

Message

From: Smith, Curtis A SHLOIL-ERM [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=██████████]
Sent: 1/12/2021 3:14:38 PM
To: Sherwin, Rob A SI-ER ██████████@shell.com]
Subject: RE: Climate activists choke Appalachian pipeline expansion

Ironic, isn't it? that our worst actors have provided GW/Shell the highest regulatory platform to stand upon over the last 4 years. But....to your point, sad, that they continue to have their heads in the sand.

The practical side of this is also the cold hard truth: they can't afford the fix. Which, by my father's banker rules, means you can't afford to be in biz in the first place.

From: Sherwin, Rob A SI-ER ██████████@shell.com>
Sent: Tuesday, January 12, 2021 11:19 AM
To: Smith, Curtis A SHLOIL-ERM ██████████@shell.com>
Subject: FW: Climate activists choke Appalachian pipeline expansion

This line from 2nd story is pretty extraordinary – utter denial/ignoring of the methane issue by most shale producers. I didn't realise the situation was quite that bad. Makes it all the more valuable that Gretchen and other bigger producers take a stand ... but we will likely continue to be judged by the lowest common denominator in the patch. Troubling.

R

Of 144 oil and gas operators asked in the most recent Dallas Fed [survey](#), two-thirds had no plan to reduce methane emissions. The same share of companies had no plan to reduce gas flaring and 80 per cent didn't even have a plan to cut carbon emissions.

From: FT Energy Source ██████████@newsletters.ft.com>
Sent: 12 January 2021 11:00
To: Sherwin, Rob A SI-ER ██████████@shell.com>
Subject: Climate activists choke Appalachian pipeline expansion

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Plus: operators aren't ready for Biden's crackdown on methane, batteries surge and more

FINANCIAL TIMES

Energy Source

Profit. Power. Politics.



Climate activists choke Appalachian pipeline expansion



Derek Brower
January 11, 2021

Two things to start: [US emissions plunged](#) last year but could rise sharply if and when an economic recovery takes hold, according to Rhodium Group. In Europe, [Russia's Gazprom](#) will this week defy US sanctions to begin laying the final parts of its controversial Nord Stream 2 natural gas pipeline to Germany.

And BP joined the list of companies announcing a halt on some political contributions saying — in the wake of the deadly riot by Trump supporters at the Capitol — that its “employee political action committee will pause all contributions for six months” and “re-evaluate its criteria for candidate support”.

Our first note today is on the US's natural gas sector, where environmental opposition to new infrastructure may have called time on one of the biggest boom stories of the shale revolution: the rise of Appalachian gas.

Our second is on methane emissions — the oil and gas industry's dirty secret. In just over a week, a new federal administration takes power with a mandate to crack down on emissions of this potent greenhouse gas. Many operators are not prepared.

Thanks for reading. Please get in touch at [REDACTED]@ft.com. You can sign up for the newsletter [here](#). — Derek

Trouble in the pipeline for Appalachian gas

As US natural gas production boomed over the past decade, operators in the Appalachian region

in the country's north-east led the charge. Output from the Marcellus and Utica shales soared from less than 5bn to almost 35bn cubic feet a day.

But that growth may be about to hit a ceiling. Not because of lack of demand (that is still rising). And not because of lack of supply (there is still plenty of gas to be extracted). But because an activist drive to block further infrastructure development is choking off gas producers' route to market.

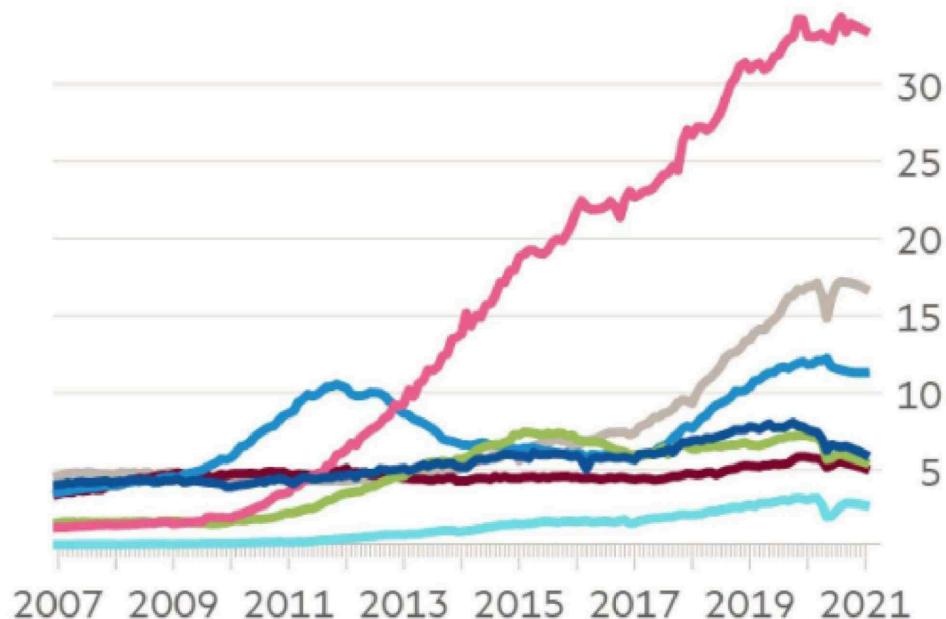
"If you look beyond 2021 . . . you're not going to see much in the way of any material additional pipeline takeaway capacity provided to support further growth out of the Marcellus and Utica — given the political climate we find ourselves in," said Richard Redash, head of global gas planning at S&P Global Platts.

"It's dominated by political and environmental situations and the opposition of other stakeholders," said Mr Redash.

Appalachia led the boom in US gas

Production (billion cubic feet per day)

— Anadarko — Appalachia
— Bakken — Eagleford
— Haynesville — Niobara
— Permian



Sources: , Energy Information Administration

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Activists opposed to the growth of fossil fuels have targeted the construction of new pipelines. They point out that, as a fossil fuel, any new natural gas development will simply add emissions when the US must urgently replace them — and that falling renewables costs make new gas-fired generation unnecessary anyway.

In the US north-east, their tactics have proved strikingly effective. “What they’ve figured out is . . . they can’t beat us on the supply side and can’t beat us on the demand side,” Mike Sommers, chief executive of the American Petroleum Institute, told industry executives last September.

“So what they do is they try to step on the hose in the middle and stop this country from building

the infrastructure that it needs to continue to grow," Mr Sommers said.

Last year, the Atlantic Coast Pipeline — which would have pumped 1.5 bcf/d from the region — was **abandoned** after repeated challenges sent costs soaring. The Mountain Valley Pipeline is the only significant project still in the offing. It is due to come online this year — but analysts reckon it could be delayed by another four years as it struggles to attain the requisite permits.

Analysts estimate there is about 2 bcf/d of output growth left in Appalachia before it hits a ceiling, given current pipeline capacity. The reckoning has been kept at bay as the chaos of the past year caused companies to hold off growth plans.

But as the industry cranks into gear elsewhere, looking to supply an expected surge in liquefied natural gas exports, operators in the Marcellus and Utica — worried about the lack of market access — are not returning to growth mode.

Those plays, said Mr Redash, now look to be "fenced off" because of the lack of new pipelines. "That's going to put the onus on other plays to meet that incremental production."

Focus shifts south

All of this is good news for at least one group: producers operating in the Haynesville shale of Louisiana and Texas, where they are planning for major growth.

"Haynesville is really the only other player that has gas resource to scale to replace the kind of development pace that the north-east has had over the past decade," said Jen Snyder, a director at Enverus.

Haynesville operators are raring to go as Appalachian growth stalls

Rig count by basin



Source: Baker Hughes

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Southern state legislatures and regulators remain friendlier to the fossil fuel industry. Operators there are also closer to the key demand centres — industry and LNG terminals — that will drive future growth.

Even so, federal restrictions are likely to tighten under the incoming Biden administration, which plans to cut power emissions to net-zero by 2035.

Deb Haaland, the new interior secretary, has been a vocal opponent of certain pipeline projects. Would-be midstream investors — and gas operators — are wary.

As Energy Secretary Dan Brouillette said last year: “The product has no value without the ability to

get it to market." (*Myles McCormick*)

The Permian Basin's methane emissions problem

With less than two weeks until President-elect Joe Biden takes office, the US shale patch shows little sign that it is ready for a coming crackdown on emissions of methane, the potent greenhouse gas blamed for supercharging global warming trends.

Of 144 oil and gas operators asked in the most recent Dallas Fed [survey](#), two-thirds had no plan to reduce methane emissions. The same share of companies had no plan to reduce gas flaring and 80 per cent didn't even have a plan to cut carbon emissions. (More data from a similar questionnaire from the Kansas City Fed in our Endnote.)

"There is a real split between those who see what the future holds and are preparing for it and those who seem to be blind to what's in their own best interest," said Matt Watson, vice-president for energy at the Environmental Defense Fund.

The Dallas Fed survey came after New Mexico's Environmental Department released emissions data showing the state's share of the Permian Basin saw methane leak rates that more than doubled in 2020, to 5 per cent from 2 per cent a year earlier.

The regulators spotted leaks from "a variety of oil and gas equipment, including storage tanks and flares", and said that leak rates were "significantly higher than those reported by industry".



A natural gas flare on an oil well pad burns outside Watford City, North Dakota © REUTERS

Total methane emissions from across the Permian, including Texas, fell sharply last year as production and drilling activity collapsed in the basin along with the oil price, but have since risen back towards pre-crisis levels, according to data from the Environmental Defense Fund's Permian Methane Analysis Project.

Before the crisis, the group found that Permian producers were releasing methane at three times the national rate. Some 1.4m metric tonnes of methane are released from the Permian every year, enough to supply 2m homes, says EDF.

Oil and gas producers broadly welcomed the Trump administration's light-touch regulatory approach — which included elimination of Obama-era regulations requiring stringent monitoring and repairing of methane leaks — saying self-policing would be as effective.

But New Mexico's regulators said the data they collected cast doubt on the industry's assertion it could arrest its own emissions. "It is clear that voluntary emissions reductions measures undertaken by some operators are not enough to solve this problem," says James Kenney, cabinet secretary at New Mexico's Environmental Department.

The state, one of the fastest growing areas of the Permian by production, says it plans to roll out new gas capture rules in March that would “curb 98 per cent of methane emissions from oil and gas operations”.

Last year saw a flurry of announcements focused on methane emission targets from ConocoPhillips, Occidental Petroleum and Pioneer Natural Resources, among others. ExxonMobil pledged to reduce its methane emissions per barrel produced by 40-50 per cent by 2025, although it did not promise absolute emissions reductions.

US producer equities have rallied in recent weeks on higher oil prices, but many analysts see the emissions problem scaring off investors and acting as a structural weight on the sector — especially as a new president in Washington arrives with a mandate to deal with the methane problem.

“The winners in this game are going to be the ones that respond to the call for urgent action and the losers will be those that continue to model themselves on the noble ostrich,” said Mr Watson. *(Justin Jacobs)*

Data Drill

Zero-emission electricity — including wind, solar, batteries and nuclear — will account for more than 80 per cent of new additions by capacity in the US this year, according to the Energy Information Administration. Natural gas accounts for the rest.

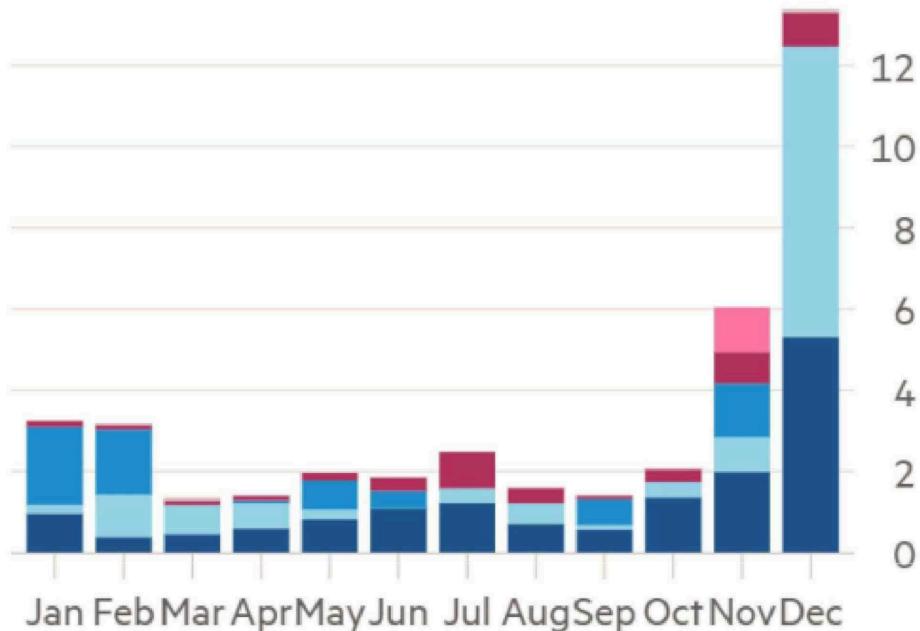
More than 15GW of new solar power will be added to the grid, making it the largest single source of new generating capacity, followed by wind power at 12.2GW. Wind and solar combined will account for about 70 per cent of new capacity.

New battery capacity additions of 4.3GW in 2021 will smash the record for annual deployments — almost matching new natural gas capacity additions, which will come in at about 6.6GW in 2021.

US renewables to surge in 2021

Planned utility-scale electricity additions by capacity in 2021, GW

Solar Wind
Natural gas Batteries
Nuclear Other



Source: Energy Information Administration

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Power Points

- A Dutch court case involving Shell could force oil and gas companies to accelerate a shift away from fossil fuels and push other corporate polluters to reassess their carbon footprint.
- The US Federal Reserve, Securities and Exchange Commission, Commodity Futures Trading Commission and other US federal bodies can help the country take leadership in global climate policy if it embraces “the potential of America’s complex financial regulatory system”, argues Duke University’s Sarah Bloom Raskin, a former deputy US Treasury secretary.

- US coal miners' last-ditch hope for shipping big volumes to Asia has crumbled as the developer of a sprawling export terminal **abandons its project** on the Pacific coast.
- **Shell resumed shipments from Prelude**, its floating LNG facility off the shore of Australia, after a year-long interruption that damped industry enthusiasm for the technology.

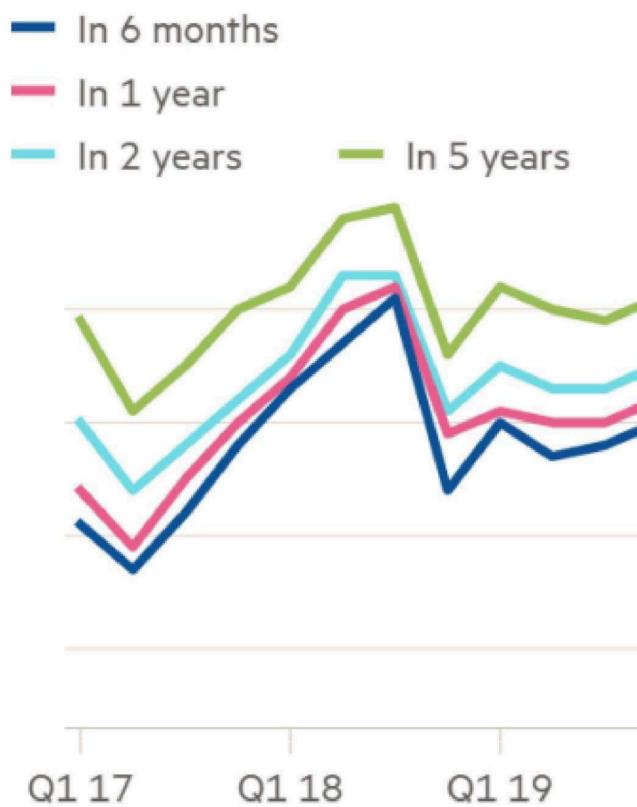
Endnote

The mood is picking up in second-tier US shale regions, according to a survey of operators by the **Kansas City Federal Reserve**. Activity is increasing too, but remains beneath the level of a year ago. Respondents from Colorado, Wyoming, Oklahoma and other areas — but not the core shale plays of Texas and New Mexico — suggested oil prices still needed to rise further, to \$56 a barrel, before a “substantial” pick-up in drilling could occur. Still, those levels may be struck within a couple of years, if operators’ price expectations are correct.

Meanwhile, environmental concerns are moving more slowly through the shale patch. More than 40 per cent of respondents said their company had no plans to reduce CO2, ethane emissions or flaring, nor to recycle or reuse water.

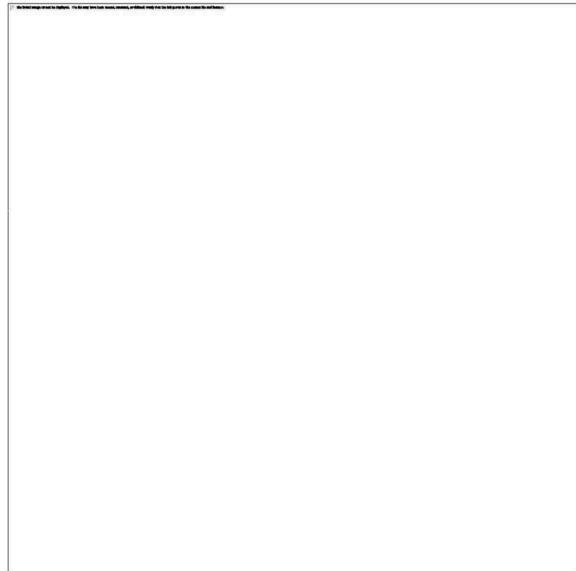
US oil producers' future price hopes are inching up again

WTI, expected (\$ per barrel)



Source: Federal Reserve Bank of Kansas City

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Energy Source is a twice-weekly energy newsletter from the Financial Times. Its editors are [Derek Brower](#), [Myles McCormick](#), with contributions from [Justin Jacobs](#) in Washington, [David Sheppard](#), [Anjli Raval](#), [Leslie Hook](#) and [Nathalie Thomas](#) in London, and [Gregory Meyer](#) in New York. Please send us your feedback to [\[REDACTED\]@ft.com](#).



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