Background

Executive summary

The US is in the midst of an energy renaissance that has dramatically increased domestic production of oil and gas — bringing lower prices, increased tax revenues and royalties, and much-needed jobs across a range of industries. Technological advancements in recent years have spurred the development of unconventional oil and gas — and changed the country’s long-term energy outlook and its potential impact on the country’s economy.

Many energy companies are planning significant capital investments in the coming years to help maximize America’s unconventional opportunities. But is continued growth in domestic production of oil and gas a certainty? And if there are risks to the unconventional boom, are they more likely to come from increased regulation or changes in federal and state tax laws?

EY asked that question — and many others — in a recent survey of accounting, finance and tax professionals across multiple segments of the energy industry. Many of the respondents were senior-level professionals with years of experience in managing the financial dealings of their organizations.

The EY 2013 Energy Tax and Policy Survey provides unique insight into how these professionals view the existing energy landscape, as well as their point of view about the future.

The 2013 outlook study by the Energy Information Administration (EIA) and other sources highlight the tremendous changes that US production has experienced in recent years.

For example, US crude oil production has increased to an average of about 7.4 million barrels per day in 2013, up from roughly 5 million barrels per day in 2008. Domestic crude oil production is expected to continue to rise over the next five-to-seven years, primarily as a result of increasing production from shale and other tight formations.

The EIA outlook also forecasts that US natural gas production will increase by about 1.6% per year out to 2040, with natural gas production outpacing demand growth and the US becoming a net exporter of natural gas as early as 2018. Natural gas exports could reach almost 6 trillion cubic feet by 2040.

As natural gas production increases, coal’s share of electric power generation will fall. By 2040, coal will account for 35% of electric power generation in the US, with natural gas rising to as high as 39% – or 14.8 trillion cubic feet per year – in some scenarios. Coal’s market share will be further impacted if policies aimed at reducing greenhouse gas emissions are enacted.

Finally, the amount of electric power generated by renewable energy sources will increase to about 16% in 2040, up from 13% in 2011.
The EY Energy Tax and Policy Survey asked a number of questions about capital spending on energy infrastructure and related tax issues.

**Capital investment over past four years**
More than half of respondents (51%) said their companies had broadly increased capital spending in the US over the last four years despite the global financial crisis, led by power and utilities at 64% and oil and gas at 55%. Overall, 24% said their companies had increased spending but primarily did so outside of the US, with mining companies (at 47%) leading all sectors. Sixteen percent said their companies had decreased capital spending, and 10% were unsure.

Throughout the recent economic downturn, the US has been a “safe haven” for energy investment, primarily driven by natural gas. The relative political stability, need for infrastructure and a looming export market have made domestic investment a more strategic choice for companies involved in upstream oil and gas activities. However, the application of the successful US unconventional technologies to similar shale formations outside the US could possibly attract some foreign investment that might have otherwise gone to US developments.

Future capital investment expectations
In terms of future investments, 51% of respondents said their companies plan to broadly increase capital investment in the US over the next two to three years.

While the oil and gas segment is seeking increased unconventional production, power and utilities companies are facing aging infrastructure that must be replaced regardless of tax policies or other incentives, likely driving their short-term investment plans.

**Accelerated depreciation**
One base-broadening measure under consideration is the repeal of accelerated depreciation, which is estimated to yield between US$500 and US$750 million in tax revenues over 10 years. Participants were then asked whether the proposed repeal of accelerated depreciation would cause their companies to change capital investment plans over the next two to three years. Respondents were split: 48% said it would have some impact, while 44% said it would have no impact at all. Just 8% said it would have a substantial impact and reduce capital expenditures at their companies by more than 50%.
**IRC Section 199**

The proposed repeal of the deduction for production activities in the US (IRC Section 199) would impact only 26% of respondents’ companies, resulting in an increase in federal tax liability. Mining companies would be the most impacted, at 41%, compared with 27% of oil and gas companies and 15% of power and utility companies. Section 199 was implemented in 2004 to foster domestic production, yet 73% of O&G respondents said its repeal would have little or no impact.

**Percentage depletion**

If the percentage depletion allowance for fossil fuels was repealed as part of tax reform, 27% of respondents said the overall corporate tax rate would need to drop by 5% or more to be “tax neutral” for their company. In general, oil and gas producers and utilities were more likely to require a rate drop of less than 5%, while mining companies were more likely to require a rate drop of 5% to 10% or higher.

**IRC Section 174**

Another base-broadening measure that has sizable tax revenue associated with it is the deduction for research and development costs under IRC 174. The survey asked how a potential repeal of Section 174 would impact their companies. More than two-thirds of participants — 71% — said it would have little or no impact. It is likely that if intangible drilling costs were repealed but Section 174 remained in place, many companies would shift expenditures to ensure continued deductibility and development.

**Little or no impact as historically have not identified Section 174 expenditures for deduction**

- **81%** Mining
- **65%** Oil and gas
- **71%** Power and utilities

IDDC

When asked whether the repeal of deductions for intangible drilling and development costs (IDDC)/mine development (MD) costs would impact future investments, more than two-thirds of oil and gas companies and 60% of mining and metals companies said the repeal of IDDC/MD cost deductions would cause a reduction in their companies’ future capital spend.

**Percentage depletion**

If the percentage depletion allowance for fossil fuels was repealed as part of tax reform, 27% of respondents said the overall corporate tax rate would need to drop by 5% or more to be “tax neutral” for their company. In general, oil and gas producers and utilities were more likely to require a rate drop of less than 5%, while mining companies were more likely to require a rate drop of 5% to 10% or higher.

**IRC Section 174**

Another base-broadening measure that has sizable tax revenue associated with it is the deduction for research and development costs under IRC 174. The survey asked how a potential repeal of Section 174 would impact their companies. More than two-thirds of participants — 71% — said it would have little or no impact. It is likely that if intangible drilling costs were repealed but Section 174 remained in place, many companies would shift expenditures to ensure continued deductibility and development.

**Little or no impact as historically have not identified Section 174 expenditures for deduction**

- **81%** Mining
- **65%** Oil and gas
- **71%** Power and utilities

**Percentage depletion**

If the percentage depletion allowance for fossil fuels was repealed as part of tax reform, 27% of respondents said the overall corporate tax rate would need to drop by 5% or more to be “tax neutral” for their company. In general, oil and gas producers and utilities were more likely to require a rate drop of less than 5%, while mining companies were more likely to require a rate drop of 5% to 10% or higher.

**IRC Section 174**

Another base-broadening measure that has sizable tax revenue associated with it is the deduction for research and development costs under IRC 174. The survey asked how a potential repeal of Section 174 would impact their companies. More than two-thirds of participants — 71% — said it would have little or no impact. It is likely that if intangible drilling costs were repealed but Section 174 remained in place, many companies would shift expenditures to ensure continued deductibility and development.

**Little or no impact as historically have not identified Section 174 expenditures for deduction**

- **81%** Mining
- **65%** Oil and gas
- **71%** Power and utilities
Natural gas production and pricing in the US

EPA regulation of hydraulic fracturing
In general, most survey participants believe that the coming years will bring additional regulations and taxes to the business of natural gas production.

For example, 88% of respondents believe that efforts by the Environmental Protection Agency (EPA) to regulate hydraulic fracturing will have some impact on domestic natural gas development, although 60% believe the industry will deploy technologies to comply with new regulations.

60% of participants believe that EPA regulation will slow US natural gas development but that they will use technology to comply with environmental regulation.

Those beliefs are even more pronounced among oil and gas producers, with 93% of respondents agreeing that future EPA regulation will slow or stall the development of natural gas in the US.

US base price for natural gas
The majority of respondents believe that natural gas pricing will rise over the next three years, with 57% saying they believe the spot price of gas at Henry Hub will increase between 1% and 49%. Mining and metals respondents were the most likely to forecast an increase of that magnitude; 68% said the spot price would rise at least 49%, compared with 65% of oil and gas producers and 57% of utilities. Few respondents (just 7%) believe the price of natural gas will increase more than 50%.

The price of natural gas is obviously an important issue for power and utility companies, and while few experts believe the spot price of gas will rise above US$6 anytime soon, forecasts can be wrong and higher gas prices will ripple through the whole energy supply chain.
LNG facilities

One issue that has garnered a good deal of interest, across a range of industries, is the potential impact of liquefied natural gas (LNG) exports on supply and pricing in the US. Yet most respondents don’t believe the large number of planned LNG facilities will be built; 72% say fewer than half of the proposed 27 LNG export facilities will be permitted and constructed. A total of 26% say 50% or more will be built.

Respondents from oil and gas companies are the most conservative in their estimates of future LNG facilities. Of the survey participants from O&G companies, 83% said fewer than 50% of the LNG export facilities that have submitted applications for permits will be constructed.

These forecasts are in line with many industry experts’ predictions that just four or five LNG export facilities will be built in North America in the coming decades. It isn’t regulatory approval that will limit the number, but economics – these facilities are extremely capital-intensive and require long-term, attractively priced contracts to make sense.

72%

of respondents believe that less than 50% of LNG facilities will be permitted and constructed.

State and local tax influence on natural gas

Finally, the survey asked if state and local taxes will influence the development of natural gas reserves, given that many governments are seeking additional forms of revenue to balance budgets.

Of those responding, 59% believe that increased tax levies at the state and local level will influence which future reserves get developed; in other words, they predict companies will shift operations away from high-tax localities to those with more favorable conditions. However, power and utility respondents were more likely to agree than their peers in oil and gas (69% to 57%) that increased taxes would only shift natural gas production rather than hamper it.

Among oil and gas respondents, fully one-third (32%) believe that state and local tax burdens on natural gas production will increase enough to substantially reduce development in the near future. Overall, 28% of survey participants believe development will be stalled by increased taxes.

LNG demand

With the start-up of the world’s first commercial-scale liquefied natural gas (LNG) plant at Arzew in Algeria in 1964, the modern global LNG industry is approaching its 50th birthday in 2014. A massive amount of new LNG capacity has been proposed — as much as 350 million (metric) tonnes per year (mtpa) — which, if all were built, would more than double current capacity (of less than 300 mtpa) by 2025. Even with reasonably strong demand growth, this implies growing supply-side competition and upward pressures on development costs and downward pressures on natural gas prices. Nevertheless, the very positive longer-term outlook for natural gas is driving investment decisions, both in terms of buyers’ willingness to sign long-term contracts and sellers’ willingness to commit capital to develop the needed projects.

Global LNG demand

![Graph showing global LNG demand](image1)

Source: EY assessments of data from multiple sources

Global LNG capacity and demand

![Graph showing global LNG capacity and demand](image2)

Source: EY assessments of data from multiple sources

For more information on LNG, please see EY’s Global LNG (2013) report at ey.com/oilandgas.
Renewable energy production

Subsidizing renewable energy development
Roughly half of survey participants believe that current incentives and subsidies for renewable energy should be allowed to expire, with oil and gas respondents leading the way at 54%, followed by mining at 47% and power and utilities at 43%. A total of 26% of respondents (mining 34%; power and utilities 29%; oil and gas 21%) believe investment tax credits or production tax credits should continue to be used to further development of renewables.

The US tax authority has provided greater clarity over the meaning of “start construction” for wind projects to qualify for tax credits, setting a 1 January 2016 operations threshold for automatic eligibility. Meanwhile, the US military awarded its fourth and final round of projects as part of its US$7b tender to secure 3GW of renewable projects.

Source: EY 2013 RECAI report

Renewable portfolio standards
There has been some talk in Washington, DC, about expanding the master limited partnership (MLP) and real estate investment trust (REIT) structure to better enable renewable energy companies to take advantage. But some experts are doubtful this approach will have much impact, since companies involved in renewables typically need tax credits rather than deductions.

Respondents were lukewarm about the proposed adoption of federal renewable portfolio standards (RPS). Just 25% said the federal government should implement RPS to ensure uniform application in the US; 44% said no, and 31% had no opinion.
Greenhouse gas emission regulation/tax

Clean Air Act modifications
Most respondents (58%) believe that Congress will not modify the Clean Air Act to specifically remove carbon emissions so that they can be separately regulated. Just 28% believe Congress will do so to impose a separate cap-and-trade system; 14% believe carbon will be removed from EPA regulation entirely.

58%
believe that Congress will not modify the Clean Air Act to specifically remove carbon emissions.

Power and utility respondents were more likely to believe that Congress will enact cap and trade; 32% agreed with that forecast, compared with 27% of oil and gas participants and 25% of those from mining companies.

Carbon tax
An even greater percentage of respondents (73%) believe that Congress will not enact a tax on carbon in the near future, with the responses fairly evenly split among mining (75%), oil and gas (73%) and power and utilities (70%). However, 16% of respondents believe Congress will enact some form of cap and trade where emission allowances will be sold to assist in deficit reduction.

These responses are likely driven by the political reality that it would be extremely difficult for Congress to act on this issue in the next few years, rather than by opinions on whether efforts to reduce carbon emissions are important. Given the weak performance of the economy in recent years, a highly visible tax on carbon would be especially challenging to pass.
Business tax reform

MLPs/PTPs
In 2012, the Obama Administration published a framework for business tax reform that suggested further study of the taxation of large, non-corporate organizations such as master limited partnerships (MLPs) and publicly traded partnerships (PTPs). Fifty-four percent of survey respondents believe future reform efforts will address the taxation of MLPs/PTPs.

Although this issue is one that hasn’t received a great deal of attention, it is certainly an important one to watch over the next few years because these partnerships are increasingly used across the energy industry.

Corporate tax rate
At 35%, the current domestic corporate tax rate is one of the highest in the world, and many believe it hampers the competitiveness of US-based companies. There appears to be bipartisan support around corporate tax rate reduction, and 88% of respondents believe Congress will settle on a new rate of between 21% and 34% in the coming years. A total of 21% of the participants from the three sectors believe the corporate rate will not change.

Territorial approach to international taxation
At the same time, 38% of those participating in the survey said they believe Congress will enact a territorial approach to international taxation as part of a broader reform of corporate income tax. The US is currently the only member of the G-20 that taxes international income.

For regulated utilities, the rate-making implications of tax reform are especially critical, in that tax changes (e.g., rate reductions) could trigger complications in terms of the regulatory allowed rates-of-return.

Legislative issues
The survey next asked participants to rank their companies’ highest legislative priority. Forty-six percent said comprehensive energy and environmental legislation was No. 1, with 25% each ranking “reducing the budget deficit” and “corporate and individual income tax reform” as the highest priority.

The segment breakdown of those priorities was especially interesting. Mining (55%) and power and utility (53%) respondents were far more likely to name “comprehensive energy and environmental legislation” as a priority, while oil and gas companies were more likely to list “corporate and individual tax reform” (32%) and “reducing the budget deficit” (29%).

This likely reflects the impact that recent EPA and state regulations have had on power and utility and mining companies. For now, it is difficult for these companies to plan for the future given the uncertainty surrounding so many issues. Comprehensive energy legislation would provide a road map for the industry going forward and help guide investment decisions.
International competition

Given the potential policy changes in the US, Canada and OPEC, over the next five years, how competitive will US energy markets be and how competitive will US energy supply and US energy technology be in international markets? Eighty-three percent of survey respondents expect that US energy markets will remain competitive, while 79% expect that US energy supply and technology will remain competitive in international markets (i.e., export markets).

**Export markets**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>38%</td>
<td>Yes, US will be more competitive</td>
</tr>
<tr>
<td>41%</td>
<td>Yes, but US competitive advantage will not change much</td>
</tr>
<tr>
<td>11%</td>
<td>No, US will be less competitive</td>
</tr>
<tr>
<td>9%</td>
<td>Unsure/don’t know</td>
</tr>
</tbody>
</table>

**US domestic markets**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>43%</td>
<td>Yes, US will be more competitive</td>
</tr>
<tr>
<td>40%</td>
<td>Yes, but US competitive advantage will not change much</td>
</tr>
<tr>
<td>7%</td>
<td>No, US will be less competitive</td>
</tr>
<tr>
<td>10%</td>
<td>Unsure/don’t know</td>
</tr>
</tbody>
</table>

However, when those figures are broken down into two separate categories, “US will be more competitive” and “US will be competitive but competitive advantage will not change much,” a clearer picture emerges. Just 38% of those participating say the US will be “more competitive” in export markets, compared with 41% who say the competitive advantage will not change much. Just 11% say the US will be less competitive internationally, and 9% were unsure.

And 43% say the US domestic markets will be more competitive, with 40% saying it will remain competitive but without much change. Just 7% say the US will be less competitive at home, and 10% were unsure.
Conclusion

In general, it appears that energy industry accounting, finance and tax professionals are more concerned about the potential impact of environmental regulations than they are about proposed changes to federal tax laws. This may be because existing tax incentives have not been the primary driver of investment decisions in recent years — especially for companies involved in oil and gas production.

It also likely reflects the fact that professionals recognize the practicalities facing Congress and its political will to enact meaningful tax reform during a time of slow economic growth.

Finally, professionals involved in the financial side of energy companies recognize intuitively that environmental regulations can be implemented much more quickly than Congressional actions and can have an immediate impact on finances.

It also appears that oil and gas producers remain optimistic about the industry’s ability to continue driving domestic production despite regulatory changes. And despite the well-publicized concerns, most respondents in the survey don’t believe LNG exports will impact the domestic market significantly.

Finally, the industry as a whole — and particularly the utility/power and mining segments — are eager for Congress to enact comprehensive energy and environmental legislation that defines a clear and certain path and makes long-term strategic planning more effective.
About the survey

EY’s QUEST Survey Team distributed a web survey to 5,348 accounting, finance and tax professionals working in the US energy sector on September 2013. Each participant could respond only once. Follow-up consisted of two reminder emails encouraging participation.

A total of 169 surveys were completed, a 3.2% response rate.

Percentages listed here and in the accompanying charts may not total 100% due to rounding.

About EY’s QUEST Survey Team

Businesses and other organizations recognize surveys as one of the most effective ways to collect new information from specific audiences. EY’s Quantitative Economics and Statistics (QUEST) Survey Team is centered in Washington, DC, and includes members with advanced degrees in statistics and survey methodology. QUEST survey professionals have extensive experience providing a full line of survey and analytic services, helping clients address business issues with surveys and data collections for gathering new information in cost-effective ways. We can help streamline the survey process for efficiency, improve the survey instrument for clarity, monitor the survey data for quality and analyze the survey results for business insight.

EY QUEST contacts:
Glenn White
Survey Practice Leader
glenn.white@ey.com
+1 202 327 6414

Joe Callender
Senior Manager
joe.callender@ey.com
+1 202 327 5692

About the participants

A total of 169 finance, accounting and tax professionals employed in the energy industry responded to the 2013 survey. The segment breakdown follows:

- **Oil and gas** - 74 respondents involved in upstream oil and gas production; downstream refining and marketing of petroleum products; integrated oil and gas production, refining and marketing; energy services; consulting; and others

- **Power and utilities** - 56 respondents involved in midstream oil or natural gas transportation; natural gas transmission or distribution; non-regulated electric power production and/or sales; regulated and unregulated power production, transmission and distribution; or renewable energy production

- **Mining** - 39 respondents in coal mining or other mineral exploration

Of those responding, 40% represented companies with greater than US$5 billion in annual sales/revenues, with another 28% representing companies with annual sales of US$1 billion to US$5 billion.

Sixty-one percent of those participating had more than 10 years of experience in their energy segment, and another 28% had five to 10 years of experience.

Finally, 48% represented companies with energy and supply operations only in the US, with another 34% representing companies that are based in the US with both US and foreign operations. Sixteen percent were foreign-based with operations in the US and other countries.
Forecasting the US energy landscape

EY 2013 Energy Tax and Policy Survey
Business risks facing mining and metals (2013-2014)
This annual report reviews into the top 10 risks for mining and metals companies, from this year’s top risks and capital management and capital access to threat of substitution.

Financing the future energy landscape
The oil and gas industry is experiencing major capital investment, with US$700 billion slated for projects under development. An estimated three-quarters of these ventures will cost more than US$1 billion, illustrating how today’s projects are the largest and most technically challenging ever undertaken. Mergermarket, on behalf of EY, surveyed 100 global PE executives to better understand this transformational period in the oil and gas industry.

Risk-based asset replacement
North American utilities are being encouraged to think beyond compliance when planning for critical asset replacement. Taking a risk-based approach increases the likelihood of successful rate case applications while avoiding catastrophic asset failure.

RECAI (November 2013)
Established in 2003, our global quarterly publication ranks 40 countries on the attractiveness of their renewable energy investment and deployment opportunities, based on a number of macro, energy market and technology-specific indicators.
Contacts:

Andrew Miller  
Partner  
Ernst & Young LLP  
+1 314 290 1205  
andy.miller@ey.com

Deborah Byers  
Partner  
Ernst & Young LLP  
+1 713 750 8138  
deborah.byers@ey.com

Michael Semes  
Principal  
Ernst & Young LLP  
+1 215 448 5338  
michael.semes@ey.com

Steve Landry  
Partner  
Ernst & Young LLP  
+1 713 750 8425  
stephen.landry@ey.com

Connect with us

Staying connected is important to keep up with industry trends and issues and to foster dialogue that continues to address the industry issues.

Visit our global industry center pages on ey.com for the latest updates on industry-specific thought leadership and sponsored events. You can also sign up for industry email alerts on ey.com. Our social media channels will also help you to stay up to date on our reports, surveys and more.

- Global Mining & Metals Center: ey.com/miningandmetals. Join us for discussions on Twitter @EY_MiningMetals.
- Global Oil & Gas Center: ey.com/oilandgas. Join us for discussions on LinkedIn® under the group name EY Global Oil & Gas Center and on Twitter @EY_OilGas.
- Global Power & Utilities: ey.com/powerandutilities. Join us for discussions on LinkedIn® under the group name EY Global Power & Utilities Center and on Twitter @EY_PowerUtility.

EY | Assurance | Tax | Transactions | Advisory

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

About EY's Global Mining & Metals Center

With a volatile outlook for mining and metals, the global sector is focused on cost optimization and productivity improvement, while poised for increased challenges of changing expectations in the maintenance of its social license to operate, skills shortages, effectively executing capital projects and meeting government revenue expectations. EY’s Global Mining & Metals Center brings together a worldwide team of professionals to help you succeed – a team with deep technical experience in providing assurance, tax, transactions and advisory services to the mining and metals sector. The Center is where people and ideas come together to help mining and metals companies meet the issues of today and anticipate those of tomorrow. Ultimately it enables us to help you meet your goals and compete more effectively.

About EY's Global Oil & Gas Center

The oil and gas sector is constantly changing. Increasingly uncertain energy policies, geopolitical complexities, cost management and climate change all present significant challenges. EY's Global Oil & Gas Center supports a global network of more than 9,600 oil and gas professionals with extensive experience in providing assurance, tax, transaction and advisory services across the upstream, midstream, downstream and oilfield service sub-sectors. The Center works to anticipate market trends, execute the mobility of our global resources and articulate points of view on relevant key sector issues. With our deep sector focus, we can help your organization drive down costs and compete more effectively.

About EY's Global Power & Utilities Center

In a world of uncertainty, changing regulatory frameworks and environmental challenges, utility companies need to maintain a secure and reliable supply, while anticipating change and reacting to it quickly. EY’s Global Power & Utilities Center brings together a worldwide team of professionals to help you succeed – a team with deep technical experience in providing assurance, tax, transaction and advisory services. The Center works to anticipate market trends, identify the implications and develop points of view on relevant sector issues. Ultimately it enables us to help you meet your goals and compete more effectively.

© 2014 EYGM Limited.  
All Rights Reserved.

EYG No. DW0363  
CSG No. 1312-1178912  
ED None

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, or other professional advice. Please refer to your advisors for specific advice.

ey.com