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For immediate release

New Flow Research Studies Find Expanding Oil Production and Measurement

Wakefield, MA (May 1, 2014) — A new series of six studies from [Flow Research](http://www.flowresearch.com) finds that the fast-growing worldwide market for flowmeters used for measurement of petroleum liquids totaled \$956 million in 2011, and is projected to increase to almost \$1.4 billion in 2016. Of that, shipments of new-technology petroleum liquid flowmeters totaled \$512 million in 2011 and are projected to increase with a compound annual growth rate (CAGR) of 10.7 percent through 2016. Traditional technology petroleum liquid flowmeters totaled \$444 million in 2011, with a projected CAGR of 2.4 percent.

Coriolis flowmeters are the revenue leaders in oil flow measurement applications. Coriolis meters are widely used for downstream custody transfer applications of petroleum liquids. Here they compete with positive displacement meters. They are also widely used for process measurement, allocation metering, and measurement of liquefied natural gas (LNG). Crude oil has been selling in the range of \$100 per barrel, and these high prices have placed a premium on highly accurate and reliable flow measurement. Coriolis flowmeters are well-suited to fill this need.

Ultrasonic flowmeters also play an important role in the measurement of petroleum liquids. The oil & gas and refining industries account for over 50 percent of industry revenues for ultrasonic

flowmeters. They are widely used both for process measurement and for custody transfer of petroleum liquids (oil). Even though ultrasonic flowmeters are not as widely used for oil flow measurement as for gas flow measurement, they play an important role in this critical measurement.

Differential pressure (DP) flowmeters still lead the oil flow measurement market in terms of units sold. DP flowmeters have been around for more than 100 years, and they cost substantially less than Coriolis and ultrasonic meters. In addition, they are the best solution for some subsea applications involving high pressures. They can be ideal solutions for some applications when high accuracy is not critical, such as those not involving custody transfer. Turbine flowmeters are the second-leading flowmeter for petroleum liquid applications in terms of units, though not in terms of revenues. The series of six studies, called [The World Market for Oil Flow Measurement](#), analyzes both flow measurement in the oil and gas industry and oil and gas production and reserves worldwide.

Besides analyzing the flowmeter market for petroleum liquid measurement, two of the six studies analyze worldwide and regional crude oil production, reserves, imports, exports, and consumption. The Mideast/Africa region is the leading producer of crude oil, and accounted for 41.3 percent of worldwide crude oil production in 2011. This same region held more than 60 percent of worldwide crude oil reserves in 2011. By contrast, Japan, China, and Asia/Pacific accounted for only 10 percent of world production in 2011. The contrast is even more pronounced in crude oil reserves. Japan, China, and Asia/Pacific held less than three percent of the world's crude oil reserves in 2011.

Asia's lack of crude oil production and reserves creates an opportunity for the oil-rich countries of the Middle East, as well as the United States and Europe. A similar imbalance exists among the regions for natural gas production and reserves. Because many Asian countries are surrounded by water, much of the imported natural gas comes in the form of liquefied natural gas (LNG). This presents multiple opportunities for custody transfer measurement of both natural gas and LNG. Some companies have taken advantage of the development of shale oil and shale gas to increase their exports to Asia/Pacific countries.

The high price of crude oil has also increased the demand for consistently more accurate and reliable flow measurement. For the past three months, West Texas Intermediate (WTI) crude oil has been selling in the range of \$100 per barrel, while Brent crude has sold at an even higher price. This makes drilling profitable in more locations and increases the opportunities for upstream flow measurement. This trend has especially benefited ultrasonic and Coriolis flowmeters.

According to Dr. Jesse Yoder, president of Flow Research, “Natural gas and oil will be with us for many years to come. While renewables hold great promise for the future, more research and development is required to make their cost competitive with fossil fuels. And, while natural gas holds promise as a long-term bridge to renewables, crude oil still remains the energy source of choice for many applications. Our studies show that the world still has vast reserves of both crude oil and natural gas. As long as these powerful energy sources can be used in an environmentally responsible way, they will continue to play a major role in the energy equation for the foreseeable future.”

About Flow Research

[Flow Research](#), with headquarters in Wakefield, Massachusetts, is the only independent market research company whose primary mission is to research flowmeter and other instrumentation products and markets worldwide. Flow Research specializes in flow measurement devices, and conducts market research studies in a wide variety of instrumentation areas that can be purchased by anyone interested in the topics. These studies are developed through interviews with suppliers, distributors, and end-users. Topics include all of the flowmeter technologies – both new and traditional – as well as temperature sensors, temperature transmitters, level products, and pressure transmitters. The company has a special focus on the energy industries, especially on oil and gas production and measurement.

For more information, visit <http://www.flowresearch.com> or call +1 781 245-3200.

**Shipments of All Flowmeters for Petroleum Liquids Worldwide
(Millions of Dollars)**

