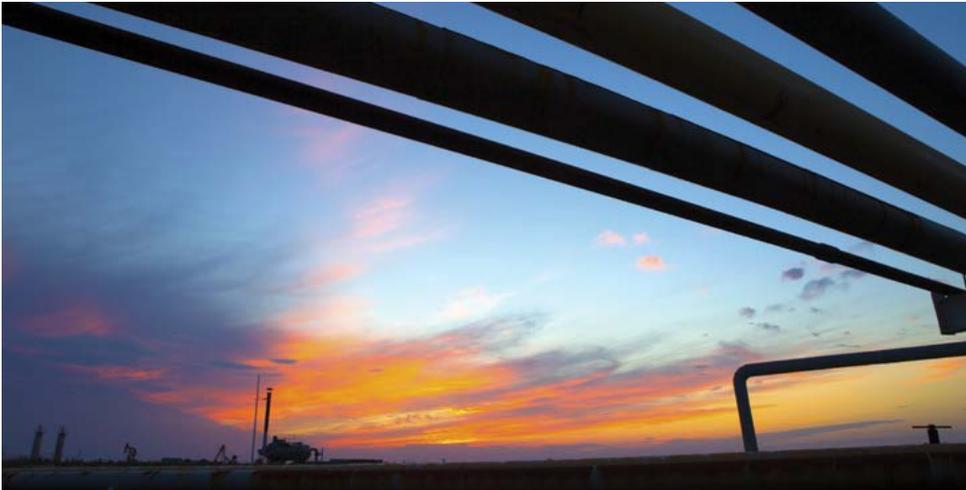


THE NEWSLETTER OF THE BDO NATURAL RESOURCES PRACTICE

# NATURAL RESOURCES **RECORD**



## NOT ONE, BUT ALL FUEL SOURCES ARE VITAL TO THE SUCCESS OF THE U.S. ENERGY INDUSTRY

By Charles Dewhurst

The U.S. oil and gas industry has been in the midst of a renaissance for the past decade. As shale continues its rise as the country's premier resource, U.S. companies are better poised than ever to help satisfy growing domestic demand for energy. At the same time, with the nation's energy resources trading at a discount to global prices, domestic producers have been eager to begin exporting U.S. oil and gas in quantity to energy-hungry countries worldwide. The industry has begun to push policymakers to facilitate the United States' international reach by not only easing the long-standing ban on crude oil exports, but also by clearing the way for liquefied natural gas (LNG) processing and exportation.

The promise of increased participation in the global marketplace also has some energy industry observers speculating that the United States is on the cusp of achieving energy independence and becoming a net energy exporter. Amid this excitement, however, it is important for the U.S. energy industry to understand the challenges and limitations associated with its rapid growth. Crucially, the United States must look to develop a balanced mix of energy resources in order to satisfy burgeoning demand both at home and abroad. Here, we explore how crude oil, LNG and alternative energy sources are paving the way to prosperity for the U.S. energy industry.

### ► DID YOU KNOW...

The **Energy Information Administration** reports that U.S. crude output reached 8.95 million barrels a day in early October, which were the highest numbers since June 1985.

By 2020, **IHS CERA** predicts that U.S. liquefied natural gas (LNG) exports will satisfy about 1.8 percent of global demand, or about 8.5 billion cubic feet of gas per day.

According to an analysis published by **RBC Capital Markets**, if oil prices remain stagnant at \$80 a barrel through 2015, major producers can expect to see an average reduction in cash flow per share of about 17 percent.

Fereidun Fesharaki, chairman of **Facts Global Energy**, predicts that Brent crude prices may hit \$60 a barrel by the end of this year, rebounding to about \$80 by the end of 2015.

**Bloomberg Intelligence** says horizontal drilling through shale comprises about 55 percent of U.S. production and nearly all growth experienced by the sector.

According to a **Goldman Sachs** report, global non OPEC-production (excluding production from the continental United States) is expected to increase by 412,000 barrels per day this year, 573,000 bpd in 2015 and 505,000 bpd in 2016.

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## SUCCESS OF THE U.S. ENERGY INDUSTRY

### ▶EASING THE BAN ON CRUDE

Policymakers and industry observers alike have discussed at length the possibility of easing the 40-year-old ban on crude exports, arguing that the United States is positioned to capture major markets abroad and serve as a primary supplier to countries currently beholden to unstable providers. Supporters of repealing the ban secured a cautious win when the Department of Commerce's Bureau of Industry and Security ruled in June 2014 that Pioneer Natural Resources' and Enterprise Product Partners' upgraded condensates qualified as lightly refined products and were not subject to existing export restrictions. The decision suggested that the government would be open to reexamining the ban and potentially loosening some of the existing restrictions.

In the long term, a repeal of the crude ban could help drive U.S. industry growth and inject stability into global oil markets, which have seen prices drop precipitously over the past four months. We would expect to see the sector experience a slight uptick in the price of crude as the U.S. refining backlog clears. A rush on the part of major energy importers (e.g., China, India and some European countries) to obtain contracts for safe, secure U.S. crude could further drive up prices.

A lift on the ban would also force the industry to shift its focus to improving infrastructure and transportation to support a growth in exports. The creation of additional routes for moving product to market and key export terminals throughout the United States could not only benefit the U.S. economy, but could also increase global stability and security as foreign nations' dependence on oil from unstable countries declines.

### ▶LNG PROMISING, BUT NOT A PANACEA

The industry has also been eager to tap into the potential of LNG exports, eyeing opportunities to sell the product to the emerging markets of the Asia-Pacific regions (which, in the aggregate, account for nearly one-fifth of worldwide natural gas consumption). According to the Energy Information Administration (EIA), global natural gas demand is expected to grow by



64 percent by 2040, and U.S. companies are poised to satisfy a significant portion of this demand.

LNG production may also be beneficial for domestic markets—commercial and consumer alike. Continuing domestic production can help keep prices reasonably low in the United States, which will in turn lower the cost of heating and electricity for consumers while providing inexpensive, abundant fuel supplies for the U.S. industrial base. Natural gas, more broadly, is also proving transformative for the plastics and manufacturing industries, as well as the transportation sector, due to its low cost and relatively clean output.

However, LNG may not be a panacea for the industry—the high cost of production and the difficulties associated with its export suggest that, while it remains a key component of the U.S. energy mix, it is unlikely to make up a majority of the market. As is the case with oil products, the infrastructure required to produce and move LNG exports to market remains insufficient. The industry lacks adequate transportation capacity, and the permitting process for LNG export facilities has proven slow and inefficient. These facilities require tremendous upfront outlays and can take years to complete. There have been some promising moves on this front, though; as we discussed in the [Summer 2014 Natural Resources Record](#), the U.S. Department of Energy has implemented revised processes to help ease the permit backlog and accelerate viable export projects.

### ▶ALTERNATIVE FUEL SOURCES TO PLAY IMPORTANT ROLE

Alternative fuels, such as wind and solar, will also have a role to play in future U.S. energy

security. The EIA's statistics and projections show that over the next 30 years, renewables' share of the U.S. energy mix will grow from 13 percent in 2011 to 16 percent in 2040. This positive growth represents steady movement toward use of cleaner energy. However, renewables are unlikely to have the capacity to completely replace traditional energy as the nation's most reliable and prolific fuel sources. It's likely that the overall increase in demand for energy in America will be so great that all energy sources, both fossil fuels and renewable, can be expected to experience significant growth over the next three decades.

### ▶ACHIEVING 'TRUE ENERGY INDEPENDENCE'

Overall, these actions are a step in the right direction for U.S. "energy independence." It is, however, unlikely that the United States will ever be truly self-sufficient in oil. Despite securing its position as the largest global producer of both natural gas and oil, it's wise to view North America as a whole, where the combined stability and profitability stemming from Canada's and Mexico's similarly robust energy industries will help achieve continental energy independence while strengthening economic bonds. The United States may also need to resist political pressure to isolate itself from the broader global market. While domestic energy needs remain a priority, participating in international trade can help bolster both the U.S. energy sector and the broader domestic economy.

Amid excitement surrounding the future of the U.S. industry and its position in the global economy, we should be cognizant of the shale boom's lifespan and remain cautious of internal and external factors that could affect price and demand. The shale bonanza is likely

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## SUCCESS OF THE U.S. ENERGY INDUSTRY

to be relatively short-lived—probably about 20 years or so—before production begins to decline. Another factor to keep in mind is how the aforementioned Asia-Pacific regions play into the United States' long-term goal as a global provider. The restart of Japan's nuclear reactors, China's potential future success in shale gas production and shifts in market conditions may slow international demand for U.S. resources. Taken together, these factors could lead to renewed commodity price volatility.

Looking only at prices, a return to fluctuations would be quite natural, and perhaps overdue—and for the most part, the U.S. industry is well-versed in how to navigate a volatile oil price environment. Historically, oil price differentials have been quite small; typically no more than 10 percent of the global average price. The margins have never been particularly wide in this area, suggesting U.S. companies should be able to withstand any dips in oil price.

Compare this, however, with the natural gas markets. With the exception of LNG, natural gas is currently dependent primarily on national—rather than global—markets due to the lack of transportability between the various regions of the world. As a result, price differentials are huge: In the United States, natural gas is priced at \$4.50 per MCF, compared with \$10-15 in Europe and \$20-25 in Asia. Understandably, U.S. natural gas producers will be more sensitive to changes in this price environment, as the global market is still taking shape, and hedging against dips in gas prices is more difficult than it is for oil prices.

Despite these challenges and uncertainties, it is clear that the U.S. energy industry has a critical role to fulfill in an evolving international marketplace. However, in order to solidify its position and remain profitable, the United States must carefully assess its short- and long-term plans, and seek to implement an “all of the above” energy policy that takes into account the full range of available energy sources and how they can satisfy domestic and global needs.

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## BDO SPOTLIGHT: Executive Q&A with Jeff Harfenist



### *How did you become interested in your line of work, especially your work in the natural resources industry?*

As BDO Consulting's Texas practice leader for Global Forensics, I conduct fraud-related investigations for our clients concerning a variety of issues, including violations of anti-corruption statutes, embezzlements, diversion of assets, financial statement fraud, Ponzi schemes and other relevant matters. I got my first taste of real fraud work back in the late 1980s with the savings and loan crisis, during which I was astonished to observe the pervasiveness of unethical and illegal behavior within an organization. The work piqued my interest and I've been consulting on fraud-related investigations ever since.

In terms of my focus on the natural resources industry, I work out of Houston, the energy capital of the United States—you're virtually guaranteed to encounter the natural resources industry (especially oil & gas) working here. I've been working with natural resources companies for as long as I've worked in public accounting in Houston, so my interest and industry expertise grew organically.

### *What do you see as the biggest challenges facing the U.S. natural resources industry today?*

Most companies within the extractive industries remain the target of regulatory agencies due to their operational footprint in high-risk areas, such as the Middle East, Africa, Russia, Asia-Pacific and South America, as well as their ongoing interactions with government-controlled entities. These geographies are especially difficult places to do business, as corruption is widespread. In addition, Western companies must find ways to compete with their non-Western counterparts who are willing to pay bribes and are often not penalized for doing so by

their governments. This makes it extremely difficult to secure new business opportunities while also complying with applicable anti-corruption laws.

### *What are some of the biggest growth opportunities in the industry?*

Proactive monitoring and testing of anti-corruption policies and controls is one area that is gaining attention. As a result of the continuing regulatory scrutiny natural resources companies are experiencing, as well as the extremely high cost of running afoul of anti-corruption statutes, organizations are focusing on creating proactive protocols and processes for the early identification of prohibited behaviors. When it comes to preventing violations of anti-corruption laws, the old adage “an ounce of prevention is worth a pound of cure” has never been more applicable. Understanding the range of fraud risks and identifying illegal activities and high-risk relationships in a timely fashion are essential to helping companies mitigate the risks associated with non-compliance. Internal investigations and the penalties imposed by regulatory bodies can be very expensive, with costs escalating into hundreds of millions of dollars. Deterring fraud is an important way for companies to protect their reputations and bottom lines and, in turn, support their business' growth.

Another area of growth may be found in M&A activity. Companies can improve their prospects of successfully closing a transaction by taking steps — both pre-acquisition and after the transaction closes — to identify potentially fraudulent behaviors and high-risk relationships. After all, a buyer doesn't want to purchase a problem that has occurred in the past and assume the fees, penalties and liabilities associated with a compliance failure. Meanwhile, a seller wants to be sure they're getting a fair price and doesn't want

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## BDO SPOTLIGHT

to be forced to take a discount based on the perception that the company may have generated revenues through questionable business practices, such as paying bribes. Addressing fraud quickly and thoroughly can help ensure that both companies involved in a transaction come away from the deal satisfied with the outcome.

### **What lies ahead for BDO Consulting's Global Forensics practice?**

We plan to continue our focus on proactive consulting to help our clients mitigate their fraud risk, find and close gaps in existing procedures and controls, and improve the efficacy of their existing compliance programs. Companies, especially natural resources organizations operating abroad, continually face compliance challenges. All it takes is one employee not fully understanding applicable anti-corruption statutes to trigger a problem. So we will continue to grow our practice in not only detecting these errors in their infancy, but also helping companies do all they can to mitigate their occurrence altogether.

### **How would you characterize the impact of the work you do?**

Compliance professionals are under constant pressure to keep up with an ever-growing list of risks and responsibilities—and are being asked to do so with limited internal resources. At BDO, we aim to help our clients do more with less. We show them how to leverage technology to manage their compliance processes more efficiently so that they needn't grow their headcount to keep up with evolving and increasing regulatory responsibilities.

We also firmly believe in catching problems before they metastasize into something larger. While we of course work to help our clients build prevention into their operations, no company can completely prevent prohibited and/or illegal behaviors from occurring. It is in an organization's best interest to identify issues early on, determine who is involved and how the violation occurred, and move quickly to close those control gaps, as well as improve the relevant policies and procedures that may have permitted the problem. This

## PEerspective in Natural Resources



The domestic energy sector in Mexico is undergoing a profound period of transformation, and is catching the private equity industry's eye. *The Wall Street Journal* reports that in the first half of 2014, private equity investment in Mexico grew to \$403 million, up more than 227 percent over the same period last year.

Mexico has become a magnet for investors who are eager to capitalize on the privatization of the oil and gas industry, which had been closed to private domestic and foreign investment since 1938. *Forbes* suggests that industry de-nationalization could open access to more than 45 billion barrels of oil and 500 trillion cubic feet of natural gas, ushering in the next phase of the North American energy boom and bringing with it attractive investment opportunities.

Many private equity funds have already made moves to take advantage of emerging opportunities in Mexico's energy industry. In September, EnCap Investments LP (Houston), River Stone Holdings LLC (New York) and Infraestructura Institucional (Mexico) committed a combined total of \$525 million to form Mexico City-based Sierra Oil & Gas S de

RL de CV. The company will participate in the "exploration, development and production optimization opportunities made possible by Mexico's recent energy reform," according to the commitment announcement.

Meanwhile, *The Wall Street Journal's Private Equity Beat* blog reports that Switzerland-based Partners Group is opening a Houston office, with the dual benefit of being central to the U.S. energy market and having close proximity to the action in Mexico. The firm has launched an ambitious half-billion dollar fundraising initiative to build a portfolio of natural gas pipelines in Mexico, which will be operated by Fermaca, a leading Mexican energy operator in which Partners Group now owns a majority share.

As private equity firms continue to become more comfortable with Mexico's fledgling oil and gas investment environment, we are likely to see more industry deals ahead.

*PEerspective in Natural Resources is a feature examining the role of private equity in the natural resources industry.*

is an iterative process, and it can change as competitive landscapes evolve and new risks emerge. We help our clients stay ahead of the curve, identify issues as soon as possible and employ the right technology to help them detect and root out fraud.

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## MARK YOUR CALENDARS

The following is a list of upcoming conferences and seminars of interest for natural resources executives:

### DECEMBER 2014

December 1-5

#### Mines and Money London 2014

Business Design Centre  
London

December 4-5

#### CI Energy Group's 12th Annual Oil Sands Symposium

Marriott Downtown  
Calgary, Alberta

December 11

#### Platts Global Energy Outlook Forum

Waldorf Astoria  
New York City

### JANUARY 2015

January 27-29

#### Annual Marcellus-Utica Midstream Conference & Exhibition

David L. Lawrence Convention Center  
Pittsburgh

January 28-29

#### The Oil Council Latin America Assembly

Hilton Bogota  
Bogota, Colombia

January 29

#### Private Capital Conference

JW Marriott Houston  
Houston

### FEBRUARY 2015

February 2-4

#### World LNG Fuels 2015

George R. Brown Convention Center  
Houston

February 10-12

#### International Petroleum Week 2015

InterContinental London Park Lane  
London

February 11-13

#### 2015 NAPE Expo

George R. Brown Convention Center  
Houston

For more information on BDO USA's service offerings to this industry, please contact one of the following regional practice leaders:

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#### BDO'S NATURAL RESOURCES INDUSTRY PRACTICE

BDO's Natural Resources industry practice provides assurance, tax and advisory services to emerging and established businesses in the United States and all over the world who are involved in both the traditional and alternative energy industries. Our clients often operate across borders either raising capital or making acquisitions abroad. Our extensive industry knowledge is supported by our international network of 1,264 offices in 144 countries, allowing us to provide a consistently high level of service wherever our clients do business.

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