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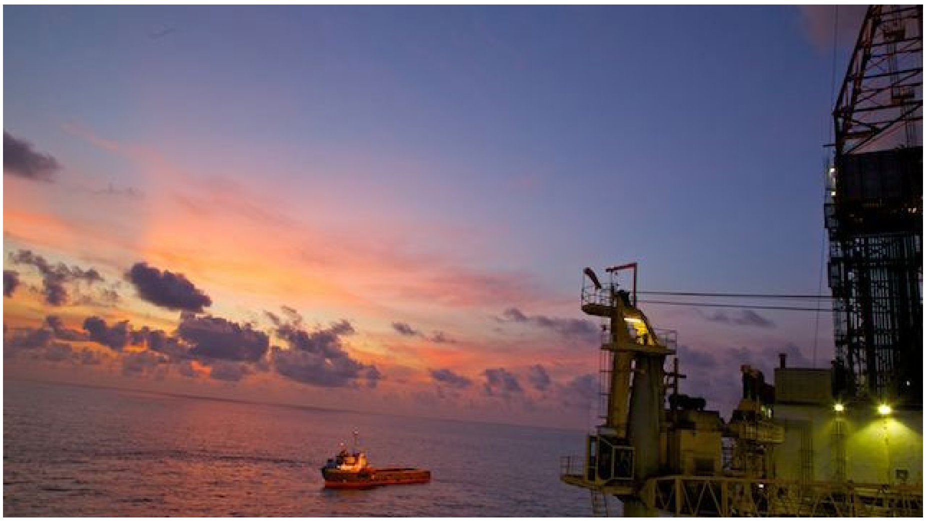
Pavilion secures Tanzania stake with Ophir deal



Eni and Anadarko's project in Mozambique is set to start in 2018, two or three years ahead of Tanzania. (Anadarko)

James Batty
Africa correspondent
Sara Stefanini
Asia Pacific editor

PAVILION Energy, the Singaporean LNG specialist set up earlier this year by sovereign wealth fund Temasek, bought a 20% stake in Ophir Energy's most prospective Tanzanian acreage for $1.29 billion on Thursday.

Shares in Ophir jumped by almost 20% during morning trading as analysts and investors welcomed the deal for blocks 1,3 and 4. Shares in the company were up by 14.22% at £3.76 by 1pm GMT on Thursday.

Ophir farmed down half of its 40% holdings in these offshore blocks in return for $1.25 billion in cash and an extra $38 million payable on completion of the transaction in Q1 next year.

Analysts polled by *Interfax* said the deal works out at between $2.4 and $2.6 per barrel of oil equivalent.

This is comparable with estimates of previous transactions in Mozambique's offshore. China National Petroleum Corp. spent $4.2 billion buying a 20% stake from Eni in Mozambique's Offshore Area 4 in March – valuing its reserves at $2.4/boe (see *CNPC pays competitive price for Eni Mozambique stake*, 14 March 2013). Oil and Natural Gas Corp's acquisition of a 10% stake from Anadarko was also valued at $2.4/boe for Offshore Area 1.

A big step

"This is a big step in the right direction for Tanzania LNG and suggests the market is waking up to the value of Ophir's assets," First Energy equity analyst Kingsley Jibunoh told *Interfax*. "They have brought in a good partner and taken money off the table [by reducing Ophir's capex commitment to the block]."

Ophir Energy's Chief Executive Nick Cooper said on a conference call with analysts that the company does not want to expose shareholders to big development spending and that in the "next couple of years we may take the 20% stake down again". The company is pursuing a busy exploration programme this year and next – including in Equatorial Guinea, Gabon and further north in Tanzania.

Jibunoh said Ophir was not there for "the whole slog" and is unlikely to retain a shareholding all the way through to first gas, arguing it would be best to sell out just after the FID is made in 2016.

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Transatlantic trade negotiations reach second stage
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01 Cooper confirmed on the call that an FID would likely be taken in 2015 or 2016. On this timetable first gas from Tanzania is unlikely before 2020-2021. The Eni and Anadarko-led project in Mozambique is on-course to start earlier, with a target date of 2018, though some see this as ambitious.

"This seems like a good deal for them and it is the first major gas transaction in Tanzania – it sets the benchmark," Investec analyst Brian Gallagher told *Interfax*.

> This is a big step in the right direction for Tanzania LNG and suggests the market is waking up to the value of Ophir's assets
>
> **KINGSLEY JIBUNOH**
> Equity analyst, First Energy

Standard Bank's Lionel Therond backed up this positive sentiment, but warned the deal has yet to be assessed by tax authorities and this could reduce the gain for Ophir. "The deal is 18% above my valuation of the asset – but you could have a 15% tax liability similar to that imposed in Mozambique," he added.

The deal comes just two months after Pavilion's official launch in September – though the company's lack of LNG experience is not considered a problem in this instance. "Why would you want [a partner with] experience? BG Group, Statoil and ExxonMobil are all involved with the project already," Gallagher said, pointing out Pavilion is there for the offtake and will be a silent partner.

"Our plan is to acquire assets across the full LNG value chain by building strong relationships with key partners and investing and co-investing in gas acreage, liquefaction plants and assets for regasification," Pavilion's Chief Executive Seah Moon Ming said at a conference in Singapore in late September (see *Singapore's Pavilion aims to create Asian 'LNG ecosystem'*, 25 September 2013).

Supply agreement signed

Pavilion signed its first long-term supply agreement a few weeks ago for 0.5 mtpa of LNG to Singapore and Asia for 10 years from 2018. The company did not name the supplier, but said it would come from a "European major" and cost around $500 million per year. At the same time, Pavilion announced a spot deal under which it will receive its first cargo in Asia in February.

Pavilion's entry into the LNG industry is part of Singapore's ambitious bid to become a regional gas trading hub within the next decade. The company is part of state-owned investment firm Temasek, which announced in April it was creating an LNG unit with an initial capital of S$1 billion ($801.1 million). Its committed capital now, however, stands at $6.9 billion, according to Pavilion's statement on Thursday.

Singapore started importing LNG earlier this year with an initial capacity of 3 mtpa. This is expected to be doubled by the end of 2013 and, potentially reach 9 mtpa or more in the next few years. BG is the only company allowed to import the first 3 mtpa, under its role as aggregator, but Singapore announced last month it would open future LNG imports up to multiple suppliers.

While Pavilion aims to be one of the big importers in the years to come, the government has warned the company will not get preferential treatment despite its ties to the state. ■

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Transaction values in East Africa

	Mozambique Area 1		Area 4	Tanzania
Seller/buyer	Cove/PTTEP	Anadarko/ ONGC	Eni/CNPC	Ophir/Pavilion
Date	Aug 2012	Aug 2013	Mar 2013	Nov 2013
Acquisition cost ($ bln)	1.9	2.6	4.2	1.3
For interest	8.50%	10%	20%	20%
Reserve estimate, tcm	1.8	1.8	1.5	0.5
$/boe	2.1	2.4	2.4	2.4

Source: Standard Bank

Today on interfaxenergy.com

LNG

Oregon LNG makes its case

Originally proposed as a terminal, the Oregon LNG project in Warrenton could export 9 mtpa of LNG to Asian markets. Oregon LNG CEO Peter Hansen spoke to *Interfax* about the $6 billion project.

Wildcat Blog

Talk of the barrio: Brazil's Sarbox moment?

The bankruptcy of oil giant OGX is embarrassing for Brazil, but it could be a blessing in disguise.

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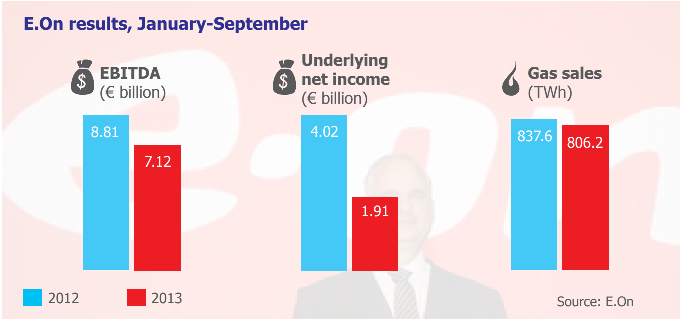
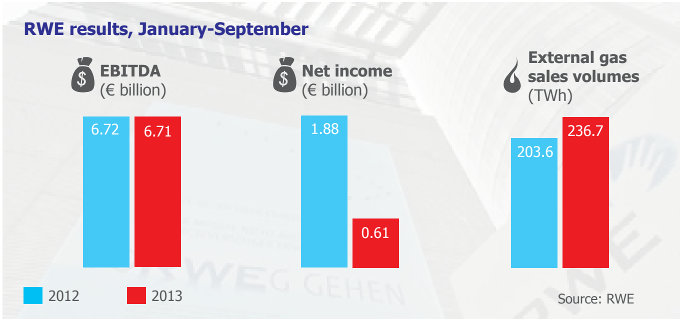
COMPANIES & FINANCE | GERMANY

German utilities' gloom continues as turnaround begins

Joshua Posaner
CE Europe correspondent





GERMANY'S two biggest utilities reported expected cuts to their profits this week as the conventional power market continues to suffer impaired revenues across Europe. However, a change in strategy is imminent as both E.On and RWE look to return to growth.

Dusseldorf-based E.On's EBITDA fell by 19% to €7.1 billion ($9.5 billion) in the first nine months of 2013. This was attributed to the absence of a previously registered one-off gain from contract renegotiation with Gazprom, and the absence of repeated revenue from divestments.

Chief Executive Johannes Teyssen spoke of the ongoing restructuring of the company's European operation – which has included mothballing gas-fired power stations and divestments. Speaking to investors, Teyssen said one of the main challenges facing the company has been regulation in Germany, adding that the "environment remains tough", with favoured status for solar and wind production pushing down the wholesale price of electricity.

Essen-based RWE said "reduced earnings power, primarily in conventional electricity generation, will lead to a marked decline in its results for 2014" as the power sector remains in "deep crisis". "Our traditional business model is collapsing beneath us... and no company can survive like that while making new investments in power projects," RWE Chief Executive Peter Terium told journalists.

His company reported almost static EBITDA year on year, but net income reduced by 68% to €609 million. An efficiency programme is already underway, with RWE aiming to save a further €1 billion by 2017 under measures that will cut 10% of the workforce.

E.On has said its results for Q4 2013 will be better year on year, buoyed by increased gas sales – with German consumption already rising by 11% over the first nine months of the year because of cold weather. RWE, however, warned of a tough year to come.

Analysts have said both companies remain too exposed to factors outside their control, and uncertainty reigns over long-term prospects in both Germany and the wider EU. RWE said plans are underway for a strategy reorientation, but that the company would not go public yet. *Interfax* understands a new focus will be centred on renewable energy solutions, relying on RWE supplying its customer base throughout Europe.

E.On has bet heavily on buying into growing markets such as Brazil and Turkey – with a deal last December to take on a 50% stake in Turkish power company Enerjisa adding to a more recent co-investment in Brazil's OGX Petróleo e Gás Participações's gas operation. Such deals will reduce the exposure of Germany's biggest utility to regulatory changes in Europe.

Oliver Krischer, a member of the German Bundestag, said in a statement to *Interfax* that the changes in strategy are too late. "It has been obvious for years that ongoing climate change and rising energy prices require a fundamental restructuring of energy companies. But RWE – like other big energy companies – has not taken advantage of renewable energy, energy efficiency and co-generation." ■

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COMPANIES & FINANCE | POLAND

PGNiG reports soaring revenues

Joshua Posaner
CE Europe correspondent

POLISH gas monopoly PGNiG reported strong Q3 results on Thursday, buoyed by increased oil production and gas sales, in addition to the impact of reduced import prices.

Total company revenue rose to PLN 23 billion ($7.35 billion) in the first nine months of 2013, about 15% higher than the same period in 2012. Operational revenue rose by 215%, the company said, from PLN 1.5 billion to PLN 4.8 billion.

"This is another quarter in which we note not only improved net income, but improved results in all segments of our business. As in the previous quarter, performance was driven by a significant increase in production of crude oil and gas at two of our strategic investments," Jacek Murawski, the company's chief financial officer said, adding that 2.5 billion cubic metres is now in storage for the winter season.

The reduction in the price of wholesale gas through the Yamal contract – a result of renegotiations with Gazprom – improved results in the trade and storage sector, where trading revenue rose to PLN 1.3 billion this year.

However, the company reported losses on the sale of methane gas saying the "average tariff price still did not cover the costs of gas", although this was reduced from 11% in 2012 to 2% this year. Finally, gas sales increased by 12% to around 11.7 bcm in the first three quarters of 2013, the company said. ■

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POLICY & REGULATION | AUSTRALIA

WA still keen on James Price Point LNG developments

Robert Sullivan
Asia Pacific correspondent

THE Western Australian (WA) government has agreed a deal to acquire land near James Price Point for what it hopes will become a hub to support the development of the offshore Browse Basin gas fields.

The 3,414 hectare site in the northwestern Kimberley Region of WA was initially intended to host a liquefaction facility of around 12 mtpa for Woodside Energy's Browse LNG project. Although Woodside decided against building the onshore plant at James Price Point earlier this year, the government continued its compulsory acquisition process for the land, with the intention of creating a gas precinct to encourage further onshore development.

"The government is committed to delivering a project-ready site for the development of the region's world-class gas resources," WA Premier Colin Barnett said in a statement this week. However, although the state government does not intend to build infrastructure for the oil and gas industry at James Price Point, developers will be able to lease the land from the state, Barnett said.

While the government now officially owns the land, it is unclear whether a decision by the WA Supreme Court that an environmental approval to build an LNG facility on the site was illegal. This will complicate its development as a gas supply base (see *WA court's blow to onshore Browse LNG hopes*, 19 August 2013).

The court ruled in August the environmental approval issued for James Price Point was invalid because the state Environmental Protection Authority's (EPA's) decision to endorse the project was made by a single official. The other four EPA officials recused themselves because of conflicts of interest.

Following the court's decision, Barnett said the government would likely resubmit its environmental evidence and recommendations on conditions for the use of James Price Point.

The WA premier also reiterated this week that the state would not amend retention leases in WA waters to permit the Woodside-led Browse consortium to sell gas from those leases using FLNG technology.

WA requires 15% of the LNG produced in the state be retained for the local market, and the policy covers all onshore developments and offshore projects in state-administered waters. Woodside has countered, however, that the bulk of its Browse gas is in federal waters and therefore does not fall under the state's domestic gas reservation policy.

Barnett has long led the state's efforts to keep LNG developments onshore – thereby creating new jobs and generating royalty revenues for WA.

However, in a series of hearings before a WA parliamentary committee in October, executives from some of the biggest oil and gas companies operating in Australia warned that the state – and country – had become too expensive for such large onshore projects and that FLNG offered a cheaper way to monetise gas fields far offshore (see *Stranded in cyclone-prone waters? FLNG to the rescue*, 31 October 2013). ■

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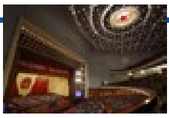

China blinks on reform of state energy firms

Reform of the energy sector was largely absent from the communiqué issued at the close of the Communist Party's third plenum, giving China's oil majors a reprieve and the private sector cause for concern. **Li Xin** reports

REFORM – a recurring theme of Chinese President Xi Jinping's first year in office – was the focus of the Communist Party's third plenum this month. But reform of the nation's energy sector – beset with environmental issues and rapid increases in demand for cleaner-burning gas – was largely absent from the communiqué issued on Tuesday.

The guidelines, which will shape the country's development for the next decade, set forth in broad terms the administration's agenda – including limiting the role of the state in the market; engendering greater balance between public and private sectors; and introducing more efficiency, competition and innovation into China's 'socialist market economy'.

The document disappointed some China experts with its lack of details and slow approach to systemic problems, including official corruption and the environment, which the experts feel require bold strokes and decisive action.

The leaders agreed to a deadline of 2020 for reform. "The relatively long timeframe suggests the reform pace will likely be measured and it may take quite some time for the impact to show," said Bank of America Merrill Lynch in a note.

A deafening silence on energy

The communiqué touched on fiscal reform, economic restructuring, and environmental protection, among other issues, as anticipated by the market. However, institutional reform of the energy sector – a pressing issue in light of China's role as the world's largest energy consumer – was noticeably absent.

The arrest and detention of several high-ranking energy officials in recent months made the omission more glaring. Major oil and gas stocks fell on Wednesday, the day after the plenum closed.

The stock prices of PetroChina – the listed arm of China National Petroleum Corp. (CNPC) – and Sinopec fell by 1.54% and 1.68%, respectively, in Shanghai, while China National Offshore Oil Corp.'s (CNOOC) listed unit decreased in value by 2.62% in Hong Kong.

Shares of gas distributors did not fare much better. China Gas Holdings, Guanghui Energy and China Resources Gas fell by 2.33%, 4.47% and 0.74%, respectively, while Shenzhen Gas and Changchun Gas declined by 3.54% and 5.38% over the previous trading day. Only ENN Energy and Towngas bucked the trend, rising by 0.11% and 0.13%, respectively, in Hong Kong.

"I understand the energy industry was let down by the communiqué, for there was a lot of hopeful speculation before the plenum," Lin Boqiang, director of the China Centre for Energy Economics Research at Xiamen University, told *Interfax*.

Lin said conditions to drive reform of the oil and gas sector are not present.

The fact the energy industry is operating fairly well in China has lulled some into a sense of complacency, Lin said, noting reforms take time to implement, and urgent supply needs may take priority over making changes at this stage.

At a time of surging demand, instituting energy industry reform would be difficult, he concluded.

Others advised against reading too much into the plenum's avoidance of energy industry reform. "You can't over-analyse the communiqué," Chen Weidong, chief energy researcher with CNOOC, told *Interfax*. "It is a general outline for reform, so it isn't surprising that energy reform was not singled out."

'Market' not a dirty word

The communiqué's outstanding point was to let the market play a 'decisive role' in resource allocation – marking a critical change in Beijing's definition of the role of the market. Previously, the official party line was that the market would play a 'basic' role.

Letting the market allocate resources is a positive development for the industry, Lin said. Pricing is how markets allocate resources, so the 'decisive' designation is a favourable development for energy pricing reform – including gas – he added.

"This marks a significant change in the government's attitude [toward the market], and leaves room for future reform," Chen added.

SOEs hunker down

In August, four CNPC executives were placed under investigation and there was reason to believe deeper reforms to break the monopolies of state-owned enterprises were imminent. Such hopes were dashed when the State-owned Asset Supervision and Administration Commission (SASAC) denied a state media report in early November that private companies would be allowed to acquire a maximum 15% interest in SOEs controlled by SASAC.

The communiqué appears to do lit- ➤06

➤ 05 tle to resolve the question of SOE monopolies. For years, Beijing has stressed the need to create 'national champions', while at the same time directing these powerful state firms to become more efficient, accountable and innovative. In the document, the government vowed to resolutely develop the state sector by directing it to play a predominant role and increasing its control and influence.

"This is a watered-down version of SOE reform from the initial restructuring initiative," Dong Tao, of Credit Suisse, said in a note on Wednesday. "We understand this was also one of the areas under heated debate during the plenary session."

Although the communiqué notes both public and private sectors play a critical role in the Chinese economy, analysts forecast little progress would be made on SOE reform.

Chipping away at the state monopoly on oil and gas will be difficult, said Lin.

Importing energy is one area opening up to non-SOE players. In a small but significant gesture, Beijing will grant limited oil and gas imports rights to private companies. "This is a largely symbolic opening," said Lin. "[It is] not the kind of comprehensive opening of oil and gas the private sector has been waiting for."

Lin pointed to deep suspicions of the private sector in some political circles. Price speculation, arbitrage opportunities and the motivations of some private capital owners has led some in Beijing to be wary of a hasty opening, Lin added.

Nevertheless, in addition to oil and gas import rights, China has sought the participation of private firms in unconventional gas, especially in shale gas exploration. the National Energy Administration's (NEA's) recent *Shale Gas Industry Policy* reaffirms the involvement of private players.

The NEA's recent pronouncements on oil and gas provide a better roadmap for the development of China's energy profile than anything produced at the plenary session – although the agency also neglected critically important infrastructure issues.

Dominated by CNPC, and – to a lesser extent – Sinopec, China's pipeline infrastructure holds the key to reforming the oil and gas sector, Felix Tan, East Asia upstream consultant with Wood Mackenzie, told *Interfax*.

The situation is such that any shale gas output must be sold to CNPC and Sinopec to gain access to their pipelines, and this gives them control over price and volume.

The Chinese majors also hold large acreage across the country and some of these onshore positions overlap with conventional gas permits.

The NEA does not explain what will happen if the majors fail to invest in shale gas activity in these onshore blocks. This issue and resolutions are not discussed, Tan added.

Ecology, energy together

Lacking detail, the communiqué's energy points have been interpreted as largely relating to the environmental consequences of domestic energy production, with calls to revisit the resource tax schedule and land-use rights. Based on the environmental portions, the government will improve systems for penalising and fining polluters and compensating victims of industrial pollution.

It also called for deeper reform of property and land-use rights, with respect to resources, and reforming the system for the protection and administration of the environment. ■

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SUPPLY & DEMAND

CNOOC sells 195,000 tons of trucked LNG at Ningbo

Tang Tian
Shanghai

CHINA National Offshore Oil Corp. (CNOOC) sold 195,000 tons of trucked LNG in roughly a year at its import terminal in the eastern port city of Ningbo, according to a company announcement.

The Ningbo terminal started selling trucked LNG on 28 October 2012 and achieved the sales total on 5 November, according to a statement from the company. The terminal is capable of supplying up to 340,000 truckloads of LNG annually, according to local media reports.

Of the 195,000 tons sold, 86.72% was sent to Zhejiang and 13.27% to the neighbouring province of Jiangsu, while the remainder was delivered to Anhui province, said CNOOC.

The first phase of the Ningbo terminal – CNOOC's fourth import facility – cost RMB 6.97 billion ($1.14 billion) to build and has receiving capacity of 3 mtpa. The second phase will increase this to 6 mtpa. Qatargas supplied a 93,819 ton commissioning cargo to Ningbo in September 2012.

CNOOC said Ningbo is ready to provide secure supplies of gas during the upcoming heating season and is filling 50 trucks each day with LNG.

"Fifty trucks is the largest volume in our records," Li Lingxuan, an analyst with energy consultancy Sublime China Information, told *Interfax*. The high sales rate is unlikely to be sustained as CNOOC will need to meet rising demand for gas via pipeline in coming weeks, said Li.

"We think the terminal will lower sales of trucked LNG in mid-December – the peak gas usage period during the heating season – to bolster supplies of pipeline gas," said Li.

The analyst noted Ningbo cut daily sales of LNG from 40 truckloads to 35 over the same period last year.

The bulk of LNG shipped into Ningbo will be regasified and piped into Zhejiang's pipeline network during this heating season, while the remaining volumes will be sent to users by truck, Ma Honghai, a marketing manager with Ningbo's operator CNOOC Zhejiang Ningbo terminal, told *Interfax*.

Ningbo can supply a maximum of 10 million cubic metres per day to Zhejiang's gas grid – equivalent to half of the province's demand in the winter, according to Ma.

"The terminal will play the primary role of providing gas to Zhejiang this winter. If we can meet local gas needs, that eases the pressure on PetroChina to supply Zhejiang with pipeline gas, which can go to Jiangsu and Shanghai instead," said Ma.

Ningbo imported 725,833 tons in the first nine months of this year, half of which were term volumes from Qatar. ■

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US renewable build-out pressures gas

Spurred by subsidies and encouraged by state legislation, wind turbines and solar panels are quickly gaining market share in the United States and are beginning to displace gas from the energy mix. **James Byrne** reports.

A coal power plant in Denver, Colorado, operated by Xcel Energy. (PA)

NEARLY three years ago, United States President Barack Obama laid out an ambitious goal of generating 80% of the country's electricity from clean energy by 2035. Today, spurred by subsidies and encouraged by state legislation, wind turbines and solar panels are quickly gaining market share and are beginning to displace gas from the energy mix.

"Year-to-date gas-fired generation continues to trail 2012 by 13%. It has lost considerable ground to coal-fired generation and weaker power demand, as well as stronger renewable generation and nuclear output. Coal-fired generation is up 65,530 GWh (+5%) year-to-date, renewables are up 24,464 GWh (+6%), and nuclear output is up 9,718 GWh (+2%)," US consultancy Genscape said last week. Renewables generated 218 million MWh in 2012, up from 80 million MWh in 2003. Year-to-date, renewable output is up 15%.

Capacity build-out has been particularly visible in the centre of the country, where plentiful wind resources make turbines an increasingly attractive choice. In Iowa, renewable generation accounted for 17% of the state's electricity generation in July 2013, according to Energy Information Administration (EIA) data. In South Dakota, it accounted for 16.7% during the same month.

But the expansion in capacity has also come at a time of declining power demand, which shrunk by 100 million MWh between 2007 and 2012. Combined, these factors have caused a 6.5% drop in demand for conventional generators, according to estimates from Bernstein Research.

Under pressure

Thirty states have renewable portfolio standards, which force utilities and electricity producers to buy a minimum amount of power from sources such as wind, solar, geothermal and biomass. Several other US states have voluntary goals.

These standards have been particularly difficult for competitive power generators, which, unlike their regulated counterparts, cannot pass on increased costs to consumers.

"The economic impact of wind and solar generation is felt most acutely by competitive generators," said Bernstein in a research note this week. "For these firms, the loss of generation from their conventional power plants implies lower revenues and gross margin. In addition, the adverse impact of wind and solar generation on wholesale power prices even erodes the revenues of those plants whose output is unaffected."

However, the roll-out of renewables across the US is not just a question of political patronage, but also one of rapidly improving economics. A comprehensive analysis of the levelised cost of energy conducted by Lazard in August showed some wind power projects were already competitive with coal and gas plants, even without subsidies.

The study also showed some utility-scale solar PV projects were approaching "grid parity" with conventional generation sources. A similar study by the Lawrence Berkeley National Laboratory published in 2012 showed some large solar plants in the west of the country had signed contracts for as low as $50-60/MWh – a price cheaper than many conventional plants.

While growing shale production has depressed prices below historical averages, these improving economics are helping drive the build-out in renewable generation.

"We have taken advantage of low natural gas prices to serve growing customer demand and allow the replacement of aging coal plants. However, because of our renewable portfolio, we've been able to avoid becoming too reliant on the natural gas market. Wind energy acts as a natural hedge against fuel price risk," said Ben Fowke, chief executive of Xcel Energy, speaking to the House Committee on Energy in March 2013. "In fact, wind is key to our strategy. We recently contracted for wind power in Colorado at a price that is competitive with gas-fired generation even at today's low gas prices," he added.

With wind turbine and solar panel prices expected to keep falling, renewables could continue to eat into gas demand, especially if power demand stays flat. "The rapid growth of renewables will continue to suppress output of the conventional generation fleet," said Bernstein. "Between 2012 and 2015 we again expect renewable generation growth to exceed that of power demand, causing a further decline in US conventional power output of some 60 million MWh, or 1.6%."

By 2015, the consultancy estimates wind and solar will have offset almost 80 million MWh of coal-fired generation and more than 50 million MWh of gas-fired generation, equivalent to 5.2% of coal consumption and 4.5% of gas consumption for electricity production in the US in 2012. ■

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CNPC scoops Petrobras's Peruvian assets

As the Brazilian state-owned giant divests itself of assets following last month's Libra auction, a wide variety of stakes are appearing on the market – and Chinese majors seem poised to make the most of them. **Chris Noon** reports.

BRAZILIAN state-controlled company Petrobras confirmed on Wednesday that it had sold its wholly owned Peruvian business to PetroChina – the listed arm of China National Petroleum Corp. (CNPC) – for $2.6 billion. The deal – which includes stakes in a mixed bag of highly prospective and mature assets – was widely expected in the wake of the Brazilian giant's new financial obligations arising from last month's Libra auction.

Petrobras Energia Peru (PEP) includes a 46.16% stake in the pre-operational Block 57, a gas and condensate field in the southern Madre de Dios Basin that includes the Kinteroni gas project – one of the five biggest discoveries made worldwide in 2008.

CNPC will also receive a 100% stake in Block 58, an exploratory block adjacent to Block 57 where large discoveries of gas and condensate have been made; and a 100% stake in Block X, a mature field located on Peru's northwestern coast that has been in operation for over a century, but is now in decline.

The $2.6 billion price tag and timing of the deal both look favourable for Petrobras. Local press and analysts had valued the assets at $2 billion, but the deal will cover nearly 95% of the BRL 6 billion ($2.76 billion) signature bonus Petrobras owes for Libra. The production sharing contract for Libra, where recoverable resources are estimated at up to 12 billion barrels of oil and 120 billion cubic metres of gas, is expected to be signed this month.

Prodesin programme

The deal also covers over 25% of Petrobras's divestment programme to sell $9.9 billion of assets in Brazil and abroad this year, named 'Prodesin'. "The year-end balance of Prodesin is underway and should be disclosed very soon. At the moment, it's impossible to provide any figures," a Rio de Janeiro-based spokeswoman for Petrobras told *Interfax* on Wednesday.

Petrobras – which has denied the cost of developing Libra will squeeze the company or lead to delays in other projects – said in March 2013 that Prodesin was the third plank in a raft of cost-saving measures that would free up around $30 billion until 2017.

There is huge variation in the potential of CNPC's newly acquired assets. Pavel Molchanov of Raymond James & Associates told *Interfax* earlier this year that Petrobras's production and reserves in Peru were "minimal", pointing out the company did not even disclose the exact numbers in its 2012 annual report. Petrobras produces gas from Block X, but average daily output there has slumped by roughly 36% in 2013 compared with 2012. This is despite the Brazilians obtaining a permit from Peru's energy and mines ministry to expand production facilities in the concession earlier this year.

Block X production

Gas production from Block X has averaged 191 thousand cubic metres per day (Mcm/d) this year, compared with 300 Mcm/d in 2012, according to statistics from Peruvian hydrocarbons agency Perupetro. The concession produced a total of 109.9 million cubic metres in 2012.

However, blocks 57 and 58 could contain anything between 110 and 283 billion cubic metres of resources. Block 57 is scheduled to begin operations this year and is expected to produce 5 MMcm/d, according to Scotiabank.

Spanish company Repsol, which operates Block 57 with a 54% stake, made a discovery in the concession in September 2012 that could contain up to 56.7 bcm of gas. It reinforced the potential of the region, where its Kinteroni find ranked among the world's biggest in 2008. Pedro Grijalba, the former head of Petrobras Peru, said last year that blocks 57 and 58 could hold up to 283 bcm between them.

Around 93% of Peruvian gas production this year has come from blocks 56 and 88 in the flagship Camisea field, with total output of around 32.2 MMcm/d, according to Perupetro. Block 57 lies just to the west of Block 56.

Gas production in Peru is expected to increase by 6% in 2013 compared with last year, driven by the country's exports and domestic power demand.

A $2.6 billion deal is unusually large for Latin America. Mergers and acquisitions in the region's oil and gas industry amounted to $5 billion in 2012, around 2% of the global total, according to Wood Mackenzie statistics.

China has spent nearly $10 billion in Peru in the form of investments and contracts since 2007, according to the China Global Investment Tracker created by the Heritage Foundation, which tracks transactions valued at more than $100 million in all industries.

Repsol already works alongside China as a majority partner in Latin America. Repsol Sinopec was created in 2010 to explore Brazil's huge offshore basins. Repsol holds 60% of the company, with Sinopec controlling 40%. ■

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Spanish company Repsol already partners with China's Sinopec in Peru's Kinteroni field. (Repsol)

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Transatlantic trade negotiations reach second stage

Foreign affairs

A second round of talks between EU and US authorities was held in Brussels this week with the aim of striking a deal on transatlantic trade issues, including LNG imports to Europe.

Keen on diversifying gas supplies away from Russia, the EU is hopeful a Transatlantic Trade and Investment Partnership (TTIP) with the United States will soften the regulatory approval process needed for American LNG cargoes to be sent to Europe.

Under the US Natural Gas Act, LNG exporters must seek approval from the Department of Energy (DOE) before sending cargoes abroad. However, the approval process is essentially automatic for exports to countries that have a free trade agreement (FTA) with the US. Twenty countries hold such agreements, but none of them are in the EU.

"Energy is an important part of the negotiations. Our position is that we want the export licences removed so that LNG can reach Europe without regulatory approval," one EU official told *Interfax*.

US LNG exports could be a major shift for the gas industry on both sides of the Atlantic, as EU buyers could take advantage of lower-priced American LNG from.

But sceptics say LNG exports from the US to Europe will, in any case, be limited. A report published by Wood Mackenzie this month said an average of 10-15 billion cubic metres per year of American gas would enter EU countries by 2020 and would mostly arrive when Asian demand is weak. It added that contracting US LNG indexed to Henry Hub prices looks risky for many utilities now they have access to local spot-indexed gas.

"European utilities are increasingly wary of contracting gas not priced on a local European gas market basis," the report said. "Unlike Asian buyers, European utilities are less prepared to pay a premium for gas supply security on the basis of diversity."

Bargaining chip for some

The report added some utilities in Central, Eastern and Southern Europe might be prepared to take the Henry Hub price risk or pay a premium to secure supply and diversify away from Russian gas.

"Some European utilities may be keen to use the threat of US LNG purchases as leverage in negotiations with pipe gas suppliers. But their genuine appetite for US LNG may be more meagre than rhetoric suggests," the report added.

The week-long round of TTIP negotiations replaced the talks originally scheduled for 7-11 October, which were postponed because of the shutdown of the US government. The negotiations will cover many parts of the economy – including manufacturing, services and agriculture.

The European Commission is hopeful that, by removing barriers to trade, it will boost economic growth, create jobs and lower prices.

Broadly speaking, the negotiations aim at removing trade barriers in a wide range of economic sectors to make it easier to buy and sell goods and services between the EU and the US. The EU and US also want to make it easier for their companies to invest in each other's economies.

In place by 2015?

The commission has said the decision to start negotiations with the US now is largely the result of the economic crisis and the stalling of the multilateral trade negotiations in the World Trade Organisation – the so-called Doha Development Agenda.

A third round of the TTIP talks will be held in Washington, DC in the week of 16 December.

The commission wants the TTIP agreement to be in place by 2015, but this could prove too optimistic.

"TTIP is generally perceived in Washington to be more important for Europe than it is for the US. On an optimistic schedule, TTIP resolution would come near to our next presidential election, which is likely to delay ratification beyond 2016. Moving that date forward would require substantial compromise in key European countries," Neil Brown, a fellow at the German Marshall Fund of the US, told *Interfax*. ■

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Germany's grand coalition to temporarily ban fracking

Shale gas

GERMAN politicians agreed to a moratorium on hydraulic fracturing for shale gas in the country, halfway through coalition negotiations between the two largest parties – the Conservatives (CDU/CSU) and the Social Democrats (SPD) – this week.

Talks led to a preliminary agreement in the energy working group that, until environmental issues around the use of toxic chemicals are resolved, fracking for shale gas will temporarily be banned.

"In Germany, there will be a moratorium on hydraulic fracturing until there is scientific proof that there is no risk for drinking water and health," Ute Vogt, an SPD leader on environment issues, told *Interfax*.

According to Vogt, the impact of fracking on public health and the environment are not sufficiently clear.

"We reject the use of environmentally toxic substances in the application of fracking technology for the exploration and production of unconventional gas reservoirs," the preliminary agreement states.

However, the agreement is legally not a strict 'ban' but rather a moratorium "until non-toxic fracking fluids" are available, Uwe Fritsche, scientific director at the International Institute for Sustainability Analysis and Strategy, told *Interfax*.

"Any requests for authorisation can only be decided when the necessary data for evaluation exists and when it is clarified beyond doubt that there would not be any damaging change in water quality. Existing reviews conclude these conditions are currently not met," the coalition document says.

"Today, a third of Germany's domestic gas production already uses fracking techniques," Klaus Torp, from ExxonMobil Central Europe, told *Interfax*. "The ongoing debate about fracking in the coalition negotiations relates to unconventional gas resources in shale," Torp added.

However, Torp said this has caused delays in issuing permits for conventional production, which has used fracking for more than 50 years.

Felix Matthes, research coordinator for energy and climate policy at the German Institute for Applied Ecology, says the underlying conflict is essentially between the gas industry and federal states – who profit from gas production levies – on one side, and other states, the agricultural sector, industries such as beer producers, and environmental NGOs – all of whom are concerned about drinking water – on the other.

According to the Federal Ministry of Economics and Technology, fracking with deep drilling requires a water permit issued by the relevant mining authority and is subject to the water authority's approval. In addition, under the German Federal Mining Act, licensing or approval is required for any exploration for oil, natural gas, or geothermal energy. According to regulations, an additional environmental impact assessment is required where daily production exceeds 500 tons of crude oil or 500,000 cubic metres of natural gas.

The German Federal Institute for Geosciences and Natural Resources predicts up to 2.3 trillion cubic metres of shale gas is recoverable – 10% of total reserves. ExxonMobil has begun test drilling, while Wintershall and BNK Petroleum are also looking at projects. Six of Germany's 16 regions are thought to contain shale gas (see *Germany heads towards pro-fracking stance*, 22 February 2013).

Germany consumes about 100 billion cubic metres of gas per year, with roughly 40% of that coming from Russia. Domestic production, 96% of which is produced in Lower Saxony, covers about 12% of the country's demand. The rest is supplied by Norway and the Netherlands. ■

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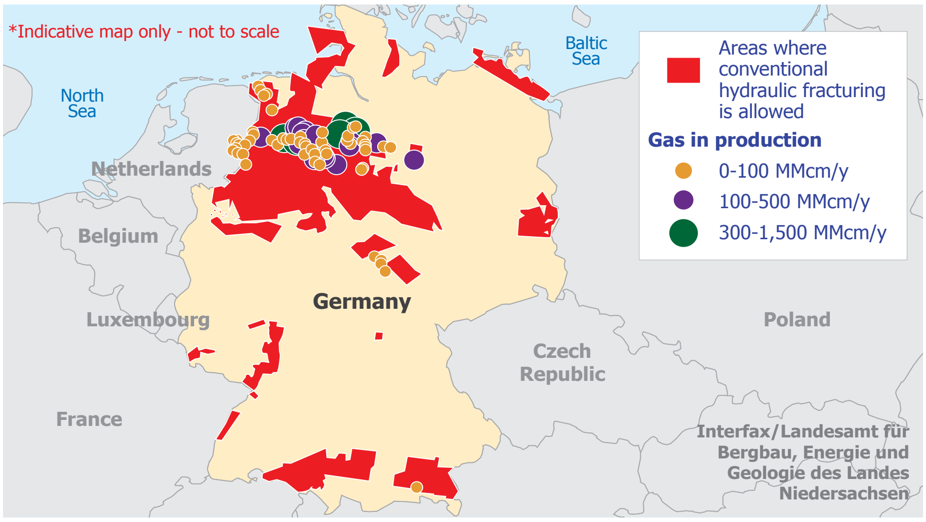

Existing or potential fuels produced in Germany using fracking

	Conven-tional	CBM	Tight gas	Shale gas	Oil	Petro-thermal
Depth	3,000-5,000 m	700-2,000 m	3,500-5,000 m	1,000-5,000 m	1,000-2,500 m	Up to 5,000 m
Proppants added	Yes	Unclear	Yes	Yes	Not known	Rarely
Chemicals added	Not known	Unclear	Yes	Yes	Not known	In some cases
In use for	> 50 years	Test wells in 1990s	30 years	Test wells	> 150 year	> 20 years
Horizontal drilling	Yes	Not known	Yes	Yes	Yes	Yes

Source: German Advisory Council on the Environment, 2013

EU will not 'play empire' in Gazprom investigation

Q&A

MARAT Terterov is the principal director of the European Geopolitical Forum in Brussels and also an executive director and co-founder of the Brussels Energy Club. He holds a doctorate in Middle Eastern studies from St. Antony's College, Oxford University. Here, he shares his view on EU-Russia relations, including the European Commission's anti-trust investigation against Gazprom.

Interfax: The EU and Russia seem to be at loggerheads when it comes to market liberalisation under the Third Energy Package. Why is it so difficult for Gazprom to accept the key provisions under this legislation, including third-party access to gas infrastructure and unbundling of transmission assets in the EU?

Marat Terterov: Media coverage of this dispute has been very EU-centric. Russia feels it has contributed significantly to creating the European gas market over the years. The Soviet Union started supplying oil and gas to Europe in the 1970s. So key oil and gas infrastructure was already in place when the EU became an internal market.

Russia feels it is a reliable and secure supplier to the EU. Norway caused the largest-ever gas supply disruption to the EU – at least until January 2009. That was in the 1980s, when supplies from the Troll field were suspended during price negotiations between Norway and Germany.

Nevertheless, with the Third Energy Package, Russia feels the EU is not taking into account how energy markets evolved. Russia also feels it was not properly consulted as the EU moved on with the legislation.

Interfax: What is the EU's view?

MT: The Third Energy Package aims to improve efficiency and competition in the internal energy market. It was designed to unbundle vertically integrated European gas and electricity companies. The EU will, of course, argue none of this is against Russia. But by default, the EU is exporting its legislation into neighbouring regions.

What's more, Russia did not fully understand the commission's powers until a few years ago. It preferred to deal with the EU on a bilateral basis through the member states. But that mentality started to change from the Russian side a few years ago. Previously, there was a lot of negative chemistry between Russian energy decision-makers and Brussels bureaucrats.

That started to change under Philip Lowe, the EC's director-general for energy. The EU-Russia dialogue on energy is more active now than before.

Interfax: But relations still seem tense, given the EU's ongoing investigation into alleged market abuse by Gazprom over unfair pricing. In previous anti-trust cases, such as with Eni and RWE, the commission dropped charges after the companies agreed to sell off transmission assets. Is this a likely outcome in this case too?

MT: To be honest, we don't know how this will end. There is no shortage of voices in Russia that say the Gazprom investigation is really about new EU member states – such as Lithuania – lobbying the commission to take action to get a better deal on gas prices.

This may or may not be true. But the commission has more powers to sanction EU companies than it has in sanctioning those outside EU jurisdiction. It is important to remember that Gazprom's headquarters are outside the EU, although the company of course has many assets in the EU and is in this sense not totally out of reach.

That said, I don't think the EU has the appetite to test itself as a global player by 'going all the way' after Gazprom. Unlike the United States, the EU does not have the teeth of a geopolitical power. And neither should it. The EU is far more a geo-economic power rather than a geopolitical one. Put frankly – the EU doesn't 'play empire'. The 'old' EU countries – France, Germany and the Netherlands – don't want this conflict.

What's more, Lithuania has been made into an energy island just as much by Brussels as by Moscow. Brussels forced Lithuania to close the Ignalina nuclear power plant when it joined the EU in 2004. This was done even though the plant was believed to be relatively safe.

Interfax: Regarding the planned South Stream pipeline, EU officials say they have not even received a request for exemptions to third-party access rules. What is the likely outcome of this dispute?

MT: I would ignore much of the media hype regarding South Stream marching across [Southeast] Europe like the Red Army. We don't even know if this pipeline will be built. What's more, Russia needs this project for prestige, not for economic rationality.

Some analysts have put the development cost of South Stream at €55-60 billion [$74-80.7 billion]. In that sense, it would have been far cheaper to upgrade the Ukrainian transit system.

However, if the project does go ahead, Russia would be very pleased to get a derogation from the third-party access rules under the Third Package. That would give them the right of first refusal.

Interfax: The commission secured a mandate in 2011 to negotiate development of the Trans-Caspian pipeline, which would carry Turkmen gas to EU countries. Turkmenistan is showing increasing interest in building the pipeline, according to EC officials. But how realistic is this project, not least given the legal dispute surrounding the Caspian Sea?

MT: This project is a non-starter in my view. The underlying obstacle is not Iran or Russia, but Azerbaijan. Azerbaijan is not particularly interested in being a transit country for Turkmen gas. It has a lot of its own gas reserves to develop, as well as the Shah Deniz field. It is only logical Azerbaijan would prioritise developing its own export potential.

It would not be a big technical or economical challenge to build the pipeline across the Caspian Sea. Also, Turkmenistan would rather sell its gas to the EU – or even to Turkey – than to the Chinese.

But the Trans-Caspian pipeline project could only materialise if European demand was high enough to absorb all potential Azerbaijani supply and that from Turkmenistan too. This is unlikely for the foreseeable future. ■

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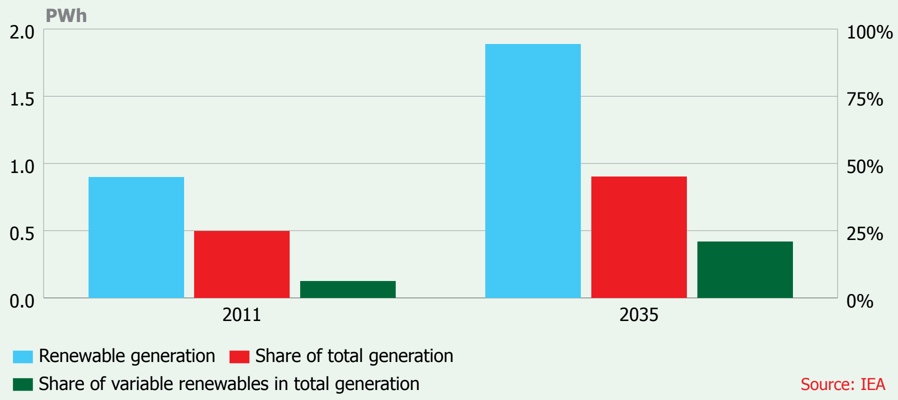
Renewables-based electricity generation in Europe in the New Policies Scenario

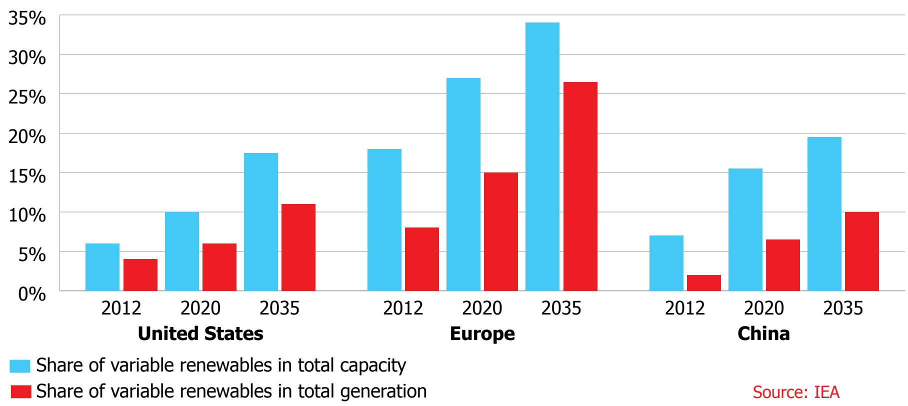


$57 billion
EU renewables subsidies in 2012, a 14% increase over 2011

$21 billion
Renewables subsidies in US in 2012, no change from 2011

$7 billion
Renewables subsidies in China in 2012. 2011 data is unavailable

Share of wind and solar power capacity and generation in the New Policies Scenario

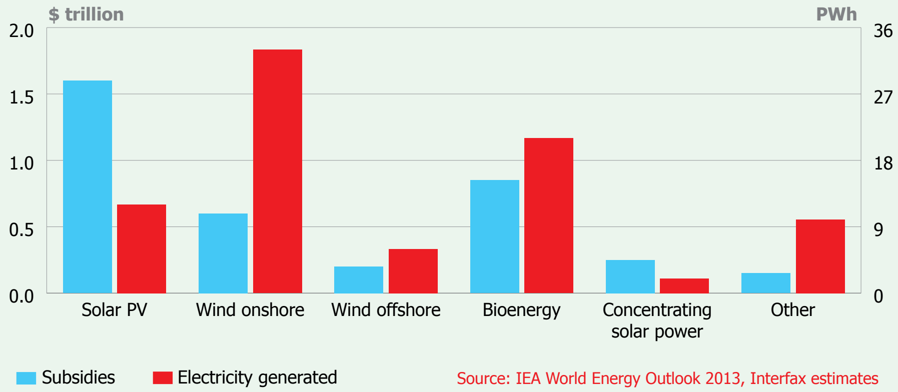


$35 billion
Subsidies for solar PV, 2012

$26 billion
Subsidies for wind, 2012

$17 billion
Subsidies for bioenergy, 2012

Global subsidies for renewable electricity generation in the New Policies Scenario, 2013-2035



The power sector will be decisive for the European gas demand and the prospects of gas will continue to depend on the relationship between gas, coal and carbon prices, according to the latest IEA *World Energy Outlook*.

"A gradual rebalancing in relative prices favours gas, notably because the extremely low carbon prices in Europe seen in recent years are not expected to persist: we assume they will rise from the current level of around $6 per ton (in mid-2013) to $20/t by 2020 and $40/t by 2035," the IEA said in its report.

Gas in Europe will also benefit from the expected closure of a number of coal plants because of the EU's Large Combustion Plant Directive, aimed at limiting emissions of certain pollutants from large combustion plants, in addition to a decrease in Europe's nuclear capacity as more plants are now being decommissioned than built. "These factors help to keep gas use in absolute terms on a rising trend," the report said.

However, the rising share of renewables and further European energy policy targets for 2030 could signal new efforts to improve energy efficiency and CO2 emissions reductions. "Both of which could further squeeze European gas demand prospects," according to the IEA.

$4.7 trillion
Cumulative global subsidies to renewables, 2013-2035

Renewables are estimated to have received $101 billion in subsidies in 2012, 11% higher than 2011. This includes $82 billion to renewables for electricity generation and $19 billion to biofuels for transport. According to the IEA report, the rise in 2012 was primarily a result of the increase in solar PV capacity, increased generation from capacity installed towards the end of 2011 and the greater onshore wind capacity. Subsidies for renewables were equivalent to one-fifth of the subsidies for fossil fuels.