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2013 Deloitte Oil & Gas Conference
Capitalizing on Success

Retrospective

Deloitte Center
for Energy Solutions

The Deloitte Center for Energy Solutions hosted the 2013 Deloitte Oil & Gas Conference at the Hilton Americas Hotel in Houston, Texas, on November 19, 2013. With the theme "Capitalizing on Success," the conference focused on meeting the challenges of the new energy paradigm across people, infrastructure, and capital projects.

The gathering brought together energy executives, political leaders, investors and industry analysts from around the world to examine key developments and challenges facing the oil and gas industry as the North American "energy renaissance" evolves. The interactive discussions spanned innovation in talent management, the changing outlook for oilfield services, leading practices for managing concurrent megaprojects, and risk management strategies for the oil and gas industry. The discourse also provided opportunities for participants to explore broad trends, such as the federal energy legislative landscape, growth in foreign direct investment, and why analytics is becoming an important tool in nearly every business discipline.

This retrospective provides a snapshot of the memorable themes and insights from the event, along with links to other conference materials.

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Overview of Conference Themes

Plenary Sessions

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Overview of Conference Themes

- The impact of rising North American oil and gas production is rippling throughout the industry value chain, and its influence does not stop there. It is also delivering competitive advantages to the U.S. refining, manufacturing, and petrochemical sectors. Thought to be on the decline only a decade ago, the oil and gas industry is experiencing a renaissance that is leading the U.S. out of a recession and helping to drive the U.S. economy.
- The oil and gas industry is an innovative, high-tech business, and it is a great place to work. Yet, many Americans do not think of it that way. In order to attract talent and gain local support, the positive attributes of the business need to be communicated more effectively to college students as well as to the American public at large.
- Career opportunities are plentiful, but qualified people are sparse. The oil and gas industry is facing a growth-induced talent shortage being exacerbated by an underdeveloped talent pipeline and an aging workforce. To address this imbalance, companies are increasingly using advanced data analytics to identify, recruit, retain, and develop skilled talent in innovative ways.
- Across the board, data analytics is gaining traction as an important tool for understanding and improving nearly every aspect of the business, including operations, talent management, risk management, capital projects, and more. Predictive modeling will likely be the next big wave in the analytics space.
- The supply opportunity in North America has attracted the attention of foreign investors, with foreign direct investment in the U.S. oil and gas industry reaching record highs. With an abundance of capital available from both domestic and international sources, the industry is now seeking creative ways to deploy it.
- Oilfield service companies are evolving into full-fledged solution providers. The outlook is robust for those who can help their customers resolve challenges related to unconventional production, deepwater development, and extending the lives of mature fields.
- Capital projects are getting larger, and so are the stakes. Good project management fundamentals are paramount, but new systems and technologies offer many opportunities for improving processes that have been approached the same way for years.
- Passage of a significant new energy policy is unlikely in the near term. The industry's main concern presently lies with the U.S. Environmental Protection Agency and its ongoing movement to address climate change by regulating greenhouse gas emissions as part of the Clean Air Act.

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Click on session titles to go to the highlights.

Plenary Sessions

"Strong expertise overall."

"Very interesting topics and speakers today."

"Very impressed with quality of speakers."

"Conference went very smoothly; I appreciate the attention to time."

"I will be attending many more Deloitte conferences in the near future!"

"Well coordinated conference. Logistics and schedule were managed very well."

"Very good, well prepared and informative conference."

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Welcome and Opening Remarks – State of the Industry

Optimism is generally running high in the oil and gas industry, driven by the promise of what many refer to as the "North American energy renaissance." But what does this renaissance really mean? On the one hand, it refers to a massive increase in U.S. oil and gas production, explained John England, Vice Chairman, U.S. Oil & Gas leader, Deloitte LLP. On the other hand, it refers to the trickle down effect this growth is having on the rest of the industry value chain.

Mr. England pointed out the U.S. midstream sector experienced a four-fold increase in capital expenditures from 2012 to 2013, as the industry invested in the infrastructure needed to move a growing volume of oil and natural gas to market. The U.S. refining industry is also experiencing a revival based on advantaged crude prices and lower natural gas prices, and so is the U.S. petrochemical industry, buoyed by low energy costs and an abundance of affordable natural gas liquids (NGLs) to serve as feedstocks. The energy renaissance, in essence, is not only producing hydrocarbons but also far-reaching economic benefits.

Mr. England also outlined four main factors that have made the renaissance possible:
• Technology in the form of hydraulic fracturing and horizontal drilling, which allowed the industry to unleash U.S. reserves.
• Innovation, which has been key in making those technologies economic and viable.
• Persistence, which has allowed the industry to continually improve and grow, even in the face of adversity.
• Price signals, which pointed toward opportunities to fill market needs through increased supply and new products.

These factors are still at work today. Furthermore, they will likely be instrumental in continuing the industry's positive momentum by helping it overcome challenges related to talent, financing, capital projects, policy, and public perception.

Featured Speaker:

• John England, Vice Chairman, U.S. Oil & Gas Leader, Deloitte LLP

"It's a great day to be in the oil and gas industry."

John England
Vice Chairman, U.S. Oil & Gas Leader, Deloitte LLP

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Capitalizing on the Energy Renaissance

The North American energy renaissance is typically associated with shale gas — and for good reason. With production of unconventional gas climbing steadily, the U.S. is poised to become a net exporter of natural gas as early as 2016 and industry estimates presently suggest there are enough reserves to last well into the next century.[1] This growth, as well as the infrastructure and technology behind it, has made the region "the envy of the world," remarked Ryan M. Lance, Chairman and Chief Executive Officer, ConocoPhillips.

Although shale plays are capturing headlines, Mr. Lance emphasized the "energy revolution" is not limited to shale gas. It has already spread to "tight oil" with liquids production in the U.S. returning to levels not seen since 1986.[2] Furthermore, U.S. deepwater oil production in the Gulf of Mexico is expected to ramp up in 2014, while the tide of Canadian oil sands production is also expected to rise.

The growth in oil and gas production is having a profound impact on the U.S. economy. According to Mr. Lance, the oil and gas industry supports nearly 10 million jobs and accounts for about eight percent of U.S. GDP — not to mention oil and gas companies pay $86+ million per day in federal income taxes and production fees. The industry is also breathing new life into the refining, manufacturing and petrochemical industries, which now have access to plentiful and affordable NGL feedstocks as well as to low-cost natural gas to run their plants.

Despite its economic importance, Mr. Lance noted the oil and gas industry will still need to resolve many challenges if it is to realize the full potential of the energy revolution. Finding an appropriate balance of imports and exports is one of these concerns, with some petrochemical and manufacturing customers fearing U.S. exports of liquefied natural gas (LNG) will push up domestic natural gas prices, even though the preponderance of oil and gas industry analyses suggests they will have little impact. On the oil front, current U.S. policy presently prohibits oil exports, with some notable exceptions in Alaska. Mr. Lance observed this policy may need to be revisited, as rising unconventional production pushes the capacity of U.S. refineries to take light, sweet crude.

Challenges pertaining to infrastructure permitting delays, aging workforce demographics, and stakeholder concerns, such as water competition, and public opinion about "fracking," will also need to be addressed. Nonetheless, Mr. Lance, like many others throughout the day, remained decidedly optimistic: "Oil and gas is a high-tech business with a bright future; it's rejuvenated, exciting, and a great place to work."

Featured Speakers:

- Ryan M. Lance, Chairman and Chief Executive Officer, ConocoPhillips
- Sampat Prakash, Principal, Deloitte Consulting LLP (Moderator)

"I think we're in the first inning of the unconventional story."

Ryan M. Lance
Chairman and Chief Executive Officer, ConocoPhillips

[1] *Annual Energy Outlook 2013*, Energy Information Association, U.S. Department of Energy
[2] *Annual Energy Review 2013*, Table 5.1b, Energy Information Association, U.S. Department of Energy

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Innovation in Talent Management

The oil and gas industry is cyclical. It is also high-tech. Put these two factors together and you have the basis for a talent shortage. Speakers explained the industry has historically maintained a "feast or famine" mentality as it pertains to talent: Hiring when oil prices were strong but laying people off and neglecting the talent pipeline when prices collapsed. Consequently, the industry has failed to develop an entire generation of geoscientists and petroleum engineers. This shortfall is being felt with particular acuity now since technologies and reservoirs are becoming increasingly complex, just as the industry's most experienced personnel are nearing retirement.

Human resources organizations in oil and gas companies are increasingly enlisting the aid of data analytics to overcome talent constraints. Mahesh Puducheri, Global Vice President, Human Resources, Halliburton, explained businesses have become adept at using analytics for investment activities but they have been slow to use them for talent in the workforce. Many businesses are now discovering that analytics as applied to talent management can add value by helping business leaders make the right people decisions. Michael B. Howe, Vice President, Human Resources, Ensco plc, additionally suggested analytics offer companies a vital means of measuring the health of their cultures. But how can analytics be adopted in practice to help identify, recruit, retain, and develop skilled talent?

Speakers shared several examples of how analytics are being applied in their own organizations. These included mining data collected via employee engagement surveys to uncover sources of employee dissatisfaction and intervening appropriately to reduce turnover; using statistical analyses to correlate the linkage between voluntary attrition and safety; and developing "cultural fit" criteria to help identify "the best athletes," i.e., people who are capable of learning, adapting and performing well, even if they're not ideally qualified in terms of the industry's traditional requirements.

While many organizations are just getting started in leveraging talent analytics, Bruce Culpepper, Executive Vice President, Human Resources and Regional Coordination, Shell Americas, believes predictive analytics will soon emerge as the next big opportunity in the talent management space, especially in terms of understanding indicators and being more proactive in managing and developing talent. "This," he concluded, "is where the HR profession needs to go."

Featured Speakers:

- Bruce Culpepper, Executive Vice President, Human Resources and Regional Coordination, Shell Americas
- Michael B. Howe, Vice President, Human Resources, Ensco plc
- Ryan Isherwood, Director, Deloitte Consulting LLP (Moderator)
- Mahesh Puducheri, Global Vice President, Human Resources, Halliburton

"It's about putting the 'human' back into human resources."

Michael B. Howe
Vice President, Human Resources, Ensco plc

"The big opportunity in the data analytics space is predictive modeling, which can be used to design and implement proactive workforce and organizational interventions."

Bruce Culpepper
Executive Vice President, Human Resources and Regional Coordination, Shell Americas

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The Evolving Outlook for Oilfield Services

The term, "oilfield services," in some ways is becoming a misnomer. Companies in the sector are increasingly focusing on developing "oilfield solutions," rather than providing individual products or services. This solutions orientation, speakers explained, is critical for helping their customers address the growing complexity of reserves as well as for enabling their companies to take advantage of the evolving opportunities in the sector.

"It's no longer about selling products and services to a customer; it's about listening, understanding, and bringing a solution to the table," observed Gary Halverson, Senior Vice President, Cameron International, and president, Cameron Drilling & Production Systems. Mark McCollum, executive vice president and chief financial officer, Halliburton, expressed a similar view, noting his company has altered its organizational structure to be more responsive to customers' demand for solutions to specific challenges. "Our technology centers, for instance, are now oriented around deepwater or unconventionals versus being specifically related to one product," he explained.

The outlook for solution providers indeed looks robust. Speakers noted the oilfield services sector will likely continue to focus on unconventional production in the next one to two years, with a surge in deepwater on the near horizon. They also see mature fields as a developing area, perhaps within one to five years, as national oil companies (NOCs) increasingly seek assistance in enhancing and extending production from their existing fields.

Oilfield services companies are putting research and development (R&D) dollars toward developing solution sets that provide differentiation in these areas and others. What will this differentiation look like? Moving ahead, Mr. McCollum and Mr. Halverson believe the oilfield services sector will see a lot of development in nanotechnology and sensors that help "to keep the bit turning down in the hole." They also anticipate increased use of mobile apps, which hold the promise of improving productivity and efficiency for everything from time management to billing to mobile operations.

Solution components, however, need not be limited to technology. Some oilfield service companies, for instance, are seeking to differentiate themselves through in-house manufacturing capabilities, as a means of ensuring quality and reducing customer downtime, and via innovative operational processes, such as hub-and-spoke delivery systems and new practices for water conservation and re-use.

Even mergers and acquisitions (M&A) may play a role in solution development. Mr. McCollum and Mr. Halverson concurred the marketplace is fragmented and consolidation is likely to occur at some point, although values are very high right now. Accordingly, their companies, like many others, are presently taking a conservative approach to M&A, seeking highly targeted opportunities aimed at rounding out their solution portfolios or furthering their grow strategies in a disciplined way.

Featured Speakers, as pictured from left to right:

- Gary Halverson, Senior Vice President, Cameron International; President, Cameron Drilling & Production Systems
- Mark A. McCollum, Executive Vice President and Chief Financial Officer, Halliburton
- Dave Scullin, Partner, Deloitte Services LP (Moderator)

"Clients are less and less interested in products or services, and they're more interested in solutions."

Mark A. McCollum
Executive Vice President and
Chief Financial Officer, Halliburton

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Bringing Space–Age Risk Management to the Oil & Gas Industry

"Is what we hope to achieve worth the risk?" asked Bill McArthur (Colonel, USA, Ret.), Director, Safety & Mission Assurance, National Aeronautics and Space Administration (NASA), Johnson Space Center. This fundamental question, he asserted, should be asked when pursuing any inherently complex endeavor.

Colonel McArthur further emphasized the risks and obstacles encountered in exploring space and those experienced in bringing petroleum products up from great depths in harsh environments are remarkably similar. Accordingly, the main objective in managing those risks should also be the same: Achieve the best understanding of risk one possibly can, so the people making decisions make good ones.

In a move designed to bring advanced risk-management capabilities to the energy industry, the Deloitte Center for Energy Solutions and the NASA Johnson Space Center have entered into a strategic alliance to offer services to oil and gas companies. These services, which include several operational risk-management offerings, are aimed at companies looking to minimize the risk of catastrophic failures — the kinds of dramatic mishaps that, which highly unlikely, can occur in remote and harsh environments.

In referencing the alliance, Colonel McArthur stated many of the lessons learned in the space program are transferrable to the oil and gas industry. These include:

- Encourage alternate and dissenting opinions
- Implement continuous risk-management practices
- Make risk-informed decisions
- Focus on technical excellence in the safety workforce
- Ensure senior leaders are personally committed to safety

In conclusion, Colonel McArthur answered the burning question: "Is it safe to put people atop a vehicle loaded with millions of pounds of rocket fuel and launch it?" "No! It's dangerous!" he emphatically responded. Instead, the question should be: "Is it safe enough?"

Featured Speakers:

- Bill McArthur (Colonel, USA, Ret.), Director, Safety & Mission Assurance, National Aeronautics and Space Administration (NASA), Johnson Space Center; veteran of four Space Shuttle Missions, four space walks and the Commander of the six-month duration International Space Station (ISS) Expedition 12.
- Anne Taylor, Vice Chairman and Managing Partner, Deloitte LLP (Introduction)
- David Traylor, Principal, Deloitte & Touche LLP (Moderator)

"The whole goal is to balance the risks with what we hope to achieve."

Bill McArthur (Colonel, USA, Ret.),
Director, Safety & Mission Assurance, National Aeronautics and Space Administration (NASA), Johnson Space Center

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Investing and Financing in the New Energy Paradigm

Technology has ushered in an era of supply abundance, creating new opportunities to develop resources both onshore and offshore. But technology is only one part of the story. The other part is demand. While energy demand in developed nations remains weak, Alex Krueger, President, Co-Head of Buyout Funds, First Reserve, pointed out approximately 5.6 billion people live in developing economies where energy intensity continues to increase. He further stated about 20 percent of the world's population still doesn't have access to electricity. "Rising global demand and the infrastructure build-out needed to meet it are creating massive investment opportunities," observed Mr. Krueger. But just how massive are they? The International Energy Agency (IEA) estimates the world needs $38 trillion of energy investment to meet projected global energy demand through 2035.[3]

Despite the vast need for capital, speakers generally concurred there's plenty of it available. The main challenge is finding innovative ways to deploy it. "There's so much capital, both domestically and internationally, from so many different sources," observed Daniel R. Castagnola, Managing Director, Natural Resources, GE Energy Financial Services. "In putting it to work, creative investors will be the successful ones," he continued. Speakers noted this creativity can take many forms, ranging from international joint ventures to alliances among different types of investors, such as banks teaming up with master limited partnerships (MLPs).

Despite the widespread availability of capital, Maynard Holt, Co-President, Head of E&P Investment Banking, Tudor, Pickering, Holt & Co., observed the market has generally shifted from large companies buying assets to large companies selling them. "In terms of valuations and investor sentiment, very few companies of any size think it would be better to be bigger right now," he commented. He further asserted investors' current fondness for "pure-plays," or highly-focused operations, means large-scale positions will need to be consolidated. As a result, he anticipates M&A activities to be centered upon basic industry consolidation, with intra-basin deals picking up pace throughout the world. MLPs may also be poised for consolidation. Mr. Castagnola pointed out their numbers have been increasing at an unsustainable pace, which will eventually force some to exit or combine forces.

Speakers concurred investment opportunities abound throughout nearly every part of the industry, from pursuing the resource through providing equipment and services — and everything in between. While opinions varied regarding which opportunities are the most promising, one evaluation criterion stood out from the rest: the quality of the management team. "When you really listen," commented Mr. Holt, "investors are saying they like extremely well-managed companies."

Featured Speakers, as pictured from left to right:

- Daniel R. Castagnola, Managing Director, Natural Resources, GE Energy Financial Services
- Maynard Holt, Co-President, Head of E&P Investment Banking, Tudor, Pickering, Holt & Co.
- Alex Krueger, President and Co-Head of Buyout Funds, First Reserve
- Jason Spann, Partner, Deloitte Tax LLP (Moderator)

"Supply is making today's headlines, but energy demand is driving the story."

Alex Krueger
President, Co-Head of Buyout Funds, First Reserve

[3] "IEA Says World Needs $38 trillion of energy investment," *Bloomberg News*, October 18, 2011, http://www.bloomberg.com/news/2011-10-18/iea-says-world-needs-38-trillion-of-energy-investment-1-.html

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Capital Projects: When Failure isn't an Option

Global upstream spending is expected to reach about $676 billion in 2014.[4] Two main factors are driving this growth: The industry's penchant for large-scale projects and rising capital costs, which are increasing at approximately four percent per year. Material costs are also moving upward, as are wages, particularly in the United States. As capital projects get bigger, more is at stake — and failure increasingly isn't an option.

Although project size may be bigger than ever, the industry has withstood similar pressures in the past. "We've seen this movie before," observed Byron Neiles, Senior Vice President, Major Projects, Enbridge. He further explained there have been prior booms in the oil and gas industry and along with them escalating costs and erosion of safety and quality performance. Having previously suffered from project delays and suppliers having undue influence on outcomes, Mr. Neiles said his company took steps after the last cycle to better prepare for the next upswing. These steps included negotiating long-term contracts with key suppliers and partnering with them to beef up their capabilities relating to safety and quality.

Despite the industry's familiarity with cyclical expansion, speakers noted some things are different this time around. Among them is the rising importance of local requirements, such as stricter environmental regulations and mandates to use local workers and suppliers.

Another difference in comparison to past cycles is the growing number of complex megaprojects. Gary Fischer, General Manager, Project Consulting Services, Chevron Project Resources Company, explained megaprojects are highly complex and totally unforgiving. "When you violate the basics of good project management and execution on a megaproject, you're in for trouble," he remarked. Jose Luis Bustamante, Senior Vice President, Business Development, Energy & Chemicals, Fluor, additionally observed the non-repeatability of these enormous projects also makes it more difficult to transfer learnings from them. Talent constraints, such as shortage of skilled workers in Western countries, additionally pose challenges to quality. He mentioned mentorship programs and company-sponsored certifications as two methods of addressing these concerns.

Overall, speakers noted several opportunities for improved efficiency in developing and executing projects of any size. These included enhanced craft productivity, system upgrades and integration, more practical scheduling and planning, better engineering execution, and enhanced materials management capabilities. To this end, quality assurance programs, such as Lean and Six Sigma, may be helpful, as well as new developments in "big data" and analytics. While still in the early stages, speakers observed analytics are becoming increasingly important for "connecting the dots" and uncovering important relationships among project variables that would otherwise remain hidden.

Featured Speakers, as pictured left to right:

- Jose Luis Bustamante, Sr. Vice President, Business Development, Energy & Chemicals, Fluor
- Gary Fischer, General Manager, Consulting Services, Chevron Project Resources Company
- Byron Neiles, Senior Vice President, Major Projects, Enbridge
- Alan Richard, Director, Deloitte Financial Advisory Services LLP (Moderator)

"Megaprojects are highly complex and totally unforgiving."

Gary Fischer
General Manager, Project Consulting Services, Chevron Project Resources Company

[4] Barclays estimates; Morgan Stanley; IHS CERA

How Global Inbound Investments are Changing the Energy Landscape

"Nearly everyone in the U.S. oil and gas industry is exceptionally excited about the North American energy renaissance and the new opportunities before them," commented Adi Karev, Global/China Head, Oil & Gas, Deloitte Touche Tohmatsu Limited. But how does it look to industry participants outside of the United States? Is it as exciting? Is it as important? And does it take precedence over investing their time and money in other places? Broadly speaking, the answer is "yes."

Foreign direct investment in U.S. oil and gas companies has grown to over $20B per annum.[5] This increase has been largely driven by joint venture activity in shale gas and participation from NOCs, with the Chinese "three sisters" (i.e., CNOOC, CNPC, and Sinopec) being particularly active. Mr. Karev noted the majority of recent foreign direct investment transactions have been asset-related with private equity becoming a more common source of funds. Despite so much activity in recent years, the attractiveness of the U.S. oil and gas industry has yet to wane: Foreign direct investment in the U.S. oil and gas industry is expected to continue to grow as the energy renaissance enters its next stage.

The story of Sasol provides insight into how and why many foreign companies are eager to participate in the U.S. oil and gas industry. Sasol is an international, integrated energy and chemical company based in Johannesburg, South Africa. In Lake Charles, Louisiana, it is presently building an integrated, world-scale ethane cracker and downstream derivatives units, and a gas-to-liquids (GTL) facility, capable of producing approximately 100,000 barrels per day. The phased projects together represent the largest foreign direct investment in Louisiana history.[6]

Mark Schnell, General Manager Marketing, Sasol North America, stated Sasol's total investment in these projects is anticipated to be in the range of $15-$21 billion. This represents a very big investment for the company, especially in relation to its market cap, which is about $23B.[7] However, Mr. Schnell explained North America has several exceptional characteristics that make it an attractive place to pursue such a large undertaking. These include political stability, in comparison to other natural gas rich provinces, and a well-developed piping infrastructure, which allows easy sourcing of natural gas feedstocks. Additionally, Sasol owns some North American shale assets, which provide a pricing hedge for its GTL facility.

While all of these factors have played a role in Sasol's investment decision, Mr. Schnell emphasized the economies of GTL are essentially about leveraging the spread between natural-gas prices and oil prices. He further noted Sasol's assessments indicate strong forward prospects for low-to-medium natural gas prices in North America, which bodes well for the company's operations against a probable backdrop of robust global oil prices.

In summation, he described Sasol's GTL facility as "a really exciting technology for North America." "What makes GTL unique is that it builds a bridge between natural gas and the transportation sector," he concluded.

Featured Speakers:

- Mark Schnell, General Manager Marketing, Sasol North America
- Adi Karev, Global/China Head, Oil & Gas; Asia Pacific Head, Energy & Resources, Deloitte Touche Tohmatsu Limited (Moderator)

[5] Organization for Economic Cooperation and Development, March 2013.
[6] http://www.sasol.co.za/about-sasol/company-profile/business-overview, accessed Dec. 15, 2013.
[7] Market cap as of November 19, 2013.

"It's an exciting time to be on the demand-side of the shale-gas equation."

Mark Schnell
General Manager Marketing, Sasol North America

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Washington and Energy: Policy and Politics

In light of ongoing dissention between the houses in the U.S. Congress, speakers believed the prospects are poor for the U.S. Congress passing any new bills that would significantly affect the oil and gas industry in the coming year. This gridlock, however, may be good news.

"What do we want from Washington?" asked Skip Horvath, President and Chief Executive Officer, Natural Gas Supply Association. "Leave us alone!" he retorted. Electric and industrial demand for natural gas is growing, and it is being matched by supply that is diverse, flexible and efficient. The industry, in other words, is generally doing a very good job without federal regulation. Indeed, public support for natural gas development in the U.S. has grown to 82 percent according to a recent poll by the University of Texas.[8]

Donald Santa, President and Chief Executive Officer, Interstate Natural Gas Association of America, shared a similar hands-off sentiment regarding government policy. He stressed the industry already has a robust pipeline network and a good regulatory model to ease the transition to greater use of natural gas for electricity generation. "Thanks to this workable pipeline model, pipelines get built," remarked Mr. Santa. Furthermore, the efficacy of this model is reflected in the industry's proven track record, with 12,400 miles of pipeline infrastructure having been added between January 2003 and March 2013.[9]

Despite an overwhelming preference among the speakers for minimal government interference, Kyle Isakower, Vice President, Regulatory and Economic Policy, American Petroleum Institute, outlined several areas of regulatory uncertainty — some of which would hinder the industry if they come to pass, and some of which would help. These include:

- Proposal by the U.S. Environmental Protection Agency (EPA) to reduce the amount of ethanol blended into gasoline.
- Potential EPA tightening of National Ambient Air Quality Standards, which could require costly controls on manufacturing plants and refineries during construction or upgrades.
- Proposed EPA greenhouse gas regulations for new power plants, with existing power plants and refineries in the queue for future regulatory assessment.
- Need for faster permitting of LNG export facilities, since competition for worldwide demand of LNG is steep and the window of opportunity for building U.S. LNG facilities will not be open long.
- Pending decision on the Keystone XL pipeline, Phase 4 of which is awaiting U.S. Presidential approval.

Notably, many of these policy matters sit with federal agencies, and not with the U.S. Congress. Speakers largely concurred the lack of attention the oil and gas industry is receiving on Capitol Hill may be a blessing. "I'll be content with no harm," concluded Mr. Santa.

Featured Speaker:

- R. Skip Horvath, President and Chief Executive Officer, Natural Gas Supply Association
- Kyle Isakower, Vice President, Regulatory and Economic Policy, American Petroleum Institute
- Donald F. Santa, President and Chief Executive, Interstate Natural Gas Association of America
- Branko Terzic, Executive Director, Deloitte Center for Energy Solutions, Regulatory Policy Leader, Energy & Resources, Deloitte Services LP (Moderator)

"U.S. oil and gas exports will always be a net positive."

Kyle Isakower
Vice President, Regulatory and Economic Policy,
American Petroleum Institute

[8] Energy poll of 2,144 consumers, University of Texas, September 2013.
[9] Office of Energy Projects, Federal Energy Regulatory Commission.

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Concluding Perspectives

The implications of the North American energy renaissance are reverberating not only throughout the oil and gas industry, but also throughout parallel sectors. Technology, innovation, persistence, and price signals have come together to unlock reserves that were once thought to be economically inaccessible. Today, these same factors are further driving improvements in safety, performance and productivity. Supply is increasing to meet global demand. Operations are becoming safer and cleaner. Jobs are being created and young people are being drawn to the industry to be a part of future energy solutions. The oil and gas industry has been rejuvenated and is increasingly being recognized for what it is: A high-tech, innovative business that is helping to drive the U.S. economy.

"The North American energy renaissance is moving its way down the value chain."

John England
Vice Chairman, U.S. Oil & Gas Leader, Deloitte LLP

Please join us next year to continue the dialogue.