Energy Survey

Tenth District Energy Activity Fell Again

by: Chad Wilkerson and Chase Farha
April 12, 2024

First quarter energy survey results revealed that Tenth District energy activity fell again and is expected to decline further. Firms reported that oil prices needed to be on average $65 per barrel for drilling to be profitable, and $90 per barrel for a substantial increase in drilling to occur. Natural gas prices needed to be $3.47 per million Btu for drilling to be profitable on average, and $4.38 per million Btu for drilling to increase substantially.

Summary of Quarterly Indicators

Tenth District energy activity fell again in the first quarter of 2024, as indicated by firms contacted between March 15th, 2024, and April 1st, 2024 (Tables 1 & 2). The drilling and business activity index increased from -33 to -13 (Chart 1). Revenues stayed steady in Q1, while profits declined at a slower pace than in previous quarters. Only the employment-related indexes had positive readings this quarter—namely the number of employees, employee hours, and wages & benefits indexes.

Drilling activity also fell from this time last year, with the business/drilling activity index changing to -26 from -33 last quarter. Revenues and profits also declined somewhat, and the capital expenditures index was negative for the first time since Q4 2020.

The contraction in drilling activity is expected to continue in the next six months, but firms anticipate revenues and profits will pick up somewhat. Despite this, capital expenditures are expected to continue declining even as the outlook for access to credit is stable.

Summary of Special Questions

Firms were asked what oil and natural gas prices were needed on average for drilling to be profitable across the fields in which they are active. The average oil price needed was $65 per barrel (Chart 2), while the average natural gas price needed was $3.47 per million Btu (Chart 3). Firms were also asked what prices were needed for a substantial increase in drilling to occur across the fields in which they are active. The average oil price needed was $90 per barrel (Chart 2), and the average natural gas price needed was $4.38 per million Btu (Chart 3).
Chart 2. Special Question: What price is currently needed for a drilling to be profitable and for a substantial increase in drilling to occur for oil? What do you expect WTI prices to be in six months, one year, two years, and five years?

Chart 3. Special Question: What price is currently needed for a drilling to be profitable and for a substantial increase in drilling to occur for natural gas? What do you expect Henry Hub prices to be in six months, one year, two years, and five years?
Firms reported what they expected oil and natural gas prices to be in six months, one year, two years, and five years. The average expected WTI prices were $81, $83, $85, and $90 per barrel, respectively. The average expected Henry Hub natural gas prices were $2.16, $2.71, $3.01, and $3.58 per million Btu, respectively.

Firms were asked how they anticipate the ongoing consolidation in the oil sector will affect U.S. oil production growth and oil price trajectories (Chart 4). 42% believe the consolidation will likely lead to more cautious U.S. oil production growth and could potentially drive higher oil prices, while 35% believe it will lead to more cautious U.S. oil production growth and contribute to more stable oil prices. The other 23% of firms do not anticipate any significant impact on U.S. oil production or oil prices due to industry consolidation.

Contacts were also asked about how profit margins have changed in the last 3 months given current price pressures (Chart 5). Responses were mixed, with 29% reporting a slight decrease in margins, 25% a significant decrease, and 23% each reporting no change in margins or a slight increase.

Table 1
Summary of Tenth District Energy Conditions, Quarter 1, 2024

<table>
<thead>
<tr>
<th>Energy Company Indicators</th>
<th>No (%)</th>
<th>Diff (%)</th>
<th>Index</th>
<th>No (%)</th>
<th>Diff (%)</th>
<th>Index</th>
<th>No (%)</th>
<th>Diff (%)</th>
<th>Index</th>
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<tr>
<td>Drilling/Business Activity</td>
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<td>23</td>
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<td>19</td>
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<td>Total Profits</td>
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<td>Number of Employees</td>
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*Percentage may not add to 100 due to rounding.

*Diffusion Index. The diffusion index is calculated as the percentage of total respondents reporting increases minus the percentage reporting declines.

Note: The first quarter survey ran from March 15, 2024 to April 1, 2024 and included 33 responses from firms in Colorado, Kansas, Nebraska, Oklahoma, Wyoming, northern New Mexico, and western Missouri.
Tenth District Energy Activity Fell Again

https://www.hansascityfed.org/surveys/energy-survey/tenth-district-energy-activity-fell-again/
“In the short run, there is very little that can be done to maintain profit margins. In general, we don't think there is a lot that service companies can do to lower their cost and thus pass on savings to exploration and production companies. Capital expenditures must come down to match cash flow.”

“Long term, the cost of gas needs to match the cost to replace the gas reserves. Current low prices do not justify the cost of reserve replacement.”

“Natural gas continues to be plentiful.”

“The USA is way oversupplied in natural gas, hence exports of LNG are critical. As LNG projects for exports are delayed, natural gas will back up in the USA.”

“Working through excess supply currently. Natural gas will be in higher demand as we move forward for electricity generation.”

“Dry gas development will meet increased demand needs. Associated gas constant to rising.”

“Less companies looking for new reserves means we will not be able to replace the reserves needed to cover the demand.”

“At least for publicly traded companies, there is sufficient motivation to place profits and return of capital over growth.”

“The industry remains highly fragmented in the US, and US production is a small component of an efficient global market.”

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About the Energy Survey
Chad Wilkerson
Senior Vice President and Oklahoma City Branch Executive

Chad Wilkerson serves as Oklahoma City Branch Executive and Senior Vice President of Community Development for the Federal Reserve Bank of Kansas City. Wilkerson has been with the Federal Reserve since 1998, starting in Kansas City’s research department. Appointed in 2006 as Oklahoma City Branch Executive, Wilkerson is the Bank’s lead officer and regional economist in Oklahoma. He recruits and works closely with the Oklahoma City Branch Board of Directors and is responsible for briefing the Kansas City Fed president, a member of the Federal Open Market Committee, on economic trends in the state. His team conducts research and surveys on key regional issues such as energy, manufacturing and migration. Wilkerson was appointed Senior Vice President in 2022, and supports a Community Development team located across the Kansas City Fed’s seven-state region. This group works to understand and address issues affecting the ability of underserved communities and small businesses to access credit. Community development focus areas include financial resiliency, affordable housing, community investments, workforce development, rural development and digital inclusion. Wilkerson holds a master’s degree in public policy from the University of Chicago, as well as a master’s degree from Southwestern Seminary and bachelor’s degree from William Jewell College. He serves on the boards of the Economic Club of Oklahoma, the United Way of Central Oklahoma and City Rescue Mission. He lives in Edmond, Oklahoma, with his wife and children.

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Research Associate

Chase Farha is a Research Associate in the Regional Affairs department at the Oklahoma City branch of the Federal Reserve Bank of Kansas City. In this role, his responsibilities include contributing to the Oklahoma Economist and a variety of research projects. He holds a Bachelor of Science degree in Economics, with minors in mathematics and Arabic, from Tulane University.