Midstream/MLP Energy

Back to the wellhead: Midstream implications of the Biden LNG ban

Industry Overview

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Americas
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Too much Permian gas…not enough LNG demand

In October '23, we published a report "Too much LNG demand…not enough Permian gas and pipes." Our longer dated thesis was that the Permian would need to primarily supply at least 6 Bcf/d of new LNG projects, including CP 2 (Phase 1: 2 Bcf/d), Rio Grande LNG (2.5 Bcf/d) and Mexico Pacific LNG (1.5 Bcf/d). Of the three projects, only Rio Grande has received requisite FERC/DOE approvals to move forward. And now the Biden administration is seemingly delaying new approvals indefinitely.

Nameplate adds reviewed/Could FERC slow-play feedgas?

CP2 Phase 1, and to a lesser extent Mexico Pacific were the major projects impacted, as they were ready to FID, and would take 3.5 Bcf/d of feedgas, primarily from the Permian. In addition, nameplate capacity additions for existing facilities and projects under constructions would be reviewed. Again, Venture Global's CP facility and, to be constructed, Plaquemines facilities would be most affected, along with three other smaller facilities. Feb. 27th would be a key date to see if FERC slow-plays in-service dates of projects under construction, as Golden Pass expects FERC to acknowledge its request to start flaring.

CP2 was the next approved project with advanced infra.

CP2 Phase I was expected to begin taking feedgas mid-26 before ramping to full LNG by early '27. Venture Global had advanced pipeline infrastructure to source the facility with Permian gas. The 48-inch 4 Bcf/d CP Express Header pipeline would pull gas, just across the Texas (TX) border and supply the Louisiana (LA) facilities by '26. A dedicated 2-3 Bcf/d pipeline called Blackfin would move gas from Katy to the TX/LA border, with a new ~2 Bcf/d Greenfield Permian pipe, also most likely directed to LA by YE26.

Permian pipes could need to be re-routed to Agua Dulce

The next Permian gas supply push pipe is needed in '26, especially as we expect Mexico Pacific to be delayed. We expected a pipe to the TX/LA border, where an interstate pipe would source LNG facilities. But without new project approvals the corresponding feeder pipelines would not move forward, Blackfin would also fail to move forward leaving gas stranded in the Katy area. So then, Agua Dulce (AD) becomes the only area short gas, as Rio Grande LNG comes online in 2H27. Therefore, bullet lines from Katy to AD, a 0.5 Bcf/d KMI GCX expansion, and a new Greenfield pipeline would compete to move gas to AD.

Waha and HSC basis should stay discounted for longer

Two thirds or ~4 Bcf/d of expected '27 LNG demand (CP Phase I & Mexico Pacific Phase I) are at risk of being delayed. And 3.1 Bcf/d of new Permian to Houston pipes come online by mid '24 anchored by the 2.5 Bcf/d Matterhorn pipeline, causing Houston Ship Channel (HSC) basis to stay discounted longer (Exhibit 8). With less demand in '26, Waha could trend down.

ET/WMB protected in LA; KMI GCX exp. has competition

Haynesville midstream players with capacity to SE utilities benefit with additional demand sinks. ET owns the majority of eastward egress while WMB's Transco can push gas east. KMI will face competition for its GCX expansion, as Agua Dulce becomes the de-facto demand sink with less LA demand. All else equal, as forward gas prices trend down, POPs

Bcf/d: Billion cubic feet / day

LNG: Liquefied natural gas

CP 2: Calcasieu Pass 2

FERC: Federal Energy Regulatory Commission

DOE: Department of Energy

FID: final investment decision

Infra: Infrastructure

KMI: Kinder Morgan Corp.

GCX: Gulf Coast Pipeline Expansion

HSC: Houston Ship Channel

ET: Energy Transfer LP

WMB: Williams Companies Inc.

SE: Southeast

Transco: Transcontinental Gas Pipeline

POPs: Percentage of proceeds

G&P: Gathering and processing

AD: Agua Dulce

PHP: Permian Highway

for Permian and Haynesville G&P players decrease.

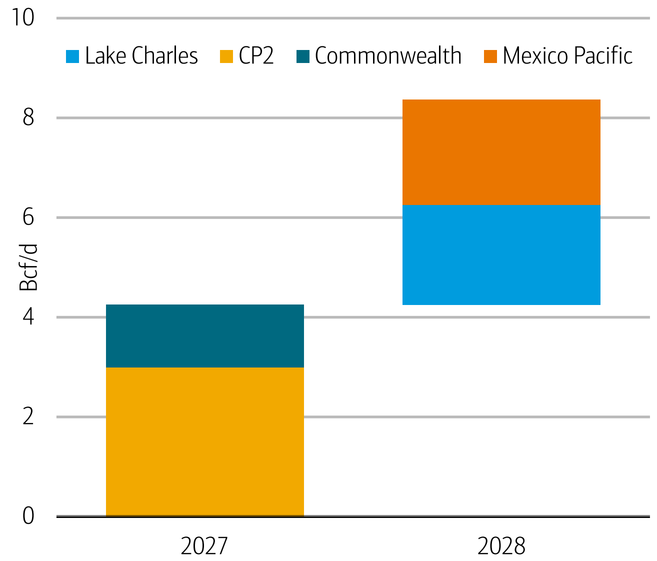
Which projects are impacted? And which matter? CP2 and Mexico Pacific stand out

On January 26th, the Biden administration came out with an anticipated delay on approving new LNG projects. The administration noted in a statement that "During this period, we will take a hard look at the impacts of LNG exports on energy costs, America's security and our environment." Energy Secretary Granholm also noted "The review will take months and then will be open to public comment which will take further time."

CP2, Mexico Pacific, Lake Charles and Commonwealth projects impacted

We believe the approval ban would impact the following unsanctioned projects between '27-'28: CP2, Commonwealth, Lake Charles, and Mexico Pacific. These projects have total feedgas requirements of ~8 Bcf/d with targeted on-line dates shown in Exhibit 1. Commonwealth and Lake Charles are not in our FID forecasts, but we saw CP2 and Mexico Pacific as the next projects sanctioned, given customer commitments and associated infrastructure, and also the most important to gas demand with a combined ~3.5 Bcf/d of gas demand, primarily sourced from the Permian.

Exhibit 1: Unsanctioned LNG projects impacted by approval ban
Total feedgas of ~8 Bcf/d but we don't expect Commonwealth/LC to FID



Source: BofA Global Research

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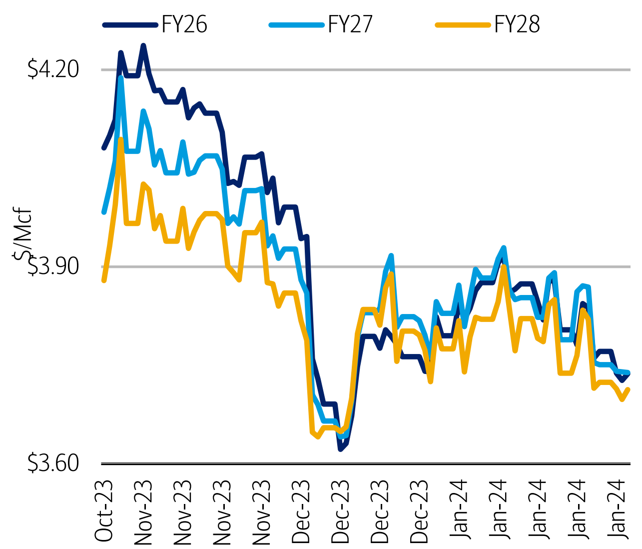
Exhibit 2: NYMEX Henry Hub natural gas
Gas prices have been trending lower recently



Source: Bloomberg

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Nameplate Capacity Additions

Capacity additions for existing projects would be on hold impacting gas dynamics more near term. This would impact the following projects:

- **Calcasieu Pass** -Venture Global intended on increasing capacity on its initial facility and Plaquemines by 30%. Nameplate capacity for CP is 1.5 Bcf/d and both phases of Plaquemine are expected to be 3.4 Bcf/d. However, to be fair, we think the majority of optimization initiatives wouldl be occurring at Plaquemines Phase 1 ('24) and Phase 2 ('26), which are yet to come online vs. the existing CP facility.

- **Cheniere Corpus Christi** – Corpus Christi (CCL) midscale trains 8 & 9 (~0.5 Bcf/d) are awaiting non-FTA permits from the DOE. The SPL expansion project - recently altered to two 7.0 MTPA trains vs. three 6.5 MTPA trains originally - remains in FERC prefiling and has yet to apply for DOE permits. See note: Cheniere Energy Inc:

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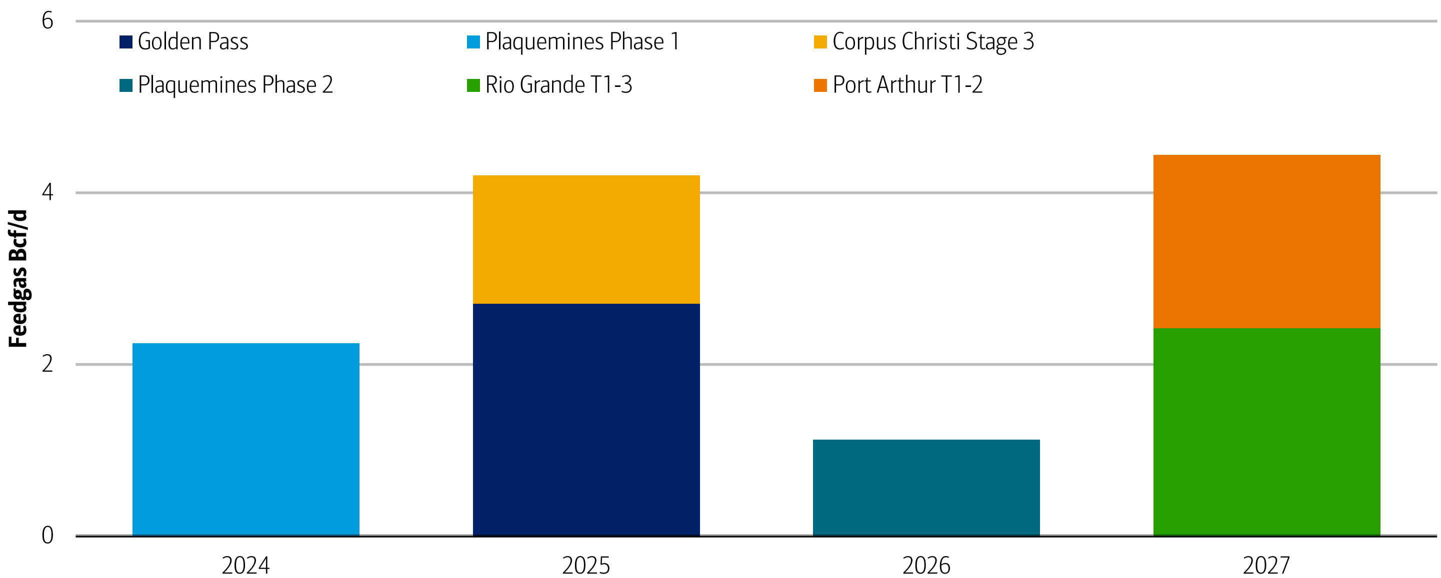
- **Cove Point** – Current capacity is 0.8 Bcf/d but any capacity addition would help Northeast takeaway.

- **Elba** – Current feedgas capacity is 0.4 Bcf/d so this is not a needle mover.

A possible scenario: FERC not approving feedgas for GP & Plaquemines?

Our base case scenario is that all approved projects are unaffected. So Golden Pass and Plaquemines, which should move first gas in 2H24 should be unaffected. But the administrative review is still ambiguous. Some market participants have inquired about the worst-case scenario, that is FERC not approving the feedgas supply to Golden Pass and Plaquemines. So, this would be an indirect way of imposing a new LNG moratorium, even on fully approved projects. Exhibit 3 shows sanctioned FERC, DOE-approved projects and when they are expected to come online. Golden Pass has asked FERC to acknowledge its flaring request by Feb. 27th. If FERC delays this, it could be a sign the administration is slow playing in-service of project under construction.

Exhibit 3: Sanctioned, DOE-approved LNG projects online between '24-27
Golden Pass and Plaquemines will need FERC approval for feedgas supply in '24



Source: BofA Global Research

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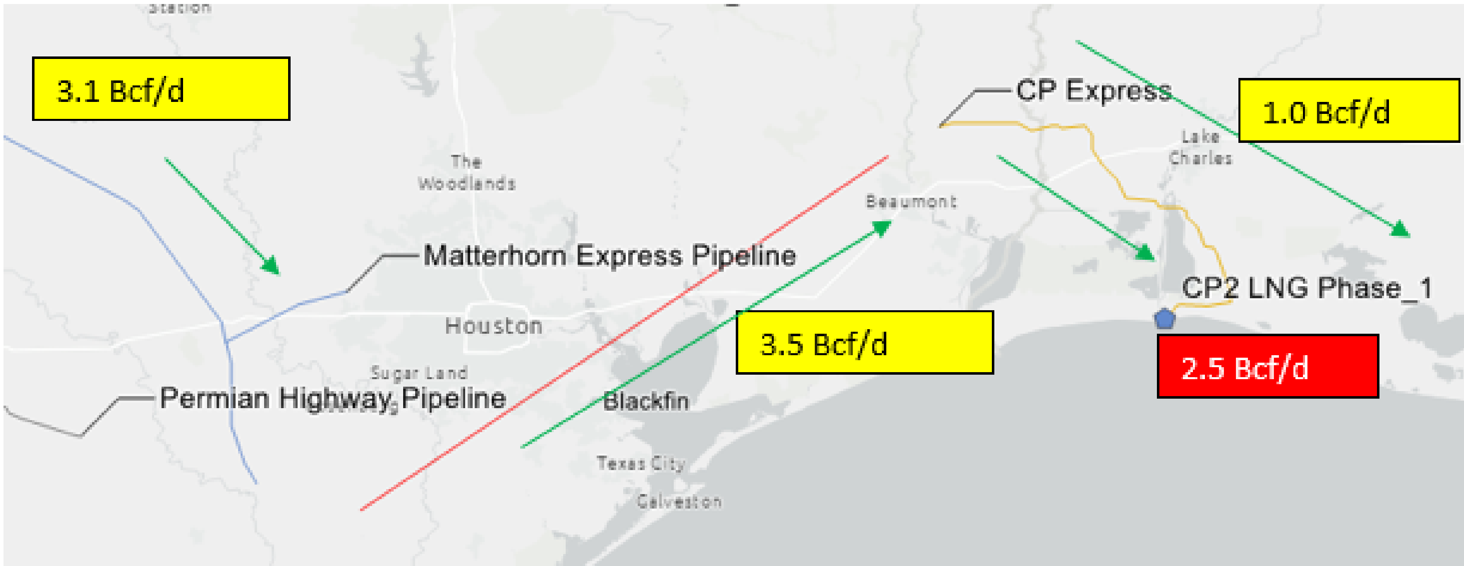
CP2: The knock-on effects of a delay

Exhibit 4: CP2 Phase 1 LNG feedgas sourcing pipelines
Blackfin moves ~3.1 Bcf/d of Permian gas into CP Express



Source: S&P Capital Markets

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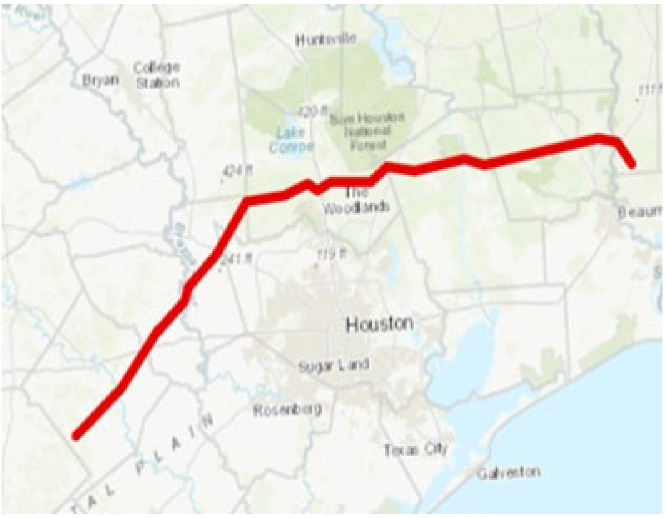
We believe CP 2 Phase I was the next U.S. LNG facility to be sanctioned with an in-service date (ISD) of Phase I in late '26. The brownfield facility has a total capacity of only ~2 Bcf/d with ~65% contracted. Because of Venture Global's success with Calcasieu Pass 1, it doesn't need to fully contract the facility, as it could fund more with equity. Both Calcasieu Pass 2 and its feed-in pipeline, CP Express have already received positive FERC EIS statements in July. CP Express is a 91-mile, 48-inch pipeline (~3.5 Bcf/d) that originates in East Texas and moves across the Louisiana border to the facility. And Whitewater's similarly sized 48-inch Blackfin pipeline could connect ~3.1 Bcf/d of Permian gas into CP Express, that is sent to Katy via Matterhorn Express (2.5 Bcf/d, ISD '24) and the Permian Highway expansion (~550 MMcf/d).

Exhibit 5: Blackfin pipeline
Blackfin extends Matterhorn and connects into CP Express



Source: TX RRC

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Exhibit 6: Gulf Run and CP Express pipelines
Gulf Run connects into CP Express; nameplate 4 Bcf/d suck

Source: S&P Capital Markets

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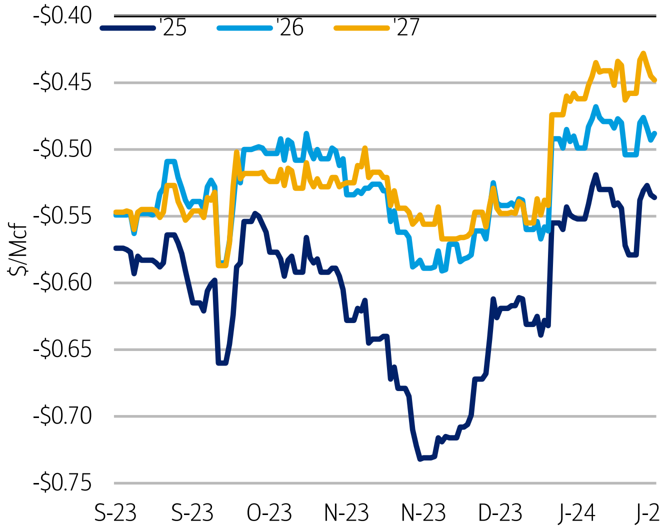
Blackfin and Gulf Run expansion delayed without CP2 FID

We believe Whitewater's Blackfin pipeline is being developed as a feeder for CP Express and Venture Global's LNG projects. It is also possible that Venture Global holds an equity interest in Blackfin. So, it could truly be an integrated Houston to Louisiana pipeline system with CP Express, with a crucial interstate, first mover advantage. But without CP2 moving forward, CP Express would not move forward and neither would Blackfin. Lastly, FERC documents showed Gulf Run connecting into CP Express, likely as the Haynesville connector for flow assurance to the facility.

Permian and Houston natural gas flows re-direct

3.1 Bcf/d of new Permian to Katy (Houston) pipes would come online by mid '24 anchored by the 2.5 Bcf/d Matterhorn pipeline. The 600 MMcf/d PHP (Permian Highway) expansion came online in 4Q23. Katy does not have the demand to absorb 3.1 Bcf/d, so the Houston Ship Channel basis to Henry Hub widened, especially near term (FY25) to >25c. Basis narrowed in subsequent years, especially in '27, as Blackfin was expected to suck volumes from Houston to the Louisiana LNG corridor. But with the expected delays, basis has widened out across the curve. Waha has yet to react, but we expect a re-direction of flows and lack of demand to cause basis to widen out as flows are redirected to South Texas.

Exhibit 7: Waha gas basis to Henry Hub '25-'27
Waha basis is expected to widen eventually with redirection of flows to STX



Source: Bloomberg

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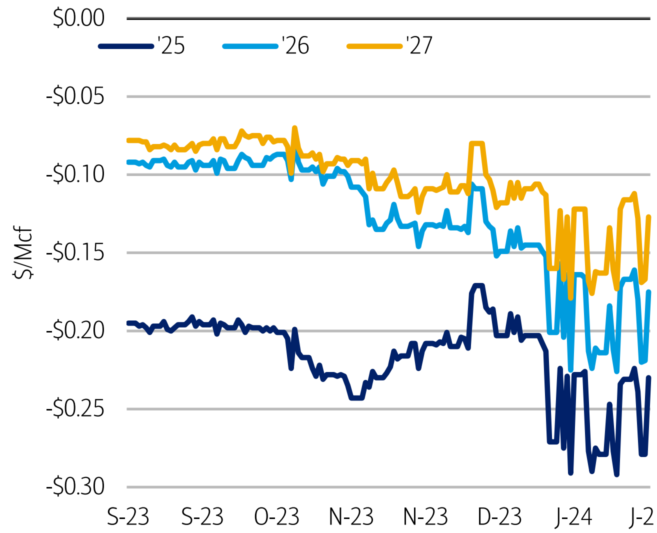
Exhibit 8: Houston Ship Channel gas basis to Henry Hub '25-'27
HSC basis has widened recently w/ more gas kept in area



Source: Bloomberg

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Agua Dulce becomes the demand sink

We note that Agua Dulce becomes the default demand sink, without a demand, pull interstate pipe to move gas to Louisiana LNG facilities, as Rio Grande LNG Trains 1-3 would consume 2.5 Bcf/d of gas beginning in '27. For longer dated demand, Trains 4-5 (1.6 Bcf/d) have approvals. The TX LNG project (Phase 1), also in Brownsville, could add ~0.5 Bcf/d of gas demand, although the project needs substantial commercial progress. Note, assuming anything beyond Rio Grande Trains 1-3 is a blue-sky scenario, as moving the gas down to Brownsville from Agua Dulce through bullet pipes is a formidable challenge, even for the sanctioned Rio Grande Trains.

We also think that the Mexico Pacific facility is likely delayed, given the need for FERC/DOE approval or the Saguaro pipeline, as the LNG facility would be sourced by TX Permian gas.

We believe a new Permian gas pipeline would be needed in ~26. And now, 2 Bcf/d of demand we assumed would come from CP2 and up to 4 Bcf/d of CP Express pulling from the TX side of the border into Louisiana would be delayed.

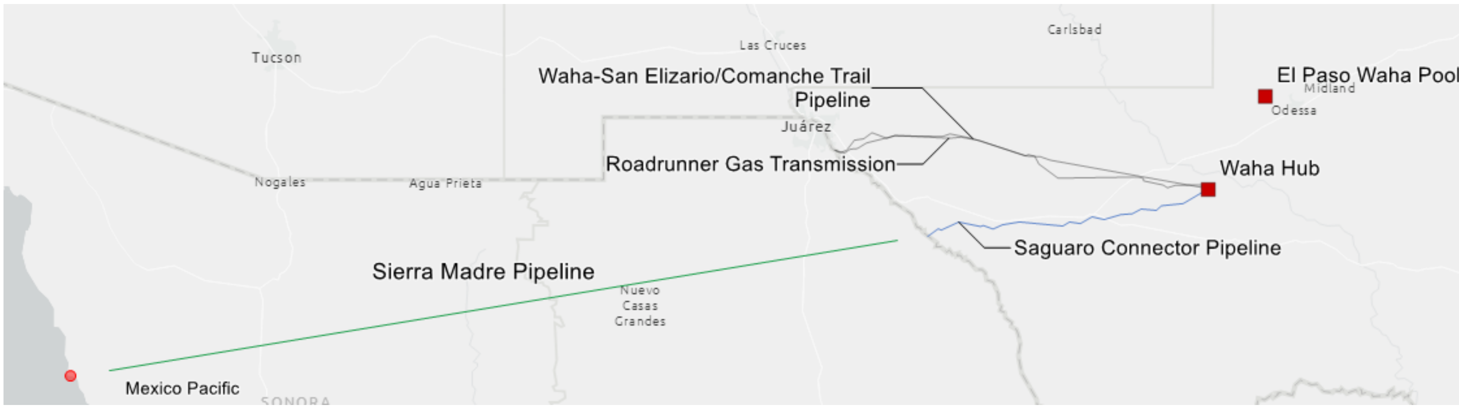
Next Permian greenfield pipe redirected to Agua Dulce?

Forward '25/'26 Waha basis at -55c/-56c/Mcf suggests the Permian won't have a gas takeaway issue soon. But producers and processors see the need for a new pipe in '26. Following the Whistler/PHP expansions (1.1 Bcf/d total), we see the basin balanced at YE23. And the 2.5 Bcf/d Matterhorn pipe is expected to come online in 2Q24 - though our discussion indicated a bias for a delayed in-service. Nevertheless, we count 11 processing plants totaling 2.4 Bcf/d coming online through 1H25, filling Matterhorn by 3Q25. So, a new gas pipe is needed by 1H26, in our opinion.

Status of the Mexico Pacific project

The Mexico Pacific LNG facility continues to make commercial progress with strong counterparties like ConocoPhilips, Shell and ExxonMobil. Besides the Biden review, the main concern was the connecting pipeline from the Texas/New Mexico border to the West Coast facility, named the Sierra Madre pipeline. We see delays as 1) the terrain is difficult to build across, 2) project development is likely delayed until at least after the Mexican elections in June, and 3) most importantly, Oneok's Saguaro intrastate pipeline to the TX-Mexico border needs FERC approval, since it would supply an LNG facility, even if it is in Mexico. Given this situation, we see the estimated $1.4bn OKE Saguaro pipeline indefinitely delayed. While technically Mexico Pacific could source volume on underutilized ET pipes that also go to the border, we see this as a long-shot as flow assurance and financing is needed for counterparties. In addition, those pipes are technically committed to serve Mexican power and manufacturing projects.

Exhibit 9: Sierra Madre pipeline
The Sierra Madre pipeline will source the Mexico Pacific LNG facility



Source: S&P Capital Markets

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Proposed Greenfield pipes targeted to the TX/LA border

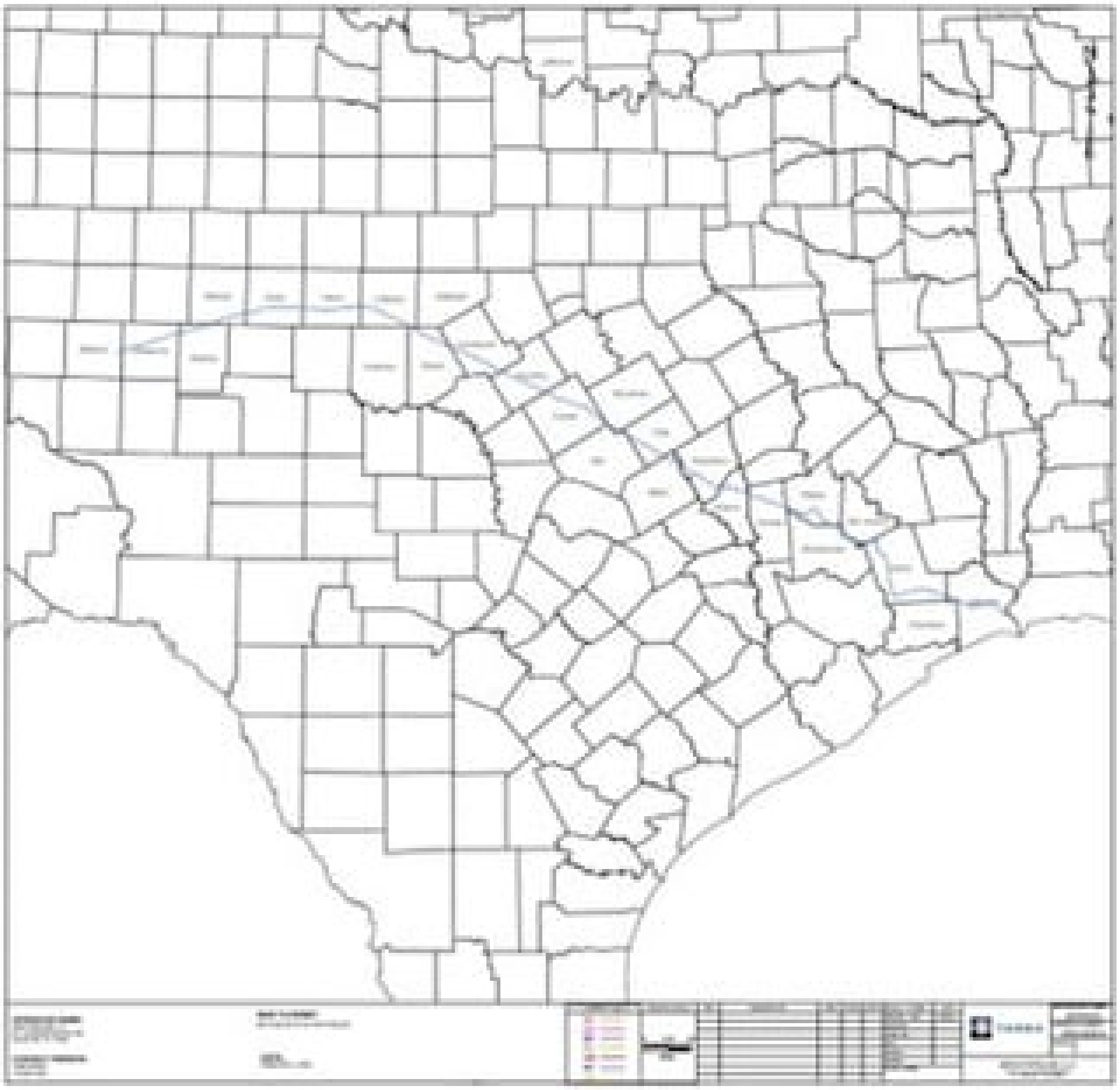
The two new Greenfield pipes that have been mentioned, as the most likely to move forward are APEX and Warrior. Both seem to be routed towards the TX/LA border where a demand pull interstate pipe like Venture Global's CP Express or Cheniere's proposed Louisiana expansion project would pull gas into the Louisiana LNG corridor for LNG use for liquefaction facilities, like CP2 or future longer dated Sabine Pass expansions. Note that FERC approval for interstate pipes take at least two years, so cross border pipes are necessary to move gas into Louisiana and avoid being stranded in the Carthage, TX area.

We believe the top two Greenfield pipeline solutions could be delayed or re-routed to Agua Dulce. Below we describe the takeaway solutions and where they are routed:

APEX pipeline

Targa Corp. (TRGP) received approval from the Texas Railroad Commission for a 42-inch, 563 mile Permian egress line, which we estimate would cost $2.5bn. While TRGP would only take a ~25% stake in the line looking for a majority owner, like Whitewater, it would source the pipe with residue gas volumes both for customers and its own equity volumes. But it is moving gas directly to the TX/LNG corridor. Without an interstate header system, we see gas stranded in Texas. Port Arthur could take volumes in '27 but remember that Golden Pass already has a 1 Bcf/d demand pull commitment from ET's Gulf Run in Haynesville and would be fully up and running with remaining gas sources by '25. An interstate demand sink is needed, and an interstate pipe is needed to move those volumes to the Louisiana LNG corridor.

Exhibit 10: TRGP's proposed Apex pipeline
The proposed pipeline originates in the Midland Basin, traveling southeast and terminating in Port Arthur



Source: FERC

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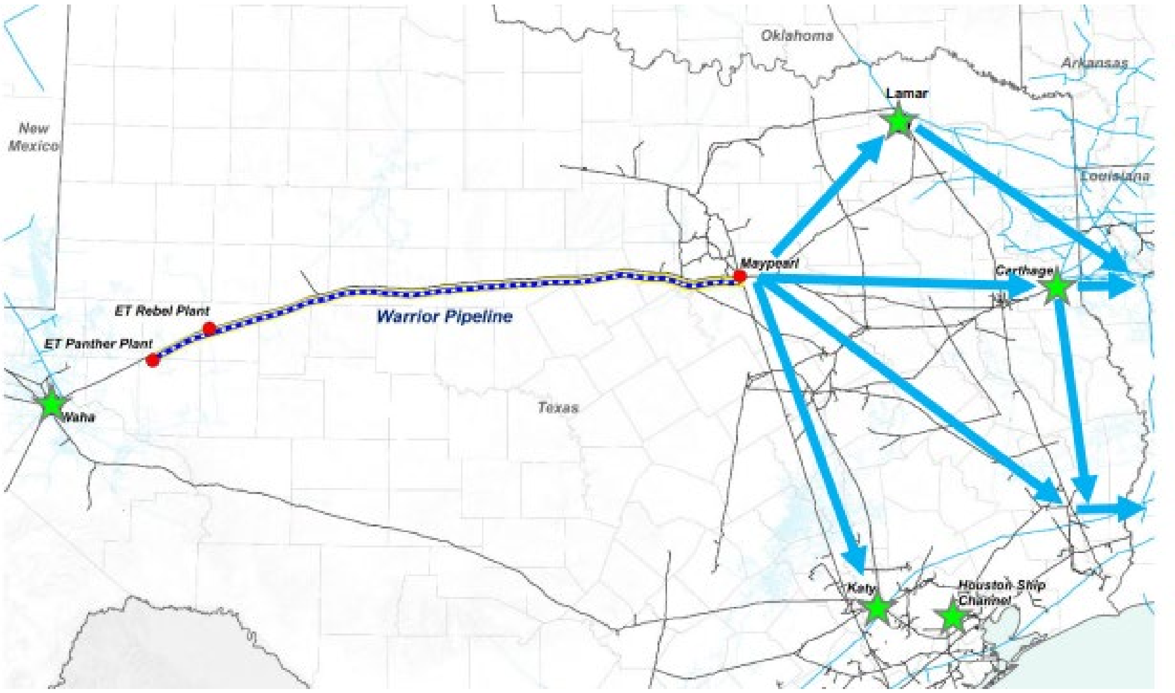
Warrior pipeline

We believe ET's Warrior pipeline has less commercial support than APEX at this point, even though the solution would be cheaper than a full Greenfield project, as ET would plan to use existing infrastructure to deliver to multiple receipt points including Lamar, Carthage, Sabine, and the Ship Channel. But seemingly, each of these locations would also require an interstate solution, as only Line CP crosses into Louisiana from the TX side, and that line is full.

Exhibit 11: Warrior pipeline
Warrior has less support than Apex but would be a cheaper option vs. a full greenfield



Source: S&P Capital Markets

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Would KMI move GCX more aggressively to market?

Kinder Morgan (KMI) was the odd pipe out for compression expansion the last cycle with PHP and the similarly routed Whistler pipeline moving forward. KMI noted on its conference call that competition is heating up to supply the Gulf Coast. We believe that being first to market is important. So, we wonder if KMI would accept an initial lower return threshold, especially since a Gulf coast pipeline expansion (GCX) would create substantial downstream expansion opportunities. We think this issue is more black and white than investors believe, where KMI considers opportunity costs. The 4Q call suggested:

- A takeaway solution to Agua Dulce is needed and a project needs to be sanctioned in the next few quarters. The market is competitive.
- KMI is unique in its ability to offer downstream services beyond the pipeline.
- Whistler, which runs on an adjacent right of way as GCX, has already expanded to its maximum capacity (1 Bcf/d) with compression.

Bullet lines developing between Houston and Agua Dulce

With 3.1 Bcf/d of Permian new gas headed to Katy between Matterhorn & the PHP expansion (Exhibit 12), we believe the Katy market is oversupplied and would be looking to move gas both north (Blackfin) and especially now, south to AD, with possible 1-1.5 Bcf/d bullet lines. Our gas team believes rates on a new build could be between 20-30c/Mcf, which would be significantly lower than >50c/Mcf rates on a GCX expansion. Anchor shippers are willing to support a tranche, and we believe more than one midstream company is looking to build on this route.

Exhibit 12: Pipeline options from Katy
PHP & Matterhorn move volumes north via Blackfin while bi-directional bullet lines move volumes south to Agua Dulce

Source: S&P Capital Markets

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Haynesville midstream: ET and WMB advantaged

In our view, LNG delays would inevitable hurt Haynesville midstream players as longer term volume growth would start with lower gathering growth to delayed or even fewer pipes to the LNG corridor.

The names that are relatively advantaged are ones with 1) pipelines in the ground committed to sanctioned LNG facilities and 2) egress to Southeast utility markets that are increasing gas usage as coal plants retire and/or to back up intermittent renewables.

ET is the best positioned in the Haynesville

As we outline in our '24 year ahead report, Energy Transfer (ET) owns the already contracted Gulf Run pipeline, which would serve the Golden Pass LNG facility and owns most of the available egress.

Besides being in service and having a 20 year 1 Bcf/d contract with Golden Pass, ET's Gulf Run pipeline may crowd out gathering pipelines, set to originally come online in late '24, that are crossing its right of ways. With an LNG moratorium, these pipes become more at risk of delay or ultimately being cancelled.

Exhibit 13: DTM Blue Union-LEAP system
LEAP expansion is brownfield

Source: Company filings

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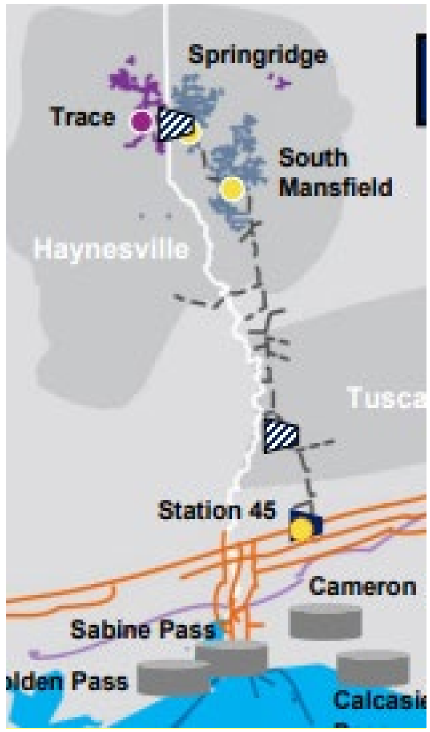
Exhibit 14: WMB LEG buildout
Upstream to LNG exposure being built out



Source: Company filings

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Exhibit 15: Momentum's NG3 project
NG3 moves 1.7 Bcf/d from Haynesville to GC LNG markets

Source: Company filings

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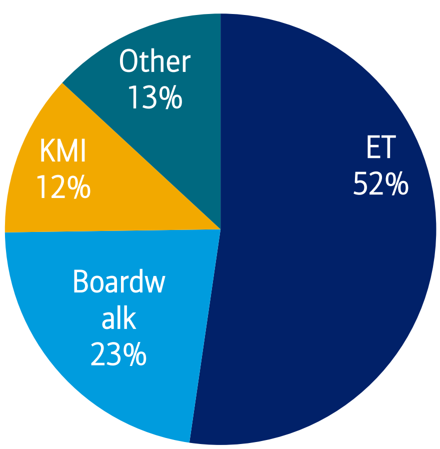
ET owns the majority of the Haynesville egress to the East and North

A major theme that KMI noted was that Southeast utilities would need gas and available egress to those markets is lacking. While KMI co-owns MEP (Midcontinent Express) with ET, any additional egress out of the Haynesville would require an interstate newbuild. But ET has operating leverage and >50% of the available egress out of the basin.

Exhibit 16: Available egress by company
ET controls majority of latent egress



Source: East Daley

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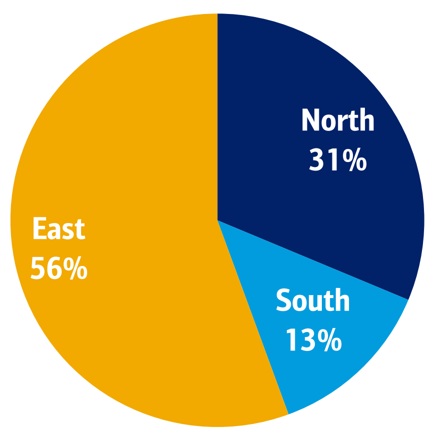
Exhibit 17: Haynesville egress by direction
Pull from Southeast utilities is primary demand sink



Source: East Daley

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But WMB is also well positioned to supply the Southeast via Transco

Before the possibility of MVP coming online was an imminent, Williams Companies (WMB) continued to find ways to move the null point up to supply gas all the way to the Mid-Atlantic. And it can constantly move that null point depending on where demand is. Once MVP comes online in late 1Q or early 2Q, up to 500 MMcf/d could supply the Virginia/NC area.

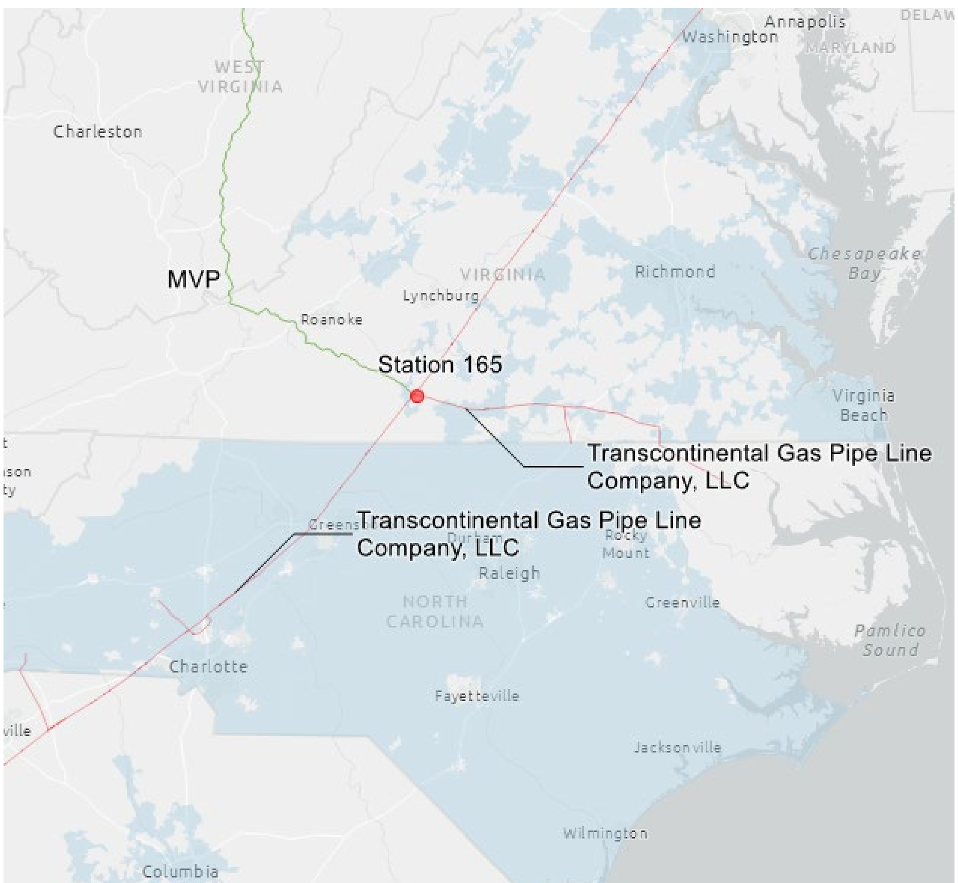
The real benefit comes when Transco completes low-cost compression expansions, to accommodate MVP's full flow at Station 165. We expect this to occur in '27 with 1.43 Bcf/d of precedent agreements with Southeast utilities under the Southeast Supply Enhancement project.

At that point, WMB would supply Southeast utilities on Transco from 2 basins: south from the Marcellus via its connection to MVP and North moving from the Haynesville up.

We do think the LEG (Louisiana Energy Gateway) project is built, even if it is delayed and costs marginally increase to re-route some areas to avoid crossings with Gulf Run. We think LEG is completed because of its interconnectivity with Transco. The interconnectivity with Transco gives gas volumes optionality. Those volumes could stay in the LNG corridor, if demand exists, or move east to Transco to supply utility demand.

Exhibit 18: Transcontinental gas pipeline

Transco would supply Southeast utilities from 2 basins including the Marcellus and Haynesville



Source: S&P Capital Markets

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Exhibit 19: Stocks mentioned
Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
ET	ET US	Energy Transfer LP	US$ 14.33	B-1-7
KMI	KMI US	Kinder Morgan	US$ 16.96	B-2-7
WMB	WMB US	Williams Companies	US$ 34.8	B-1-7

Source: BofA Global Research

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Price objective basis & risk

Energy Transfer LP (ET)

Our PO of $18 is derived from our discounted cash flow valuation, which implies a 8.4x 2024E EV/EBITDA multiple. We forecast a ten year outlook, which we believe is the limit of market recognition, and then forecast terminal decline of 1% while using a 7.0% WACC.

Downside risks are: potential shutdown of Dakota Access pipeline for extended period as per court ruling, higher leverage, dilutive M&A transaction and lower sustained commodity prices. The tax treatment of ET depends on its status as a partnership for federal income tax purposes: should ET become subject to taxes, its performance could be materially affected. From a macro perspective, financial risks are rising interest rates and a stricter regulatory environment which would increase operating and maintenance expenses.

Kinder Morgan Inc (KMI)

Our PO of $19 is derived from our discounted cash flow valuation, which implies a 9.9x 2024E EV/EBITDA multiple. We forecast a ten year outlook, which we believe is the limit of market recognition, and then forecast terminal growth of 1.0% while using a 7.5% WACC.

Upside risks to our estimates are (1) higher commodity prices, (2) better long-term macro environment in the crude oil and refined products businesses, (3) stronger pipeline recontracting prospects and (4) tailwinds associated with energy transition opportunities.

Downside risks to our estimates are (1) US economic weakness, (2) slower oil and gas demand growth, (3) lower oil/gas prices, (4) higher than expected cash tax incidence at KMI and (5) weaker pricing at KMI's CO2 segment.

The Williams Companies, Inc. (WMB)

Our PO of $41 is derived from our discounted cash flow valuation, which implies a 10.9x 2024E EV/EBITDA multiple. We forecast a ten year outlook, which we believe is the limit of market recognition, and then forecast a terminal increase of 1.0% while using a 7.0% WACC.

Downside risks to our estimates and price objective are: (1) pace of deleveraging longer than expected and inability to execute on organic growth projects (2) global economic weakness (3) slower oil and gas demand growth (4) reduced oil & gas producer capital spending (5) changes to regulatory environment (6) increase in corporate tax policies.

Analyst Certification

I, Neel Mitra, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

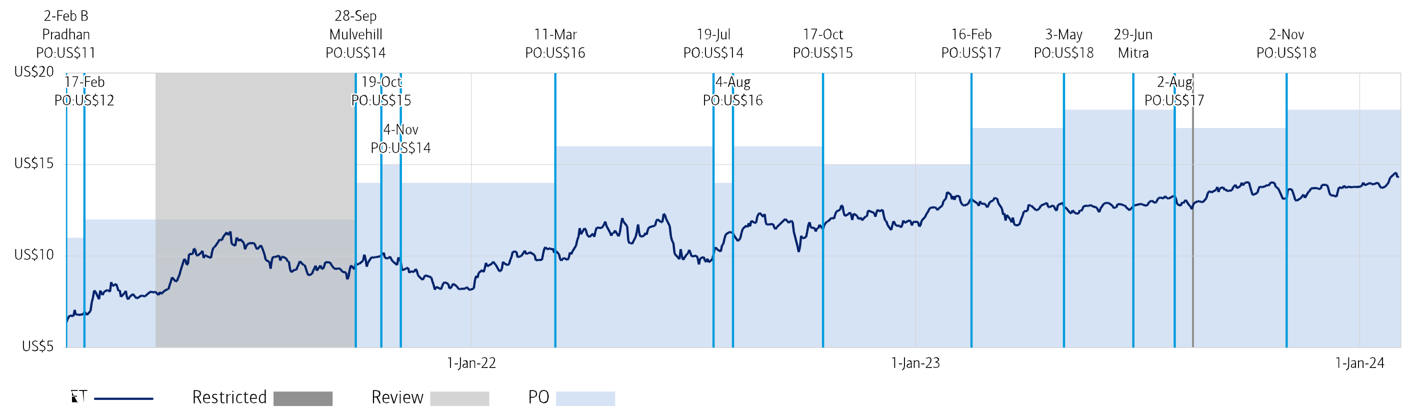
US - Pipelines and MLPs Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Energy Transfer LP	ET	ET US	Neel Mitra, CFA
	Enterprise Products Partners, L.P.	EPD	EPD US	Neel Mitra, CFA
	Kinetik Holdings Inc.	KNTK	KNTK US	Neel Mitra, CFA
	Kodiak Gas Services, Inc.	KGS	KGS US	Neel Mitra, CFA
	ONEOK Inc	OKE	OKE US	Neel Mitra, CFA
	Targa Resources Corp.	TRGP	TRGP US	Neel Mitra, CFA
	The Williams Companies, Inc.	WMB	WMB US	Neel Mitra, CFA
NEUTRAL				
	Kinder Morgan Inc	KMI	KMI US	Neel Mitra, CFA
	Plains All American Pipeline, L.P.	PAA	PAA US	Neel Mitra, CFA
	Plains GP Holdings, L.P.	PAGP	PAGP US	Neel Mitra, CFA
UNDERPERFORM				
	Equitrans Midstream Corporation	ETRN	ETRN US	Neel Mitra, CFA
	MPLX LP	MPLX	MPLX US	Neel Mitra, CFA
	Western Midstream Partners, LP	WES	WES US	Neel Mitra, CFA
RVW				
	Golar LNG Limited	GLNG	GLNG US	Neel Mitra, CFA

Disclosures

Important Disclosures

Energy Transfer LP (ET) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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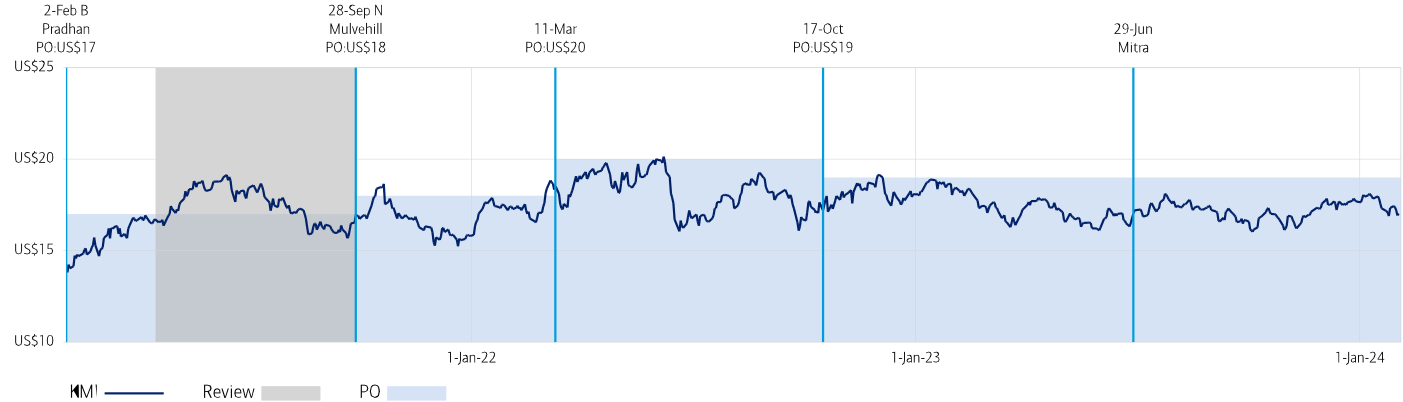
Kinder Morgan (KMI) Price Chart



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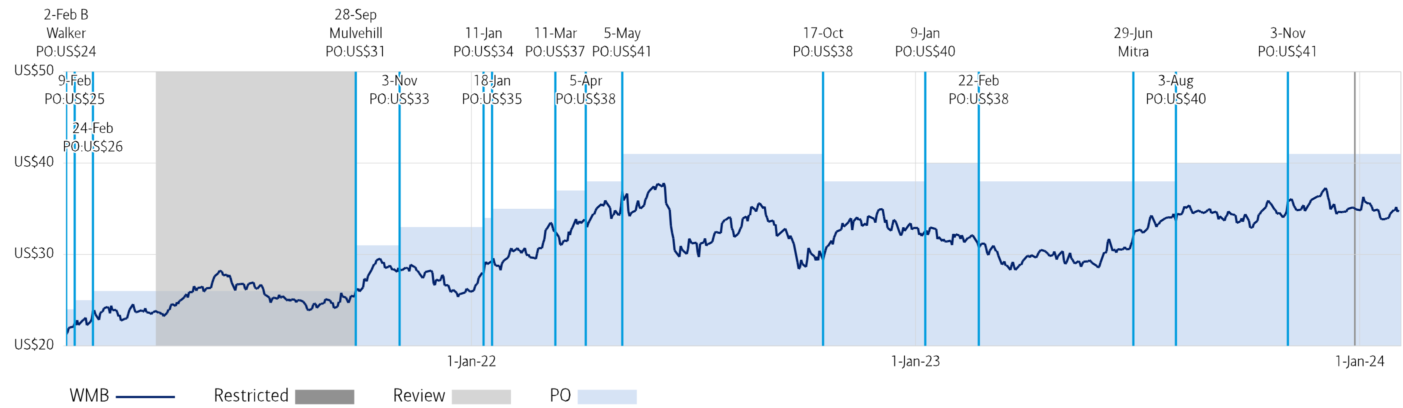
Williams Companies (WMB) Price Chart



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Equity Investment Rating Distribution: Energy Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships [R1]	Count	Percent
Buy	83	61.48%	Buy	64	77.11%
Hold	28	20.74%	Hold	21	75.00%
Sell	24	17.78%	Sell	18	75.00%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships [R1]	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

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Underperform	N/A	≥ 20%

[R2]Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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