Oil & Gas Infrastructure

US Industry Study with Forecasts for 2016 & 2021

Study #2922 | November 2012 | $5100 | 270 pages

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Advances will benefit from the development of shale plays, especially in areas that have not -- until recently -- been major energy producers and will require additional infrastructure.

US demand to rise 6.3% annually through 2016

Demand for oil and gas infrastructure equipment is forecast to rise 6.3 percent annually through 2016 to $12.1 billion. Advances will benefit from the development of shale plays, especially in areas that have not -- until recently -- been major energy producers. These areas will require additional infrastructure in order to economically transport oil and natural gas from the well site. For example, pipeline capacity at the Bakken Shale in North Dakota and Montana is expected to more than double by 2016.

Upstream shale play drilling to benefit demand

Oil and gas infrastructure equipment demand will also benefit from increased upstream drilling activity. Much of this drilling activity is happening in previously dormant or nontraditional areas, which has created a demand for oil and gas infrastructure. Low natural gas prices have caused many producers to move drill rigs from dry gas areas into the more lucrative liquid plays. Strong liquid play activity is happening in the Eagle Ford Shale in Texas, the Bakken Shale in North Dakota, and the Niobrara Shale in Northern Colorado and Wyoming. However, natural gas prices, while currently low, are expected to recover by 2016. Expectations of this recovery are boosting demand for natural gas pipelines in areas such as the Marcellus Shale.

Interstate pipeline expansion to add opportunities

In addition to shale plays, significant pipeline opportunities will result from expansion of interstate pipelines. The most notable project is the Keystone XL pipeline, which would deliver crude oil from the Canadian tar sands to the southern US. The final portion of the project has yet to be approved by the US government, although such action is expected within the forecast period.

Plastic pipe to outpace dominant steel pipe types

Demand for pipe will benefit from construction of new transmission lines and the need for gathering systems at new drilling sites. Plastic pipe will post faster gains than steel due to widespread use in gathering applications. However, steel pipe will remain the dominant material because of its high pressure resistance. Welded pipe will continue to comprise the majority of steel pipe demand, due to its lower cost compared to seamless pipe. Demand for equipment such as valves, pumps, and compressors will benefit from new and expanding pipelines, given that this equipment is necessary to manage oil and gas flow through the system. Repair and replacement activity will provide opportunities across all product types, because safety is a primary concern in the industry.
Compressors are an essential part of natural gas pipelines. Large pipelines need periodic booster compression to overcome the drop in pressure caused by friction within the pipeline. For interstate pipelines, natural gas needs to be highly pressurized. This is done by compressor stations, which are located every 40 to 100 miles along the pipeline. Mainline compression stations operate continuously, whereas booster stations are used periodically to complement mainline compression. Compressors are also used to transport gas from offshore platforms to the shore. In offshore applications, there is a compression station at the head of the line but no additional stations along the line. Therefore, these lines require relatively high pressure to keep the gas flowing all the way to the destination.

In addition to primary compressors, onshore pipelines have standby units available in case of mechanical failure. This is because slowdowns in the pipeline can lead to significant loss of revenue.

Compressors also play an important role in natural gas storage. Compressors inject natural gas into storage reservoirs for storage, and later extract the gas into the pipeline for delivery. Activity in this role is often seasonal, reflecting demand for natural gas. However, factors such as spot market activity and short term weather changes can cause facilities to frequently change their operating patterns.

---

**TABLE IV-2**

<table>
<thead>
<tr>
<th>Item</th>
<th>2001</th>
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<th>2011</th>
<th>2016</th>
<th>2021</th>
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<td>2678</td>
<td>3294</td>
<td>3800</td>
<td>4150</td>
</tr>
<tr>
<td>$ infrastructure/000 barrels</td>
<td>463</td>
<td>771</td>
<td>940</td>
<td>1026</td>
<td>1157</td>
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<tr>
<td>Oil Infrastructure Demand</td>
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<td>2065</td>
<td>3095</td>
<td>3900</td>
<td>4800</td>
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<tr>
<td>Pipe</td>
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<td>1120</td>
<td>1850</td>
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<tr>
<td>Other</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>130</td>
<td>160</td>
</tr>
</tbody>
</table>

---

**CHART VI-1**

**OIL & GAS INFRASTRUCTURE MARKET SHARE**

($8.9 billion, 2011)
Sample Profile, Table & Forecast

CIRCOR International Incorporated
25 Corporate Drive, Suite 130
Burlington, MA 01803
781-270-1200
http://www.circor.com

Revenues: $822 million (2011)
Employment: 3,390 (2011)

Key Products: valves; actuators; regulators; controllers; switches; gauges; ultrasonic metering, orifice metering, and other skids; gas chromatograph systems, headers, and pipeline pigging and flow assurance products


CIRCOR is active in the US oil and gas infrastructure industry through the Energy segment, which had 2011 revenues of $395 million. The segment, which operates as CIRCOR Energy Products Incorporated (Oklahoma City, Oklahoma), designs, manufactures, and distributes valves and other flow control products for the upstream and midstream oil and gas, and petrochemical processing markets.

CIRCOR Energy Products makes a range of valves and other items under numerous brand names, such as KF VALVES, MALLARD CONTROL, CONTROMATICS, HYDROSEAL, SAGEBRUSH, PIPELINE ENGINEERING, and PIBIVIESSE. KF VALVES products comprise ball, check, needle, gate, globe, and butterfly valves, while CONTROMATICS offerings include ball valves and actuators.

"Demand for oil and gas infrastructure equipment in Texas is projected to increase 6.3 percent per year to $2.5 billion in 2016, about the average for the region. Texas will account for a large share of the region's net gain in demand, due mainly to sustained growth in oil drilling and liquids development in shale formation. In particular, the Eagle Ford formation will provide strong opportunities for infrastructure demand. In addition,..."

--Section V, pg. 131
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World Oilfield Equipment
Global demand for oilfield equipment will rise 3.8 percent yearly through 2016 to $109 billion. Growth will be strongest in developing areas, where better infrastructure will benefit drilling activity. New, more expensive techniques to drill for unconventional reserves such as shale oil and oil sands will boost spending on oilfield equipment. This study analyzes the $90.6 billion world oilfield equipment industry, with forecasts for 2016 and 2021 by product, world region and for 23 major countries. The study also evaluates company market share and profiles industry players. #2974 ............... December 2012 ................ $1500

Well Stimulation Materials
US demand for well stimulation materials is forecast to rise 10.2 percent annually to nearly $12 billion in 2016. Growth will be driven by continued advances in hydraulic fracturing technology designed to increase the productivity of both new and existing wells. Propants, gases, and base fluid materials will be among the fastest growing products. This study analyzes the $7.4 billion US well stimulation material industry, with forecasts for 2016 and 2021 by product, world region and for 33 countries. The study also evaluates company market share and profiles industry players. #2867 ......... March 2012 ................ $1500

World Mining Equipment
The world market for mining equipment is projected to climb 8.5 percent annually through 2015 to $92 billion. The Asia/Pacific region will remain the fastest growing market. Metals and coal mining will lead gains by application. Mining drills and breakers will pace demand among product segments. This study analyzes the $61 billion world mining equipment industry, with forecasts for 2015 and 2020 by application, product, world region and for 31 countries. The study also evaluates company market share and profiles industry competitors. #2840 ............ January 2012 ................ $6200

World Industrial Valves
Global demand for industrial valves will rise 5.4 percent annually through 2015. Growth will be driven by continuing robust gains in the Asia/Pacific region, as well as strong recovery in the US and West European markets. Automatic valves will outpace conventional types. The oil and gas industry will see strong growth in valve demand. This study analyzes the $71.8 billion world industrial valve industry, with forecasts for 2015 and 2020 by product, world region and for 34 major countries. The study also evaluates company market share and profiles industry competitors. #2809 .......... November 2011 ................ $5900

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