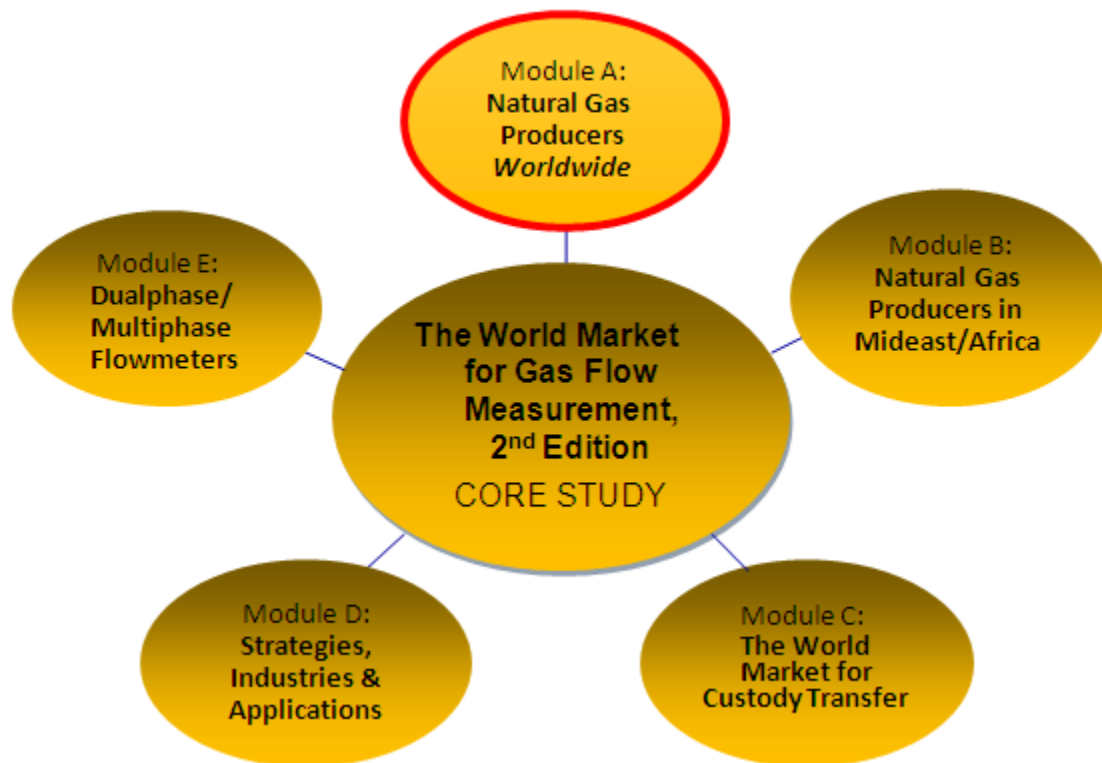


Module A

Natural Gas Producers Worldwide

Overview



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Module A

Natural Gas Producers Worldwide

Flow Research is proud to present a new study on natural gas producers worldwide. *Module A, Natural Gas Producers Worldwide*, is a component of a broader study, *The World Market for Gas Flow Measurement*, which examines suppliers, producers, applications, industries, custody transfer, and multiphase flowmeters. It is oriented towards companies that want to enhance their instrumentation sales worldwide to the larger natural gas producers but is also sheds light on the flowmeter market for gas producers. Module A has multiple purposes:

- Identify the major producers of natural gas in various regions worldwide
- Provide detailed explanations of company history, organization, and business interests, including pipelines and field reserves
- Determine company partnerships and affiliations
- Specify what types of technologies these companies are using and where
- Determine the amount of produced natural gas being exported and imported
- Determine the amount of natural gas being produced and consumed

Rationale for Study

Gas flow measurement applications and their associated revenues have grown significantly during the last few years. A major driver of this growth worldwide has been the expansion in demand for natural gas and related energy products. There has also been significant new capital projects growth in large regional economies such as India, China, and the Middle East during this time as well. Given the recent volatility of the major oil and gas countries in the Mideast and Africa, we believe that this is an optimal time to quantify the growth in this market, and to take another in-depth look at an expanding market.

Key topics addressed in Module A

- Natural gas imports, exports, consumption, and reserves by country, region, and worldwide
- Flowmeter data by type and region
- Company and country/regional profiles of the large producers
- Relationships among the companies
- Strategies for marketing to producers
- Trends in flow measurement relative to these large companies

Gas and Flowmeter Data by Regions and Countries

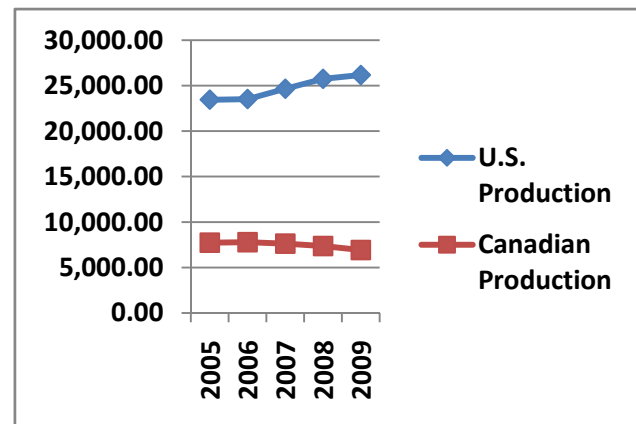
Module A provides significant data on flowmeter usage and the gas market. The study highlights gas developments by region, country, and suppliers. An overview chapter features comparison data on the largest suppliers. The study also provides country-by-country data:

- Gross natural gas production
- Proved reserves of natural gas
- Imports of dry natural gas
- Exports of dry natural gas
- Dry natural gas consumption

Module A covers the market size and forecast through 2015 for the eight flowmeter types used in the gas industry:

- Coriolis
- Ultrasonic
- Vortex
- Thermal
- Differential Pressure
- Primary Elements
- Positive Displacement
- Turbine
- Variable Area

Gross Natural Gas Production (Billion Cubic Feet) in North America



Our analysts also share regional trends underlying growth in the various technologies.

Chapters on the regions contain profiles on major gas-producing countries as well as companies:

North America

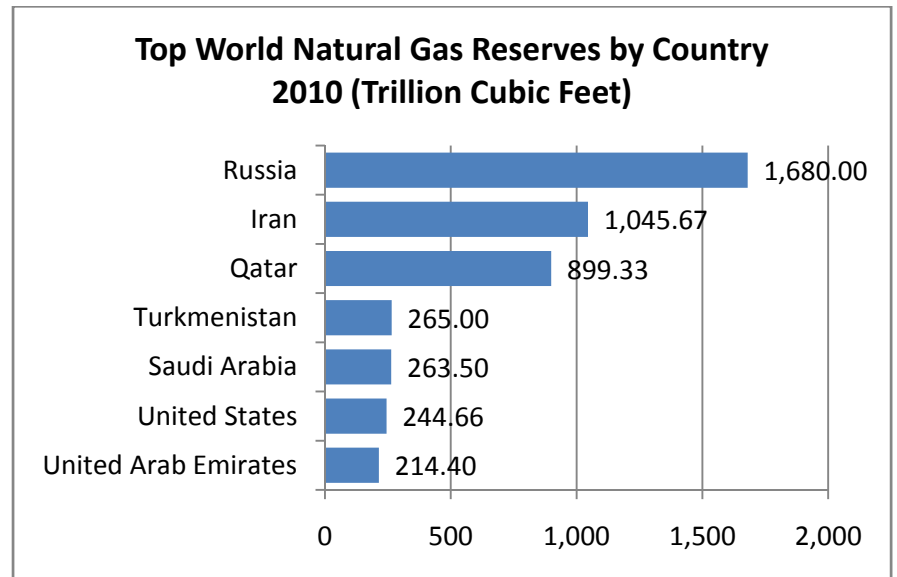
- United States: Chevron, ConocoPhillips, ExxonMobil
- Canada

Europe

- France: Total
- Netherlands: Royal Dutch Shell
- Norway: Statoil
- Russia: Gazprom
- UK: BP Corporation

Middle East and Africa

- Iran: National Iranian Oil Co.
- Saudi Arabia: Saudi Aramco
- Algeria: Sonatrach



Japan

China: China National Petroleum Corp., PetroChina

Rest of Asia

- Australia
- India
- Indonesia: Pertamina
- Japan
- Malaysia: Petronas
- South Korea
- Thailand

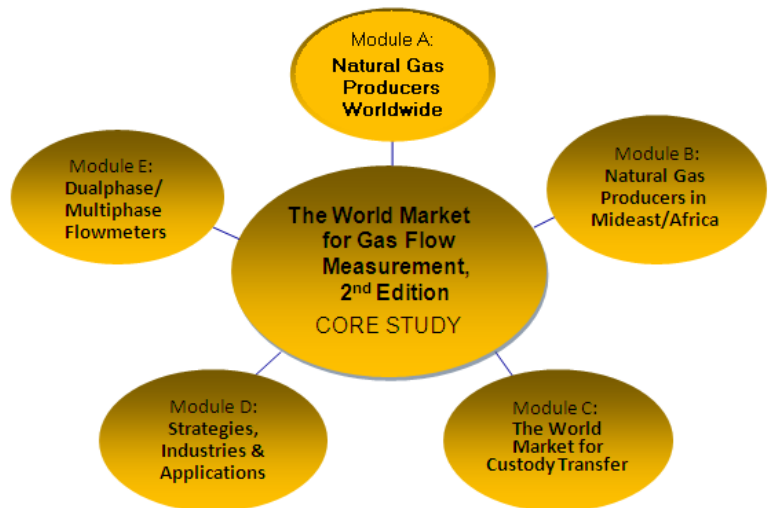
Latin America

- Mexico: Petroleas Mexicanos (PEMEX)
- Caribbean
- South America
 - Brazil: Petr leo Brasileiro S.A. (Petrobras)
 - Colombia
 - Ecuador
 - Venezuela: Petr leos de Venezuela S.A. (PDVSA)

The World Market for Gas Flow Measurement, 2nd Edition

A Modular Approach to the Gas Flow Market

The World Market for Gas Flow Measurement, 2nd Edition features a core gas flow measurement study and five modules that can be ordered as add-on or standalone reports. Together they provide a comprehensive picture of the gas flow market from multiple perspectives. It shows where growth is occurring (and where it is not) and where to expect the highest returns. The in-depth research in the modules, including Module A, complements and builds on the detailed results of the core study.



This modular study has multiple goals:

- Determine worldwide supplier market size for gas flow measurement in 2010 for each technology type
- Forecast market growth through 2015 for all eight types of flowmeters used in this market
- Identify the industries and applications where gas flow measurement is used and provide shipments by application and industry
- Identify market growth sectors
- Create company and country profiles of the main suppliers into the gas flow measurement market as well as the main gas providers throughout the world, with a special focus on the Middle East
- Analyze products for the main companies selling into the gas flow measurement market
- Provide product descriptions, line size data, and average selling prices in this market
- Offer strategies to manufacturers for selling into the gas flow measurement market
- Show average selling prices by geographic region and factors contributing to and limiting growth

What's in this for my company?

- See the emerging applications and where the growth is.
- Understand world and regional markets.
- Get to know your competition – what other suppliers manufacture, where, and for whom.
- Make the best decisions with the best information.

Background of Study

Flow Research has followed the flowmeter, pressure, and temperature markets for more than ten years. During this time, we have completed multiple studies on the many flowmeter technologies, pressure transmitters, and temperature sensors and transmitters in use today. Our study on differential pressure (DP) transmitters and primary elements revealed for the first time the actual size of the worldwide DP flowmeter market, including primary elements.

In 2004, Flow Research published a market study on the worldwide gas flow measurement market called *The World Market for Gas Flow Measurement* (www.gasflows.com). This included all flow technologies used to measure gas flow. In 2008, we published a comprehensive study of the worldwide ultrasonic flowmeter market that identified the market for custody transfer of natural gas. This study was called *The World Market for Ultrasonic Flowmeters*, 3rd Edition (www.flowultrasonic.com). And in 2010, we updated all of our worldwide flowmeter numbers as part of our global study covering all types of flowmeters, *The World Market for Flowmeters*, 3rd Edition (www.floweverything.com), just published in October 2010.

Flow Research recently completed a six month study on the worldwide market for custody transfer of natural gas. The research included onsite interviews with natural gas suppliers in the Middle East. The purpose of the interviews, which were conducted in UAE, Saudi Arabia, Qatar, and Oman between September and November 2009, was to identify trends in natural gas flow measurement and to better understand growth in the natural gas market in the Middle East, Europe, and worldwide.



Our ongoing cycle of regularly scheduled editions to individual flowmeter types have focused on both the flowmeter technologies and markets – including both new-technology and traditional technology flowmeters – as well as temperature sensors and temperature transmitters on a regional and worldwide basis. We understand how and why flowmeters perform critical tasks within nearly all instrumentation industries and markets, whether here in North America or

beyond.

We believe Flow Research has the perfect qualifications for undertaking this study. We have been following the gas flow market regularly since we published the first edition of our worldwide gas flow measurement study in September 2004. Our quarterly publications, *Market Barometer* and *Energy Monitor*, serve as regular updates to our knowledge base of the entire range of instrumentation technologies used within the worldwide process control instrumentation market.

We have also done user interviews that show that the interest in gas flow measurement remains at a very high level. You can trust Flow Research to give you data and insights you can use today.

Background

Dr. Jesse Yoder is President of Flow Research Inc., a company he founded in 1998. Dr. Yoder has 22 years of experience as a writer and analyst in process control and instrumentation. Since 1990, he has written more than 100 market research studies, most of them in flow and instrumentation. Some of the recent and currently planned Flow Research studies are as follows:

Volume I	The World Market for Coriolis Flowmeters, 4 th Edition (December 2011)**
Volume II	The World Market for Magnetic Flowmeters, 4 th Edition (May 2009)
Volume III	The World Market for Ultrasonic Flowmeters, 4 th Edition (October 2011)**
Volume IV	The World Market for Vortex Flowmeters, 3 rd Edition (July 2010) <i>New release</i>
Volume V	The World Market for DP Flowmeters and Primary Elements (January 2007)
Volume V-A	The World Market for DP Flow Transmitters (September 2007)
Volume V-B	The World Market for Primary Elements (September 2007)
Volume VI	Worldwide Survey of Flowmeter Users, 2 nd Edition (January 2006)
Volume VII	The World Market for Positive Displacement Flowmeters (May 2011)**
Volume VIII	The World Market for Turbine Flowmeters (April 2011)**
Volume IX	The World Market for Pressure Transmitters, 3 rd Edition (April 2011)**
Volume X	The World Market for Flowmeters, 3 rd Edition (October 2010) <i>New release</i>
Volume XI	The World Market for Gas Flow Measurement, 2 nd Edition (April 2011)**
Volume XII	The World Market for Steam Flow Measurement (March 2008)
Volume XIII	The World Market for Mass Flow Controllers (July 2008)
Volume XIV	The World Market for Thermal Flowmeters (October 2009)
Volume XV	The World Market for Liquid Analytical Instruments (Feb. 2011) <i>New release</i>

***Studies in progress* These studies are described at <http://www.flowresearch.com/flow.htm>

Dr. Yoder has also written more than 110 articles on flow and instrumentation for trade journals. Links to many of these can be found at <http://www.flowresearch.com/articles.htm>.

Norm Weeks, Senior Market Analyst, joined Flow Research in November 2004 after a 24-year stint with Verizon. At Verizon, Norm specialized in creating innovative customer solutions, product management, and product marketing. He is now a market analyst for Flow Research, has completed several studies, and regularly contributes articles and editorial assistance to our *Market Barometer* and *Energy Monitor* publications.

Belinda Burum, Vice President and Editor, has worked in high tech for 16 years as a writer and marketing communications manager. She joined the company in 2002, and has since then worked on many projects. In addition to her work on market studies, Belinda serves as associate editor of the *Market Barometer* and the *Energy Monitor*.

Besides writing and publishing market studies, Flow Research performs user surveys and provides quarterly updates on the flow and energy industries. The *Energy Monitor* analyzes the current state of the oil & gas, refining, power, and renewables industries, and the implications for instrumentation supplier. It and the *Market Barometer* are part of the Worldflow Monitoring Service, www.worldflow.com. For more information on Flow Research, please visit our website at www.flowresearch.com.

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Amsterdam, The Netherlands

Photo by Flow Research



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Why Flow Research?

- We specialize in flowmeter markets and technologies.
- We have researched all flowmeter types.
- We have interviewed gas flow end-users onsite in many countries.
- We have more than ten years of historical data on the gas flow measurement market.
- We follow the flowmeter and energy markets on a quarterly basis through our *Market Barometer* and *Energy Monitor* publications

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