Chinese Investments In U.S. Shale Gas Have Been Bad For The Sector

Alex Kimani ∷ 4/2/2024

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- **The United States is currently experiencing a post-pandemic boom in foreign direct investment.**
- **Chinese investments in U.S. shale gas has had no impact in lowering emissions despite a large increase in regulatory pressure to lower greenhouse emissions in the sector.**
- **China's state-owned companies are ramping up exploration and production of unconventional gas resources by leveraging expertise gained from Western oil and gas majors.**

The United States is currently experiencing a post-pandemic boom in foreign direct investment (FDI), thanks in large part to new industrial policies that incentivize U.S. manufacturing investment such as the Inflation Reduction Act (IRA) and the CHIPS Act as well as overall resilience of the U.S. economy. FDI in the United States increased $216.8 billion to $5.25 trillion at the end of 2022 from $5.04 trillion at the end of 2021, with Europe accounting for the lion's share of investment inflows.

Unfortunately, the same cannot be said about investments from China.

Annual investments from the world's second largest economy has dropped from $46 billion in 2016 to less than $5 billion in 2022, with China ceding its former position as one of the top five U.S. investors to a second-tier player surpassed by countries such as Norway, Qatar and Spain.

Well, maybe the U.S. energy sector is none the worse for wear. Usha Haley, professor of management at the Barton School of Business at Wichita State University, undertook a comprehensive evaluation of the implications of Chinese foreign investment in the U.S. shale gas sector. She notes that the U.S. is the largest producer of shale gas, with nearly 80% of the country's 125.0 Bcf/d average production in 2023 coming from shale formations. Meanwhile, Haley notes that China only produces about half of the natural gas that it consumes, with a lack of technological expertise as well as economic factors making it opt to invest significantly in U.S. shale extraction instead as a source of imports. Haley and her team have found that while, in general, foreign direct investments can bring many benefits including promotion of international trade as well as the transfer of technology between countries, investment from less technologically advanced state-capitalist economies such as China can end up doing more harm than good.

The researchers examined a wealth of data from the upstream (exploration and production), midstream (transportation and storage), and downstream (provision of final products) segments of the vast U.S. shale-gas sector. They then compared the impacts associated with the pre-Chinese (2000–2008) and post-Chinese (2009–2018) investment periods to determine how Chinese state-capitalist investments have altered technology development in the sector. The researchers have found unequivocal evidence that Chinese investments in U.S. shale have changed the trajectories of green technology in ways that are detrimental to the U.S. According to the team, this is the case because Chinese investors more often than not prioritize the immediate production of shale gas using established technology ahead of investing in the development of environmentally friendly shale-gas extraction technologies. Haley notes that Chinese investments in U.S. shale gas has had no impact in lowering emissions despite a large increase in regulatory pressure to lower green-house emissions in the sector. For instance, last year, the U.S. pipeline regulator unveiled new rules aimed at lowering methane leaks from the vast network of 2.7 million miles of natural gas pipelines in the country. The new rules could potentially eliminate 1 million metric tons of methane emissions by 2030, the equivalent of emissions from 5.6 million cars.

A study published in Nature Energy has revealed that there are tens of thousands of inactive and unplugged offshore oil and gas wells inundating the U.S. Shale Patch, posing the risk of possible methane leaks into the ocean. In fact, there are more inactive and unplugged non-producing wells in the Gulf of Mexico coastal waters in Louisiana, Texas and Alabama than currently active wells. The study estimates that plugging and abandoning these wells would cost the industry a hefty $30 billion.

China's Shale Gas Bet Paying Off

On its part, Beijing is hardly complaining, with years of investment in, and cooperating with, the U.S. energy sector starting to pay off. Last December, analysts at BMI, a Fitch Solutions company, told Rigzone that China's state-owned companies are ramping up exploration and production of unconventional gas resources by leveraging expertise gained from western oil and gas majors.

"*State-owned companies PetroChina and Sinopec are experiencing some success in unconventional gas production as they accelerate exploration activities. The two largest producers, Sinopec and PetroChina, have gained considerable experience and are technically capable of producing shale and tight gas, having worked with oil majors such as Shell, Chevron, and TotalEnergies,*" they said in the report.

The analysts have noted that, since 2018, Beijing has maintained strong support for the exploration and production of shale gas as the country tries to become less dependent on imports. China's Ministry of Land and Resources estimates the technically recoverable shale gas reserves to be 883 trillion cubic feet.

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