 million equity commitment. Since, it built a position of more than 170,000 net dedicated acres in the Arkoma STACK play, constructed a 220 MMcf/d cryogenic processing facility in Coal County, Okla., and seven gas compression facilities, and added more than 180-miles of high- and low-pressure pipelines.

As fate would have it, the operations were adjacent to Tall Oak's. They even shared an offload agreement. "So there definitely was familiarity," said Lewellyn.

Tall Oak III, formed in 2017 with an initial equity commitment of up to \$200 million from EnCap Flatrock Midstream, operates more than 120 miles of low-pressure and high-pressure pipelines in the Arkoma Basin as well as the Panther Creek Plant, a 200 MMscf/d RSV technology processing plant that moves processed gas to MarkWest's Arkoma Connector. Tall Oak II's assets include some 750 miles of gathering lines across eight counties in the Northwest STACK Extension in Oklahoma.

Tailwater subsequently acquired Tall Oak III from EnCap Flatrock and, separately, a majority of assets of Tall Oak II. As part of the transaction, the Tall Oak management team joined Tailwater to operate the combined assets in the Arkoma as well as Tall Oak II's assets.

However, a combination of assets from separate private equity firms was complex, according to Tailwater's Downie. "Whenever you're negotiating with a sophisticated counterparty, it can be a challenge. It was a very well negotiated transaction, and I think both counterparties did a good job of representing their fiduciaries and getting what they needed. It was not easy."

The deal fit two puzzle pieces together perfectly.

"We built our team and our assets around operating those assets long term," he said. "So, we see a lot of synergies when we look at third parties, because we believe we can operate those assets very efficiently."

The deal was especially tantalizing because of Tailwater's interest in



Tailwater Capital's courtship of Tall Oak Midstream II and III from EnCap Flatrock Midstream lasted nine months. (Source: Tall Oak)



Tall Oak's assets will be run in conjunction with those of Tailwater's portfolio company, Connect Midstream, which serves the same geographic region and grew up around the same time. (Source: Tall Oak)

continuing to expand in the basin, which has largely been upstaged by the flash and cash of other basins, particularly the Permian. These transactions position Tall Oak for long-term Arkoma STACK consolidation, he said—which attracted Tall Oak's Lewellyn.

"Tailwater wanted to continue to look for opportunities to consolidate in the Midcontinent," Lewellyn said, "and that's the same strategy we have as a company. So, that made it very exciting for us that they wanted to continue to consolidate and roll up assets underneath our team."

While the Midcontinent, like the rest of the oil and gas sector, is cautiously watching the uptick of commodity prices, Lewellyn said he's optimistic about Oklahoma oil and gas production's future. The area has demonstrably good rock with a reliable record of production that is more than a century old. There's also a broader history of basins passing in and out of favor with the industry, including the Permian.

"There are stacked pay zones and, if a producer wants to chase dry gas, those opportunities are there. Alternatively, if they want to be predominantly focused

on rich gas, that is an opportunity as well. And then of course, oil," he said. "So, I think the benefit we have is that our large footprint, both in the Arkoma and on the STACK side, gives us multiple targets."

Being bullish on the Arkoma and the Midcontinent in general is probably not a commonly held view at this point, he said, but "I would suggest that just like the industry is very cyclical, so are these basins. The producers in the right price environments are going to find the right ways to unlock that rock."

### The fundamentals

Tailwater Capital closed a \$1.1 billion fund including co-investments at the end of March 2020. While Tailwater could not have anticipated the downturn that 2020 brought, the fund is well positioned to take advantage of a distressed market, Downie said.

"While we didn't expect a pandemic, we were prepared to see a cycle of consolidation. We believe there's a lot of pent-up demand globally and believe that a lot of this liquidity that has been pumped into the global system is going to drive demand."



"I think there are pockets of value around traditional hydrocarbon infrastructure that are going to be really compelling."

—Jason Downie  
Co-founder and Managing Partner  
*Tailwater Capital*

## Anatomy of a Deal

“We think once we get past this pandemic, we’ll see prices strengthen.”

While some private equity firms have invested in solar and wind power generation, Tailwater hasn’t found a project that generates a high enough rate of return for its investors, at least so far, according to Downie. The firm has also explored rare earth minerals and battery manufacturing with the same effect. However, Tailwater continues to be interested in supporting the energy transition—while making money, he emphasized—in areas including gas storage, carbon capture and carbon sequestration.

“The technology to do carbon capture and sequestration in an economic way looks a lot like traditional midstream,” he said. “It’s a pipeline coming off the back side of fixed assets that are generating CO<sub>2</sub>, like a processing plant or a refinery or a power plant.”

Tailwater’s view on the energy transition is “for better or for worse, much more foundational. We think there’s a lot of existing types of energy infrastructure that are required to

support larger, renewable transition,” he said.

But Downie is not as pessimistic as some institutional investors about the future of hydrocarbons.

“I think there are pockets of value around traditional hydrocarbon infrastructure that are going to be really compelling,” he said. And a few years from now, he hopes Tailwater will look prescient “for taking risks of where prices could go due to the

regulatory constraints we’re going to put on the system.”

Tailwater’s focus is on the fundamentals of investing in critical infrastructure for the long-term, he noted. The basics: a fixed asset in a long-term contract with a paying, credit worthy counterparty and cash flow.

“Some of that is project-level economics. Some of that is fundamental supply and demand,” he said. “It also boils down to simple stuff.” ■



“Being bullish on the Arkoma and the Midcontinent is probably not a commonly held view. But I would suggest that just like the industry is very cyclical, so are these basins.”

—Ryan D. Lewellyn  
President, CEO and Founding Partner  
Tall Oak Midstream

# WATER MANAGEMENT VIRTUAL CONFERENCE

Mark your calendars!  
**May 2021**

Plan to view the **Hart Energy Water Management Virtual Conference** in May. Registration is free to all professionals thanks to our sponsors.

This on-demand program will provide comprehensive views of today’s water handling issues. **Reserve your seat by registering today.**

Presented by:  
**HART ENERGY**

Hosted by:  
**EHP** **MIDSTREAM** **Oil and Gas Investor**  
Business

**REGISTER NOW**

[www.watertmgmtconf.com](http://www.watertmgmtconf.com)



## MIDSTREAM ACQUISITIONS & DIVESTITURES 2020

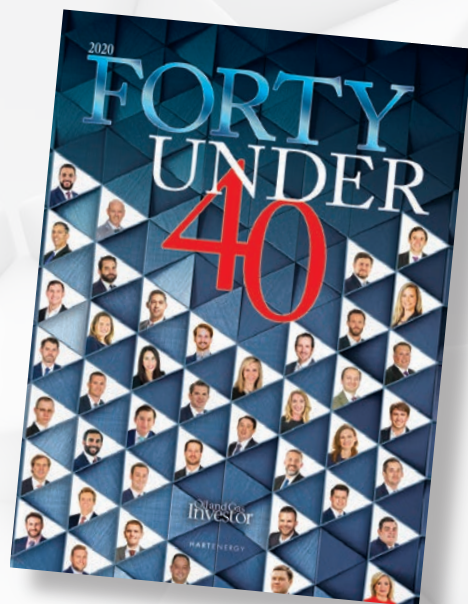
Compiled by Emily Patsy. For more information on energy deals in real time, go to [hartenergy.com/ad-transactions](http://hartenergy.com/ad-transactions), or email [epatsy@hartenergy.com](mailto:epatsy@hartenergy.com).

Deal No.	Buyer	Seller	Deal Value (US\$MM)	Month Announced	Comments
1	Global Infrastructure Partners; Ontario Teachers' Pension Plan; Snam SpA; NH Investment & Securities Co. Ltd.	Abu Dhabi National Energy Co. (ADNOC)	10,100	6	Purchased a 49% stake in newly formed subsidiary ADNOC Gas Pipeline Assets comprising select ADNOC gas pipeline assets valued at \$20.7B.
2	Berkshire Hathaway Inc.	Dominion Energy Inc.	9,700	7	To purchase Dominion's natural gas transmission and storage business; includes over 7,700 miles of natural gas transmission lines, with about 20.8 Bcf/d of transportation capacity and 900 Bcf of operated natural gas storage with 364 Bcf of company-owned working storage capacity, and partial ownership of an LNG export facility plus assumption of \$5.7B debt.
3	Brookfield Infrastructure Partners LP; Blackstone Infrastructure Partners	The Blackstone Group Inc.; Cheniere Energy Partners LP	7,000	9	Bought a 42% stake in Cheniere Energy Partners.
4	Sempra Energy	ENOVA	5,810	12	To buy remaining 29.8% stake in its Mexican unit IENova in an all-stock deal to create Sempra Infrastructure Partners through merger with its North American LNG export infrastructure unit Sempra LNG.
5	Riverstone Holdings LLC	International-Matex Tank Terminals (IMTT); Macquarie Group Ltd.	2,685	11	To acquire New Orleans-based IMTT, which operates 19 bulk liquid storage terminals East, West and Gulf Coasts, as well as the Great Lakes region with total storage capacity of about 48 MMbbl.
6	KKR & Co. Inc.; Alberta Investment Management Corp. (AIMCo)	TC Energy Corp.	C2,100	4	Bought a 65% Coastal GasLink stake, which will move gas in Canada from NE British Columbia to the Pacific Coast.
7	TC Energy Corp.	TC PipeLines LP	1,680	12	To buy the rest of the natural gas pipelines operator and its indirect subsidiary; TC Energy owns a 23.96% stake in TC PipeLines.
8	Undisclosed	Kinder Morgan Inc.	764	1	Purchased Kinder Morgan's roughly 5% equity stake in Calgary, Alberta-based Pembina Pipeline comprised of roughly 25 MM Pembina shares.
9	CNX Resources Inc.	CNX Midstream Partners LP	357	7	To purchase the remaining public stake, comprising about 42.1 million outstanding common units, of CNX Midstream Partners, which has assets in the Appalachian Basin in PA and WV.
10	TC Energy Corp.	Tidewater Midstream and Infrastructure Ltd.; TransAlta Corp.	C255	3	To buy Pioneer Pipeline, a 13-km pipeline used to transport sweet natural gas in Alberta.
11	Buckeye Partners LP	Magellan Midstream Partners LP	250	1	To purchase three marine terminals located in CT, DE and LA.
12	Crestwood Equity Partners LP	Plains All American Pipeline LP	160	4	Acquired several NGL storage and rail-to-truck LPG terminals located in high demand markets across the central and eastern US; include 7 MMbbl of NGL storage and seven LPG terminals.
13	Black Diamond Gathering LLC (Noble Midstream Partners LP; Greenfield Midstream LLC)	Magellan Midstream Partners LP; Plains All American Pipeline LP; Western Midstream Partners LP	155	2	Acquired 20% in the Saddlehorn Pipeline, which transports crude oil and condensate from the D-J and Powder River basins to Cushing, OK.
14	Citizen Energy LLC; Blue Mountain Midstream LLC	Riviera Resources Inc.	111	10	Purchased Blue Mountain Midstream, Riviera subsidiary, which provides gathering, processing, transportation and marketing services for oil and gas producers in the Merge/SCOOP/STACK plays within the Midcontinent region of OK.
15	BWC Terminals LLC	NuStar Energy LP	106	11	To buy terminals in Texas City, TX, with petrochemical and petroleum capabilities.
16	Delek Logistics Partners LP	Delek US Holdings Inc.	100	3	To buy the Big Spring gathering system, a roughly 200-mile crude oil gathering system in the Permian Basin with 350,000 bbl/d throughput capacity located in Howard, Borden and Martin counties, TX.
17	Denbury Inc.	Genesis Energy LP	92.5	11	Purchased through restructured pipeline arrangements the Northeast Jackson Dome Pipeline system in LA and the Free State Pipeline in EMS.
18	Phillips 66 Partners LP	Phillips 66 Co.	75	2	To acquire a 50% stake in the Liberty Pipeline, which will transport Rockies and Bakken crude oil production to Cushing, OK, through a dropdown transaction.
19	Enbridge Inc.	NextDecade Corp.	25	2	To acquire the Rio Bravo Pipeline designed to transport up to 4.5 Bcf/d of natural gas from the Agua Dulce supply area to NextDecade's Rio Grande LNG project in Brownsville, TX.
20	Undisclosed	Montage Resources Corp.	25	7	To buy a Utica wellhead gas and liquids gathering infrastructure in OH.
21	Global Energy Megatrend Ltd.	LNG Ltd.	2.25	4	To purchase the Magnolia LNG project, a Gulf Coast export terminal being developed in Lake Charles, LA; includes transfer of 16 employees, patents and project debt.
22	Black Bear Transmission LLC; Basalt Infrastructure Partners LLP	Enbridge Inc.		4	Purchased Ozark natural gas pipeline transportation and gathering systems that extends from OK through AR to MO.
23	Black Bear Transmission LLC; Basalt Infrastructure Partners LLP	Third Coast Midstream LLC		9	Purchased a portfolio of natural gas transmission assets that includes six intrastate natural gas pipelines spanning approximately 1,400 miles in AL, LA and MS with total capacity of more than 800 MMcf/d.

## MIDSTREAM ACQUISITIONS & DIVESTITURES 2020

Deal No.	Buyer	Seller	Deal Value (US\$MM)	Month Announced	Comments
24	Blackbuck Resources LLC	Cimarex Energy Co.		10	Bought the Whites City water infrastructure in Eddy County, NM, in the Delaware Basin within the Permian.
25	Compass Energy Systems Ltd.	Exterran Corp.		8	To buy Exterran's U.S. compression fabrication business.
26	Dominion Energy Inc.	Southern Co.		3	Purchased Pivotal LNG gaining 100% ownership of Pivotal's LNG facility in Trussville, AL, and a 50% ownership of the JAX LNG facility in Jacksonville, FL.
27	DTE Midstream	DTE Energy Co.		10	To spin off its gas pipeline business, which transports natural gas extracted from shale basins in Appalachia and LA, into a publicly-traded company.
28	Easton Energy LLC	Exxon Mobil Corp.		11	To buy the South Texas Pipeline System, which is a petrochemical pipeline system that runs from Houston to Corpus Christi, TX. (Expected close early 2021)
29	Empire Pipeline LLC	Shell Oil Co.; Equilon Enterprises LLC (d/b/a Shell Oil Products US)		6	Acquired the Gibson crude oil terminal in Terrebonne Parish, LA; comprised of 300,000 bbl of crude oil tankage for storage or blending services.
30	Equitrans Midstream Corp.	EQM Midstream Partners LP		6	Bought all outstanding common units representing LP interests in EQM not already owned through a merger launching a standalone company with a single C corp structure focused in the Appalachian Basin's Marcellus and Utica shale plays.
31	Glenfarne Group LLC	LNG Ltd.		6	Purchased the Magnolia LNG project, a Gulf Coast export terminal being developed in Lake Charles, LA.
32	Hartree Partners LP	Third Coast Midstream LLC		10	Purchased Cushing, OK, crude oil storage business consisting of five storage tanks with approximately 3 MMbbl of storage capacity.
33	Howard Energy Partners	MPLX LP		12	To purchase the Javelina facility, which provides refinery services, located in Corpus Christi, TX.
34	J. Global Energy Holdings Inc.	Third Coast Midstream LLC		12	Bought the E TX gathering, processing, and fractionation business, 3CM East Texas.
35	Macquarie Capital Principal Finance	Multifuels Midstream Group LLC; Warren Equity Partners		4	Acquired a majority stake in Multifuels Midstream Group LLC, a differentiated power and utility infrastructure platform focused on lateral natural gas pipelines and related assets in the U.S.
36	Max Midstream	Oaktree Capital Management LP		9	Bought the Seahawk Pipeline and terminal with plans to revitalize the terminal located at the Port of Calhoun into a new export hub for U.S. crude oil on the TX Gulf Coast.
37	Pin Oak Midstream LLC	Laurel Mountain Midstream LLC; Williams Cos. Inc.; Chevron Corp.		9	Bought the Jackson Center assets comprised of natural gas gathering pipelines and compressor stations in the Appalachian Basin in NW PA.
38	Plains All American Pipeline LP	Inter Pipeline Ltd.		9	To acquire 100% ownership interest in the Empress II and 50% ownership interest in the Empress V straddle plants located in Alberta in exchange for the Milk River pipeline system, also located in Alberta, and for \$35MM in cash.
39	Sabine Oil & Gas LLC; Osaka Gas Co. Ltd.	Align Midstream Partners II LLC; Tailwater Capital LLC		6	Formed Haynesville/Cotton Valley midstream JV; includes pipeline located in E TX Carthage area with interconnections to downstream takeaway markets.
40	Shell Midstream Partners LP	Royal Dutch Shell Plc		2	To buy through a dropdown of 79% interest in the Mattox Pipeline serving the Shell-operated Appomattox platform in the U.S. GoM and certain logistics assets at the Shell Norco Manufacturing Complex.
41	Solaris Water Midstream LLC	Concho Resources Inc.		7	Formed expanded JV extending and increasing scope of long-term produced water management agreement in northern Delaware Basin to include all of Concho's acreage in Eddy and Lea counties, NM.
42	Stakeholder Midstream LLC	Santa Fe Midstream LLC		12	Acquired gas gathering and processing assets located in Yoakum County, TX, within the San Andres play in the Permian Basin.
43	Total SA	Sempra Energy		12	Acquired a 16.6% stake in the Energia Costa Azul LNG project in northern Mexico.
44	Undisclosed	Black Bear Transmission LLC		10	Purchased all the assets owned by Ozark Gas Gathering LLC, including a natural gas gathering system that connects regional production in OK and AR comprising more than 220 active metered locations, approximately 330 miles of natural gas pipelines and 19 active compressor units totaling 11,400 hp.
45	Zenith Energy	Plains All American Pipeline LP		10	Purchased three interconnected West Coast terminals including terminals with 8.2 MMbbl of aggregate storage capacity in Los Angeles County, CA, commonly referred to as the Long Beach, Dominguez Hills and Alamitos Terminals, in addition to approximately 50 miles of bidirectional pipeline.

# FORTY UNDER40



We invite you to **NOMINATE** those that are **MOVING INDUSTRY FORWARD**

*Oil and Gas Investor* is accepting nominations for the **2021 Forty Under 40 in Energy awards**. We encourage you to nominate yourself or a colleague who exhibits entrepreneurial spirit, creative energy and intellectual skills that set them apart. Nominees can be in E&P, finance, A&D, oilfield service, or midstream. Help us honor exceptional young professionals in oil and gas.

## NOMINEES SHOULD DISPLAY:



A desire to find new challenges



Community involvement



Leadership initiative



Creative problem solving



Professional excellence



Entrepreneurial spirit

Honorees will be profiled in a special report that ships with the November issue of *Oil and Gas Investor* and on [HartEnergy.com](http://HartEnergy.com).

[HartEnergy.com/form/fortyunder40](http://HartEnergy.com/form/fortyunder40)

Oil and Gas  
Investor

Deadline for submissions is  
June 15, 2021

HARTENERGY  
EVENTS | MEDIA | DATA | INSIGHTS

## Regulatory Repercussions



The Mountain Valley natural gas pipeline, shown under construction in West Virginia, will be completed despite facing numerous hurdles, Wood Mackenzie says. (Source: Malachi Jacobs/Shutterstock.com)

# The Last Greenfield Pipeline?

**High costs, regulatory hurdles and environmentalist opponents have made it difficult to construct major natural gas pipelines out of Appalachia.**

*By Joseph Markman, Senior Editor*

**W**ill the Mountain Valley Pipeline in Appalachia be among the last of the large greenfield projects? Colette Breshears, senior research manager and head of North American infrastructure at Wood Mackenzie, thinks so.

“Mountain Valley Pipeline is having a very tough time of it,” Breshears said at the recent Midstream PA conference. “Tougher than [Energy Transfer LP’s] Rover had.”

Mountain Valley is not alone among projects grappling with myriad obstacles. Still, the struggles facing the natural gas pipeline project read like a list of amendments to Murphy’s Law: mounting costs, difficult terrain, landslides, steep hillsides, pathways through population centers, pathways across national landmarks like the Appalachian Trail, steel tariffs and Federal Energy Regulatory Commission (FERC) approvals.

Despite the project’s travails, Wood Mackenzie expects Mountain Valley to be completed. Such has not been the case for many major projects, like the Atlantic Coast Pipeline that was canceled last year. Which almost begs the question: Why would a pipeline company put up with the aggravation of pursuing major projects like this? Simple answer: The gas production outlook demands it.

“To continue to build that out past 2021, 2022 into 2025, into 2030, 2040, we will need more infrastructure,” Breshears

said. “But when we are looking at this infrastructure, we have to acknowledge that pipeline buildout is going to be very difficult.”

## **Go west**

So where can abundant gas production from Appalachia go? The Midwest markets—Illinois, Indiana, Michigan—are popular destinations.

“This has historically been a fantastic market for natural gas,” Breshears said. “There’s a lot of demand in those areas. The Midwest has experienced a lot of very cold winters. There’s a lot of industry there, and there’s not a lot of production in those states to help supply that demand.”

Providing that production is easier to do. Those states are also relatively nearby

and passing through industry-friendly Ohio is not an unpleasant experience for a pipeline builder, she said. Same goes for the South Ohio corridor, where projects pass through as they connect to West Virginia, or down to the Gulf of Mexico, another huge demand corridor for natural gas.

Then there is the Northeast, a heavily populated area that forces a pipeline company to jump through many more hoops than when it builds in agricultural areas, such as those in northern Ohio.

Pipeline construction hit an inflection point in early 2019, Breshears said. The pace of new capacity being added on flattened, but it wasn’t just a matter of regulatory delays. Wood Mackenzie analysts also saw that pipelines in service were effectively meeting demand.



**“To continue to build that out past 2021, 2022 into 2025, into 2030, 2040, we will need more infrastructure. But when we are looking at this infrastructure, we have to acknowledge that pipeline buildout is going to be very difficult.”**

**—Colette Breshears**

Senior Research Manager and  
Head of North American Infrastructure  
*Wood Mackenzie*

## Regulatory Repercussions

“We didn’t quite hit overbuild status where we had too much infrastructure for the production,” she said. “What we did see was that infrastructure got ahead of production.”

### One, two, three

Then major projects started to fall.

“I don’t think the cancellation of Constitution really came as a surprise to anyone,” Breshears said. The project, a 125-mile pipeline designed to bring gas from the Marcellus Shale to New York State, ran into intense water quality permit opposition from the state government and was canceled in late February 2020. The Williams Cos., which had a 41% share in the greenfield Constitution, said at the time that the regulatory hurdles posed too much of a financial risk. The company took a \$145 million hit on the project in 2019.

In May 2020, New York denied a water permit for the Northeast Supply Enhancement Project. This was a mostly brownfield Williams project but it involved the construction of an additional 37 miles of pipe and

compression to the company’s Transco system. It would have delivered 0.4 Bcf/d of southeastern Pennsylvania gas to New York City but Williams responded to the pushback by pulling out.

The third to fall was the Atlantic Coast Pipeline, a 1.5-Bcf/d project with a delay of three-and-a-half years and counting, and a price tag that had increased by more than 70% since it was first proposed. The ongoing cost uncertainty convinced Duke Energy Corp. and Dominion Energy Inc. to let it go in July 2020.

### Four on the way

Despite facing the same regulatory uncertainty that felled Constitution, Northeast Supply and Atlantic Coast, Wood Mackenzie expects four other major projects to be completed in the Northeast.

**PennEast:** The 120-mile pipeline with capacity of 1.1 Bcf/d originates in northeastern Pennsylvania and targets an endpoint near Trenton, N.J. The joint venture led by Enbridge Inc. is moving forward on construction of the Pennsylvania portion of the line while

it awaits a decision from the U.S. Supreme Court on whether it can use eminent domain to build the pipeline in New Jersey.

**Northern Access:** The 100-mile brownfield pipeline system under construction by National Fuel Gas Co. will deliver gas to multiple points in New York State. The company has requested a FERC extension to 2024 for its in-service date.

**Regional Energy Access Expansion:** Williams Cos. has filed with FERC to begin service in late 2023. The project relies on existing Transco pipeline infrastructure to move gas from Leidy Township, Pa., to points in New Jersey and Maryland.

**Mountain Valley:** The joint venture of EQM Midstream Partners LP, NextEra Capital Holdings Inc., Con Edison Transmission Inc., WGL Midstream and RGC Midstream LLC is a 42-inch pipe operated by EQM Midstream Partners. It stretches 303 miles from northwestern West Virginia to southern Virginia. Its capacity will be about 2 Bcf/d, including compressor stations. The buildout is 92% complete. ■



(Source: Malachi Jacobs/Shutterstock.com)

# HERE'S YOUR **SECRET** WEAPON

Get your **FREE** access to the **LARGEST** and **MOST COMPLETE** database on energy infrastructure assets in North America.



*Energy DataLink is the industry standard for accurate, up-to-date energy information and GIS data on energy infrastructure.*

## **INCLUDES:**

- Well Production & Completion Data
- Midstream and Downstream Data
- Visual Mapping
- and more!

**HART**ENERGY

Sign Up for  
**FREE** Access Today:

[HartEnergy.com/datalink](http://HartEnergy.com/datalink)

# Permian Pipeliners Push Forward

By Joseph Markman, Senior Editor



South Texas Gateway is a joint venture operated by Buckeye Partners at the mouth of the Corpus Christi Ship Channel in Ingleside, Texas. Pictured is the first tanker, the *Nordbay*, to berth at the terminal's second deepwater dock earlier in December. (Source: Buckeye Partners LP)

## Permian Basin

■ Kinder Morgan Inc.'s **Permian Highway Pipeline (PHP)** went into full service on Jan. 1, moving natural gas from the Waha hub to Katy, Texas, with connections to the U.S. Gulf Coast and Mexico. The pipe is fully subscribed and boasts a capacity of 2.1 Bcf/d.

Kinder Morgan Texas Pipeline (KMTP), a subsidiary of KMI, operates the pipeline. KMTP has a 26.7% ownership interest in PHP, as does EagleClaw Midstream and Altus Midstream. An affiliate of an anchor shipper has a 20% interest.

■ Just one day after its former president and CEO left, LNG developer Tellurian Inc. informed the U.S. Federal Energy Regulatory Commission (FERC) on Dec. 1 that it would withdraw its application to build the **Permian Global Access** gas pipeline in Texas and Louisiana.

The company blamed "current market conditions" on its decision to scrap the \$4.2 billion project, which was designed to move as much as 2.3 Bcf/d, 625 miles from the Permian Basin to southwest Louisiana, near the site of its proposed **Driftwood LNG export terminal**. Tellurian still has plans to

spend about \$5.1 billion on three other pipeline projects: **Driftwood** (4 Bcf/d), **Haynesville Global Access** (2 Bcf/d) and **Delhi Connector** (2 Bcf/d).

■ The JV partners of the **Agua Blanca** pipeline system said that their project went into full service on Jan. 27.

The 1.8 Bcf/d expansion of WhiteWater Midstream and MPLX LP's gas pipeline brings its capacity to more than 3 Bcf/d. Agua Blanca is connected to about 20 gas processing sites in the Delaware Basin and moves gas produced in Culberson, Loving, Reeves, Pecos,



Winkler and Ward counties in Texas, and Eddy and Lea counties in New Mexico, to the Waha hub.

■ Pinnacle Midstream II LLC unveiled plans in mid-December to build the **Pinnacle Dos Picos** natural gas gathering and compression system in the Midland Basin, where more than 50 miles of primarily 16-in., low- and high-pressure gas gathering mainlines and compression facilities will service Midland, Martin and Glasscock counties in Texas.

The project is anchored by a 15-year gas gathering, processing and purchase agreement with DoublePoint Energy LLC. The gathering system, designed with expansion in mind, is expected to begin service in second-quarter 2021.

■ Frontier Midstream Solutions IV LLC announced an open season in late October for its **Beta Crude Connector**, a crude pipeline in Andrews, Ector, Martin and Midland counties, Texas.

Expected to be in service in first-quarter 2021, the 100-mile pipeline will have a capacity of more than 150,000 bbl/d, with about 200,000 barrels of operational storage. Beta will provide delivery to multiple downstream pipelines, as well as access to local refineries, the Cushing, Okla., hub and the U.S. Gulf Coast.

■ In early January, owners of the **Double E Pipeline** asked regulators for the go-ahead to dig. Double E, owned by units of Summit Midstream Partners LP (70%) and Exxon Mobil Corp. (30%), is planned to be a 135-mile pipe with capacity to transport about 1.35 Bcf/d of Permian natural gas to the Waha hub.

### Gulf Coast

■ **South Texas Gateway's** second dock began crude export operations just as 2020 was coming to a close. Buckeye Partners LP's new terminal at the mouth of the Corpus Christi Ship Channel in Ingleside, Texas, also loaded a VLCC for the first time.

The two docks allow South Texas Gateway to load two vessels

simultaneously and provide throughput capacity of up to 800,000 bbl/d. The facility's petroleum products storage capacity will be 8.6 MMbbl when construction is completed, likely in first-quarter 2021. Storage capacity has the potential to expand to 10 MMbbl. The joint venture is 50% owned and operated by Buckeye Partners. Subsidiaries of Phillips 66 Partners LP and Marathon Petroleum Corp. each have a 25% ownership interest.

■ The new 30,000-tonne **refrigerated ethylene storage tank** at the Morgan's Point ethylene export terminal on the Houston Ship Channel began service in late December. The facility, a 50:50 joint venture of affiliates of Enterprise Products Partners LP and Navigator Holdings Ltd., features two docks and the capacity to load 2.2 billion pounds of ethylene per year, with an ultimate nameplate capacity of 1 million tonnes per year (mtpa).

A 600 million-pound ethylene storage cavern at Enterprise's Mont Belvieu, Texas, complex supplies the tank. In a

company statement, Enterprise said it can expand its underground caverns to accommodate additional ethylene storage.

■ The first two liquefaction trains for Venture Global LNG Inc.'s **Calcasieu Pass LNG export facility** arrived from Italy in fourth-quarter 2020, months ahead of schedule, the company said in November. Less than a day after they were welcomed to America, the 0.6 mtpa trains were positioned on its foundations at the Cameron Parish, La., site.

The trains were built in Baker Hughes' factories in Avenza, Italy, and were delivered just 15 months after final investment decision (FID). The Calcasieu Pass plant will ultimately house 18 trains.

■ NextDecade Corp. pulled the plug on its **Galveston Bay LNG** project in late January after determining that the need for congressional approval to work on part of the site would lead to prolonged uncertainty.



When Equitrans Midstream started construction in February 2018, it estimated Mountain Valley would cost about \$3.5 billion and be completed by the end of 2018. (Source: Equitrans Midstream Corp.)

## Construction Projects

A portion of the site is under Federal Navigation Servitude and serves as an active Dredged Material Placement Area (DMPA) for the Texas City Ship Channel Federal Project. Galveston Bay LNG project would not be able to be built without the U.S. Army Corps of Engineers requesting that Congress authorize the release of its right of Navigation Servitude over this DMPA.

NextDecade stressed that the cancellation does not affect its Rio Grande LNG project, which is on track for an FID in 2021.

### Appalachia

■ Equitrans Midstream Corp. confirmed in early November that its **Mountain Valley Pipeline** will be both more costly and take longer to build. The price tag is now up to an estimated \$6 billion, and the expected in-service date has been pushed back to year-end 2021. The 303-mile, 42-in. pipe natural gas pipe will have a capacity of 2 Bcf/d.

The company will now seek individual permits for each stream the project crosses. Analysts predict that the in-service date will be delayed until the first half of 2022.

Equitrans said “unanticipated delays during the prime 2020 construction season” led to the delay. In October, the U.S. Fourth Circuit Court of Appeals issued a temporary administrative stay of the Mountain Valley’s Nationwide Permit 12, which prevents waterbody crossings under the U.S. Army Corps of Engineers’ permit program. Also slowing progress was a stop-work order from FERC regarding construction in areas inhabited by endangered and threatened species.

### Williston Basin

■ Outrigger Energy II LLC completed construction of its Williston Basin midstream facilities project in Williams County, N.D., the company said in mid-January. The assets include the **Bill Sanderson Gas Processing Plant**, a 250-MMcf/d cryogenic gas processing plant and an 80-mile, 20- and 24-in. diameter, rich gas gathering system originating in eastern Williams

County and terminating at the Bill Sanderson Plant.

The new plant features ethane recovery and rejection capabilities with direct market access to the Northern Border Pipeline system for residue gas and the ONEOK NGL pipeline system for NGL. The assets are anchored by a long-term gas gathering and processing agreement with XTO Energy Inc. The gathering system can transport over 450 MMcf/d of raw gas volumes. Outrigger plans to expand the plant’s capacity to meet producer needs.

### West Coast

■ Just one day before the end of the Trump administration, FERC upheld denial of a clean water permit for the **Jordan Cove LNG project** by the state of Oregon. The former administration had put the project’s environmental reviews on a fast track in March 2020 but the state had refused to issue water permits.

Pembina Pipeline Corp., which plans to build the \$10 billion export terminal and natural gas pipeline, had appealed to FERC to override the state’s decision based on the argument that Oregon had waived its authority under the federal Clean Water Act. The federal regulator disagreed.

■ Alaska said in February that it was seeking federal stimulus and infrastructure funds to support construction of a 500-mile natural gas pipeline from the North Slope to Fairbanks, Alaska. The Alaska Gasline Development Corp. said an unidentified “major pipeline developer” would build the \$5.9 billion project, and it hoped that federal funding would cover 75% of costs associated with that phase of the state’s LNG export plant project.

### Canada

■ President Joe Biden’s executive order to revoke the **Keystone XL’s** (KXL) presidential permit could be a boon for the **Trans Mountain pipeline expansion project**. Owned by the Canadian government, Trans Mountain Corp. is spending C\$12.6 billion

(US\$9.9 billion) to nearly triple the crude oil pipeline’s capacity to 890,000 bbl/d. Prime Minister Justin Trudeau’s government purchased the pipeline from Kinder Morgan Inc. in 2018.

In the absence of KXL, Trans Mountain’s strategic value has grown. Along with its ability to transport Canadian crude to the U.S., its Pacific Ocean connection provides access to Asian markets. However, some analysts have warned that, even without KXL, Canada will be saddled with surplus export pipeline capacity when Trans Mountain enters service.

■ In January, the state of Michigan approved some of the permits needed to build a tunnel under the Straits of Mackinac to house Enbridge’s **Line 5** oil pipeline. At issue was a 4.5-mile section that runs underwater along the lakebed.

Line 5 has been a target of Michigan Gov. Gretchen Whitmer, who wants to shut it down because of concerns over a possible spill into the Great Lakes. Enbridge still requires permits from the Michigan Public Service Commission and U.S. Army Corps of Engineers to move ahead with building the tunnel.

On a different project, Enbridge received the final permit from a Minnesota state agency in late November, allowing it to move forward on its **Line 3 replacement project**. Construction is complete in Canada, North Dakota and Wisconsin, but the \$2.9 billion U.S. component of the project was awaiting the go-ahead in Minnesota. When complete in third-quarter 2021, the pipeline will move crude from Alberta to Superior, Wis.

■ Operating costs for TC Energy’s **Coastal Gaslink pipeline** are expected to rise by \$42 million a year, the company said. TC Energy cited increased scope, permit delays and COVID-19 impacts for the increase on the \$6.6 billion gas pipeline. When complete, the project will connect the Montney shale to LNG Canada’s liquefaction facility under construction near Kitimat, British Columbia. ■

## MIDSTREAM CONSTRUCTION PROJECTS

Operator/Developer	Project	Location	Added Capacity	Cost (\$MM)	Status/Completion
<b>Permian Basin</b> Kinder Morgan Inc.	Permian Highway Pipeline	Waha hub to Katy, Texas	2.1 Bcf/d	\$2,000	Went into full service on Jan. 1
Tellurian Inc.	Permian Global Access Pipeline	Permian Basin to Southwest Louisiana	2.3 Bcf/d	\$4,200	Project canceled in early December.
<b>WhiteWater Midstream, MPLX LP</b>	Agua Blanca pipeline system	Culberson, Loving, Reeves, Pecos, Winkler and Ward counties in Texas, and Eddy and Lea counties in New Mexico, to the Waha hub	1.8 Bcf/d	N/A	The project went into full service on Jan. 27.
<b>Pinnacle Midstream II LLC</b>	Pinnacle Dos Picos	Midland Basin	50 miles of 16-in. lines	N/A	Gathering and compression system will be anchored on acreage operated by DoublePoint Energy LLC.
<b>Frontier Midstream Solutions IV LLC</b>	Beta Crude Connector system	Andrews, Ector, Martin and Midland counties, Texas	150,000 bbl/d of crude oil; 200,000 bbl of storage	N/A	Open season in November for system expected to begin service in first-quarter 2021.
<b>Double E Pipeline LLC</b>	Double E gas pipeline	Delaware Basin to Waha hub	1.35 Bcf/d	\$547	The project, jointly owned by Summit Midstream (70%) and Exxon Mobil Corp. (30%) filed a request with regulators in January to begin construction.
<b>Gulf Coast</b> Buckeye Partners	South Texas Gateway	Ingleside, Texas	8.6 MMbbl of crude storage	\$450-\$500	Crude exports began as Buckeye completed its second deepwater dock at South Texas Gateway on Dec. 30.
<b>Enterprise Products Partners LP, Navigator Holdings Ltd.</b>	Ethylene storage and trading hub	Houston Ship Channel	2.2 billion pounds of ethylene per year	N/A	Service began at the JV terminal at the end of terminal at the end of December; first cargo announced in January.
<b>Venture Global LNG</b>	Calcasieu Pass LNG export facility	Cameron Parish, La.	10.8 mtpa	\$4,500	First two trains arrived from Baker Hughes manufacturing plant in Italy.
<b>NextDecade Corp.</b>	Galveston Bay LNG	Texas City, Texas	16.5 mtpa	N/A	Project scrapped in late January because of the potential for longterm regulatory uncertainty.
<b>Appalachia</b> Equitrans Midstream Corp.	Mountain Valley Pipeline	West Virginia to Virginia	2 Bcf/d	\$6,000	In-service date pushed back to 2022; cost estimate rises to \$6 billion from \$5.8 billion. In November, a federal appeals court issued a stay of water-crossing permits.
<b>Williston Basin</b> Outrigger Energy II LLC	Bill Sanderson Gas Processing Plant	Williams County, N.D.	250 MMcf/d	\$150	Completion of processing plant and 80-mile rich gas gathering system were announced in January.
<b>West Coast</b> Pembina Pipeline Corp.	Jordan Cove LNG export terminal	Jordan Cove, Ore.	7.5 mtpa	\$10,000	In January, FERC upheld Oregon's denial of water permits for the project.
<b>State of Alaska</b>	Natural gas pipeline	North Slope to Fairbanks, Alaska	N/A	\$5,900	In February, Alaska asked for federal stimulus or infrastructure funding to build the pipe to central Alaska, the first phase of its \$39 billion Alaska LNG project.
<b>Canada</b> TC Energy Corp.	Keystone XL Pipeline	Hardisty, Alberta to Steel City, Neb.	830,000 bbl/d	\$9,000	On Jan. 20, President Joe Biden issued an executive order revoking the pipeline's permit to operate. TC Energy canceled its open season on Feb. 12. In November, TC Energy sold a \$769 million stake in the pipeline to Natural Law Energy, an indigenous group.
<b>Enbridge Inc.</b>	Line 5 tunnel	Straits of Mackinac	N/A	N/A	Michigan regulators approved a permit for a tunnel to house the Line 5 oil pipeline.
<b>Enbridge Inc.</b>	Line 3 replacement project	Edmonton, Alberta to U.S. Midwest	760,000 bbl/d	\$8,180	Minnesota regulators approved the final permits to allow construction on the \$2.9 billion U.S. component of the project. In February, Enbridge raised the cost estimate by \$1.1 billion.
<b>TC Energy Corp.</b>	Coastal Gaslink Pipeline	Montney Shale to Kitimat, B.C.	2.1 Bcf/d	\$6,600	TC Energy expects annual costs for the pipeline to be \$42 million higher than estimated.

# Industry Briefs



---

## WhiteWater Midstream acquires Waha storage assets

WhiteWater Midstream LLC acquired Waha gas storage assets located near the gas trading hub in West Texas from Enstor Gas LLC, according to separate statements released by the two companies on Feb. 16.

Enstor's Waha gas storage assets have the capacity, when fully developed, to store approximately 10 Bcf of natural gas and include six underground storage caverns and permits for five additional caverns. The assets will be held in a newly formed joint venture (JV) entity, Waha Gas Storage LLC, which will be jointly owned by Whistler Pipeline LLC and Delaware Basin Residue LLC, owner of Agua Blanca.

Terms of the transaction weren't disclosed.

According to WhiteWater, the Waha gas storage facilities will be connected to Agua Blanca's Waha header system and will provide material storage capacities to customers of both the Agua Blanca and Whistler pipelines.

The Agua Blanca Pipeline, a JV between MPLX LP and WhiteWater Midstream, is capable of moving 3 Bcf/d of gas from Delaware Basin gas process plants in the Permian to delivery points in and around Waha. Meanwhile, the Whistler Pipeline, currently under construction, is owned by a JV between MPLX and WhiteWater Midstream plus Ridgemoor Equity Partners and a JV between affiliates of Stonepeak Infrastructure Partners and

West Texas Gas Inc. Once in operation, the Whistler Pipeline will be capable of delivering 2 Bcf/d from the Permian Basin to South Texas.

WhiteWater, which is the operator of both Agua Blanca and Whistler, has reached final investment decision (FID) on roughly \$3 billion in greenfield development projects since its inception in 2016, according to a company release. The Austin, Texas-based midstream company is partnered with multiple private equity funds including but not limited to Ridgemoor Equity Partners, Denham Capital Management, First Infrastructure Capital and the Ontario Power Generation Inc. Pension Plan.

Backed by private equity firm ArcLight Capital Partners LLC, Enstor is one of the largest and most geographically diverse, independent natural gas storage operators in the U.S., according to a company release. Headquartered in Houston, Enstor's eight storage facilities are strategically located across five states and Alberta, Canada.

Enstor was represented by Willkie Farr and Gallagher LLP. Sidley Austin LLP provided legal counsel to WhiteWater.

---

## Buckeye Partners invests in hydrogen logistics provider

Buckeye Partners LP announced Jan. 27 that it had made an equity investment in OneH2 Inc., a provider of hydrogen fuel supply and logistics solutions.

OneH2 provides scalable hydrogen fuel production systems coupled with

The Waha gas storage facilities will provide material storage capacities to customers of both the Agua Blanca and Whistler pipelines in the Permian Basin. (Source: Pictured is the construction of the Whistler Pipeline by WhiteWater Midstream LLC)

cost-effective delivered hydrogen fuel for use in transportation markets across a growing network in North America. OneH2 currently serves the forklift market and is developing projects for the heavy truck market as well as other transportation sectors.

"Buckeye is excited to partner with OneH2," said Clark C. Smith, Buckeye president and CEO. "Energy logistics is our business and, through this investment, we can continue to do what we do best, providing fuels for end-markets, while supporting the energy transition and reducing emissions.

"Buckeye's investment in OneH2 highlights our focus on being an integral part of the next phase of the U.S. and global energy evolution."

OneH2 CEO Paul Dawson said OneH2 has "found the right partner in Buckeye. They can provide the energy infrastructure support we need as our business scales to capitalize on the tremendous opportunity ahead. We have the right partners supporting our business and the right solution to serve the market's growing demand for hydrogen."

Buckeye led the most recent investment round in OneH2, which included Navistar International Corp., Trafigura Group, Sumitomo Corp. and The Pape Group.

The complementary strategic investors bring a spectrum of capabilities to support OneH2 in advancing its business, including energy infrastructure expertise, demand from hydrogen forklift fleets, hydrogen heavy truck development programs, and fuel supply and distribution capabilities.

---

## CorEnergy acquires California pipeline assets

CorEnergy Infrastructure Trust Inc. acquired Crimson Midstream Holdings LLC, a California Public Utilities

Commission (CPUC) regulated crude oil pipeline owner and operator, for consideration valued at approximately \$350 million.

The acquired assets include four critical infrastructure pipeline systems spanning approximately 1,800 miles across northern, central and southern California, connecting “desirable native California crude production” to in-state refineries producing state-mandated specialized fuel blends, among other products.

“The Crimson pipeline networks connect multibillion-dollar refining complexes to low declining fields, producing desirable native grades of California crude oil, which is required for blended energy products satisfying state environmental standards,” John Grier, founder and board chairman of Denver-based Crimson Midstream, said in a release announcing the transaction on Feb. 4.

Following the transaction, Grier will become COO of CorEnergy and join the company board. Additional members of Crimson’s executive and operating teams joining CorEnergy include Crimson CFO Robert Waldron, who will become CFO of CorEnergy, and Larry Alexander, president of Crimson California’s operations.

CorEnergy is a real estate investment trust based in Kansas City, Mo., that owns and operates or leases regulated natural gas transmission and distribution and crude oil gathering, storage and transmission pipelines and associated rights-of-way.

The acquired assets from Crimson Midstream qualify for REIT treatment under established IRS regulations and CorEnergy’s private letter ruling, according to the company release.

“The acquisition of Crimson diversifies CORR’s critical infrastructure portfolio with four new pipeline networks and positions CorEnergy as an owner/operator of utility-like assets in line with expectations for our industry-leading REIT qualifying platform,” commented CorEnergy CEO Dave Schulte in the release on Feb. 4.

“John and his team operate safely and reliably in a highly regulated market,

and we plan to leverage their expertise to continue to grow our newly combined company,” he added.

Consideration for the transaction is comprised of \$75.6 million of cash on hand, \$105 million in new term loan and revolver borrowings, contribution of the Grand Isle Gathering System to the sellers, \$119.4 million of commitments to issue common and preferred equity.

---

### **Black Bear sells Alabama gas gathering assets**

Black Bear Transmission LLC completed the divestiture of gas gathering assets owned by BBT Alabama LLC (BBT AL) to an undisclosed buyer, the Houston-based company said in a March 5 release.

BBT AL owns and operates a fee-based, natural gas gathering system that connects production in Alabama to regional long-haul pipelines. The asset sale consists of more than 240 miles of natural gas pipelines, 26 active metered locations and one active compressor station.

The terms of the deal were not disclosed.

Black Bear CEO Rene Casadaban said in a statement that the sale “allows us to continue our main focus on the transmission business, which serves long-term, demand-driven end-user markets, while continuing to provide safe and reliable service.”

This divestiture follows a similar sale by Black Bear of the Ozark Gas Gathering system last October.

Black Bear has been using divestitures to support its goal of expanding its natural gas transmission business that Casadaban referred to in his statement. Most recently, Black Bear added on to its natural gas transmission portfolio with the purchase of assets in the Southeast U.S. from Third Coast Midstream in September.

Scott Langston, senior vice president and chief commercial officer for Black Bear, called the BBT AL sale another example of the company’s ability to quickly execute on the strategic rationalization of acquired assets.

“Similar to the Ozark Gas Gathering sale, this deal allows us to achieve operational cost savings while at the same time directing more internal resources toward our core natural gas transmission infrastructure,” he said in a statement.

Following the BBT AL sale, Black Bear will own and operate 13 regulated natural gas pipelines stretching more than 2,100 miles, with total delivery capacity of more than 2.6 Bcf/d. The pipelines are connected to 18 major long-haul pipelines, ensuring reliable gas supply to customers across Alabama, Arkansas, Louisiana, Mississippi, Missouri, Oklahoma and Tennessee.

---

### **NextDecade terminates Galveston Bay LNG facility**

Following an evaluation of its proposed Galveston Bay LNG site, NextDecade Corp. on Jan. 29 determined that the location in Texas City, Texas, is not suitable for development of an LNG facility and related infrastructure and utilities.

The U.S. Army Corps of Engineers (USACE), Galveston District, has advised that a portion of the Galveston Bay LNG site is under Federal Navigation Servitude and serves as an active Dredged Material Placement Area (DMPA) for the Texas City Ship Channel Federal Project. The Galveston Bay LNG project cannot be constructed without USACE requesting that Congress—via the Water Resources Development Act or other legislation—authorize the release of its constitutional right of Navigation Servitude over this DMPA, according to the company.

“On account of the potential for prolonged uncertainty around the prospect of release of Federal Navigation Servitude by USACE, NextDecade has elected to forfeit the Galveston Bay LNG site and will no longer make lease payments to the site’s landholders, the Texas General Land Office and the City of Texas City,” according to a statement.

As a result, NextDecade withdrew its filing from the Federal Energy Regulatory Commission and said it

# Industry Briefs



would cease all related activities. The company has also requested that the U.S. Department of Energy terminate its June 2018 authorization for export of LNG from Galveston Bay LNG.

“While it is unfortunate that the Galveston Bay LNG site is not viable for large-scale infrastructure development, this determination only further enhances the value of—and the need for—NextDecade’s world-class Rio Grande LNG project in the Port of Brownsville,” Matt Schatzman, NextDecade’s chairman and CEO, said.

“Since 2015, NextDecade’s development activities have been acutely focused on delivering Rio Grande LNG and developing the largest LNG export solution linking Permian Basin and Eagle Ford Shale natural gas to the rapidly tightening global LNG market.”

The circumstances of Galveston Bay LNG have no impact on NextDecade’s Rio Grande LNG project in the Port of Brownsville, where late-stage development activities are ongoing, the company said. NextDecade continues to work on remaining commercial agreements needed to achieve an FID on the Rio Grande LNG project in 2021.

## Enbridge subsidiary launches green hydrogen injection project

Canadian natural gas distributor Gazifère, an Enbridge subsidiary, and Evolugen, the Canadian operations arm of Brookfield Renewable, revealed plans on Feb. 25 to build and operate one of Canada’s largest green hydrogen injection projects in Quebec.

The approximately \$90 million project

will see a 20-megawatt electrolyzer plant built in the city of Gatineau, adjacent to Evolugen’s hydroelectric facilities. Green hydrogen produced via electrolysis will be injected into Gazifère’s natural gas distribution network via a new 15-km pipeline connecting the plant to the Gazifère grid.

“With the production, transportation and distribution of green hydrogen, Gazifère has the ambition to provide its customers with an increasingly diversified portfolio of renewable natural gas options,” said Cynthia Hansen, Enbridge’s executive vice president and president of gas distribution and storage. “This is another important example of Enbridge’s multimarket approach to green the natural gas grid while continuing to meet the demand for safe, reliable and affordable energy.”

The plant is expected to produce about 425,000 gigajoules of green hydrogen to be injected into the Gazifère network—making this the first project of its kind in Canada. It’s anticipated the project will remove about 15,000 metric tons of greenhouse-gas emissions each year.

“Clean hydrogen presents Canada with an opportunity to leverage our resources and world-leading clean tech sector to drive innovation on transformative technologies and reduce polluting emissions. Evolugen and Gazifère stand out and excel in this field,” Stéphane Lauzon, member of Parliament for Argenteuil-La Petite-Nation, said.

Gazifère is one of two natural gas distributors in Quebec, serving more than 43,500 customers in Gatineau,

“First project of its kind” in Canada will see Enbridge subsidiary inject green hydrogen into its gas distribution grid, according to Enbridge. (Source: Enbridge Inc.)

Chelsea and elsewhere in the Outaouais region. Gazifère began supplying renewable natural gas in 2020, and intends to become the first natural gas distributor on the continent to offer an all-green, fully renewable energy portfolio by 2050.

## PEOPLE

### Shell Midstream Partners Names Ledbetter as Next CEO



Steve Ledbetter

Shell Midstream Partners LP announced Jan. 21 that after a distinguished 29-year career with Royal Dutch Shell plc, Kevin Nichols will retire as president and CEO of Shell Midstream Partners GP LLC, the general partner of SHLX, effective March 1. Steve Ledbetter, vice president-commercial of SHLX, will succeed Kevin.

Ledbetter joined Shell in 1999 and held roles with increasing responsibility within Shell’s pipeline, manufacturing and global lubricants businesses and served as president of Jiffy Lube International, a wholly owned subsidiary of Shell, from 2013 to 2018. In 2018, he was named vice president for Shell Pipeline Co. LP, responsible for business development, joint ventures, oil movements and portfolio activity. ■



# A home for North American hydrocarbons

In North America, EDF specializes in commodity price risk management solutions with a focus on leveraging its downstream demand to serve the upstream oil and gas sector. We are part of the EDF Group of companies, one of the world's largest generators of electricity and a global consumer of energy including Natural Gas, NGLs, Crude Oil, and LNG.

[www.edfenergyna.com](http://www.edfenergyna.com)

---

**Chris Beyer**  
chris.beyer@edfenergyna.com  
281-653-1068

**Ben Rich**  
ben.rich@edfenergyna.com  
281-653-1736



# PRENG & ASSOCIATES

## THE MOST RESPECTED GLOBAL ENERGY EXECUTIVE AND BOARD SEARCH FIRM

Preng & Associates is at the forefront of the energy industry's future, fulfilling the demand for innovative and diverse leadership. As new business models emerge and private capital invests in new technology and services, Preng consultants place Board, C-Suite and senior leadership focused on topics such as ESG, Technology and M&A. We are committed to ensuring Women and Diversity candidates are part of our offering to clients when considering future leaders. The Preng team is dedicated to attracting exceptional leaders and critical talent who will make a significant, durable and truly positive impact on corporate performance and shareholder value and lead the way in energy transition.



**4 DECADES**

---

**750+ CLIENTS**

---

**3,700+ ENGAGEMENTS**

---

**91 COUNTRIES**

### PRENG & ASSOCIATES

#### Houston

2925 Briarpark Dr. Ste 1111  
Houston, Texas 77042  
+1 (713) 266-2600

#### Chicago

560 Frontage Rd, Ste 300  
Northfield, Illinois 60093  
+1 (713) 243-2650

#### London

42 Brook Street, Mayfair  
London, W1K 5DB  
+44 (0) 207-958-9445

[www.Preng.com](http://www.Preng.com)