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Main news

LNG: Supplies- Imports - Exports

- PT PLN and PT Pertamina signed a heads of agreement on liquefied natural gas supply for PLN's power plants in eastern Indonesia.
- Japan's additional demand for LNG in the wake of the earthquake and tsunami and the resultant shutdown of nuclear power generation capacity, is expected be around 10 million-15 million mt/year.
- Rasgas, the Qatar based LNG producer will deliver 4.5 billion cubic metres of natural gas a year to EDF.

LNG: Storage

- GDF Suez will provide China National Offshore Oil Corporation Ltd. with a vessel to store and regasify liquefied natural gas offshore.
- The recently inaugurated Gulf LNG terminal at Pascagoula, Missouri, has a capacity of 5 million tonne/year.

Natural Gas: Production

- GDF Suez E&P Nederland started-up r gas production from the G16a-C offshore field, located in the Dutch continental shelf.
- The current average production of natural gas in Pakistan is 4,058 million cubic feet per day.
- The Barzan Gas Project will produce around 1.9 billion cubic feet a day of natural gas from Qatar's Natural Resources in the North Field.

Natural Gas: Reserves

- Nigeria's gas reserves have remained stagnant in the last six years.

Natural Gas: Supplies- Imports - Exports

- Turkey and Azerbaijan signed agreements that would bring up to 6 billion cubic metres of natural gas to Turkey by 2017 and allow the transport of another 10 bcm via Turkey to Europe.

Natural Gas: Storage

- A Commons Energy and Climate Change Committee report indicates that UK needs to double its gas storage capacity by 2020.

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LNG

TRANSPORTATION-DISTRIBUTION

JAPAN: Planned project – Partnership agreement – CNR50/16/1

Osaka Gas Co recently agreed with **Mitsui O.S.K. Lines** to jointly own and operate **two liquefied natural gas carriers** for the utility's imports from new sources, including Chevron's Gorgon project in Australia. Mitsubishi Heavy Industries will build the two carriers, each capable of carrying 75,000 tonnes of LNG, with one expected to launch in 2014 and the other in 2015, the Osaka-based company said. Osaka Gas also plans to use the two carriers for LNG from an onshore field in Papua New Guinea, the statement said. (October 28, 2011)

SUPPLIES - IMPORTS - EXPORTS

INDONESIA: Supply contract – CNR50/16/2

State electricity company **PT PLN** and **PT Pertamina** signed recently a **heads of agreement (HoA) on liquefied natural gas supply for PLN's power plants in eastern Indonesia**. The electricity firm's primary energy director, Nur Pamudji said "The LNG will be delivered to 11 locations in eastern Indonesia. The total volume will be 930,000 tons a year for 10 years". A joint venture will be established to manage LNG transportation and necessary infrastructure. The joint venture company will be operated by Pertamina's subsidiary PT Pertamina Gas (Pertagas) and PT Indonesia Power, subsidiary of PLN. The 11 locations are Bontang, Samarinda (Tanjung Batu and Samberah), Batakan and Balikpapan in East Kalimantan, Pesanggaran in Bali, Tello and Jeneponto in

South Sulawesi, Pomala in Southeast Sulawesi, Minahasa in North Sulawesi and Halmahera in North Maluku. Pertamina senior vice president for gas Nanang Untung said that the first gas delivery might be in the fourth quarter of 2012 from the Bontang LNG field to gas-fired power plants in Bontang and Samarinda. "For Bali and other areas, we may begin delivery in 2013 because we need to rent LNG vessels and install other infrastructure" In addition to the Bontang LNG plant, he said gas might come from the Sengkang gas block in South Sulawesi, Donggi-Senoro LNG plant in Central Sulawesi and the Salawati block in Papua. Suryadi Mardjoeki, PLN's division head for gas and oil-based fuels, said that eastern Indonesian needed around 700 million standard cubic feet per day. (October 28, 2011)

JAPAN: Import forecast – CNR50/16/3

Atsunori Takeuchi, **Tokyo Gas's** chief representative in Asia Pacific, said recently that Japan's additional **demand for LNG** in the wake of the year's earthquake and tsunami and the resultant shutdown of nuclear power generation capacity, is expected be around **10 million-15 million mt/year**. "**The tsunami effect is around 10 million mt/year and in the maximum case, 12 million mt/year**," he said. "If you compare the LNG demand and supply for next year, taking into account the tsunami additional volume, even in the maximum case there will still be a surplus of 20 million mt," Takeuchi said. "But this scenario doesn't take into account the current bad economy, so the surplus will expand more. In the long term, LNG demand is satisfied by enough supply," he added. According to Tokyo Gas, the Asian LNG market is not tight, but oil-linked import prices are high. In contrast, domestic markets in the region are regulated and prices remain low, which means buyers in Asia, Taiwan or South Korea cannot afford to take expensive gas, Takeuchi added. (November 1, 2011)

QATAR to NETHERLANDS: Supply contract – CNR50/16/4

Rasgas extended recently a **long-term LNG supply deal** with **EDF** originally signed in 2007. The Qatar based LNG producer will deliver **4.5**

billion cubic metres of natural gas a year to EDF Trading at the Zeebrugge LNG Terminal. Rasgas declined to comment on the duration of the contract and did not give any pricing details. (October 30, 2011)

UNITED STATES: Supply contract – Agreement – CNR50/16/5

BG Group signed recently a firm **3.5m tonnes per annum** sale and purchase agreement (SPA) of LNG with **Cheniere Energy**. The SPA has a term of **20 years, starting from the date of first commercial delivery and also includes an extension option of up to 10 years**, Cheniere said. Under the terms of the free on board (FOB) agreement, BG will pay Cheniere a fixed take-or-pay fee of \$2.25/MMBtu to cover the procurement, liquefaction and loading costs at the Sabine Pass terminal in Louisiana, US, according a Cheniere filing with US regulators.

A second flexible component to the deal will see BG pay 115% of the NYMEX Henry Hub futures contract to source the volumes from the US natural gas pipeline system. If BG provides roughly 60 days of advance notice, the company can forfeit a cargo and hold no obligation to pay the Henry Hub-linked contract sales price. For Cheniere, a binding contract with BG puts it half way to wrapping up enough firm capacity to move forward with the 9mtpa first phase of liquefaction capacity that is scheduled to be built by Betchel. Souki said that **Cheniere needs to sell 7mtpa "to make the financing easy"** and move ahead with a final investment decision. If Cheniere reaches 7mtpa worth of firm contracts, the company will not contract out the remaining 2mtpa on the pair of 4.5mtpa trains because of maintenance constraints, Souki said. But there could be significant opportunities for Cheniere to sell equity cargoes if operations allow. (October 28, 2011)

STORAGE

CHINA: Planned project- Agreement – CNR50/16/6

GDF Suez said recently it will provide **China National Offshore Oil Corporation Ltd.** with a **vessel to store and regasify liquefied natural gas offshore**. GDF Suez has signed a

cooperation agreement with CNOOC to provide the LNG vessel, which can also be used to receive deliveries of LNG from abroad. GDF Suez already has a contract to provide 2.6 million metric tons of LNG to CNOOC between 2013 and 2017. (October 30, 2011)

ISRAEL: Planned project – CNR50/16/7

Israel will establish a large installation that will allow the **storage of natural gas off the coast of Israel**. The installation will be set off the coast of Hadera, about 10 kilometers off the coast, and will allow the importation of natural gas from other countries. The installation will also be able to store gas from the fields off Israel's coast, when they are developed. The installation will be able to store as much as **2.5 billion cubic meters of natural gas annually**. A contract with the government company that deals with the country's natural gas development to initiate the project was recently signed. (October 31, 2011)

SINGAPORE: Planned project – Expansion – CNR50/16/8

S Iswaran, Second Minister for Trade and Industry said recently that Singapore is prepared to **expand the capacity of its upcoming liquefied natural gas terminal** for spot trading. BG Group has filled orders for almost 90 per cent of its exclusive 3 million tonnes per year franchise to import LNG through the terminal, just over two years into its 20-year deal, Iswaran said. "Demand has been strong so BG's 3 million tonnes per year will be fully subscribed to soon. We started with two tanks then we announced a third, and we

have provisions to build additional tanks if we need to," said Iswaran. "The primary purpose (of the terminal) is to meet Singapore's energy needs, but we are prepared to leverage on this facility as a platform to facilitate trading." **The first two tanks of the terminal are expected to come online in early 2013**, with the third tank to be ready a year later. The facility is designed to allow for up to six tanks. Singapore's **electricity demand grew almost 9 per cent in 2010** to an all-time high, driven by strong economic growth, but moderated in the first quarter of 2011 as the economy cooled. (November 1, 2011)

UNITED STATES: Ongoing project – Commercial operation – CNR50/16/9

A formal ceremony at **Pascagoula, Miss.**, inaugurated recently the **Gulf LNG terminal**, equally owned by GE Energy Financial Services and El Paso Corp., Houston. A subsidiary of El Paso will operate the **5 million tonne/year terminal**.

Start-up of the terminal brings to 87.5 million tpy the amount of LNG import capacity operating along the US Gulf Coast. The Gulf LNG terminal sits near to Bayou Casotte Ship Channel in the Port of Pascagoula. It consists of two 160,000-cm storage tanks with combined capacity of 6.6 bcf; 10 vaporizers, providing a base

send out capacity of 1.3 bcfd; and 5 miles of 36-in. pipeline connecting to downstream pipelines owned by Gulfstream, Destin, Transco, and Florida Gas Transmission. The pipelines provide access to the Pascagoula gas processing plant operated by BP America Production Co. The Gulf LNG terminal is contracted under 20-year firm service agreements for all of its capacity. (October 28, 2011)

LPG

TRANSPORTATION-DISTRIBUTION

UNITED STATES: Planned project – Agreement – CNR50/16/10

Enterprise Products Partners L.P. and Chesapeake Energy Corporation announced recently that they have entered into a **long-term contract** whereby Chesapeake would anchor Enterprise's proposed **long-haul ethane pipeline from the Marcellus and Utica shale regions** in

Pennsylvania, West Virginia and Ohio to the U.S. Gulf Coast. The approximately 1,230-mile pipeline would have an initial capacity of 125,000 barrels per day of ethane and could be quickly expanded through a combination of additional pumping horsepower and pipeline looping. The pipeline could begin commercial operations in the first quarter of 2014. (November 2, 2011)

NATURAL GAS

EXPLORATION – DISCOVERY

AUSTRALIA: Discovery – CNR50/16/11

Chevron Corp. announced recently a further drilling success by its Australian subsidiary in the **Carnarvon Basin offshore Western Australia**. Chevron Australia is the operator of the WA-205-P permit and holds a combined 67 percent interest, while Shell Development (Australia) holds the remaining interest. The Acme West-1 well encountered approximately 377 ft (115 m) of net gas pay, while Acme West-2 well encountered 184 ft (56 m) of net gas pay. The two wells, located in the WA-205-P permit area, add additional resources adjacent to 2010's Acme discovery. (October 28, 2011)

CYPRUS: Agreement – CNR50/16/12

Energy and Natural Resources Minister Taner Yildiz said recently that **Turkey and the Turkish Republic of Northern Cyprus (TRNC)** will sign an **agreement on oil and gas exploration** in the TRNC. Yildiz said Turkey also intends to purchase

a vessel to carry out 3D hydrocarbon search, which would facilitate oil and gas exploration process. The Turkish research vessel "Piri Reis" will conduct oil and gas exploration and has already completed the first phase of work. (November 2, 2011)

EUROPE: Regulation – Environment – CNR50/16/13

The **European Commission** has taken recently a step towards better **protection for the Mediterranean Sea**, proposing for the EU to accede to a Protocol of the Barcelona Convention that protects the Mediterranean against pollution from **offshore exploration and exploitation activities**. The 'Offshore Protocol' requires a number of conditions to be met before exploratory activities can commence. Particular emphasis was put on the construction of platforms and rigs and necessity to follow the international standards and practices.

The protocol also envisages that no authorisation can be given if the activities are likely to cause significant adverse effects on the environment and it provides for liability and compensation. The EU is a Contracting Party to the Barcelona Convention for the protection of the marine environment and the coastal region of the Mediterranean, as well as Italy, Greece, Spain, France, Slovenia, Malta and Cyprus and 14 other non-EU Mediterranean countries. (October 27, 2011)

The 2nd Annual Unconventional Gas Asia Summit 2011



December 6-9, 2011, Beijing, China

Who should attend?

- ◆ Coal Mining Companies
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- ◆ International Gas Producers & Operators
- ◆ Independent, Mid caps Operators
- ◆ Junior Gas Producers & Operators
- ◆ Oil Services Companies
- ◆ Financial service and Law Firms & Consultancy
- ◆ Drilling Companies
- ◆ Technology Providers
- ◆ Seismic Equipment Service Providers

Main topics

- ◆ China's Regulation Environment & Commercial Viability-Updating new PSC and 8 Shale gas blocks for bidding
- ◆ The Global Perspectives on Unconventional Gas: Major Projects Updating & Experience Sharing
- ◆ The Latest Technologies about 3D Seismic, Drilling and Fracturing
- ◆ China CBM E&P and Production Commercialization China Shale Gas & CBM Projects Updating
- ◆ International Operators in China: Cooperation with China Domestic Players
- ◆ Legal and Financial Issues: Technical Transfer Agreement & Risk Management
- ◆ Environment Issues: Water, Climate and Healthy
- ◆ The Next Step: The Utilization of CBM & Shale Gas Production

Policy Updating

- ◆ CNPC-New Block for Bidding
- ◆ Dynamic PSC Strategy



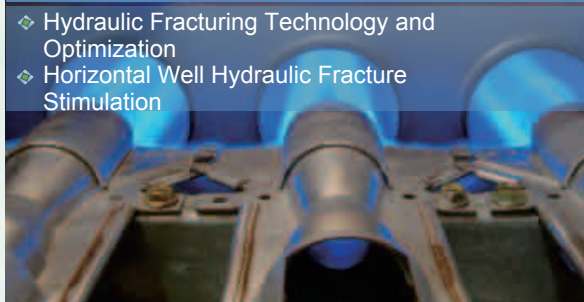
Experience Sharing

- ◆ China Current Projects Updating
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Advanced Technology

- ◆ Hydraulic Fracturing Technology and Optimization
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China & International Operators



Event at a Glance

December 6 Tuesday	Preconference Workshop	Water management: <i>How to address the relationship between Water, Climate & Health</i>	Advanced Technologies Boom- drilling technology impact the Unconventional Gas Developing
December 6 Tuesday	China Regulation Environment & Commercial Viability: Regulations	unconventional gas: <i>Principal Regions Experience Impact China Unconventional Gas Developing</i>	Panel Discussion: <i>Flexible Policy & Technical Innovation</i>
December 7 Wednesday	Unconventional Gas in China: <i>The Characteristics & Current Project Updating</i>	The New economic circle- <i>rives up China unconventional gas technical innovation</i>	Panel Discussion: <i>New Energy Circle</i>
December 8 Thursday		Site Visit	

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PAPUA NEW GUINEA: Discovery – CNR50/16/14

Singapore-based **RH Petrogas** reported recently that its wholly-owned subsidiaries Petrogas (Basin) Ltd and RHP Salawati Basin have made a new gas and condensate discovery in the **North Klalin-1 exploration well drilled in the Kepala Burung PSC** (Basin PSC), located in the Sorong area, West Papua. Recent drill stem tests conducted on the well produced **5.867 MMSCFD**

of natural gas on a 24/64' choke, with 137 BPD of condensate. The discovery in the North Klalin field is located close to existing production fields. It is therefore expected that development of the field could be accelerated with production commencing in early 2012. The Company through PBL and RHPSB has an aggregate 60% working interest in the Basin PSC. The other partners are PetroChina International (30%) and PT Pertamina Hulu Energy (10%). (October 24, 2011)

UNITED KINGDOM: Discovery – CNR50/16/15

Hurricane Exploration confirmed recently the presence of gas, gas condensate and light oil in the offshore gas field just west of the **Shetland Islands in the UK**. The company said that the "Whirlwind" exploration well (205/21a-5), which Hurricane has a 100 percent stake in, has tested positive for up to **301 million barrels of oil equivalent in gas condensate** and up to 373 million barrels of oil equivalent in light oil and gas. Hurricane's lowest estimates put the reserves of light oil and gas at 98 million barrels and 205 million barrels at best, and gas condensate, which was at a base of about 91 million barrels, rising to 179 million barrels best estimate. The well is now being suspended for further operations. (November 1, 2011)

PRODUCTION

AUSTRALIA: Planned project – Approval – CNR50/16/16

Inpex and Total have recently submitted two proposals to the **Northern Territory's** Department of Land Planning. **One permit is to build a gas processing plant at Blaydin Point**, on Darwin's Middle Arm peninsula. The partners plan to pipe gas from the Ichthys field, off the West Australian

coast, to produce liquefied natural gas at the Darwin plant. A second proposal was for the workers' accommodation about 30km from the Darwin CBD. The application for permits comes ahead of a final investment decision from Inpex and Total expected before the end of 2011. (October 21, 2011)

CYPRUS: Production forecast – CNR50/16/17

Cyprus Country Manager of **Noble Energy** John Tomich said recently "We were lucky enough to be very successful finding giant gas fields in Israel and we hope to replicate that in Cyprus". Speaking of the prospects of hydrocarbons **exploitation for Cyprus**, Tomich said "We are estimating that it would take 3-4 years from discovery to when the gas hits shore in Cyprus", Tomich said, adding that "technologically that is achievable". **It takes, he explained, 3-4 years to reach final investment decision** and another 3-4 years to construct a plant for liquefying, so 2018 would be a reasonable estimate. (November 2, 2011)

ITALY: Ongoing project – First gas – CNR50/16/18

Mediterranean Oil and Gas Plc announced recently that production had begun on the **Guendalina gas field**, an offshore gas field located in 42 metres of water, off the northeast coast of Italy. Mediterranean Oil and Gas hold a

20 percent interest in the field with Eni holding an 80 percent stake as operator of the field. MOG said that the field has been independently certified to hold **2P gas reserves of 22 Bcf**, and will produce approximately 20 MMcf/day of gas. (October 28, 2011)

MOZAMBIQUE: Ongoing project – Update – CNR50/16/19

Ebbie Haan, managing director of **Sasol Petroleum International** announced recently that the company will open soon its expanded **Pande/Temane processing plant** in Mozambique and is confident of **lifting gas production by 50 percent** to 183 million gigajoules by 2016. The plant supplies gas mainly to South Africa, and Haan said Sasol would raise production slowly because Sasol had not yet negotiated sales agreements with other end-users, either in South Africa or the rest of the region. Of the projected 2016 output, 23 percent would be destined for Mozambique's domestic market, Haan added. (November 1, 2011)

NETHERLANDS: Ongoing project – First gas – CNR50/16/20

GDF Suez E&P Nederland started-up recently gas production from the **G16a-C offshore natural gas field**, located in the Dutch continental shelf. The gas field is located about 133km north east of Den Helder in the Dutch sector of the North Sea. The company said the gas will be transported

through the offshore pipeline system of **Noordgastransport**, operated by GDF Suez E&P Nederland to the onshore gas treatment facilities in Uithuizen. GDF Suez E&P Nederland holds a 60% interest in the G16a licence, with EBN holding the remaining 40% stake. (November 1, 2011)

NIGERIA: Planned project – Gas flaring – CNR50/16/21

Shell's vice president for gas in sub-Saharan Africa, Osten Olorunsola said recently that Royal Dutch Shell Plc plans to collect gas at its Utorogu and Ughelli fields and start the Agbada non-associated gas increase daily **output to one billion cubic feet within a year from about facilities from the first quarter of 2012**, Olorunsola said. Shell cut gas flaring 50 percent in the African country to about 300 million feet a day in the eight years to 2010 after installing gathering infrastructure. (November 1, 2011)

PAKISTAN: Current status – CNR50/16/22

According to information provided recently to Senate Secretariat: at present, the **average production** of natural gas in the country is **4,058 million cubic feet per day**. The volume of gas, which is currently injected into Sui Northern Gas Pipelines (SNGPL) system from Punjab on average, is 140.535 mmcf and KP is 356.007

mmcf. There are **169 natural gas reservoirs in the country**. The OGDC had drilled wells in various parts of the country ranging in depth from 1000 metre to more than 5000 metre. **The cost of wells also varies from \$ 7 million to \$ 25 million**, depending on the depth of the well and geological and drilling complications encountered. (October 30, 2011)

QATAR: Planned project – CNR50/16/23

The Emir H H Sheikh Hamad bin Khalifa Al Thani said recently that the **Barzan Gas Project** will facilitate the development of Qatar. The Barzan Gas Project will **produce around 1.9 billion cubic feet a day of natural gas** from Qatar's Natural Resources in the North Field, which equates to 1.4 billion cubic feet of sales gas. It will be completed in two phases:

Train 1 will produce its first gas in 2014 and Train 2 in 2015. The Project will be managed and operated by RasGas Company Limited (RasGas), and when the two new trains are in operation, they will combine with other RasGas (LNG, condensates, liquid petroleum gas, and helium and pipeline sales gas) to produce around 11 billion standard cubic feet per day of natural gas. (November 2, 2011)

RUSSIA: Assets exchanges – CNR50/16/24

The Wintershall Holdings unit of Germany's **BASF** is strengthening its cooperation with **Gazprom** with a deal which will see Gazprom and Wintershall exchanging assets, resulting in the Russian company acquiring gas production in the **North Sea**. A statement released jointly by both parties said that Gazprom would receive half of Wintershall's assets in the North Sea, while

Wintershall will take an initial 25 percent interest in the **Urengoy field in Siberia**, and one share in the development of blocks IV and V. Wintershall retains the option to increase this stake to 50 percent in the future. The deal will also see Gazprom and Wintershall work together on two blocks of the Achimov formation of the Urengoy field in western Siberia. (October 28, 2011)

RUSSIA : Production forecast – CNR50/16/25

OAO **Novatek** Deputy CEO Mark Gyetvay said recently that the company will **double its gas output by 2020** and plans to expand its operations into the European market, as well as into the Asia-Pacific market. He also confirmed that the company will aim to produce around 65 billion cubic metres of gas a year by 2015. ((November 1, 2011)

UNITED KINGDOM: Ongoing project – First gas – CNR50/16/26

Wintershall launched recently its first gas production as operator in the British North Sea with the **Wingate platform**. The platform in the British offshore concession 44/24b will initially **produce 1.5 million cubic meters of natural gas**. A second production well is expected to

increase the production rate to three million cubic meters of natural gas as soon as next year. The natural gas will be transported via pipeline to the GDF SUEZ platform D15-A, situated 20 kilometers away in the Dutch North Sea. From this facility it will flow over a distance of about 300 kilometers to the Dutch mainland near Uithuizen. (October 18, 2011)

RESERVES

NIGERIA: Reserves forecast – CNR50/16/27

The Nigerian Association of Petroleum Explorationists, NAPE, said recently that Nigeria's gas reserves have remained stagnant in the last six years. The Managing Director, Niger Delta Petroleum Resources, Mr. Layi Fatona, said, "Nigeria is not discovering new gas and the only way to discover new gas is to do exploration work, and to do more exploration work is to have more investments and what that tells you is that nobody is investing in oil exploration and gas operation. All the gas we have found is through exploration for oil and if we have not found new gas it means we have not been exploring for oil". The Managing Director/Chairman, Chevron Nigeria Limited, CNL, Mr. Andrew Fawthrop, noted that there was the **need for a transition from just oil to oil and gas based economy**.

This, he pointed out was the enabler for exploration and commercialisation. Fawthrop, who was represented by the Director, Gas, CNL, Mr. Steve Freeman, said there was the need to determine the price of the commodity. He also stressed the need for effective guarantee for payments for the supply of the commodity. He maintained that when there are clear and consistent policies, players would be encouraged to make investments that would in the medium and long-run, transform the petroleum sector.

The Group Executive Director, Exploration and Production of Nigerian National Petroleum Corporation, **Dr. Andy Yakubu, placed the country's gas reserves at 184 trillion cubic feet.** Also placing the demand of the commodity at 225 trillion cubic feet, he stressed that the country needed to increase exploration activities (not only for oil, but for gas) to address the deficit of 41 trillion cubic feet, which is a huge shortfall. (October 31, 2011)

PROCESSING

CANADA: Planned project – Agreement – CNR50/16/28

Spectra Energy Corp struck recently multi-year agreements with **Progress Energy Resources Corp.** to provide natural **gas gathering and processing services** on the gas explorer's output in Northeastern **British Columbia**. Spectra said the deals affect 370 million cubic feet of natural gas a day from the Montney area in the foothills of

Northeastern British Columbia. The agreements with Calgary-based Progress provide for **210 million feet of new pipelines and processing capacity**, in addition to a renewal of current contracts, said Spectra. The U.S. Company said it will provide processing services to Progress at its Highway, Jedney and McMahon plants and the restart of the Aitken Creek gas plant. (October 20, 2011)

CANADA: Planned project – Expansion – CNR50/16/29

Encana Corporation recently reached a deal with **Pembina Pipeline Corporation** to expand the **Resthaven natural gas processing plant** in west central Alberta. Renee Zemljak, Encana's executive vice-president, marketing, midstream and fundamentals, said "Over the next number of years, we expect our **NGLs extraction to triple from about 10,000 barrels per day to about 30,000 barrels per day** following investment by industry-leading third-party midstream companies at three Alberta Deep Basin plants". Pembina plans to construct a 44 kilometres, 6 inch diameter natural gas liquids (NGL) pipeline to transport the extracted liquids from the Resthaven facility to Pembina's Peace Pipeline.

That pipeline delivers product into Edmonton, Alberta. Subject to regulatory approval, Pembina expects the new facilities **to be in-service in late 2013**. Once operational, the initial phase of the Resthaven facility will have gross capacity of 200 million cubic feet per day and 13,000 barrels per day of liquids extraction capability, with ultimate capacity of 300 mmcf/d. About 65 per cent of the Resthaven Facility will be owned by Pembina, while the company will own 100 per cent of the NGL Pipeline. (October 19, 2011)

CANADA: Planned project – Agreement – CNR50/16/30

Enbridge Inc. announced recently that it has reached **agreement to acquire an additional 13.3% interest in the Cabin Gas Plant Development**. The Cabin Gas Plant development is located 60 kilometers northeast of Fort Nelson, British Columbia in the Horn River Basin. Phase 1

will have 400 Mmcf/d of natural gas processing capacity. The plant is currently under construction and is expected **to be in-service in late 2012**. Phase 2 will add an additional 400 Mmcf/d of capacity and has been sanctioned by producers and received regulatory approval. The Phase 2 plant is expected to be ready for service in the third quarter 2014. (November 2, 2011)

UNITED STATES: Planned project – CNR50/16/31

Eagle Rock Energy Partners LP, Houston, will build a 125-MMcfd **high-efficiency cryogenic processing plant in Wheeler County, Tex.**, in the Texas Panhandle's Granite Wash natural gas play. Company plans call for construction of the Wheeler plant and associated systems to be completed in **early fourth-quarter 2012**. In addition, the company said construction of the 30-MMcfd expansion of its Phoenix-Arrington Ranch plant is complete and expects it shortly to be operating fully at 80 MMcfd. (November 1, 2011)

UNITED STATES: Ongoing project – Commercial operation – CNR50/16/32

Martin Midstream Partners completed recently the previously announced expansion at its **Waskom Gas Processing Co.** facility. The new gas processing capacity at the Waskom complex is 320 million cubic feet per day, an increase of more than 10 percent — 35 million cubic feet per day. (October 27, 2011)

TRANSPORTATION-DISTRIBUTION

IRAN to PAKISTAN: Planned project – Forecast – CNR50/16/33

Pakistan's minister of oil and natural resources said recently that **Iran-Pakistan natural gas pipeline will be finished before the end of 2013** one year ahead of the original schedule. Asim Hussain said feasibility study of the project has been already carried out and tender documents will be given to applicant companies soon. The

minister added that Pakistan will rapidly build its share of the pipeline and two gas compression stations along its southern coastal highway. Maximum daily gas transfer capacity of the 56-inch pipeline which runs over 900 km of Iran's soil from Assalouyeh in Bushehr Province to the city of Iranshahr in Sistan and Baluchestan Province has been given at 110 million cubic meters. (October 28, 2011)

RUSSIA to SOUTH KOREA: Planned project – CNR50/16/34

Alexei Miler, the head of Russian natural gas giant Gazprom, said recently that a proposed **natural gas pipeline to bring Russian gas to South Korea via North Korea** could be built and operational **by 2017**. Gazprom and top Russian officials have been pushing the construction of a 1,100-kilometer pipeline to connect Russia and South Korea rather than use the more expensive option of bringing LNG from Sakhalin Island.

Then **South Korean officials downplayed the significance of a roadmap** it had agreed with Russia to build a massive gas pipeline linking the two countries via North Korea, saying the project still has a long way to go. Officials said it is not legally binding and little more than wishful hopes for now. They stressed that any meaningful progress can come only after Russia and North Korea agree on pipeline transit fees. (November 2, 2011)

SERBIA: Planned project – Talks – CNR50/16/35

Serbian President Boris Tadic said recently that his **nation would like to join the Azerbaijan-Georgia-Romania-Interconnection (AGRI)** project. AGRI seeks to bring Caspian gas to the

Georgian Black Sea coast where it can be condensed before being shipped to Romania. Serbia is interested to "take part in as many gas pipeline projects as possible," Tadic commented. (November 2, 2011)

SUPPLIES - IMPORTS - EXPORTS

AZERBAIJAN to TURKEY: Supply contract – Agreement – CNR50/16/36

Turkey and Azerbaijan signed recently agreements that would bring up to **6 billion cubic**

metres of Caspian natural gas to Turkey by 2017 and allow the transport of another 10 bcm via Turkey to Europe, Turkish officials said. (October 28, 2011)

AZERBAIJAN to EUROPE: Planned project – Talks – CNR50/16/37

Nabucco Gas Pipeline International GmbH Managing Director Reinhard Mitschek said recently that the Nabucco Gas Pipeline Project expects **to receive 20 billion cubic meters of gas from Azerbaijan** in the long-term perspective. The gas produced within the second phase of the Azerbaijani Shah Deniz Field is considered to be the main gas source for the Southern Gas Corridor projects, including Nabucco. All the projects (Nabucco, ITGI and TAP) have already submitted final proposals to the Shah Deniz Consortium, **which will made the decision on the transportation route by late 2011.**

Mr. Mitschek said the Nabucco project wants to secure 10 billion cubic meters of gas from Shah Deniz II. And smaller developed fields in Azerbaijan could provide up to 4 billion cubic meters of gas in addition, he said. Mitschek said that an open season procedure will be held in the first half of 2012. Open season process involves putting on sale the capacity of the Nabucco pipeline. During the procedure, shareholders of the project will receive up to 15 billion cubic meters of gas per year (50 percent of the total transport capacity of the pipeline); the remaining 50 percent will be offered to third parties on equal conditions based on the principles of transparency. Mr. Mitschek said a final investment decision on the project will not be made until the end of 2012. The construction of the pipeline is scheduled for 2013, and the first gas supplies via the pipeline were expected in 2017. (November 1, 2011)

INDONESIA: Swap supply - Agreement – CNR50/16/38

The **Energy and Mineral Resources Ministry** announced recently that it had **approved an agreement to swap gas supply** from the Gajah Baru field in West Natuna, Riau Islands, and the Grissik field in South Sumatra. In the agreement, **Singapore will receive 140 million standard cubic feet per day from Gajah Baru**, while state electricity company PT PLN's Muara Tawar power plant in West Java will get 40 mmscfd from Grissik, which was previously allocated to Singapore. The delivery of the gas to Singapore and PLN would start in November 2011, he said. The price for Singapore was US\$17 per million British thermal units, while the price for PLN was set at \$9 per mmbtu, he added. The Grissik field, operated by ConocoPhillips, produces around

1,000 mmscfd of gas. About 300 mmscfd is delivered to Singapore, 340 mmscfd to state gas distributor PT PGN and the remaining 260 mmscfd is sent to PT Chevron Pacific Indonesia to support its production activities in Riau. In the agreement, the supply to Singapore will be reduced to 260 mmscfd. To compensate for the reduction, Singapore will get 40 mmscfd from Gajah Baru, operated by Premier Oil Natuna. Prior to the agreement, Singapore had a supply contract of 100 mmscfd from the field, so in November 2011 the total supply would be 140 mmscfd. The 40 mmscfd from Gajah Baru was previously allocated for PLN and would be delivered to Batam. However, due PLN's inability to construct a pipeline connecting the field and Batam, the gas would be shifted to Singapore. (October 10, 2011)

IRAN to SWITZERLAND: Supply contract – Delayed – CNR50/16/39

The **National Iranian Gas Export Company (NIGEC)** announced recently that the delay in sales of Iran's natural gas to Swiss EGL Company is due to **technical problems**. NIGEC Managing Director Hossein Bidarmaghz rejected some media reports that the Swiss EGL has imposed a ban on the purchase of natural gas from Iran. He added that Iran and the Swiss company were facing no contractual or legal problems for starting gas exports, said the report.

In March 2008, Iran's foreign minister and his Swiss counterpart announced that the two countries struck a strategic gas contract. According to the 25-year deal, Iran was supposed to deliver **5.5 billion cubic meters** of gas to the European country every year. According to the agreement, Iran was supposed to begin sending gas to Switzerland in 2009, but the Iranian officials have announced several reasons for the delay in sending the gas. According to Iran, the country is currently sending its natural gas to Europe via Turkey. "A daily average of over 24 million cubic meters of natural gas has been delivered to Botas Company since the beginning of the current year," said Bidarmaghz. (November 2, 2011)

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STORAGE

UNITED KINGDOM: Storage capacity – Forecast – CNR50/16/40

According to the **Commons Energy and Climate Change Committee** report, the UK needs to **double its gas storage capacity by 2020** in order to safeguard energy supplies. The UK has the capacity **to store just 14 days worth of gas**. In contrast to the UK's storage capabilities, France has 87 days worth of gas storage; Germany has 69 and Italy 59. Chair of the committee Tim Yeo MP, said that while the UK is "reasonably" energy secure that encouraging investment in gas storage will "improve our position and help to

reduce the impact of rising global energy price rises". Mr Yeo said: "In an uncertain world the UK needs to think hard about its energy security. The UK will become more dependent on energy imports as North Sea oil and gas declines, but prudent planning can ensure this doesn't reduce our energy security too drastically". The committee suggests three main types of underground gas storage could be used, including injection into water aquifers; into depleted oil and gas fields; and salt caverns, which together are described as underground gas storage. (October 26, 2011)



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