



# NEWS RELEASE

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**FOR IMMEDIATE RELEASE**

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**Tenth District Energy Activity Declined Moderately**  
*Federal Reserve Bank of Kansas City Releases First Quarter Energy Survey*

**KANSAS CITY, Mo.** –The Federal Reserve Bank of Kansas City released the first quarter Energy Survey today. According to Chad Wilkerson, senior vice president at the Federal Reserve Bank of Kansas City, the survey revealed that Tenth District energy activity declined moderately and is expected to continue to slow.

“District drilling and business activity experienced a moderate decline in Q1 as commodity prices eased and input prices remained elevated,” said Wilkerson. “Revenues and profits continued to decline significantly and are expected to continue contracting.”

The Kansas City Fed's quarterly Tenth District Energy Survey provides information on current and expected activity among energy firms in the Tenth District. The survey monitors oil and gas-related firms located and/or headquartered in the Tenth District, with results based on total firm activity. Survey results reveal changes in several indicators of energy activity, including drilling, capital spending, and employment. Firms also indicate projections for oil and gas prices. All results are diffusion indexes – the percentage of firms indicating increases minus the percentage of firms indicating decreases.

A summary of the survey is attached. Results from past surveys and release dates for future surveys can be found at <https://www.kansascityfed.org/surveys/energy-survey>.

The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, encompassing the western third of Missouri; all of Kansas, Colorado, Nebraska, Oklahoma and Wyoming; and the northern half of New Mexico. As part of the nation’s central bank, the Bank participates in setting national monetary policy, supervising and regulating numerous commercial banks and bank holding companies, and providing financial services to depository institutions. More information is available online at [www.kansascityfed.org](http://www.kansascityfed.org).

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# TENTH DISTRICT ENERGY SUMMARY

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*First quarter energy survey results revealed that Tenth District energy activity declined moderately and is expected to continue to slow. Firms reported that oil prices needed to be on average \$64 per barrel for drilling to be profitable, and \$86 per barrel for a substantial increase in drilling to occur. Similarly, natural gas prices needed to be \$3.45 per million Btu for drilling to be profitable on average, and \$4.74 per million Btu for drilling to increase substantially.*

## Summary of Quarterly Indicators

Tenth District energy activity declined moderately in the first quarter of 2023, as indicated by firms contacted between March 15th, 2023, and March 31st, 2023 (Tables 1 & 2). The drilling and business activity index decreased from 6 to -13 (Chart 1). All other indexes decreased from previous readings, except the supplier delivery time index increased from -11 to -3.

Year-over-year indexes remained mixed. The year-over-year indexes for drilling/business activity, capital expenditures, total profits, number of employees, employee hours, and wages and benefits all cooled but remained in positive territory. The total revenues index declined substantially from 67 to -10. However, the supplier delivery time and access to credit indexes increased.

Expectations for future activity also decreased moderately in Q1 2023. The future drilling and business activity index fell from 19 to -13, and expectations for future revenues and profits declined significantly. Price expectations for oil fell slightly, and expectations for natural gas prices decreased substantially.

## 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 \$64 per barrel, while the average natural gas price needed was \$3.45 per million Btu (Chart 2). 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 \$86 per barrel, and the average natural gas price needed was \$4.74 per million Btu, (Chart 3).

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 \$75, \$81, \$86, and \$90 per barrel, respectively. The average expected Henry Hub natural gas prices were \$2.82, \$3.33, \$4.04, and \$4.51 per million Btu, respectively.

Energy firms were also asked how their input costs changed over the last year, and how they anticipate they will change over the next year (Chart 4). A majority of firms reported their costs increased in all categories (wages; non-wage benefits; material inputs; financing costs; shipping, transportation, or supply chains; and government regulation) over the last year. However, a majority of firms anticipate that material inputs, financing costs, and shipping, transportation, or supply chain costs will either be lower or the same in the coming year.

In addition, firms were asked how they expect their number of employees to change from December 2022 to December 2023 (Chart 5). Slightly over half of firms reported they expect the number of employees to remain the same, 39% expect a slight increase, 6% expect a slight decrease, and 3% expect the number to increase significantly.

## Selected Energy Comments

“A lot of uncertainty with the price of oil. Operators are taking a pause to see how the next 3-4 months play out. Drilling for gas isn't even part of the conversation. We continue to hear from operators that steel/casing cost are still too high with availability limited.”

“As rigs continue to go down we have to retain our crews. We've worked so hard to find good help, if we lose them now they'll never come back. I'm paying reduced wages with no OT to 70% of my personnel to work in our drilling yard on equipment maintenance. With declining revenues & income it's all about preserving capital.”

“We have cut back drilling to offset higher costs and lower revenue to maintain a stable to increasing free cash flow position.”

“Natural gas markets are oversupplied and there will be nowhere to go with gas until producers pinch back 400 bcf to get storage back in balance.”

“Service costs are currently at a rate in excess of today's commodity prices. Therefore, an absence of service cost decreases would be damaging.”

“Fluctuations in oil prices driven by the conflicting inflationary environment and potential recession are making it difficult to plan business over the next 6 months. We expect softness in the gas market due to sub \$3 gas. TBD on whether oil basins can absorb the excess capacity. Weakness in overall activity and resulting pricing softness could lead to headcount and capex reductions.”

“Not a lot of quality deals and few investment dollars especially for the smaller independents. Very little new entry into our market combined with an aging and/or retirement from the older operators.”

“Appears to be no risk premium in oil prices. While fundamentals for crude have been bearish lately, it does not appear that product demand has softened a great deal, and inventories of products remain tight.”

**Table 1**  
**Summary of Tenth District Energy Conditions, Quarter 1, 2023**

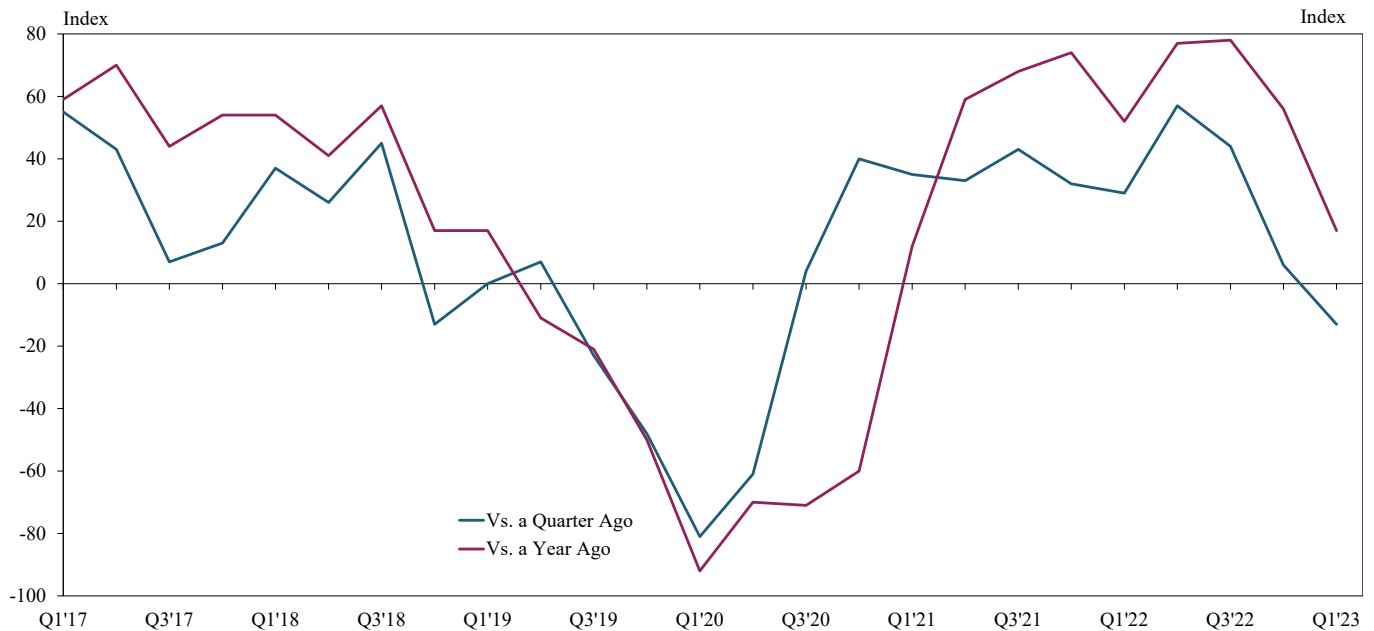
Energy Company Indicators	Quarter 1 vs. Quarter 4 (percent)*				Quarter 1 vs. Year Ago (percent)*				Expected in Six Months (percent)*			
	No		Diff		No		Diff		No		Diff	
	Increase	Change	Decrease	Index^	Increase	Change	Decrease	Index^	Increase	Change	Decrease	Index^
Drilling/Business Activity	10	67	23	-13	37	43	20	17	17	53	30	-13
Total Revenues	16	26	58	-42	35	19	45	-10	26	23	52	-26
Capital Expenditures					55	16	29	26	23	48	29	-6
Supplier Delivery Time	13	71	16	-3	29	52	19	10	13	52	35	-23
Total Profits	23	29	48	-26	42	19	39	3	16	45	39	-23
Number of Employees	23	61	16	6	39	48	13	26	23	68	10	13
Employee Hours	19	68	13	6	35	55	10	26	23	68	10	13
Wages and Benefits	45	52	3	42	81	16	3	77	48	48	3	45
Access to Credit	13	74	13	0	19	68	13	6	10	74	16	-6
Expected Oil Prices									52	26	23	29
Expected Natural Gas Prices									38	38	24	14
Expected Natural Gas Liquids Prices									43	33	23	20

\*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, 2023 to March 31, 2023 and included 31 responses from firms in Colorado, Kansas, Nebraska, Oklahoma, Wyoming, northern New Mexico, and western Missouri.

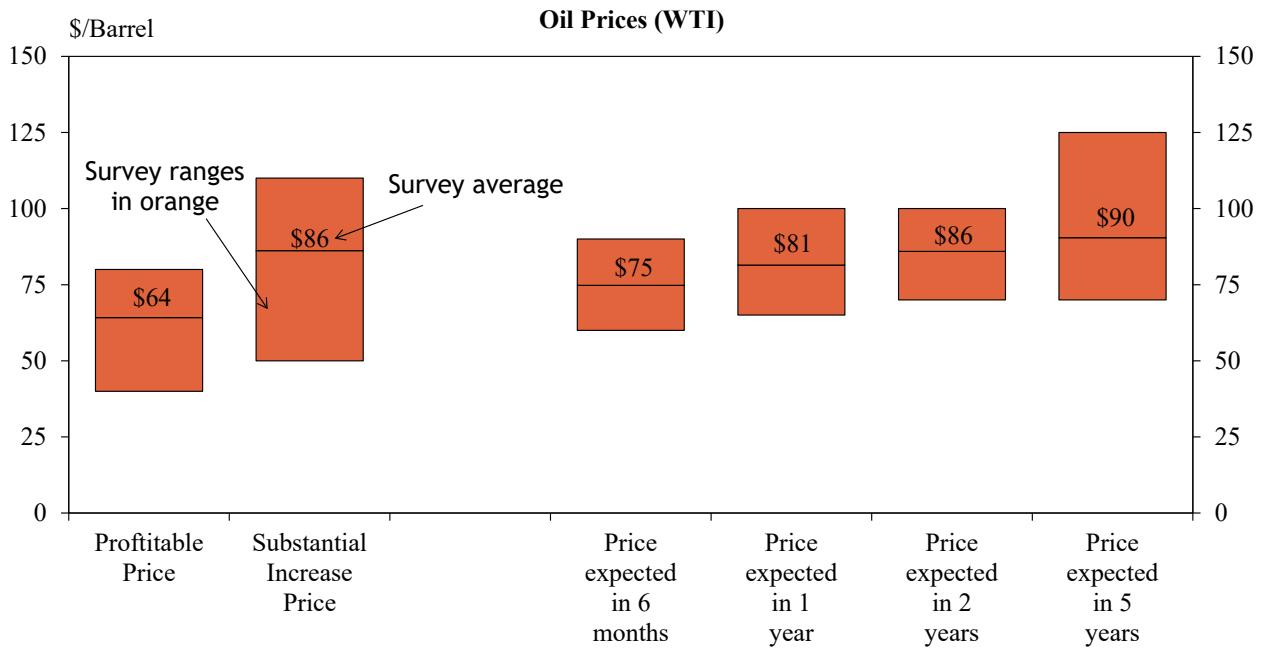
**Chart 1. Drilling/Business Activity Indexes**



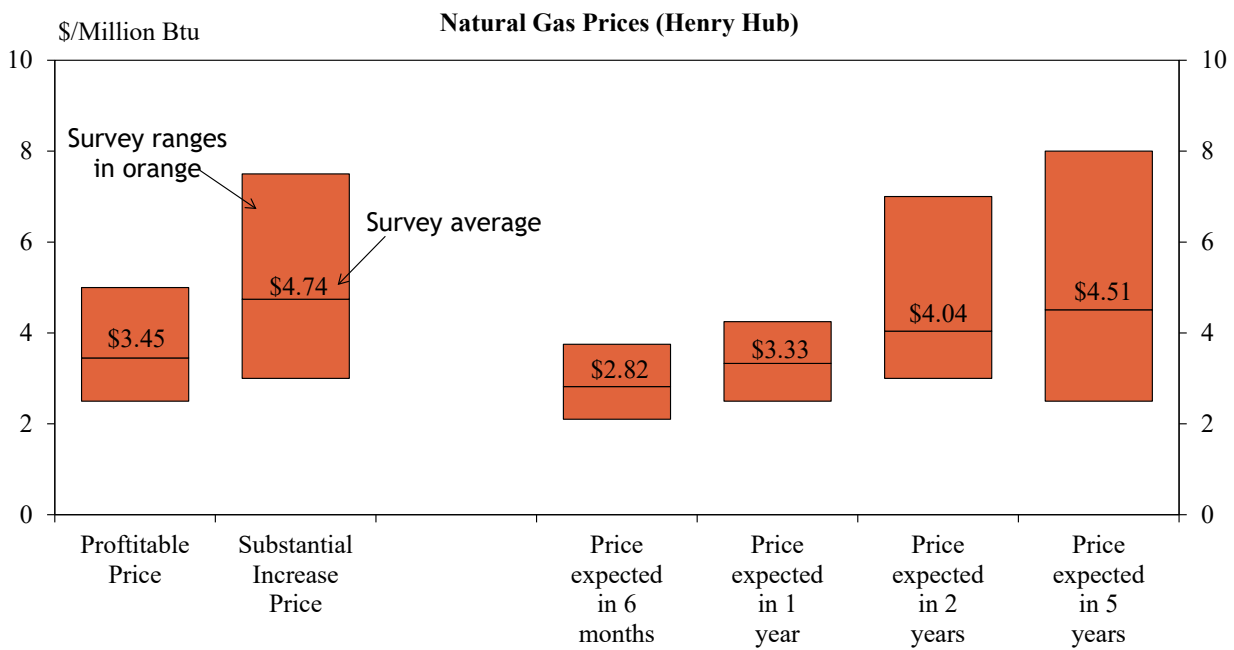
**Table 2**  
**Historical Energy Survey Indexes**

	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22	Q2'22	Q3'22	Q4'22	Q1'23
<i>Versus a Quarter Ago</i>													
(not seasonally adjusted)													
Drilling/Business Activity	-81	-61	4	40	35	33	43	32	29	57	44	6	-13
Total Revenues	-73	-78	-7	31	44	82	82	63	38	87	25	-8	-42
Capital Expenditures	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplier Delivery Time	-24	-13	-21	0	5	-3	-3	6	-9	10	-3	-11	-3
Total Profits	-81	-88	-24	14	36	70	69	34	44	68	29	-17	-26
Number of Employees	-54	-56	-39	-14	12	25	26	34	39	42	47	38	6
Employee Hours	-54	-55	-38	3	17	42	38	28	41	39	37	41	6
Wages and Benefits	-24	-38	-17	9	21	39	33	53	56	58	61	59	42
Access to Credit	-32	-31	-28	-6	5	9	16	10	25	16	6	6	0
<i>Versus a Year Ago</i>													
Drilling/Business Activity	-92	-70	-71	-60	12	59	68	74	52	77	78	56	17
Total Revenues	-81	-74	-79	-77	20	88	92	88	72	90	87	67	-10
Capital Expenditures	-68	-69	-66	-57	14	30	54	59	63	71	71	65	26
Supplier Delivery Time	-22	-26	-10	-9	7	3	8	9	-3	23	6	-5	10
Total Profits	-83	-84	-83	-69	5	91	82	84	75	81	84	61	3
Number of Employees	-62	-61	-59	-60	-17	12	31	32	66	55	61	56	26
Employee Hours	-62	-53	-62	-46	-7	30	45	29	63	55	50	57	26
Wages and Benefits	-30	-16	-24	-32	0	45	56	77	84	77	87	89	77
Access to Credit	-44	-35	-28	-46	-12	24	29	23	38	19	27	3	6
<i>Expected in Six Months</i>													
(not seasonally adjusted)													
Drilling/Business Activity	-78	0	0	26	41	41	45	45	42	50	25	19	-13
Total Revenues	-78	-16	-7	51	54	76	58	50	53	55	27	11	-26
Capital Expenditures	-73	-35	-14	9	36	33	31	53	63	52	52	49	-6
Supplier Delivery Time	-32	-19	3	-3	10	18	8	9	9	16	-10	-19	-23
Total Profits	-81	-10	-3	51	37	79	59	44	38	35	39	6	-23
Number of Employees	-68	-26	-38	-9	24	30	31	42	47	42	42	38	13
Employee Hours	-59	-33	-31	-3	36	27	26	23	41	32	27	30	13
Wages and Benefits	-49	-19	-28	12	36	36	46	71	72	63	65	70	45
Access to Credit	-44	-13	-10	6	7	12	13	6	19	6	7	3	-6
Expected Oil Prices	-19	28	28	51	24	55	33	34	-16	-6	20	62	29
Expected Natural Gas Prices	16	38	34	37	31	59	31	3	0	10	-10	-3	14
Expected Natural Gas Liquids Prices	-8	45	31	40	36	63	34	13	19	0	21	22	20
<i>Special Price Questions</i>													
(averages)													
Profitable WTI Oil Price (per barrel)	\$47		\$49		\$53		\$57		\$62	\$65	\$61	\$64	\$64
WTI Price to Substantially Increase Drilling		\$51		\$56		\$72		\$73	\$86	\$98	\$102	\$89	\$86
WTI Price Expected in 6 Months	\$33	\$41	\$43	\$48	\$62	\$74	\$73	\$75	\$96	\$109	\$88	\$83	\$75
WTI Price Expected in 1 Year	\$42	\$47	\$47	\$52	\$65	\$76	\$75	\$78	\$89	\$102	\$89	\$86	\$81
WTI Price Expected in 2 Years	\$50	\$53	\$53	\$56	\$67	\$76	\$75	\$78	\$83	\$88	\$90	\$88	\$86
WTI Price Expected in 5 Years	\$58	\$60	\$60	\$61	\$70	\$78	\$76	\$80	\$84	\$86	\$93	\$88	\$90
Profitable Natural Gas Price (per million BTU)	\$2.65		\$3.12		\$2.94		\$3.88		\$3.72	\$4.64	\$4.42	\$4.32	\$3.45
Natural Gas Price to Substantially Increase Drilling		\$2.88		\$3.28		\$3.82		\$4.27	\$4.53	\$6.34	\$7.65	\$6.13	\$4.74
Henry Hub Price Expected in 6 Months	\$2.02	\$2.17	\$2.62	\$2.68	\$2.72	\$3.19	\$4.72	\$3.66	\$4.45	\$7.06	\$7.46	\$5.01	\$2.82
Henry Hub Price Expected in 1 Year	\$2.34	\$2.41	\$2.71	\$2.88	\$2.94	\$3.21	\$4.22	\$3.92	\$4.32	\$6.65	\$6.48	\$5.52	\$3.33
Henry Hub Price Expected in 2 Years	\$2.57	\$2.64	\$2.87	\$3.03	\$3.14	\$3.34	\$4.31	\$3.97	\$4.29	\$6.06	\$6.16	\$5.78	\$4.04
Henry Hub Price Expected in 5 Years	\$2.94	\$3.02	\$3.28	\$3.23	\$3.50	\$3.71	\$4.79	\$4.29	\$4.74	\$5.77	\$6.51	\$6.19	\$4.51

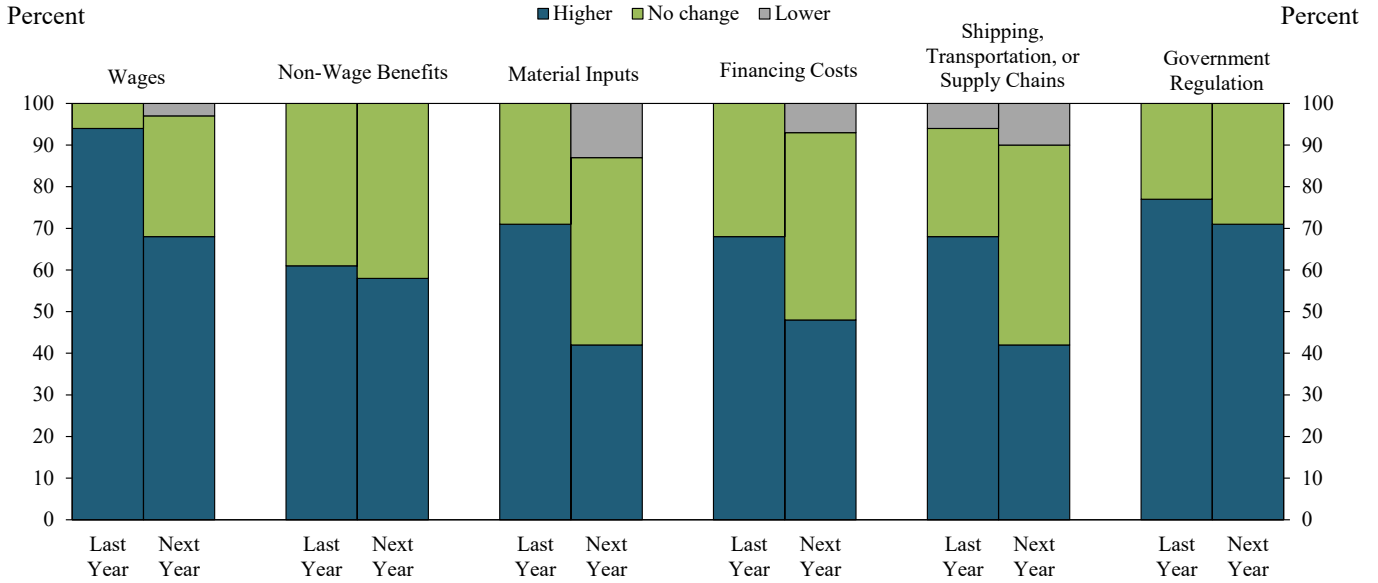
**Chart 2. Special Question - What price is currently needed for a drilling to be profitable and for a substantial increase in drilling to occur for oil? What do you expect WTI prices to be in six months, one year, two years, and five years?**



**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?**



**Chart 4. Special Question - How have your firms costs changed in the following categories over the last year, and how do you anticipate they will change over the next year?**



**Chart 5. Special Question - How do you expect the number of employees at your company to change from December 2022 to December 2023?**

