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Helping energy companies succeed

PwC's global oil and gas capabilities

February 2013

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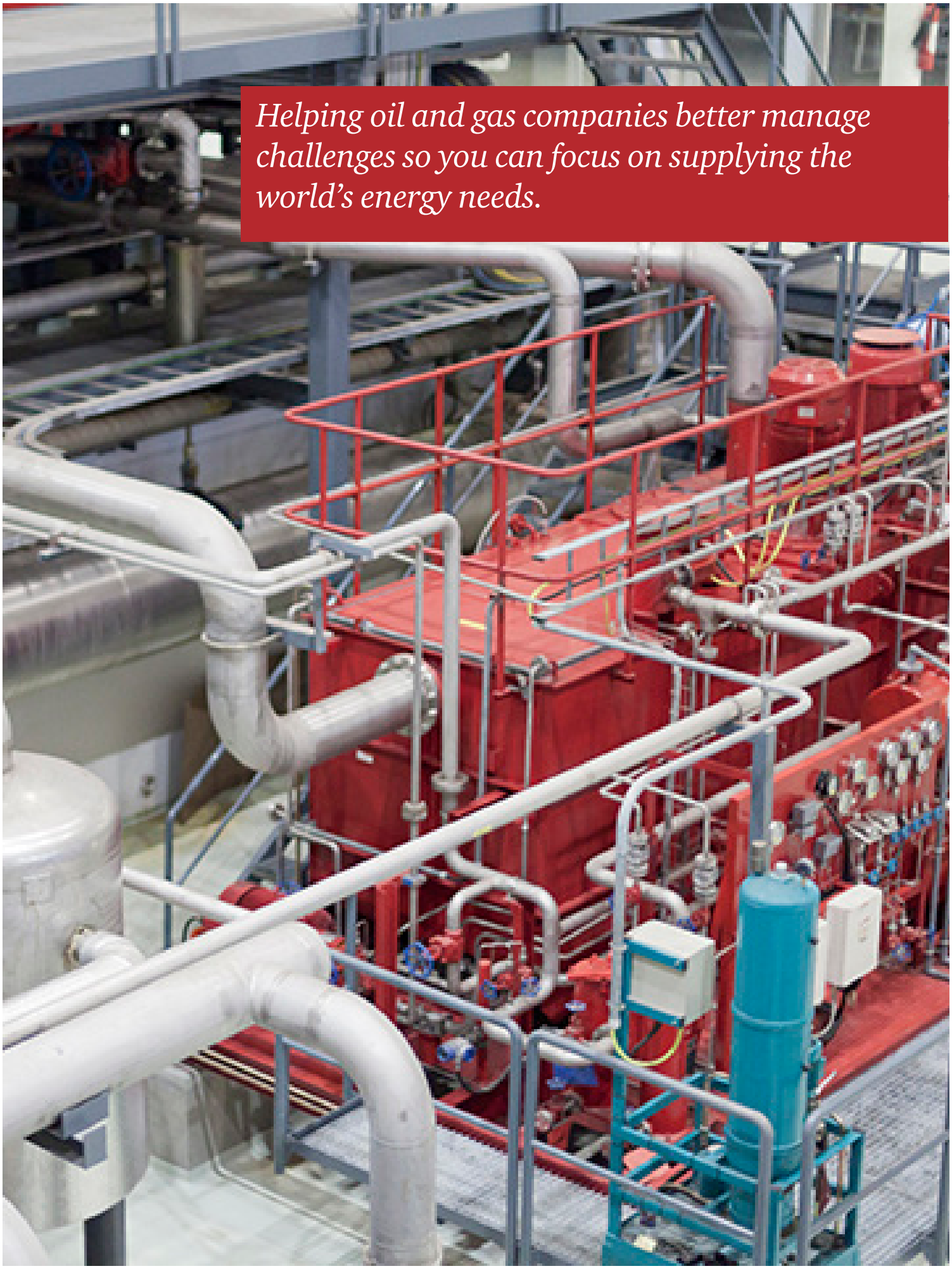

Helping oil and gas companies better manage challenges so you can focus on supplying the world's energy needs.

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How we help you succeed

Where are the next opportunities for the oil and gas sector? Will the US shale gas/oil boom be replicated elsewhere? The energy industry contends with a great amount of uncertainty and risk, and yet companies have to focus on the future to ensure financial and operational success. At PwC, we study industry trends and issues closely, so that we can better understand the challenges that our clients face, and how we can best help them to achieve success.

Instability continues to be a major concern around the world. In 2011-2012, the Arab Spring and European Union economic turmoil was the focus of attention, and today political instability in parts of the world, including Africa and the Middle East, continue to make media headlines. Industry safety and workforce security factor into new and ongoing operations for the oil and gas industry. Despite so much uncertainty, the industry cannot stand still and wait for better times ahead. The energy industry requires long lead times for new projects, and even though the current global economy is struggling, the world's population continues to grow. With this growth, energy demand will increase.

To manage projects and operations in slower times, oil and gas companies must control costs. Weighing the risks versus benefits of new projects, new products and how much capital to invest, energy companies also have to consider regulatory, safety and environmental concerns. Balancing the need to supply the world with hydrocarbons, companies are also looking at investments in alternative energy sources, including unconventional sources, biofuels, renewable energy sources, and ways to improve energy efficiency.

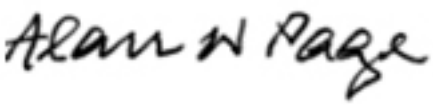
Emerging countries are the focus of much of the future demand for energy. South America, Africa, Asia and the Middle East hold 78% of the world's oil and 56% of the world's natural gas proven reserves. These emerging markets consume 46% of the world's oil and 26% of the world's natural gas. Many energy companies already have operations in the regions, while others are looking for the best points of entry. At the same time national oil companies from these regions are expanding outside of their home territories to gain access to the skills and technologies that will help them provide sustainable energy supply at home.

Technology plays a fundamental role in providing an efficient way to produce hydrocarbons. Breakthroughs such as 4-D seismic imaging, horizontal drilling techniques, and enhanced oil recovery are some of the recent advances that have helped the industry find new reserves and exploit mature fields. Research and development investments are critical to helping oil and gas companies grow and compete.

The industry also is dealing with social and behavioural changes. Urbanization, the growth of digital communication and social media, talent shifts and a host of other factors need to be addressed by the industry in terms of where and how they do business. The oil and gas industry wants to improve its public image and reduce scepticism, and monitoring social and behavioural changes will be an important step in this process.

So at PwC, we are not only watching these developments in the industry, but we are analyzing these changes from the perspective of how they will impact our clients, and how we can best help companies prepare and manage the changes. On an annual basis, our practice gathers to hear from industry executives and experts, such as the Executive Director of the International Energy Agency, to learn more about the opportunities and obstacles that lie ahead. We examine the issues, and build teams of subject matter specialists who develop appropriate solutions through our assurance, tax and advisory services. Our experienced professionals are on the ground in 158 countries around the world contributing local insight and understanding.

PwC is a leading advisor to the global energy industry, working with every segment of the business—from upstream to midstream to downstream—to provide business solutions tailored to meet your needs. For more than 100 years, we have helped energy companies succeed. We look forward to the opportunity to work with your company.



Alan W. Page
Global Energy, Utilities & Mining Leader

Introduction

Energy companies are facing an increasingly complex environment, with changing geopolitics, tightening regulatory requirements, greater competition and higher stakeholder expectations. Finding new reserves requires greater investment and improved technology. International oil companies and national companies are vying for new reserves in new locations, such as the Arctic, and in deeper waters offshore. The success of the shale oil and gas production in the US has resulted in countries around the globe evaluating the potential in their homelands. While needing to invest more, energy companies are also looking for ways to improve efficiency and lower costs, while managing the many risks of the business.

PwC has been adding value by providing professional services to energy companies for more than 100 years. We help companies confront the industry's most challenging issues and changes by developing effective solutions and strategies.

With over 5,300 industry-dedicated professionals located in strategic energy centres, we can help companies everywhere they operate. Our global energy headquarters is in Houston, Texas, and we have energy centres in countries throughout the world.

PwC can help energy companies evaluate priorities, assess risks, and build stakeholder confidence. Our global energy practice focuses on delivering professional services to companies of all sizes, across all segments of the industry. We provide industry specific solutions in the fields of audit and assurance, tax, deals and consulting services to help companies address their business and stakeholder issues.

Our global practice

The energy industry is truly global, operating in almost every part of the world. PwC understands the global nature of the industry, and the importance of having our audit and assurance, tax and consulting professionals everywhere that our clients operate. Through our global network of firms, PwC's energy practice includes more than 5,300 people in 158 countries. With professionals on the ground in so many locations, we provide our clients with local knowledge of the regulatory environment and business customs that are crucial to their success. On the following pages are descriptions of some of our important energy centres.

The Americas

Canada

Canada's proved oil reserves are the 3rd largest in the world. Perhaps more important is that 56% of the world's oil reserves open to private sector investment are in Canada. Canada is also the 3rd largest producer of natural gas in the world. Based on present projections, Canada will emerge as one of the 3 or 4 largest global producers of oil and natural gas over the next decade. Current oil sands production is 1.6 million barrels per day, growing to an estimated 2.2 million in 2015 and to 3.7 million barrels per day in 2025. CAPEX for new oil sands projects in 2012 estimated to be over $20 billion.

In the past 5 years, long-term, multi-billion dollar investments from a diverse group of international oil companies and State-owned "national" oil companies have been made, particularly in the Canadian oil sands and shale gas sectors. Examples include TOTAL, Statoil, PTTEP, Petronas, KNOC, PetroChina, CNOOC, Sinopec, CNPC, CIC and Sinochem. Canada has always been an important asset base for ExxonMobil, Shell, BP and ConocoPhillips and all of the world's major energy service players such as Schlumberger, Halliburton and Baker Hughes have a sizeable and growing presence. Additionally, there are numerous large and growing Canadian energy companies (e.g. Suncor, Canadian Natural Resources Limited, and EnCana).

As a leading Canadian energy industry professional services firm, PwC Canada's Energy practice has more than 400 partners and members delivering industry specific solutions to more than 1,600 energy companies of all sizes.

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United States of America

The United States is a leader in the production and supply of energy and is one of the world's largest energy consumers. The energy industry is the third largest industry in the United States. From offshore to onshore, the US continues to have a vibrant oil and gas industry. With the onset of hydraulic fracturing and horizontal drilling, oil and gas companies have greatly increased the domestic production of both oil and gas from shale. In 2011, the nation produced a record quantity of natural gas, some 23 trillion cubic feet, or about 20 percent of the world total. With only 2.2% of the world's oil reserves, the US produces about 12% of the world's oil.

Houston, Texas is a global centre for the energy industry. From oil and gas to chemical development and production, Houston is home to more than 3,300 energy-related companies. The region offers a solid energy and chemical foundation and a workforce skilled in meeting the sector's needs.

PwC's US energy practice, headquartered in Houston, includes over 920 professionals serving the full range of oil and gas companies. We work with companies of all sizes and business structures, from super-majors and independents, to MLPs and other partnerships, and private entities.

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Mexico

Mexico is home to the world's second largest oil field, the Cantarell. However, the field has reached the point of declining production, just as the Ku-Maloob-Zapp is also approaching maximum production. The challenge is to find new reserves and put them into production as soon as possible.

The long term plans for the development of Mexico's oil and gas sector hinge on two main objectives: ensuring long term sustainability by maintaining a healthy reserve replacement rate, and to increase crude oil production. Specifically, by 2016, the state-owned oil company, Pemex, aims to increase its production to 3 million bbl/day, from the 2011 production rate of 2.55 million bbl/day. In 2011, the company achieved its goal of raising the rate of reserve replacement to above 100% by achieving a 101.1% replacement of 1P reserves. From now on into the future, Pemex is committed to achieving reserve replacements of 100% (or higher) every year.

In Mexico, PwC has more than 120 professionals focused on the oil and gas industry. Our practice supports many of the foreign operators in the country as well as state-owned and local oil and gas companies.

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Argentina

There is a strong industry focus on upstream activities in Argentina. Currently, the market is highly regulated by government policies. As a result of increased export taxes and the impossibility to raise the price of gas for all users, internal market prices trade below international prices. These policies have had a negative impact on the industry in the last several years. Oil and gas production and reserves are both declining, while demand is growing, and these conditions have led to Argentina becoming a net importer of oil and gas. The main player in the sector is YPF S.A., the state-owned enterprise. The government has implemented programs to encourage investment in the sector, and some concessions have been extended. Going forward, Argentina is likely to focus on non-conventional energy sources, including shale gas.

While a few years ago Argentina was a net exporter of oil, since 2008 there has been a significant decrease in export volumes with increasing participation in the import of refined fuels (diesel). The market is highly intervened by government policies. The refining capacity is being fully utilized, minimizing margins for "pure downstream" operations. Refining product prices have risen alongside the domestic price of crude. There has been disinvestment of some major players, allowing for the rise of local companies such as PAE.

PwC has 280 energy professionals throughout the country. Our lead office is in Buenos Aires, where many of our clients have operations. We serve a broad range of domestic and international oil and gas companies with audit and assurance, tax and consulting services.

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Brazil

Brazil has nearly 15 billion barrels of oil equivalent (boe) of proved oil reserves, 90% of which lie in offshore fields. The recent pre-salt discoveries may include as much as 50 billion boe of oil and gas reserves. Brazil is the second largest energy reserves in South America, after Venezuela. The country is the largest producer of liquid fuels in South America, including the substantial ethanol production. The principal government agency that monitors oil, natural gas and biofuels is the National Petroleum Agency (ANP), which is responsible for issuing exploration and production licenses and ensuring compliance with relevant regulations.

Brazil is the ninth largest energy consumer in the world. The country is focused on energy dependency, and it is a net exporter of liquid fuels. Strong economic growth has triggered increased energy consumption in recent years. Petrobras is the state-owned energy company that dominants the oil sector across the value chain. A number of foreign companies also operate in Brazil, including Royal Dutch Shell, Chevron, Repsol, BP, Anadarko, Galp Energia, Statoil, BG Group, Sinopec, ONGC, and TNK-BP.

PwC's energy practice in Brazil is based in Rio de Janeiro, where we serve the state-owned oil company and a host of other domestic and foreign energy clients. With over 200 dedicated oil and gas specialists, we are focused on helping companies understand not only the local regulatory environment, but also the plans and development needs to produce the pre-salt fields.

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Colombia

Colombia's energy sector has transitioned from a restricted energy regime to an open access market over the last two decades. The result has been a strong increase in oil and gas production (along with coal). The country is estimated to have 2 billion boe of crude oil and proven natural gas reserves of 4.7 trillion cubic feet (Tcf). It is a net exporter of natural gas, and plans to expand production going forward.

Chevron is the largest natural gas producer in the country, in partnership with Ecopetrol, the state-owned energy company. A number of Canadian oil companies operate in Colombia, including Gran Tierra Energy, Talisman and Nexen. Other international oil companies with interests in Colombia include BHP Billiton, BP Plc, Exxon Mobil Corporation, Reliance Industries Limited, SK Energy Company Ltd, and Occidental Petroleum.

PwC's energy practice is centered in Bogotá, and includes over 100 industry professionals. Our Colombian team serve a broad range of domestic and international oil and gas companies with audit/assurance, tax, transactions/deals and consulting services.

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Venezuela

Venezuela has proven oil reserves of 297 billion barrels, which represent 55% of crude-oil reserves in the Western Hemisphere and 18% of global reserves. As a result, Venezuela has some of the largest oil reserves in the world, particularly heavy and extra heavy crude oil, which account for 93% of oil reserves in the country. Venezuela produces about 2.72 million barrels of oil per year, which is 14% of oil production in the Western Hemisphere and 3% of global production.

Venezuela has the eighth largest natural gas reserves in the world, with approximately 195.2 billion cubic feet of gas. These reserves are the second largest in the Western Hemisphere, accounting for 73% of gas reserves in Central and South America and 3% of global reserves.

Petróleos de Venezuela, S.A. (PDVSA), the national oil company in Venezuela, utilizes joint efforts between PDVSA and third parties under joint venture agreements, with the participation of multinational companies. PDVSA also explores and produces oil and gas independently.

PwC has served the oil and gas industry in Venezuela since its inception. With 70 professionals focused on the oil and gas industry, we provide a wide range of audit and assurance, tax and consulting services for national and international companies. Our clients include companies involved in upstream, downstream, oil field services, drilling and transportation.

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Europe

Germany

Germany has very limited conventional resources, but its oil and gas upstream industry - though small - plays a considerable role in securing the country's supply through domestic and foreign operations. The industry has traditionally been very successful in operating in ecologically sensitive environments. The country's refinery market is saturated, putting pressure on efficiency and flexible output mix. Germany has a dense network of fuel stations mainly operated by the large international players. The fully regulated pipeline network meets the suppliers' needs and is well connected to the neighbouring countries with limited congestion.

Our energy practice in Germany includes 30 partners and close to 100 professionals working with a broad range of domestic and foreign clients.

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Italy

Italy is at a crossroads in terms of energy market development. A referendum in 2011 blocked the government's plans to restart nuclear power generation, clearing the way clear for gas volumes to march steadily higher and forcing the import bill to keep pace. Domestic oil and gas volumes are significant, but under threat, while Italy's refining system continue to absorb cash but offer little in the way of returns.

Italy's new government is trying to make the country's economy more dynamic by promoting internal competition and lowering Italy's energy costs. The new energy plan which will be launched by government has four main pillars:

- Simplification and liberalization of upstream activities/offshore terminals;
- Cuts in subsidies to renewable energy providers, notably imposed to the photovoltaic (PV) sector, which has seen capacity addition rates soar over the past two years;
- Italy to become a gas hub for the rest of Europe;
- Introduction of more aggressive energy-efficiency savings, mainly through higher standards for new buildings, smart meters and transposing EU requirements on energy labelling into law;

Italy's primary energy mix looks set to change. Currently, oil accounts for 45% of total primary energy consumption while gas accounts for just 36%, but gas will overtake oil within the next 10 years. Gas is imported to Italy through pipelines mainly from Algeria and Russia, which make up 57% of imports in 2010. The opening of a new LNG terminal in Rovigo allowed the increase of imports from Qatar in the same year. Expected new infrastructure will increase import capacity by 40% in the next 6 years.

PwC's energy practice in Italy includes 160 professionals serving both domestic and foreign companies operating in the country.

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The Netherlands

The Netherlands is Europe's fifth largest natural gas producer and exporter. The Dutch oil and gas market is characterized by the presence of large, diversified international companies with highly vertically integrated operations throughout oil exploration, production, refining, transportation and marketing, and they appear as both buyers and players within different segments. The natural gas resources as at 1 January 2011 are estimated to be 1,304 billion standard cubic metres (Sm3). Some 75% of these resources reside in the Groningen gas field, and the other resources are in onshore fields and in the Dutch part of the North Sea Continental Shelf. Currently, 239 gas fields are in production (102 on the Dutch onshore and the rest on the Dutch part of the North Sea Continental Shelf). In 2010, six successful exploration wells added a total of 5.2 bcm to the reserves. Oil resources as at 1 January 2011 added up to 45.7 million Sm3, the majority of which reside in onshore oil fields and about one quarter sit in fields on the Continental Shelf. The average oil production over 2010 was about 3,500 Sm3 per day.

Our Dutch energy practice includes 115 professionals, providing audit and assurance, tax and advisory services to oil and gas clients.

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Norway

The petroleum activities have been crucial for Norway's financial growth and in financing the Norwegian state. Over more than 40 years, petroleum production on the shelf has added more than NOK 9,000 billion to the country's GDP. In 2010, the petroleum sector represented 21 per cent of the country's total value creation. Currently, 70 fields are in production on the Norwegian continental shelf. In 2011, these fields produced more than 2.0 million barrels of oil (including NGL and condensate) per day and a total of about 100 billion standard cubic metres (Sm3) of gas, a marketable petroleum production totalling 229.7 million Sm3 of oil equivalents (o.e.). Norway is ranked as the seventh largest oil exporter and the fourteenth largest oil producer in the world. In 2010, Norway was the world's second largest gas exporter, and the world's sixth largest gas producer.

Stavanger is the "Norwegian Capital" for the oil & gas industry and an international hub for the oil & gas and oil service industry. More than 50 companies and active on the Norwegian Continental Shelf and the most of them directs their operations from Stavanger.

PwC has 125 professionals in our energy practice serving a large number of foreign and domestic clients.

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Portugal

Portugal is a country with scarce energy resources which has lead to strong external dependency, mainly from oil and its derivatives. The Portuguese Government has been encouraging the use of renewable energy and promoting the shift to environmentally friendly technologies. Although oil has been the main source of energy supply, natural gas has been gaining ground; natural gas demand has been increasing due to the sustainable and environmental issues rising.

Portugal is a leading country in terms of investment in renewable energy sources for electricity production. Close to half of domestic electricity production comes from renewable energy sources. In 2010, Portugal had the sixth highest hydropower production and seventh highest wind power production (DGEG).

Wind power contribution to the total domestic production is equivalent to the US and Australian levels. Portugal also has the potential to develop shale gas in the Posidonia shale in the Lusitanian and Peniche basins.

Gás de Portugal (GdP) is the dominant player in Portugal's natural gas sector, controlling gas imports, distribution, transmission and sales of natural gas. GdP has a stake in all of the country's six regional natural gas distributors. The largest oil company in Portugal is Petróleos de Potugal (Petrogal), a wholly-owned subsidiary of Galp Energia, which is part-owned by the Portuguese government, along with a group of international oil and gas operators. Petrogal controls the domestic midstream and downstream oil sectors in Portugal, and maintains modest production activities in Angola and Brazil. There are two refineries in Portugal, located in the coastal cities of Sines and Porto, with a combined capacity of 304,174 bbl/d.

PwC serves many of the oil and gas companies operating in Portugal. Our practice is over 50 years old, and includes a broad range of specialists in all areas of the energy value chain.

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Spain

Spain has a privatised energy sector operating under EU guidelines. There is a very small upstream oil and gas segment consisting of oil fields in Tarragona, prospects announced in the Canary Islands and the shale gas field recently discovered in Álava in northern Spain. Spain relies heavily on imports, the sources of which are well distributed amongst Africa, the Middle East, countries of the former Soviet Union and OECD.

The downstream sector is controlled largely by Repsol, Cepsa, and BP. All of these companies also operate in the chemicals industry.

The Corporation of Strategic Reserves of Oil-based products (CORES) is the organisation responsible for managing strategic reserves and controlling the compulsory minimum security stocks (petroleum products and natural gas) in Spain. CLH is the leading company on the Spanish market for the transportation and storage of oil products and the distribution and service of aviation fuels and lubricants.

Our energy practice in Spain is headquartered in Madrid. We have 114 energy-dedicated professionals serving both local and international oil and gas companies, including operations of some of the world's largest players.

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Turkey

The Turkish energy landscape is changing dramatically. Market liberalisation is moving forward apace. Turkey has successfully privatised its regional power distribution networks. The privatisation of state generation assets is expected to start soon. The former state refining company (Tüpraş) has already been privatised and the retail fuel sector is being deregulated. Intense consolidation activity is taking place in the already highly competitive downstream environment to compensate for the erosion of margins.

Energy demand has grown strongly in Turkey in recent years. This is putting great pressure on the country's existing infrastructure and making significant investments in new generating capacity necessary. There is little domestic oil or gas production relative to consumption needs and so the country relies heavily on imports. Reducing this dependence is one of the major objectives of the government, reflected in the plans to build Turkey's first nuclear power plant and to expand renewable energy supplies.

Securing supply is also a major global concern. The country plays an increasingly important role in the transit of oil and gas supplies to Europe from Russia, the Caspian region and the Middle East. Turkey's policy aims also to make the country a reliable connection route and hub in the region. On the regulatory side, the newly introduced Turkish Commercial Code means a convergence with International Financial Reporting Standards (IFRS) with far-reaching consequences for energy companies.

PwC works with companies and industry stakeholders all over Turkey to assist with the decisions, planning and implementation of these and other changes. We have been involved in many of the major developments that are shaping the Turkish energy, utilities and mining industries, including landmark deals, privatisations, company restructuring, assuring the first sustainability report in Turkey and examining future options for harnessing renewable energy. Our Turkey practice includes 100 energy dedicated professionals.

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United Kingdom

Oil and gas remain vital parts of the UK's energy mix; both of these fossil fuels are used for electricity generation. In 2009, indigenous production of oil and gas met around 80% of the UK primary demand in oil and gas, or about two-thirds of the UK overall primary energy need. Although oil and gas production is now in decline, the remaining resource is sufficient to provide major benefits to the economy and to security of supply for many years.

Within the UK, Aberdeen is the 'Energy Capital' where PwC have dedicated offices. We do, however, have a large number of highly skilled industry experts across the country to help clients create the value they are looking for. Between our energy centres in London and Aberdeen, we have 360 professionals working in the energy sector. Our services include assurance and audit, tax, consulting, corporate finance and legal services.

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Central and Eastern Europe

Russia

Russia is the world's third largest refiner after the US and China, with a processing capacity of around 5.42 million b/d. In 2011, the country's oil production reached an estimated 10.29 million b/d, making it one of the world's leading producers. In terms of natural gas, Russia meets 22% of the world's demand with supply estimated at 630 bcm. Large parts of the country have yet to be fully explored and there may be significant reserves the Caspian and Black Seas and Arctic waters that fall within Russia.

The Russian gas industry is dominated by state-owned Gazprom, accounting for about 81% of upstream production. In 2010, Gazprom produced an estimated 502 bcm. Gazprom Neft, the oil subsidiary, is now a major producer and refiner. Outside of Russia, Gazprom Neft has begun expanding into Africa, with operations in Equatorial Guinea and Libya.

The Russian oil sector is more diversified than the gas sector. State-run Rosneft is the main producer, but privately owned Surgutneftegaz, Lukoil, and large regional producers such as Tatneft and Bashneft make significant contributions.

PwC has 345 professionals in our energy, utilities and mining practice in Russia, including over 20 partners. Our clients include many of Russia's largest oil and gas organisations.

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Azerbaijan

Azerbaijan's oil and gas sector is managed primarily by the Government, however there is extensive foreign investment in the country. Oil and gas fields are being developed as partnerships involving the state and IOCs. Domestic downstream oil and gas activities are largely state-owned. However, IOCs own and operate some of the fuels retail outlets in the country. State-owned SOCAR and its subsidiaries are responsible for the production of oil and gas, operation of the country's two refineries, running the pipeline system and the management of Azerbaijan's oil and gas imports/exports. SOCAR produces approximately 17% of the total oil production (168,000 b/d net in 2011), and almost one third of the natural gas.

Oil accounts for 70% of the country's exports and half of state revenues. Volume growth was steady in the early-2000s, but has faltered due to technical problems, planned maintenance and delays to new projects.

Partnering with SOCAR are a mix of IOCs, including BP Plc, Chevron, ExxonMobil and Hess, and other state-owned entities including Norway's Statoil, Lukoil of Russia, and Turkish Petroleum Corporation (TPAO).

PwC's oil and gas practice in Azerbaijan includes 38 fully dedicated professionals. Our team is also supported by oil and gas specialists from Russia.

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Poland

Poland's proven oil reserves were estimated by the Energy Information Administration (EIA) at just 96.4mn bbl in 2011 and domestic crude and gas liquids production is currently under 20,000b/d. Poland has a refining capacity of 510,300b/d, more than 70% of which is accounted for by the Plock facility near Warsaw. Poland's proven oil reserves grew slightly due to two fields - Gajewo and Kamień Małyoil, contributing 1.54 million barrels.

Poland has been one of the most enthusiastic countries in Europe to develop unconventional gas sources. The Polish Geological Institute estimates the country may have 346bn-768bn cubic metres of the unconventional gas. The shale in Poland is situated deeper than in the US, and to-date, well tests have been disappointing. Poland has issued 111 exploration licences to companies ranging from state-owned PGNiG to foreign IOCs.

PGNiG dominates the upstream oil and gas segment, although this could change if the increasing IOC involvement in unconventional gas exploration results in commercial discoveries. PGNiG provides gas supply to industry and households, purchasing gas from Russia, Central Asia, Norway and Germany. Downstream oil is in the hands of partly state-owned domestic companies PKN Orlen and Grupa Lotos, but there is extensive IOC participation in fuels distribution. The government currently controls 59% of Lotos, directly and indirectly.

PwC has 52 dedicated Energy, Utilities and Mining industry specialists in Poland. Our team works with both state-owned companies and IOCs and has experience with both conventional and unconventional resources.

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Kazakhstan

Kazakhstan has the largest proven oil reserves base in the Caspian Sea region, estimated to be 30 billion barrels. The country also accounts for more than half of Central and Eastern Europe (CEE) regional production (excluding Russia), with output in 2011 averaging an estimated 1.63 million b/d. The growing petroleum industry accounts for more than 30% of the country's GDP and more than half of its export revenues. In an effort to reduce its exposure to energy and metals price fluctuations, the government created the National Oil Fund of Kazakhstan. The state plays a key role in managing and administering the oil and gas sectors. The state-owned oil and gas company is KazMunaiGas (KMG). Foreign investment is welcomed and has played a major role in developing the country's resources. Oil and gas fields are developed as partnerships involving the state and IOCs, as are key export infrastructure projects. Domestic oil and gas distribution is partly state-controlled, with some IOC-owned refining and fuels retail interests.

Kazakhstan has three major oil refineries supplying the northern (at Pavlodar), western (at Atyrau) and southern regions (at Shymkent), as well as 27 mini-refineries producing for export. However, only one of the major refineries utilizes domestic fuel supplies (Atyrau). The other refineries depend on crude piped in from Russia and Uzbekistan, which can lead to supply disruptions.

Kazakhstan is planning to list up to 20% of KMG, according to the head of the country's state holding and investment company. The government is keen to bring in additional foreign investment to help finance its major development projects, with the Kashagan field development alone requiring annual spending of US$1.5-2 billion.

PwC's industry practice includes 235 dedicated professionals. Our clients include both state-owned companies (domestic and foreign) as well as many of the IOCs operating in the country.

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Middle East

Middle East

The Middle East holds approximately 55% of the world's proven oil reserves, and about 38% of the world's proven natural gas reserves, making it an extremely important region to the global energy industry. With their unique blend of commercial, national economic, and political roles, requirements, and capabilities, Middle East NOCs, as governmental or quasi-governmental entities, must address their own unique blend of issues, challenges, priorities, and imperatives, including, but not limited to;

- Accelerating asset development
- Building world-class operational capabilities
- Improving operational reliability, effectiveness, and performance management
- Assimilating and exploiting advanced technologies
- Enterprise and capital project risk management
- Learning, kinowledge management, innovation, and professional development
- Leveraging joint ventures, alliances, and new business models
- Creating local capabilities and opportunities

Like their IOC peers, Middle East NOCs must offset accelerating natural asset decline, enable greater cross-functional collaboration and efficiency in their asset development teams, and find new, faster, and more efficient ways to drive the asset development process.

Our global and Middle East oil and gas industry practice focuses on helping companies address these issues. As committed long-term business partners, with the deep experience, talent, and capabilities, we can help NOCs and other clients achieve long-term success. With our innovative and proven methods and tools, and with our deep passion for the industry, we are fully committed to creating value and serving our clients.

We currently have 250 professionals serving the energy industry throughout the Middle East with offices in Bahrain, Egypt, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, the UAE, and the West Bank & Gaza.

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Africa

Angola

Angola is Africa's second largest crude exporter and the world's second largest supplier of oil to China after Saudi Arabia. Its economy of $100bn is the third largest in sub-Saharan Africa, behind only South Africa and Nigeria. Angola has been producing oil for more than half a century, but the discovery of vast oil reserves off the country's Atlantic coast has introduced new momentum to an industry seen as key to the country's economy.

Oil accounts for 97% of the country's exports, dwarfing earnings from diamonds and coffee. Angola produces about 1.7 million barrels of oil a day, a notable proportion of the 31 million barrels a day produced by the Organisation of the Petroleum Exporting Countries (OPEC).

PwC Angola has been in this country since the early sixties and, since Independence, has been providing professional services for more than 20 years. The Angolan firm currently has four resident partners, three in Assurance and Advisory and one in Tax, and more than 100 permanent staff members, including Angolans and expatriates. PwC has always stood out for the quality of the services rendered to the major players in the energy sector and helped companies in the Oil and Gas industry to deal with the challenging issues facing them by developing effective solutions and strategies.

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Ghana

Ghana emerged as an oil producer in late 2010 with the Jubilee discovery from two offshore blocks. Production from Jubilee is expected to reach 120,000 b/d initially. Additional offshore acreage is hoped to bring additional discoveries of both oil and associated gas.

Ghana is making large investments in both the downstream and midstream sectors due largely to the Jubilee discovery. Most of this investment will be used to increase domestic production, including adding a new refinery.

In Ghana, PwC has over 200 professionals, many of which focus on the energy industry. Our client base spans both local and multinational business entities. We are the market leader in providing Audit and Assurance Services to the Oil and Gas sector, and have strong capabilities in Tax Services, company secretarial services (through Abacus Services Ghana Limited), and Advisory Services.

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Nigeria

Nigeria has launched a number of new policies directed towards restructuring its upstream sector, utilising gas and deregulating its downstream sector. Nigerian National Petroleum Corp. (NNPC), the state-owned oil and gas company, is being reconstructed to transform it into an internationally competitive oil company. Nigeria's government's continues to focus on increasing daily production, and marginal field operators are achieving significant strides. There is also a focus on reducing the flaring of gas, and monetizing the resource through a variety of initiatives.

More local companies in Nigeria are forming strategic alliances with foreign companies. A new Local Content Act was put into place, charging a 1% local content levy paid to the government. Nigeria has the largest oil production capacity in Africa, however operation issues have kept it from meeting full production. Most of the new production in Nigeria is occurring in deep offshore reserves. The government has plans to deregulate the downstream sector, and has already removed fuel subsidies, allowing for market prices to take effect.

PwC works with many of the local and international oil and gas companies in Nigeria. Our practice includes four local partners and 64 industry-dedicated professionals.

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South Africa

The South African energy sector consists of mainly downstream oil and gas players, a coal-based power sector, and a number of emerging renewable energy market participants. There are limited indigenous proven hydrocarbon reserves, but in the wider Southern African region a different picture emerges, with the recent discovery of large natural gas reserves in neighbouring Mozambique and Tanzania. Domestic upstream activity is expected to increase due to the stabilisation of the mineral rights regulatory environment, and the potential of significant shale gas reserves.

The South African refining capacity, at 515,000 b/d, is second only to Egypt in all of Africa. The synthetic fuels industry, utilising GTL and CTL technology, places South Africa at the forefront of the synfuels industry globally.

In South Africa, PwC has 90 industry dedicated professionals providing audit and assurance, tax, consulting and deals services to a wide range of oil and gas companies.

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Asia/Asia Pacific

Australia

Australia's energy policy focuses on the need for energy security. Offshore oilfields are nearing maturity and oil production is declining despite growing demand for fuel and gas. Yet, vast areas remain unexplored. Despite a growing list of challenges that oil and gas operators in Australia are faced with, major capital project spend remains at an all-time high. Oil and gas mega-projects are often being established with aggressive production targets and timelines. Operators are therefore not only being forced to meet industry challenges against the massive scale of these projects, but also need to ensure a balance of speed versus precision as they move from appraisal all the way through to completion.

Australia has vast natural gas and coalbed methane (CBM) reserves and an array of LNG projects that hold tremendous promise for the country's energy future. The country is well-positioned to become the major LNG exporter to the Asia Pacific region. Investments in LNG infrastructure total at least 30 million tonnes per year currently under construction or planned.

PwC's Australian practice brings together a multi-disciplinary team that features local, national and international experience to help ensure your project is meeting key milestones, while containing costs and managing risk. Our service offerings focus on adding value through the lifecycle of your project, while reducing complexity along the way. We have 175 energy-dedicated professionals in key energy centres, including Melbourne, Sydney and Perth.

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China

Against the backdrop of weak global economic demand coupled with global economic uncertainties due to the Euro debt crisis and political tensions in oil producing regions of the world, the Chinese economy is beginning to show signs of slowing down. Respectable growth rates are still anticipated for 2012 and 2013.

The China energy market is dominated by three state-owned oil and gas companies (CNPC, Sinopec and CNOOC). China is the world's second largest consumer of oil and gas, but only the sixth largest producer of the same. Some reports suggest that China will account for over 37% of the Asia-Pacific regional oil demand by 2015.

Currently, however, import levels of oil at more than 50% are widely considered an energy security alert. With China's oil and gas consumption rising at an average of 7.5% per year in recent times, the China oil and gas companies will need to boost their output to meet China's massive energy needs and reduce the nation's reliance on oil imports. Faced with declining domestic oil reserves, the need to improve efficiency and productivity is gaining traction with the Chinese oil and gas companies. Additionally, China has also entered into strategic partnerships with international oil and gas companies in overseas upstream projects (including in unconventional energy resources) with a view to securing future energy supply.

The Chinese Government is also promoting the use of natural gas as a clean fuel. Prices of refined products and natural gas are regulated in China, and Chinese oil and gas companies cannot pass on high oil prices to consumers. At the same time, there is a significant tax burden on producers.

National oil and gas companies in the Middle East are entering into joint ventures with Chinese oil and gas companies with a view to secure an export market for oil (for these Middle East producers) as well as penetrating the Chinese market with petrochemical products.

PwC's energy practice in China is centred in Beijing and Shanghai, with 340 industry professionals. We serve both domestic and international clients with audit and assurance, tax and consulting services.

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India

As one of the largest energy consuming countries in the world, India is challenged with meeting its demand for hydrocarbons. India imports over 85% of its crude oil requirement and about 50% of its natural gas. Energy security is high on the country's agenda, and the government is making efforts to provide policy impetus to the sector to encourage investment in domestic exploration, and to attract overseas investments.

The Indian upstream sector underwent reforms in 2000 and NOCs and private exploration and production companies were provided a level playing field for competing for domestic acreages. The New Exploration & Licensing Policy (NELP), elicited strong interest by the private sector to invest in exploration, attracting global players such as BP, Niko, Cairn, Santos, and BHP to India.

The refining sector is a success story in India. Both public and private sector companies have invested in the sector to make India a 25% product surplus country. The coastal refineries import crude and either supply products to local marketing companies to sell or export.

In recent years, India's natural gas market has grown substantially, due to the government's investment in infrastructure, coupled with recent gas discoveries. Natural gas now represents about 10% of India's energy mix. The country has two operating LNG import and regasification terminals, the third one in the phase of commissioning and 2-3 more terminals under development.

Indian companies are also expanding their footprint into other territories. Indian NOC ONGC's overseas arm has invested in upstream assets in 8 countries. Indian private sector companies have invested in Europe and Africa in the refining and marketing sectors.

PwC has 87 energy professionals providing a wide arrange of services to both domestic and international oil and gas companies.

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Indonesia

Indonesia has been active in the oil and gas sector for more than 125 years after its first oil discovery in North Sumatra in 1885, and continues to be a significant player in the international oil and gas industry. With Kalimantan Island and Sumatera Island as the main centres for the energy industry, Indonesia has oil reserves of 4.0 billion barrels and ranks twentieth among world oil producers and accounts for approximately 1.2% of world oil production. The 104 trillion cubic feet proved reserves of natural gas in 2011 provides Indonesia with the eleventh largest reserves in the world and the largest in the Asia Pacific region.

The energy industry contributes more than 25% of total state revenue in Indonesia. Despite the recent global volatility, investment and revenue in the oil and gas industry has gradually been rising. For instance, investment in the oil and gas industry reached US$ 12.8 billion in 2011 and contributed US$ 34.4 billion or more than 25% to state revenue.

The Indonesian upstream sector has a wide variety of investors, including large IOCs, NOCs, independents, and domestic players. Many of the largest producing oil and gas fields in Indonesia's upstream sector are operated by IOCs. The state-owned oil and gas company is Pertamina (Persero). In the downstream sector, Indonesia's growing demand has begun to strain the existing infrastructure. Pertamina has announced plans to invest in the gas sector, adding new regasification and storage.

PwC has a significant energy, utilities and mining practice in Indonesia, with 324 professionals in Jakarta. Our teams provide assurance, tax and consulting services to both domestic and international oil and gas companies operating in the country.

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Our core services

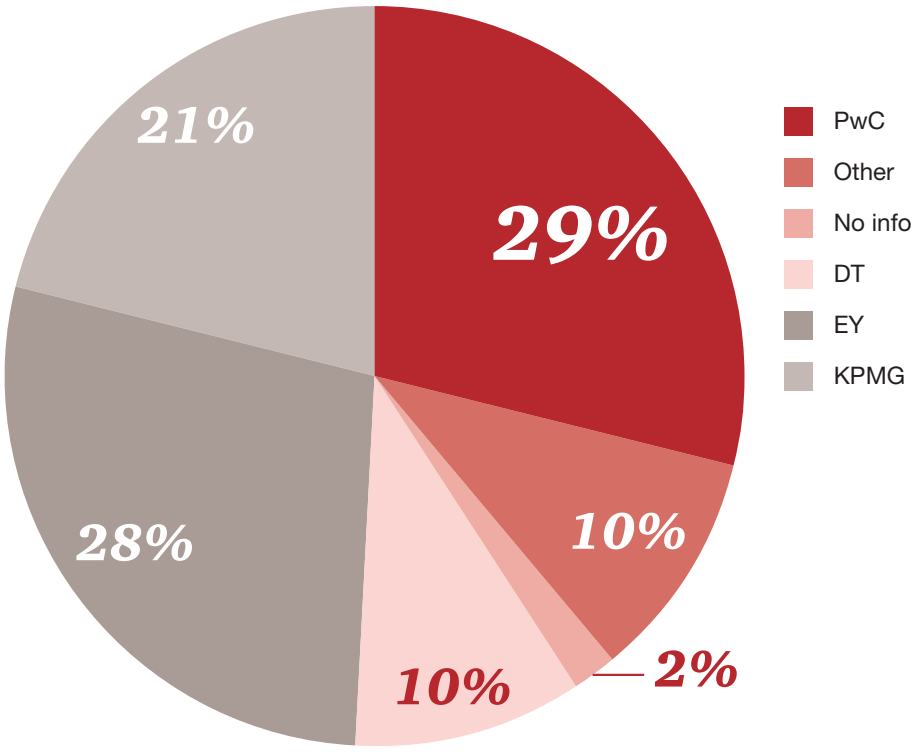
Our commitment to delivering high-quality services is at the heart of what we do. We provide comprehensive audit and assurance, tax, and consulting services designed to deliver real value and underpin investor confidence. We invite you to explore the many ways PwC's professionals can help you.

Audit and assurance services

Our commitment to delivering high-quality assurance services is at the heart of what we do. We provide comprehensive audit and assurance services designed to deliver real value and underpin investor confidence.

PwC audits energy companies of all sizes throughout the value chain, including national oil companies, international oil companies, public and private companies, operating in the upstream, midstream, downstream and oilfield services and equipment sectors. Our audit market share in the energy sector is larger than any other professional services firm. Currently, we audit 29% of oil and gas companies with revenues of $10 billion or more.

Auditor market share of global oil and gas companies $10 billion+ in revenues January 2013



Energy companies want audit teams to understand their issues and business challenges when analyzing their financial performance. Our dedicated energy professionals receive annual training, including regular updates on regulatory and technical issues and how they impact the industry. Our professionals attend both internal and external industry events, which provide more in-depth knowledge of important issues that impact our clients.

Financial statement audits

The financial statement audit has never been more important to companies than it is today. Investors are scrutinizing corporate governance and reporting and they expect more: greater reliability, more oversight and clear evidence of internal controls. Meeting investor expectations begins with the completeness and accuracy of information contained in a company's financial statements.

Transparency, evidence of strong management controls and adherence to regulations are all components of the financial statement audit. PwC auditors around the world use a single, global audit methodology, fully compliant with International Auditing Standards and applicable national standards. Our globally consistent approach to the audit means that regardless of location, PwC people can understand and evaluate your business using a single language and common methods. In turn, that gives you a uniform level of quality in all our audits. This methodology also enables us to quickly organize and deploy the kinds of multinational audit teams often required by our larger energy clients. PwC's work takes into account all current and where appropriate, prospective auditing, accounting, and reporting regulations and guidance.

Our audit teams hold annual Audit Planning Workshops with their staff from around the world, for a face-to-face meeting to plan and discuss the audit. The client's Chief Financial Officer or Controller often attends these meetings to share any concerns and learn about particular challenges involving staffing, regulatory changes, timing, etc.

In addition to auditing financial statements, we offer a full range of assurance services to energy companies, covering areas such as statutory audit, regulatory risk, Sarbanes-Oxley and International Financial Reporting Standards (IFRS) compliance, independent review of systems, controls, and processes, and advice on acquisitions, alliances and disposals. We are leaders in developing non-financial performance reporting, helping our clients respond to the need for greater transparency, and improved corporate governance. We help companies with sustainability issues, including health, safety and environmental programs.

Our globally consistent approach to the audit means that regardless of location, PwC people can understand and evaluate your business using a single language and common methods. In turn, that gives you a uniform level of quality in all our audits.

Representative audit clients

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Antarchile SA
ATP Oil & Gas
Atwood Oceanics Inc
Berry Petroleum Co.
Breitburn Energy Corporation
Cabot Oil & Gas Corporation
Canadian Natural Resources Limited
Cenovus Energy Inc.
Chesapeake Energy Corporation
Chevron Corporation
China Petrochemical Corporation (SINOPEC)
Cloud Peak Energy Inc
Constellation Energy Partner
Core Laboratories
DCC plc
Denbury Resources Inc.
DONG Energy A/S
Emirates National Oil Company Limited
Empresa Nacional Del Petroleo (ENAP)
Empresas COPEC S.A.
Enbridge Inc.
EnCana Corporation
Exxon Mobil Corporation
Galp Energia SGPS, S.A.
Harvest Natural Resources, Inc.
Hellenic Petroleum S.A.
INEOS AG
Jugopetrol
Kinder Morgan Inc
Marathon Oil Corporation
Marathon Petroleum Corporation
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Nabors Industries Ltd.
Newfield Exploration Company
Noble Corporation
Novatek OAO
OAO Gazprom
ONEOK Inc.
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Petroleo Brasileiro SA - Petrobras
Petróleos del Perú (“PetroPeru”)
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Southwestern Energy Company
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Suncor Energy Inc.
Tamoil Italia S.p.A.
Targa Resources Corp
Tatneft’ imeni V.D. Shashina OAO
TonenGeneral Sekiyu K.K.
Unit Corp
World Fuel Services Corporation

Regulatory compliance and reporting

Energy companies are subject to extensive regulations, which vary from country-to-country. Our energy professionals provide support, advice, and assurance to help you manage regulatory risks. In an ever-changing regulatory environment, we help you identify, manage, and control any existing and future regulatory risks. Our teams consist of experienced regulatory risk specialists, including former regulators who know the rules, and have implemented and assessed multiple company compliance efforts. Our people can help you at the strategic level, identifying ways to minimize the costs and potential disruptions to your business that can stem from regulations, while ensuring full compliance. We advocate ensuring that companies meet their governance objectives by requiring that compliance and risk management work together in a coordinated fashion, supported by well-documented and understood principles and values.

IFRS reporting

PwC has a proven track record in helping companies successfully complete the transition to new accounting standards. Understanding the complexity of such changes, we build teams with a range of specialists to assist your company's conversion to IFRS, including: technical accounting, treasury, tax, human resource, merger and acquisitions (M&A) valuations and project management specialists. Our proven IFRS transition methodology has helped more than 200 companies through operational problems, focusing on effective knowledge transfer to ensure lasting benefits.

Under IFRS, there is little guidance on the accounting for exploration, development and production of minerals, oil and gas. Recognizing the need for further clarification, the IASB undertook a special study of extractive industries, and in August 2009, issued a draft of "The Extractive Activities Discussion Paper" as a first step towards an IFRS for these activities. A team of our global energy specialists who focus on extractive industries worked with the IASB in its efforts to draft these standards. We provided input regarding issues such as definitions of reserves and resources for financial reporting purposes, the basis for recognizing mineral, oil and gas assets, initial and subsequent measurement of mineral, oil and gas assets, and related disclosures.

We also publish Financial Reporting in the Oil and Gas Industry, which was updated in 2011. This publication considers the major accounting practices adopted by the oil and gas industry under IFRS, based on our worldwide experience in serving oil and gas companies.

PwC has a proven track record in helping companies successfully complete the transition to new accounting standards.

Case in Point: *Transitioning to IFRS*

In 2011, PwC was asked to help one of our clients in Central Europe with the preparation of the transformation and consolidation methodology in accordance with IFRS for further SAP BPC implementation. The company also asked us to help with the development of parallel accounting methodology in accordance with local regulatory requirements and IFRS in their SAP system.

Our Transition IFRS methodology had been tried and tested on over 1,500 IFRS conversion engagements all over the world. The Client decided to implement IFRS transformation and consolidation processes in SAP BPC and roll-out the methodology to their subsidiaries. In addition, we were asked to retain maximum use of GAAP transformation and consolidation processes already implemented in their SAP system. PwC divided the project into several streams:

- Development of IFRS framework (accounting policies and reporting package in accordance with IFRS);
- Unified data structure development (Chart of accounts, analytics, input forms, etc);
- Detailed transformation and consolidation guidelines development for both financial reporting in accordance with IFRS and financial reporting for shareholders;
- Methodological support of the Client and its integrator;
- Development of parallel accounting methodology for the group.
- PwC best practices were applied throughout the project for accounting and reporting methodologies in oil and gas sector

The following deliverables were prepared by PwC:

- Accounting policies and reporting package in accordance with IFRS;
- Chart of accounts, analytics, input forms, mapping of Unified Chart of Accounts to Group's local accounting system Unified Transactional Chart of accounts, mapping to IFRS reporting package, etc;
- Detailed transformation and consolidation guidelines, transformation and consolidation adjustments manual;
- Consultations to the Client and its integrator during SAP BPC implementation stage; and
- Parallel accounting methodology for the group, including improvement of Unified Transactional Chart of accounts (new accounts and analytics) necessary for parallel accounting implementation in SAP and 1C.

Joint venture audits

In the energy industry, it is fairly common to see companies enter into joint venture agreements. Whether companies are trying to share the risk, share the costs or capital investments, or gain access to technology or reserves, the joint venture arrangement often makes good business sense. Joint ventures must also be audited, and the scope of these audits differs from a single entity audit. PwC has in-depth understanding of the accounting and reporting issues affecting joint ventures in the energy industry.

Some of the key components of the scope of a joint venture audit include:

- Verification of significant direct charges made to the Joint Venture Accounts with the underlying contracts and supporting documents
- Verification of common/indirect costs allocated to Joint Venture and related allocation principles
- Review that significant costs & expenditures have been accounted and classified as per the provisions of Joint Operating Agreement (JOA)
- Examination of the various statements and billings for compliance with the provisions of JOA
- Verification of oil sales and respective entitlements of the JV partners
- Assessment of the effectiveness of budgetary control processes. Verify that significant expenditures have been incurred pursuant to approved budgets. Review significant variations from the budgets.
- Assessment of the internal control effectiveness of the invoice processing & approval process for significant expenditures reviewed
- Examination of Cash Management (cash calls, forecasts & payments) and related procedures (cash & bank balances; including confirmation from banks on year end bank reconciliations)
- Review of procurement procedures with the objective that contracts have been awarded based on the laid down policies & procedures and in accordance with JoA
- Review the effectiveness of the Contract Management Systems in place to actively monitor the performance of contractors for contracts awarded for Joint Venture activities
- Verification of procedures in place for inventory management
- Review of time writing processes and its allocation procedures

With our global footprint and powerful capabilities, we offer flexible, scalable, sophisticated solutions to address your unique needs.

Internal audit services

Internal Audit is more than an enterprise-wide engine of assurance, as critical as that is. Done right, it's also a catalyst for creating value for your business. A strong, strategic Internal Audit framework integrates compliance, controls and sophisticated risk management with your mission, vision, and stakeholder expectations. As such, it can help you shape a new governance and risk paradigm—anticipating issues, increasing your effectiveness, eliminating duplication, and identifying areas of potential performance improvement. With our global footprint and powerful capabilities, we offer flexible, scalable, sophisticated solutions to address your unique needs.

- We have a range of internal audit performance improvement services specifically for energy companies, including technology, risk assessments, training, process and organisational re-engineering, benchmarking and quality assurance reviews.
- For companies with multinational operations, or those with smaller internal audit departments, we offer an array of flexible outsourcing and co-sourcing solutions, from selected co-sourcing of technical, geographic or industry-specific capabilities to full outsourcing of your internal audit function.
- We provide Sarbanes-Oxley advisory services, including implementation of Section 404 readiness activities to reduce compliance programme costs, as well as a host of other regulatory and governance-related services.

Systems and process assurance

Growing complexity and increased regulatory pressures combined with market stressors such as cyber security threats, rapid technological advancements and operational efficiency imperatives are causing organisations and their stakeholders to seek greater assurance, value and reporting over a widening spectrum of activities.

Our Systems and Process Assurance professionals have deep industry knowledge, regulatory, technology and business process skills. We review, assess, document, test and report on today's complex landscape of financial, operational, regulatory and information technology controls.

We work closely with energy organisations to provide integrated end-to-end solutions and services. Our aim is to help our clients enhance value by translating strategy into action and focusing on results. These professionals can provide third party assurance and opinion services, Sarbanes-Oxley readiness, process improvement and sustainability services. Our teams work with companies to help them with compliance and other regulatory requirements (e.g., Turnbull, Basel II, King), due diligence on systems and controls, pre- and post-implementation systems reviews, data quality reviews and computer security reviews.

In-depth view of how we add value – Information security

PwC has been providing security services for close to 20 years. Since 2000 we have delivered over 2,500,000 hours of security services to our clients. Our Security practice is an international team of more than 2,100 highly-technical information security professionals in 18 cities, including Houston. This breadth of talent, security skills, and experience has created an extensive network of security professionals that provides continuous identification, analysis, and exchange of information on new trends, tools, products, vendors, and techniques in information systems security.

Our security assessment experience includes:

- Performing security assessments for numerous Fortune 500 companies, including energy companies
- Understanding how systems and devices are used to protect confidential information while enabling access for employees, trusted vendors, and contractors.
- Bringing a level of expertise, maturity of methodologies, and practical savvy that can only come from deep experience in this field.

Capital market transactions and initial public offerings

For companies seeking to raise debt or equity capital in the capital markets, PwC can provide an independent view of the critical issues involved in accessing a particular capital market. Our advice is tailored for the oil and gas industry, the size and complexity of the business, and the scope of the transaction. For companies considering going public, or spinning off part of their business, we have the experience and expertise to position the entity to go public and then take an active part in making the event successful when it happens.

IPO specialists in PwC's Transaction Services practice advise companies as they ready themselves for entering the public equity markets—to assist in uncovering and addressing unforeseen issues before they negatively impact your deal. Our IPO Readiness service is a comprehensive, yet flexible assessment of specific gaps and needs in areas such as accounting, financial reporting, governance, compliance issues, treasury and risk management, media and investor relations…as you prepare for life as a public company. Our service offering can be tailored to fit individual client need —whether in the early stages of contemplating an IPO, or far down the road and close to filing. We also provide project advisory services, advising organisations on project planning and monitoring, risks and interdependencies, communication frameworks and issue resolution processes, as well as a structured change management process.

Advisory/consulting services

Our consulting services utilize our deep financial, analytical, industry and business process skills to provide energy companies with the advice and assistance to improve stakeholder value, build trust and boost performance. Around the world, organisations engage us to help them capture opportunities, navigate risk and deliver lasting change across business networks.

Our consultants bring together a full range of functional and industry skills to help you in this environment. We take the time to listen and have the courage to debate different points of view—based on independent and challenging insights, supported by facts and industry benchmarks. In particular, we help clients to:

- Build effective organisations
- Innovate and grow profitably
- Reduce costs
- Leverage talent
- Manage risks and regulation
- Have efficient, effective IT systems
- Execute better deals
- Restructure troubled businesses

Our consulting services utilize our deep financial, analytical, industry and business process skills to provide energy companies with the advice and assistance to improve stakeholder value, build trust and boost performance.

Operational effectiveness

What are the building blocks of running an effective energy company? Our Operational Effectiveness solutions help energy companies transform their organisations. This approach aims to go beyond mere standardization and cost reduction, to increase innovation, value creation and business differentiation. By helping companies with issues such as rationalizing their asset portfolio, improving reliability and safety across the organisation, creating real time operations with integrated systems and data management and proper controls, we can assist you in building a highly effective organisation.

Whether working with deep waters and wells, environmentally sensitive areas, challenging reservoirs or difficult hydrocarbon properties, our operational effectiveness program can bring significant value to your organisation. The common denominators facing tomorrow's operators include how to best prepare for maximum safety, production efficiency and hydrocarbon recovery within the business boundaries of the asset. Using our methodologies such as the E&P Blueprint, asset optimisation, reliability-based maintenance programs, and others, our team of consultants can help companies build stronger, more effective organisations.

Our Operational Effectiveness approach brings value in many of the basic operations in an oil and gas company.

- **Well planning and execution** – Covering the design of wells, preparation of drilling and downhole operations as well as optimization of a wells position in the reservoir.
- **Well completion** – Design, steering and optimization of well completions and downhole tools have a major effect on well productivity, production rates and well maintenance costs.
- **Production optimization** – Optimizing the value chain from reservoir through facilities to export lines.
- **Maintenance management** – Covering condition monitoring, development of maintenance strategies and plans to the actual maintenance of the installation—whether performed operator or partners. This process is crucial for managing the production efficiency, regularity, availability— while optimizing the maintenance budget.
- **Logistics** – All movement of supplies, components and manpower in the most efficient manner.

By helping companies with issues such as rationalizing their asset portfolio, improving reliability and safety across the organisation, creating real time operations with integrated systems and data management and proper controls, we can assist you in building a highly effective organisation.

Commodity trading and risk management

Globalization, commodity price fluctuations, supply challenges and a host of other factors can hinder growth objectives. Companies need to create efficiencies, and find ways to maximize the entire value chain to make the most of their organic growth potential. Our specialists can help companies innovate with technology solutions, enterprise trading and risk management strategies, and enterprise profitability realization programs.

Our Commodity Trading and Risk Management (CTRM) team works with clients to address issues in all commodity markets and geographies. Our CTRM team are drawn from a wide range of backgrounds and include specialists with the following skills: Trading strategy, Trading operations, Product control, Risk management, Regulation, Accounting, Treasury management, Taxation, Governance, Data and Technology, Assurance and Control.

Our Global CTRM practice comprises of more than 200 dedicated specialists with a wide range of CTRM experience. Our teams operate from our offices in the USA (Houston and Atlanta), UK, The Netherlands, France, Germany, Switzerland, Singapore and Australia. Our CTRM professionals work with clients to address issues in all commodity markets and geographies: Oil/Gas, Power, Metals and Soft commodities. Our CTRM specialists have access to the extensive breadth of additional PwC services where these may be required. Our team works particularly closely with our Banking and Capital Markets colleagues as their insights are often valuable to our corporate clients.

Some of the CTRM challenges we help with include:

- Strategy
  - Risk appetite, Capital/asset allocation, Trading strategy, Supply chain optimisation, Product design, Contract structuring.
- Risk management
  - Risk analysis and models, Policy, Reporting, Valuation methods,
  - Risk metrics and limits.
- Technology and data
  - Data and systems architecture,
  - Data modelling, Systems strategy, Package selection, implementation and review, Programme and change management.
- Process
  - End to end process design, Documentation, Training, Learn/ continuous improvement, Standards and delivery models.
- Governance and control
  - Product control, Fraud risk, Accountability and decision frameworks, Governance frameworks.

- Operating model
  - Roles and responsibilities across the business, Organisation (including back/front office structures), Location analysis, Entity structures, Book structures, Talent, Performance management frameworks.
- Accounting
  - Accounting standards, Financial reporting, Audit.
- Tax
  - Planning, Compliance and reporting, Indirect and direct tax structures, Personal tax.
- Regulation
  - Compliance with European, US/DFA and Asian legislation.

Capital projects and infrastructure

The energy supply chain and capital projects are two areas where oil and gas companies can struggle to control costs. Our specialists who focus on supply chain management, low cost manufacturing, capital project management and other key areas can help you analyse where there are cost overruns, and where efficiencies can be captured.

Risk, complexity and high costs are features of major capital projects. All too often projects are affected by cost and time overruns, or fail to meet business case objectives. These threaten the implementation of business strategy, divert management focus and may lead to re-financing or worse. Our team of industry specialists have extensive experience of assisting clients in the review, understanding and improvement of capital project performance in a broad range of industry sectors.

Project efficiency

- Implementation of project cost reduction and performance improvement programmes, including the use of Lean process improvement techniques.
- Development and implementation of project recovery plans for projects currently failing to meet the desired business objectives or those seeking performance enhancement.

Project disputes

- Expert Witness support to legal disputes including the preparation of an expert report and supporting causation, schedule delay and disruption analysis, quantum derivation and historical cost analysis.
- Technical support to project dispute resolution techniques including Mediation and Arbitration.

Project management

- Provision of project, programme and portfolio management support, including the establishment of a project management office and the integration of project information systems.
- The assessment, design and implementation of project governance, organisational structure and process.
- Design and implementation of project EVM and performance management techniques.

Project diagnostics

- Completion of Independent Financial Reviews, including benchmarking, cost modelling and forecasting, to support board or regulatory project review.
- Completion of Project Due Diligence that links Technical and Financial Due Diligence to identify risks/opportunities that are often overlooked and therefore not reflected in the deal value or leveraged to create post-deal value opportunities.

Leadership and people

The world of work is changing. People are an increasingly valuable source of sustainable competitive advantage for organisations operating in a global economy and business environment characterised by only one certainty—change.

Organisational restructuring, together with mergers and acquisitions are commonplace in today's world of work. Organisations also need to ensure compliance with an abundance of legislation and people no longer subscribe to the notion of lifelong employment. If organisations do not transform themselves to ensure they can attract, inspire, motivate, manage, develop and reward their people appropriately, they may lose their most valuable assets.

With more than 6,000 professionals in over 100 countries, the PwC network has one of the world's largest human resource advisory organisations.

With more than 6,000 professionals in over 100 countries, the PwC network has one of the world's largest human resource advisory organisations. Our multi-disciplinary approach allows us to advise on all aspects of people management, helping our clients to create value for their businesses through people. Our human resource services practice brings together professionals who work across four core disciplines:

- International assignments
- Human resource management
- Reward
- People and change

Our solid grounding in areas such as tax, compensation, benefits, pensions and HR data metrics is the bedrock of our evidence-based approach to consulting with clients.

We are a leading provider to companies in human resource services

Our firm has been recognized as a leading provider to companies in human resource services by a number of organisations.

- "According to IDC analysis and buyer perception, PricewaterhouseCoopers (PwC) is an IDC MarketScape Leader worldwide for talent related business consulting." — IDC MarketScape: Talent Related Business Consulting Vendor Analysis, Doc #229526, August 2011.
- "Worldwide, PwC is seen as among the most capable at helping clients leverage talent. It is also seen as among the most capable at challenging corporate culture and delivering innovation in talent related projects." — IDC MarketScape: Talent Related Business Consulting Vendor Analysis, Doc #229526, August 2011.
- "Worldwide, PwC is seen as among the most capable at helping clients reduce costs during talent related projects and at integrating its project team with the client's. PwC is also seen as much better than its peers at delivering ROI for talent projects, helping clients identify and implement options for growth and helping clients improve operational efficiency." IDC MarketScape: Talent Related Business Consulting Vendor Analysis, Doc #229526, August 2011.
- "Worldwide, PwC is seen as much better than its peers at meeting the timeline for talent related projects." IDC MarketScape: Talent Related Business Consulting Vendor Analysis, Doc #229526, August 2011.
- Kennedy Research, a leading analyst in the HR consulting market, has judged PwC to be a Vanguard firm - amongst those with the broadest and deepest capabilities in the market.
- Kennedy Research ranked PwC as the 3rd largest HR Consulting business globally by revenue. - Kennedy, "Global HR Consulting Marketplace 2010-2013"; © BNA Subsidiaries, LLC. Reproduced under license
- Kennedy Research ranked PwC as the 2nd largest HR Technology & Transformation Consulting business globally by revenue. Kennedy, "Global HR Technology & Transformation Marketplace 2010-2013"; © BNA Subsidiaries, LLC. Reproduced under license
- Kennedy Research ranked PwC as the 2nd largest Talent Management Consulting business globally by revenue. Kennedy, "Global Talent Management Consulting Marketplace 2009-2012"; © BNA Subsidiaries, LLC. Reproduced under license
- Kennedy Research comment that: "PwC is highly client and relationship focused." Kennedy, "Global Consulting Marketplace 2010-2013"; © BNA Subsidiaries, LLC. Reproduced under license
- The Global Tax Monitor recognises PwC as the leading adviser globally for international assignment planning & compliance and for compensation & benefits, by reputation, with a strong lead over the competition.
  - #1 for Compensation & Benefits
  - #1 for International Assignments

These results are based on the year-ending Q1 2012 figures, with a sample size of 3,297 primary buyers of tax services globally. About Global Tax Monitor - Launched in 2000, the Global Tax Monitor (GTM) is an independent survey conducted by research agency TNS, that examines the competitive position of the top firms in the tax advisory market - globally, regionally, nationally and on an industry basis. It provides a comprehensive measure of firm reputation, client service and brand health, gained currently from just over 3,000 telephone interviews annually with key decision makers (CFOs and Tax Directors) in 34 key markets.

Governance, risk and compliance

The regulatory, shareholder and market's pressure on energy companies to deliver year-on-year performance improvement is becoming even more intense in a fluctuating environment. What worked six months ago may no longer apply to today's cost containment or risk management issues. We support clients in identifying, understanding and managing risk and help ensure an appropriate balance between risks and opportunities. Also, we assist businesses in designing and implementing governance and compliance programmes to ensure that the company continues to operate within the boundaries of relevant legislation and regulations. This includes building a culture of doing the right thing.

GRC projects vary by nature according to the business issues that they seek to address and the capability within the organisation to address them. Business reasons which may lead to the need for a GRC project can be:

- Crisis-driven;
- Efficiency and effectiveness-driven; and
- Strategy-driven.

Taken separately, governance, risk management and compliance are not totally new concepts. In one form or another, dealing with transparency and accountability, mitigating risk and complying with regulations have always been issues with which organisations have had to cope. However, when these concepts are broadly defined, integrated and linked to an organisation's strategic objectives, its holistic application can add significant value and provide competitive advantage.

From this holistic point of view, GRC can be defined as the organisation's practices and the various roles that the board and senior management, line management and the rest of the organisation play in relation to oversight, strategy, risk management and strategy execution regarding compliance with laws and regulations and internal policies and procedures.

We assist businesses in designing and implementing governance and compliance programmes to ensure that the company continues to operate within the boundaries of relevant legislation and regulations. This includes building a culture of doing the right thing.

In-depth view of how we add value – Internal controls

In 1992, the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") released its Internal Control-Integrated Framework (the original framework). The original framework has gained broad acceptance and is widely used around the world. It is recognized as a leading framework for designing, implementing, and conducting internal control and assessing the effectiveness of internal control. This original framework and the related evaluation tools were authored by PwC.

In the twenty years since the inception of the original framework, business and operating environments have changed dramatically, becoming increasingly complex, technologically driven, and global. At the same time, stakeholders are more engaged, and seeking greater transparency and accountability for the integrity of systems of internal control that support business decisions and governance of the organizations.

In 2010, COSO decided to update the original framework to reflect changes in the business and operating environments and to ease use, and application. One of the more significant enhancements is the formalization into principles fundamental concepts embedded in the original framework. These principles, associated with the five components, provide clarity for the user in designing and implementing systems of internal control and in understanding the requirements for effective internal control. In addition, the updated Framework expands the financial reporting category of objectives to include other important forms of reporting, such as non-financial and internal reporting. Also the Framework reflects considerations of many changes in the business, operating, and regulatory environments over the past several decades. The project started in November 2010 and is expected to conclude in first quarter of 2013.

Systems & information technology

Technology is an important enabler of business transformation. To assist you in getting value from technology investments, we bring together the skills to deliver improvements in processes, as well as the knowledge in IT strategy, IT architecture and design, enterprise applications, sourcing, project management and IT operations management. Our oil and gas IT specialists are experienced in:

- ERP implementations and upgrades for SAP, Oracle and others
- Extending functionality
- Data management/data warehousing
- Technology architecture and infrastructure
- Mobile technologies
- Innovation

We help energy clients with a comprehensive range of end-to-end SAP services. From the strategy, planning and preparation stages that precede an SAP implementation, through to business blueprinting, realization, final preparation, go-live and support, PwC has great experience assisting international exploration, production, midstream, downstream and oilfield services clients along every step of the way. Beyond new implementations, geographical or functional roll-outs of SAP, we also assist clients with existing SAP systems that are looking to realize more business benefits from their investment in SAP.

Case in Point:
Assessing an IT operating model for growing oil and gas entity

We were engaged by a large Canadian 0il and gas company to aid them in assessing their Information Technology (IT) operating model and its ability to scale with anticipated business growth targets. The assessment concluded with a one-day workshop which identified a number of IT functions within the organization that could further mature and a Target Conceptual Organization Model was proposed. The organization had previously attempted to mature their operating model several times over the past few years however were not able to implement a sustainable model. It was agreed that PwC would assist the client in designing a high level target conceptual organization model that addresses four key objectives:

- Improving alignment between IT and business partners
- Clearly defined accountabilities for the entire IT function
- Clearly defined interactions between IT teams for key IT processes
- Increase staff capacity and ability to scale

The project was completed in four separate phases: An initial assessment, the design phase, constructing the project, and finally implementing, testing and operating the model. Our team worked with the CIO and key senior IT leadership throughout the process. The work completed by PwC supported the organization in transforming its operating model from a reactive IT organization to a service oriented IS function, demonstrating immediate benefits. The Company was able to reduce IT staff by 8% during the third phase of the project. There was an overall reduction in staff turnovers from 10% to 3%. In the new model, the Company has a scalable IT organization, adaptive labour workforce and has positioned the IT function to consolidate IT accountabilities globally.

Parallel accounting methodology for the group, including improvement of Unified Transactional Chart of accounts (new accounts and analytics) necessary for parallel accounting implementation in SAP and 1C.

Transactions and deals

Deals are crucial to many energy companies' strategy, driven by the need to secure supply, extend market footprint, or free up cash and capital. Whether it is a full-scale merger, or sale or purchase of producing properties, or evaluating options, PwC is well known in the marketplace for our knowledge and experience in all types of financial transactions including mergers and acquisitions, valuation, growth or divestments, and exit strategies.

Our integrated M&A services are designed to minimize transaction risks and maximize returns on energy investments. We focus on the deal continuum from strategy through execution and post-deal integration, including financial and operational due diligence, accessing the capital markets and valuing, negotiating and structuring deals. We provide advice on the implications of financing projects, corporate debt, restructuring, divestitures, investments, mergers and joint ventures. We advise on ways to better manage assets and large capital investments amidst increased competition, or in times of uncertainty. Our advisors can evaluate technical, operational, market and financial risks.

Energy companies continue to expand across the globe. Almost every company regardless of size, industry or country of operation is exposed to some degree of corruption risk. Particularly when a company is moving into a new market, the risks can increase. In addition to working with companies on deals, we are a leader in providing anti-corruption solutions to our public and private sector clients around the globe. We have professionals operating in over 70 countries, familiar with both domestic and international anti-corruption landscape, customs, practices and languages.

PwC has energy-dedicated transaction and deal teams in over 50 countries and in key financial markets across the world.

Restructure troubled businesses

PwC is one of the world's largest providers of business recovery and insolvency services. Active in 144 countries, our global network of highly skilled professionals can rapidly deploy cross-border services to stakeholders in troubled and seriously underperforming businesses. The firm's business recovery professionals are valued by clients for their ability to quickly identify problems, gain cooperation, develop viable solutions, and implement them with sensitivity and precision. Our experienced oil and gas teams offer a full range of advisory and implementation services, from turnaround and restructuring plans to optimised exit strategies. Whether there is a single business segment that is underperforming, or a company-wide issue, our business recovery specialists can help.

Tax services

The Global Tax Monitor recognises PwC as one of the leading tax advisers globally for tax advice within the energy industry, by reputation. These results are based on the year-ending Q4 2012, with a sample size of 383 primary buyers of tax services, within the energy industry globally.

PwC has the largest network of tax professionals in the world, with over 36,000 in our global practice. In Energy, we have over 1,500 dedicated oil and gas tax professionals who understand the nuances of tax regulations that impact the industry.

Global tax services

Tax regulatory issues are top of mind for oil and gas companies operating around the world. PwC has the strongest international network of any professional services firm, with dedicated tax specialists in 158 countries. This means that we can support you both locally and globally, wherever you require tax advice. Our global energy tax services focus on helping our clients understand local tax regimes, and develop tax strategies for all of the various taxes that come into play, including royalties, excise taxes, value-added taxes, etc. Our energy professionals can help companies deal with the tax consequences of oil and gas contracts (such as Joint Operating Agreements, Production Sharing Contracts, manufacturing and marketing agreements and farm-out/farm-in agreements) being negotiated or concluded with the government or co-operators.

Energy clients engage us because we combine a strong understanding of their business and economic environments with specialist tax knowledge in hundreds of national and local jurisdictions across the globe. As tax codes become increasingly complex and tax planning more controversial, we help companies to:

- Identify and reduce tax risks,
- Understand and meet their compliance obligations,
- Implement tax strategies that complement their business and operational objectives,
- Resolve disagreements with tax authorities when they arise, and
- Manage tax accounting and reporting issues and design of best in class tax functions

International tax structuring

Our tax professionals solve challenging issues, anticipate changes that can impact your tax situation and financial statements, and keep you apprised of local, state, foreign and international tax regulations as they pertain to your company's operations. Our network of international tax structuring professionals can help you to structure your international business in a tax efficient manner, both locally and globally. We can help you construct effective cross-border strategies and manage your global structural tax rate. We will also keep you abreast of new developments in the international arena that affect your business.

Global compliance services

For both corporate income taxes and indirect taxes, our Global Compliance Services group offers unparalleled excellence. Our approach to corporate income tax compliance helps companies seeking better tax management across a number of territories or with multiple entities in one territory. This is particularly relevant when a company is entering new countries or where accounting and finance resources are being moved into shared service centres. We have specialized tax compliance centres and skilled local territory tax teams providing quality technical support around the world.

Indirect taxes

Indirect taxes, including goods and services taxes (GST), value-added taxes (VAT), severance, property, employment, excise, motor fuels, sales and use taxes, and customs duties are uniquely imposed by a variety of jurisdictions and can be a significant burden for any energy company. Energy companies in particular, due to their large volume of commodity based transactions, can be exposed to significant taxes on transactions. Our indirect tax professionals can assist in first determining what taxes are imposed by a jurisdiction, whether the activities of a company are enough to subject it to the tax, and how to either structure the company's activities so as to avoid the tax or assist in complying with the filing requirements.

Due to the significant differences in taxes and related rules among the jurisdictions, it may be possible to minimize the overall tax paid through proper planning.

Our deep experience, strong international network and commercial focus allow us to add real financial value to transactions.

Tax merger and acquisition services

PwC has one of the largest network of M&A tax specialists in the world with more than 700 deals experienced tax professionals across the globe. We can offer you experienced deal structuring and financing advice at all points throughout the deal cycle and, aside from our tax specialists, our transactions services, corporate finance and legal specialists can support you in all aspects of your transaction, working as a deals team. Our deep experience, strong international network and commercial focus allow us to add real financial value to transactions.

We deliver thorough, quantitative analysis, rigorous implementation and leading-edge structuring techniques. We can help you:

- Assess and manage acquisition/merger risk
- Structure acquisitions to optimise net cash flows
- Prepare businesses for disposal
- Carry out pre-acquisition or pre-sale due diligence
- Ensure tax efficient deal structuring
- Ensure that optimal tax solutions are implemented post deal

Transfer pricing

Inter-company transactions across borders are growing rapidly and are becoming much more complex. At PwC, we have a strong international network of dedicated transfer pricing specialists with advanced training in economics, accounting, law and project management, who are ready to work with you. Our industry and tax authority experience and unique capabilities enable us to develop innovative approaches for energy industry participants. The last few years have seen a surge of transfer pricing audits, a trend that is not expected to slow down anytime soon. A decade ago, only a few countries had formal transfer pricing documentation requirements. In 2009, more than 60 countries did. This new environment requires multinational corporations to take proactive, coordinated steps to understand their transfer pricing arrangements and documentation requirements. Risks must be identified and addressed. Disputes and audits must be avoided, managed, and resolved. All issues must be coordinated and aligned across jurisdictions before they develop into larger business concerns. Our global tax controversy and dispute resolution professionals will assist your company to proactively evolve in this rapidly changing environment.

International assignment services

Most oil and gas companies today operate in more than one country or region. For these companies, deployment of talent is a key to success. Whatever the mission— sharing knowledge, implementing management processes, expanding business into new territories—assignees provide the fuel for global growth. Our International Assignments tax group can help companies with ensuring that your international assignment policies are aligned with and meet the needs of your business while being cost-efficient. We help clients prepare tax-efficient international assignment structures and policies and manage risks by complying with the regulations where their workforce is deployed.

Tax controversy and dispute resolution

Multinational energy companies are facing the most challenging tax environment in history: a convergence of global forces has resulted in a substantial increase in the number and size of tax audits, assessments, and disputes with revenue authorities worldwide.

Fiscal demands on developed and emerging countries have placed considerable pressure on governments to raise revenue and prevent the erosion of their tax bases. Governments worldwide are cooperating as never before to share taxpayer and industry information, assist other countries with document and information requests, and participate in separate multi-country audits (including "simultaneous" examinations). Some countries are even considering the concept of "joint audits" where a single audit team—comprised of government tax inspectors and auditors from two or more countries—examines a specific taxpayer. At the same time, companies are experiencing increasingly complex regulations, heavy penalties, and transparency and disclosure issues.

PwC's Tax Controversy and Dispute Resolution network assists taxpayers in this emerging area. We can work with you to prevent, efficiently manage, and favourably resolve tax audits and disputes throughout the world. PwC has tax specialists to assist clients in virtually every area of dispute. We combine deep technical understanding, local knowledge, strong relationships with government officials, tax litigation experience, and a global perspective to provide you with unrivalled service.

We can work with you to prevent, efficiently manage, and favourably resolve tax audits and disputes throughout the world. PwC has tax specialists to assist clients in virtually every area of dispute.

Value chain transformation

Business restructuring is a complex process. For each business transformation, every facet of the organisation is involved, and the implications - operational, tax and legal - are wide in scope. Implementing an effective value chain management process that brings all these facets together is key.

Our Value Chain Transformation services move beyond traditional tax planning by helping our clients align tax, legal and operating models, resulting in improvement of both pre-tax and after-tax margins during complex business change. Our team works with you in the following ways:

Create an operational structure that aligns your organisation's unique elements. Assess your value chain management process and find ways to maximise supply chain efficiency. Align your operational, tax and legal structures to achieve sustainable financial and operational benefits during business transformation.

Determine how shared services between departments can help control costs, optimise your processes, and create visibility throughout your value chain.

With the proper business alignment in place, you can achieve smoother operations, greater profitability and more sustainable growth.

Case in Point:
Optimising a holding structure for offshore exploration

A European exploration and production company participates in a large number of upstream projects in foreign locations through branch entities or subsidiaries. The Company wanted to develop an effective tax structure to enhance financing of the projects.

The first step in putting together an effective tax structure involved analyzing various options which would optimize flows of the structure, while minimizing issues related to financial reporting. The structure needed to address operational optimization, allocation of costs to the concessions and the efficiency of tax settlements, while limiting legal risk. Following a careful analysis of options, the PwC team developed a universal and elastic vehicle that met the objectives.

In preparing the tax holding structure, PwC examined geographic locations that had favourable exemptions and duties. The most suitable location was recommended to the Company, along with the plans for establishing the holding structure.

The resulting tax structure for the upstream activity provides tax effective financing of projects which benefits the Company. The structure location has an absence of stamp duties and allows for exemption from taxation of income from dividends, profits from the sale of shares, and exemption from withholding tax.

Insights and tools

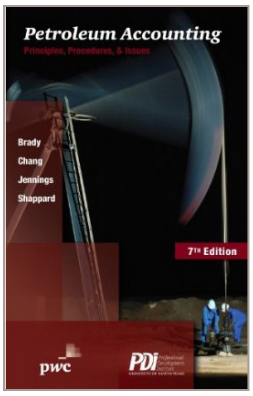
Our commitment to the energy industry goes beyond our services. We stay in touch with our clients through thought leadership and sponsorship activities. PwC is a Patron member of the World Energy Council, and a long- time sponsor and participant at the World Energy Congress. We will sponsor the next World Energy Congress in Daegu, Korea in 2014. We also sponsor the World Petroleum Congress, last held in 2011 in Doha, Qatar. The next World Petroleum Congress will be held in Moscow in 2014, and we already have plans to sponsor the event.

In addition to these global events, our energy practices join a variety of organizations and trade groups in their home territories to support the industry, share knowledge, and stay abreast of industry developments. We are the only Big 4 firm to be members of the Bilateral US-Arab Chamber of Commerce, which sponsors the official reception of the Offshore Technology Conference each year in Houston, Texas.

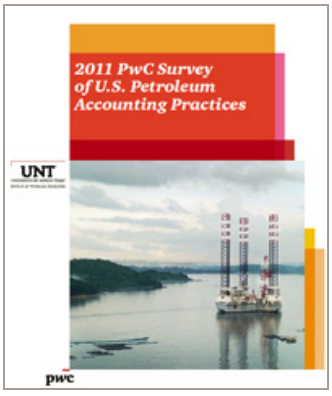
From our experience, we develop industry specific instructional materials and reports on issues of strategic importance to help keep our clients informed. Some of our recent and upcoming publications are listed on the following pages. Most can be downloaded from our website at www.pwc.com/energy.

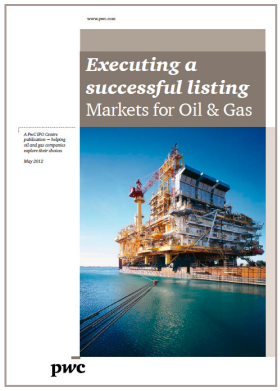
Shale oil – The next revolution—PwC explores the impact of global shale oil production on the oil industry and global economy. In order for shale oil to develop as a global resource play, the right geology, regulatory environment and capability must be in place. We discuss the necessary regulatory and fiscal framework that should be put into place, as well as the infrastructure and supply chain requirements. In addition, we explore the skills and capabilities that will be required for this new fuel revolution.

7th Edition Petroleum Accounting Principles, Procedures & Issues published jointly with the University of North Texas' Professional Development Institute. This textbook and leading reference tool focuses on U.S. financial accounting and reporting for petroleum exploration and production activities. The book also covers hot topics including risk management, international operations, accounting for business combinations and others. The 7th edition can be ordered from www.petroleumaccounting.org or www.amazon.com.



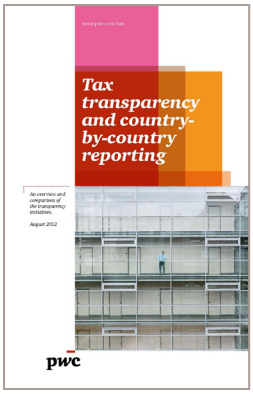
2011 Petroleum Accounting Survey—The 2011 survey is a compilation of responses to a wide-ranging series of questions that we asked financial professionals working across the spectrum of oil and gas exploration and production companies. The goal of the survey is to analyze industry practices in applying pronouncements of the FASB and SEC. This survey includes updated sections on asset retirement obligations, business combinations, asset impairment, price risk management activities, international activities, global accounting standards, and the recent SEC concept release on oil and gas reserves. The survey can be ordered from can be ordered from www.petroleumaccounting.org.





Executing a successful listing: Markets for Oil & Gas—Sustained high hydrocarbon prices have opened up opportunities for oil and gas development and fuelled a strong appetite for oil and gas stocks. Almost $200 billion has been raised by oil and gas companies in IPOs and secondary offerings in the five years to 2011, and the pipeline remains strong. A clear strategy and a well developed equity story are the foundations that will support the success of your listing. This publication has been designed to provide an overview of different financial markets and how they serve the oil and gas sector. The factsheets cover some of the key features of the London, New York, Toronto, Australia and Oslo exchanges, and include a high level summary of the listing requirements in each of those markets that are applicable to oil and gas companies.

Eurasia Group and PwC: Global trends in oil & gas: Free markets versus state capitalism—Over the last decade, state-owned national oil companies (NOCs) have become increasingly important in the global oil and gas sectors. Their rise is also a key part of the trend toward state capitalism in many emerging markets. While NOCs generally lack capacity in some of the industry's cutting-edge technologies, in many cases they have the advantages of low-cost capital from state-controlled banks and strong backing from their home governments. This environment challenges the dominance of privately held Western international oil companies, but presents opportunities for these firms to partner with NOCs on projects of mutual interest.

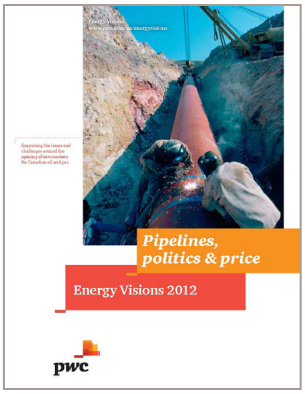


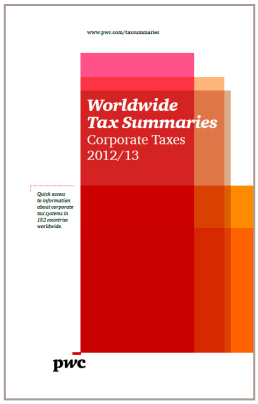
Tax transparency and country-by-country reporting—New tax reporting rules adopted by the SEC in the US in 2012 in the latest move in the global debate on tax transparency and country-by-country reporting. Now, for the first time, US listed companies in the extractive sector will be legally required to file information on the tax they pay in each country where they operate and they will need to report this at the project level. Similar proposals will be considered by the European Parliament this autumn with respect to EU companies. These new mandatory requirements will add to the voluntary framework which already exists under the Extractive Industries Transparency Initiative while further proposals are still being pursued by a coalition of civil society organisations. Given the recent developments it is increasingly important for companies to consider how these reporting requirements and frameworks may affect them

Financial reporting in the oil and gas industry–International Financial Reporting Standards—National standards in other countries are being converged with IFRS. The global trend towards IFRS has gained significant further momentum with the US Securities and Exchange Commission's (SEC) commitment to the standards, beginning with its decision to drop the requirement for foreign listed companies in the US to reconcile to US GAAP. This new edition of "Financial reporting in the oil and gas industry" was released in 2011, and describes the financial reporting implications of IFRS across a number of areas selected for their particular relevance to oil and gas companies. Available online at: www.pwc.com/energy.

Shale gas: Reshaping the US chemicals industry—The impact of shale gas on domestic chemical companies has been to decrease the costs of both raw materials and energy. In a recent PwC report on the potential impact of shale gas on US manufacturing, it was stated that by 2025, shale gas could add more than 1 million workers to the US manufacturing industry and allow US manufacturers to lower their raw materials and energy costs by as much as $11.6 billion annually. This potential is based on the United States' abundant supply of shale and the country's technological innovations in mining, which could enable the production of an inexpensive source of energy for the foreseeable future.

Energy Visions: Pipelines, politics and price—Canada's proved oil and gas reserves—more than 25 billion barrels of crude oil and liquids, another 150 billion barrels of economically recoverable bitumen and more than 40 trillion cubic feet of natural gas (and perhaps as much as 1,400 trillion cubic feet of in place tight gas)—are amongst the largest and most strategically important in the world. In 2011, total Canadian crude production stood at 2.9 million barrels per day. By 2020, that number is forecast to reach 4.2 million barrels per day, according to a June 2011 forecast by the Canadian Association of Petroleum Producers. As part of this Canadian Energy Report, we asked globally respected industry policy analysts and experts to provide their views on Canada's energy potential on the world stage.





Worldwide Tax Summaries – Corporate Taxes 2012/13 is a useful reference tool, to help you manage taxes around the world. It offers quick access to information about corporate tax systems in 152 countries worldwide, in an easily digestible format. Written by local PwC tax specialists in each country, it covers the latest changes in legislation, residency, gross income, deductions, tax credits and incentives, tax administration, other taxes and tax rates, up to date (unless otherwise stated) as of 1 June 2012. Also included is a global directory of PwC contacts organised by their tax specialty area.

Tax policy & administration: Global trends—In our inaugural edition of Global trends we start by looking at the current status of some of the longer term tax plans that have been announced before turning to specific policy moves. Some of the topics covered in this edition include stimulating growth and cutting deficits, base broadening and rate reduction, the shift from direct tax to indirect tax, the increase in inter-state collaboration to counter tax avoidance, economic substance and GAARs, and risk-based approaches to compliance and tax audits, amongst others.

Global Renewable Energy Digital Map—The Petroleum Economist in association with PwC, is proud to introduce a cartographic representation of installed renewable energy production capacity around the globe. Detailing production and consumption of renewable energy around the world, this unique map enables you to pinpoint installed production capacity for hydro; onshore wind; offshore wind; solar; geothermal; marine; and biomass, with each energy type clearly labelled with its own icon for ease of recognition. Stay ahead of your competitors—quickly spot regional trends and potential areas for development to enhance your company's presence within the industry. The map can be found online at http://www.petroleum-economist.com/digitalmaps/renewablesmap/world.html.

Upcoming publications

- ***A New Convention for Unconventional Development: Integrated planning boosts speed and reduces costs***—The fast expansion of US Oil & Gas capital projects driven by the shale boom means that several companies are finding themselves understaffed and under qualified for planning, monitoring and commissioning multiple large projects. Expected release – first quarter 2013
- ***Embedding cyber security into the energy ecosystem: An integrated approach to assessing cyber threats and protecting your assets***—PwC discusses in detail the importance of a cyber security program for energy companies. We explore further the findings from the *The Global State of Information Security® Survey 2013* that was conducted by PwC, CIO Magazine, and CSO Magazine.

Global energy contacts

The member firms of the PwC network provide industry-focused assurance, tax and advisory services to build public trust and enhance value for its clients and their stakeholders. More than 180,000 people in 158 countries across our network work collaboratively to develop fresh perspectives and practical advice.

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