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LNG

PROCESSING

AUSTRALIA: Arrow becomes partner of Fisherman's Landing LNG Project – CNR/49/2/1

A revised Heads of Agreement (HoA) has been recently executed between LNG Ltd and Arrow Energy to establish the principles of a material restructure of the Gladstone 'Fisherman's Landing' LNG Project, to be located in Queensland. The revised HoA will assist the joint venture to achieve a final investment decision scheduled for the first quarter of 2010, and to provide increased certainty of the project's first LNG shipments from Gladstone in late 2012. Under the revised proposal, the Gladstone Fisherman's Landing LNG Project will be split into the design, construction and management of infrastructure division – known as InfraCo – and the LNG production arm, to be known as TrainCo.

Arrow will wholly own and develop TrainCo, which consists of a 1.5 million tonnes per annum train on land, under a sublease from InfraCo. The LNG train will include gas pre-treatment and liquefaction facilities. Arrow will also source the gas for the LNG train from its fields in the Surat Basin and subject to final agreed terms, will retain an option with InfraCo to develop an additional train. Golar Energy, which has a HoA with LNG Ltd for the sale and purchase of LNG from the first train, also plans to participate in the restructure proposal. (Gas Today, January 8, 2010)

INDONESIA: Donggi-Senoro LNG project may be delayed – CNR/49/2/2

The Donggi-Senoro natural gas project in Sulawesi, Indonesia, may be delayed because domestic buyers have offered too low a price for gas supplies. The Donggi-Senoro project, which will require \$1.7 billion for upstream activities and \$2 billion for downstream, was expected on stream in 2013. "If there is no agreement (with local buyers) by February, the development of the project will be delayed from its target of 2013," said Evita Legowo, head of oil & gas at the Mines & Energy Ministry. Potential domestic buyers include state electricity company PT Perusahaan Listrik Negara (PLN), gas distribution company PT Perusahaan Gas Negara (PGN), and some fertilizer companies. "Pertamina wants to sell at around \$5 per million British thermal unit. Local

companies want to buy below that price level, so there are still differences on prices," Legowo said. Pertamina has previously said it was seeking a price of \$6 per million BTU at the well head, which would translate to \$12 per million BTU for consumers on Java Island. Pertamina, Indonesia's PT Medco Energi International, and Japan's Mitsubishi had agreed to build the plant, which will have a capacity of 2 million tonnes per year. Pertamina and Medco previously agreed to sell 1 million tonnes of LNG from Donggi-Senoro to Chubu Electric Power Company and 1 million tonnes to Kansai Electric. The contracts were due to run for 15 years. Kansai pulled out because of uncertainty over the project but Chubu is still awaiting developments. (Upstream Online, January 11, 2010)

SUPPLIES - IMPORTS - EXPORTS

AUSTRALIA: Chevron and Nippon Oil announce LNG supply contract – CNR/49/2/3

Chevron announced recently the latest long term sales deal to supply natural gas from the Gorgon project. The deal will see the Nippon Oil Company take 300,000 tonnes of natural gas per year for the first 15 years of the project. In 2009, Chevron signed a heads of agreement with Korea Gas for the sale of 1.5 million tonnes of gas over the next 15 to 20 years. (ABC News, January 8, 2010)

AUSTRALIA: GLNG extends timeframe for more LNG supply to Petronas – CNR/49/2/4

Santos Ltd said recently that coal seam gas producer GLNG has extended the timeframe for GLNG to take up an option to supply additional liquefied natural gas to Malaysia's Petronas. Santos has a 60 per cent interest in the Gladstone LNG project (GLNG). Petronas owns the other 40

per cent. GLNG entered a heads of agreement to sell two million tonnes per annum of liquefied natural gas to Petronas, with an option for an extra one mtpa on the same terms should GLNG elect to supply. The agreement with Petronas underpins the volumes for the first train of the GLNG project. (AAP, January 11, 2010)

BANGLADESH: LNG imports needed to tackle gas shortage – CNR/49/2/5

Mohammad Hussain Monsur, chairman of Petrobangla said recently that Bangladesh will import liquefied natural gas to tackle its worsening gas shortage. "The energy ministry is taking necessary steps to import LNG as soon as possible". Bangladesh faces a daily shortage of more than 250 million cubic feet of gas shortages. Monsur said it would be first supplied to Chittagong port city that now received 170 mmcf of gas a day compared against demand for 300 Mmcf. (Reuters, January 13, 2010)

INDIA: Petronet may resume buying spot LNG in 2010 – CNR/49/2/6

The Director of finance of Petronet LNG, Amitava Sengupta, said recently that the company may resume spot purchases of liquefied natural gas in the second half of 2010. Petronet had halted spot LNG imports from December 2009 due to higher availability of local gas, mainly from a deepwater

block operated by Reliance Industries. Petronet aims to sign a three-year deal by end-February with global LNG players to buy 1.5 million tonnes LNG annually for local power producer Pragati Power Corp. "90 percent of our capacity is booked. We will have scope for 1 million tonnes on an annual basis or 2 spot cargoes a month," Sengupta said. (Reuters, January 20, 2010)

JAPAN: First LNG sourced gas flows in Inpex pipeline network – CNR/49/2/7

Inpex announced recently that it started to introduce LNG sourced natural gas from Shizuoka Gas Company into Inpex's natural gas pipeline network. Through a wide-spanning pipeline network extending approximately 1,400 km, Inpex currently supplies the natural gas produced in the Minami-Nagaoka Gas Field located in Niigata Prefecture and other gas fields in Japan, mainly to the city gas enterprises and commercial/industrial customers in the Tokyo metropolitan area and seven other prefectures spreading in the centre of Honshu Island, Japan. To meet the demand, LNG sourced natural gas from Shizuoka Gas Company and LNG import at Inpex's own Naoetsu LNG Receiving Terminal which starts its operation from 2014, will both strengthen Inpex's supply stability of natural gas. (Inpex press release, January 7, 2010)

STORAGE

BELGIUM: Zeebrugge LNG terminal received 82 vessels in 2009 – CNR/49/2/8

The especially high utilization rate of the terminal for liquefied natural gas in 2009 has contributed to the increased shipping traffic at the port of Zeebrugge. Fluxys LNG can receive up to 110 LNG ships per year at the Zeebrugge LNG terminal. The terminal was especially busy in

2009: a total of 82 LNG vessels docked at Zeebrugge compared with 43 in 2008. Of those 82 tankers, 78 unloaded their cargoes and 4 used the service to load LNG. The total volume of LNG unloaded at the terminal in 2009 was the equivalent of a third of Belgium's natural gas consumption in 2009. (Fluxys press release, January 7, 2010)

CANADA: Apache acquires a majority stake in Kitimat LNG terminal – CNR/49/2/9

Apache Corporation announced recently that its Apache Canada Ltd. subsidiary has agreed to acquire 51 percent of Kitimat LNG Inc.'s planned liquefied natural gas export terminal in British Columbia. Apache also reserved 51 percent of capacity in the terminal. The proposed Kitimat project, located at Bish Cove near the Port of Kitimat about 652 kilometres north of Vancouver, has planned capacity of about 700 MMcf of natural gas per day. G. Steven Farris, Apache's chairman and chief executive officer said. "Development of the Kitimat LNG project has the potential to open new markets in the Asia-Pacific region for gas from Apache's Canadian operations, including the Horn River Basin in northeast British Columbia, where our net estimated resource potential exceeds 10 trillion cubic feet of gas". "The economic fundamentals remain strong for exporting natural gas from Western Canada to international markets where natural gas is in demand, such as Asia," said Alfred Sorensen, CEO, Galveston LNG Inc., parent company of Kitimat LNG Inc. First LNG shipments are projected for 2014.

Apache will become operator of the project. Kitimat is designed to be linked to the pipeline system servicing Western Canada's natural gas producing regions via the proposed Pacific Trail Pipelines, a 463-kilometre project originating at Summit Lake, B.C. Through its acquisition of a 51-percent interest in the Kitimat project, Apache will acquire a 25.5-percent interest in the pipeline, currently a 50/50 partnership between Galveston LNG and Pacific Northern Gas Ltd. The proposed pipeline has received both the federal and provincial governments' environmental assessment approvals and has created an innovative arrangement to partner with the First Nations along the pipeline route. (Apache Corporation press release, January 13, 2010)

INDONESIA: Pertamina to build a LNG terminal in East Java – CNR/49/2/10

PT Pertamina plans to build another liquefied natural gas receiving terminal in East Java, president director Karen Agustiawan said recently. "The terminal will be a floating LNG terminal with a [receiving] capacity of about 500 million cubic feet," she said, adding that Pertamina would build the terminal alone. Pertamina is also in talks with PT PGN to build an LNG terminal located in West Java. Karen Agustiawan said the West Java LNG terminal would have the same capacity and need the same investment as that proposed for East

Java. She added. "We expect the projects to be completed in September 2011". Domestic demand for gas has increased significantly as state power utility firm PT PLN slowly converts its oil-fuelled power plants to gas-fuelled power plants. In August 2009, PLN said that the company would need 2,233 million standard cubic feet of gas per day in 2010, while the available supply is about 900 mmscfd. By 2012, PLN predicts its gas demand will be at 2,474 mmscfd, while the domestic supply may only be 1,781 mmscfd. (The Jakarta Post, January 19, 2010)

NGL

TRANSPORTATION-DISTRIBUTION

UNITED STATES: Crosstex acquires NGL Intracoastal Pipeline from Chevron – CNR/49/2/11

Crosstex Energy recently acquired the Intracoastal Pipeline, an approximately 60-mile natural gas liquids pipeline, from Chevron Midstream Pipelines. The Intracoastal Pipeline, which extends from Patterson to Henry in southern Louisiana, connects to Crosstex's Pelican processing plant and accesses other third-party processing plants in the region. NGLs produced at Crosstex's Pelican plant flow through the Intracoastal Pipeline to Crosstex's Cajun-Sibon NGL pipeline for delivery to the Partnership's Riverside fractionator. Crosstex's Eunice processing plant also is connected to the Cajun-Sibon NGL pipeline. (Energy Business Review, January 6, 2010)

NATURAL GAS

EXPLORATION – DISCOVERY

EGYPT: Apache tests oil and gas in Western Desert – CNR/49/2/12

Apache Corporation reported recently that its WKAL-A-2X discovery tested 5,085 barrels of oil and 130 thousand cubic feet of gas per day. This is the fourth successful exploration test in West Kalabsha Concession and the company's sixth discovery in the Faghur Basin play in Egypt's far Western Desert near the Libyan border. The

WKAL-A-2X discovery is located about one-half mile north of the Apache WKAL-A-1X discovery and five miles west of Apache's Phiops Field. Apache plans to drill seven additional exploration wells in the Faghur Basin play during 2010. Apache has applied for a development lease with the Egyptian General Petroleum Company. (Oilvoice, January 12, 2010)

PAPUA NEW GUINEA: InterOil Corporation tests more gas and condensate at Antelope-2 well – CNR/49/2/13

InterOil Corporation announced recently that during the second drill stem test at the Antelope-2 well in Papua New Guinea the well flowed at a stabilized rate of approximately 11 MMcfd on a 48/64 inch choke and the condensate-to-gas ratio averaged 20.7 barrels per million cubic feet of natural gas. This is a 15% increase in CGR from DST 1 which was performed at the top of the reservoir. (InterOil Corporation press release, January 11, 2010)

TRINIDAD AND TOBAGO: ONGC exits the offshore block North Coast Marine Area-2 – CNR/49/2/14

India's Oil and Natural Gas Corporation Videsh (ONGC) recently quitted an offshore gas block in Trinidad and Tobago after failing to engage a partner on the withdrawal of Mittal Investment Sarl (MIS) from the project. The offshore block North Coast Marine Area-2 (NCMA-2) was awarded to OMEL, a joint venture

between ONGC and MIS, in 2007. The gas block holds 2 trillion cubic feet of gas in place. MIS decided to exit the project in June 2009 stating the prospects and the global economic environment did not justify this investment. An ONGC official said "When we had bid for the block in Trinidad and Tobago, we had consciously decided not to take more than 51 per cent stake". We tried to get an international energy firm as partner but did not succeed, so we had no option but to exit the block," he added. (Oilvoice, January 8, 2010)

UNITED STATES: Forest Oil announces results of Texas Panhandle Granite Wash horizontal wells – CNR/49/2/15

Forest Oil Corporation announced recently results from its third and fourth operated horizontal Texas Panhandle Granite Wash wells. In December of 2009, the third operated horizontal well produced at a 24-hour production rate of 15.1 MMcf/d, 1,200

Bbls/d of oil and condensate and 2,400 Bbls/d of natural gas liquids, for an equivalent rate of 37 MMcfe/d. In January of 2010, the fourth operated horizontal well produced at a 24-hour production rate of 16.0 MMcf/d, 1,300 Bbls/d of oil and condensate and 2,200 Bbls/d of natural gas liquids, for an equivalent rate of 37 MMcfe/d. (Business Wire, January 14, 2010)

PRODUCTION

EAST TIMOR: Petronas invited to develop Greater Sunrise field – CNR/49/2/16

Petronas said recently it has been invited by East Timor's government to help develop an oil and gas field. Timor said it will block proposals by a consortium led by Australia's Woodside Petroleum Ltd. to develop the field. The Greater Sunrise field is estimated to hold 240 million barrels of light oil and 5.4 trillion cubic feet of natural gas. (The China Post, January 20, 2010)

EGYPT: GDF Suez, Shell Egypt and Vegas to speed up development of the Alam El Shawish gas discoveries – CNR/49/2/17

GDF Suez announced recently that it will sell a 20% participation in its Alam El Shawish concession to Shell Egypt, maintaining a 25% share. The deal with Shell is expected to allow the partners to accelerate the development of the Alam El Shawish gas discoveries. The new consortium will include Shell Egypt, which will

become an operator with 40%, GDF Suez and Vegas Oil & Gas (35%). Shell's accession as third partner and operator in the concession has been approved by the Egyptian authorities. The Alam El Shawish concession is located in the western desert area of Egypt. The production phase began in late 2007 and work is already underway to bring Alam El Shawish gas into production. (Energy Business Review, January 15, 2010)

ITALY: Po Valley to expand gas output in Lombardia – CNR/49/2/18

Po Valley Energy Ltd. Recently produced the first million cubic meters of natural gas at a field in Lombardia and will expand daily production to 70,000 cubic meters in the coming weeks. Po Valley, the first energy company to produce gas in the region since the government-mandated end of Eni SpA's monopoly in 1998, is currently pumping 50,000 cubic meters a day. The company plans to start production from a second site in Sillaro, near Bologna, in 2010. (Bloomberg, January 12, 2010)

JAPAN : Dispute over gas field in East China Sea – CNR/49/2/19

Chinese Foreign Minister Yang Jiechi reiterated recently to Japan's Foreign Minister Katsuya Okada during that Beijing has sovereignty over the disputed gas field it is developing in the East China Sea. Okada told Yang that Japan will take countermeasures if China begins gas production in the Chunxiao gas field, known as Shirakaba in Japan, arguing such action is a violation of a 2008

agreement to jointly explore the gas resources in the East China Sea. Chinese Foreign Ministry spokesman Ma Zhaoxu quoted Yang as telling Okada that the Chunxiao field is not subject to joint development with Japan, and that Okada should differentiate the field from others that the two countries agreed to jointly develop under the 2008 accord. (The Japan Times, January 20, 2010)

NETHERLANDS: Production started from Geesbrug gas field – CNR/49/2/20

Northern Petroleum and its partners announced recently the start of production from the Geesbrug gas field. This brings into production reserves independently assessed at 165 Proven plus 142 Probable billion cubic feet. Geesbrug is the second of four gas and two oil fields in the onshore development program being undertaken by Northern and its partners. The gas from Geesbrug is being delivered via a dedicated pipeline to the NAM operated Coevorden-17 facilities. Over the next few months gas production from Geesbrug initially will be 200,000 normal cubic metres a day. After this initial evaluation period Northern expects to be able to significantly increase the production rate from the existing well and potentially drill several further production wells. Until then the combined production net to Northern from Geesbrug and the recently commissioned Grolloo gas field will be 6.7mmscfd. Partners in the well are Northern Petroleum Nederland B.V. with 45%, EBN, the state oil company and Dyas B.V. with 40% and 15%, respectively. (Northern Petroleum press release, January 8, 2010)

UNITED KINGDOM: Gas production requires more investment to secure supply – CNR/49/2/2

Oil & Gas UK's energy policy manager, David Odling, recently warned against downplaying the remaining potential of the UK's indigenous gas in securing its energy supplies. Oil & Gas UK believes that up to 1.5 trillion cubic metres of gas remain to be developed and produced from the UK continental shelf (UKCS). Assuming domestic production and imports each satisfy half of UK's demand, this could last for some 30 years. Mr. Odling said "While the new field allowance announced in the last Budget encourages investment in some difficult fields, it needs to be extended to apply more broadly. In particular, a

fifth of our gas resources lie to the west of Shetlands, but their remote location makes them expensive to develop; an extension of the allowance would help them attract the investment required to bring this gas ashore". He added: "In terms of securing our energy supplies and maximizing tax revenues and energy-related employment in the UK, it would be a big mistake to leave our own gas resources beneath the seabed. The government should now work with the industry to rebalance the tax regime to ensure we make full use of our own resources; frankly, our experience over the last few days clearly demonstrates that the country cannot afford to do otherwise". (Energy Business Review, January 8, 2010)

UNITED STATES: EIA forecasts gas production down by 3% in 2010 – CNR/49/2/22

The U.S. Energy Information Administration recently raised its estimate for domestic natural gas production in 2010 but still expected output this year to be down 3 percent from 2009 levels. In its January Short-Term Energy Outlook, EIA said it expected marketed natural gas production to be down 1.8 billion cubic feet per day, or 3 percent, in 2010, primarily due to steep declines from initial production at newly drilled wells and the lagged effect of reduced drilling activity. EIA also forecast U.S. natural gas consumption in 2010 would average about 62.44 bcf per day, little changed from 2009 demand of 62.45 bcf daily, as growth in residential, commercial and industrial use is offset by declining demand from the electric power sector. (Reuters, January 12, 2010)

UNITED STATES: Gain in gas productivity may end imports – CNR/49/2/23

Consulting firm Bentek Energy LLC announced recently that surging productivity from U.S. fields will end the need for natural-gas imports. "We may very well be on the cusp of a completely different energy era than we've had for the last 30 or 40 years," Bentek Chief Executive Officer Porter Bennett said. Bentek predicted in 2008 that output gains could push Canadian imports and liquefied-gas cargoes sent by tanker ships out of the U.S. market by 2020. "A drilling rig today produces about two to three times what it did a couple of years ago," said Bennett, 57. He said productivity gains were driven largely by advances in exploiting shale formations. Bennett said gas prices may average \$3 to \$5 this year, with

weather-related heating demand in the next 60 days playing a big role. The U.S. is off to its coldest start to winter since 2000, according to AccuWeather Inc., which said cities such as New York and Chicago are on track for their lowest average temperatures in 30 years. Gains in gas productivity could allow the U.S. to reduce coal-fueled power generation, the biggest source of greenhouse-gas emissions, by at least 20 percent, Bennett said. He said there's a good chance the country can produce as much gas as it needs with prices in the range of \$3 to \$6, and companies should be able to resolve environmental concerns over shale-gas drilling if opponents aren't simply trying to stop production. (Bloomberg, January 8, 2010)

PROCESSING

SAUDI ARABIA: Khursaniyah gas plant ready for production – CNR/49/2/24

Mr Majid Al Mugla VP for project management of Saudi Aramco said recently that "Khursaniyah gas plant is commissioning, the first unit finished and will produce this week." He added that the second unit will start production in 2 to 3 months. The plant has capacity to process around 1 billion cubic feet per day of sour gas from the Abu Hadriya, Fadhili and Khursaniyah fields. Khursaniyah oilfield started output in September 2008, even though the gas plant was incomplete. The facility would have the capacity to produce 560 million cubic feet per day of sales gas and 280,000 barrels per day of ethane and natural gas liquids. About 450 million cubic feet per day of gas from the Phase I of the Karan gas project is expected to come online by mid 2011. (Arabian Business.com, January, 17, 2010)

TRANSPORTATION-DISTRIBUTION

AUSTRALIA: APLNG awards pipeline contract from the Surat and Bowen basins to Gladstone – CNR/49/2/25

A contract to build a 450 kilometer gas transmission pipeline for the Australian Pacific LNG (APLNG) Project has been recently awarded to the McConnell Dowell and Consolidated Contractors joint venture. The scope of the works includes the design, engineering and construction of the pipeline to transport coal seam gas from the Surat and Bowen basins to a proposed LNG processing site located at Laird Point on Curtis Island, Gladstone. Construction on the pipeline will start in late 2011 with completion expected by

the end of 2013, subject to a final investment decision for the project by APLNG joint venture partners Origin Energy and ConocoPhillips scheduled for the end of 2010. A joint venture between Baulderstone and Bilfinger Berger Services has also been awarded the upstream facilities contract for the project. The APLNG Project will involve a four train CSG to LNG development utilizing Origin's Queensland CSG reserves and resources. Origin will act as the upstream CSG operator and ConocoPhillips will be the downstream LNG operator, with the joint venture company to market the LNG. (Gas Today, January 8, 2010)

EUROPE: Half of the Nord Stream gasline capacity already covered by contracts – CNR/49/2/26

Mattias Warnig, Managing Director of Nord Stream AG said recently that Gazprom has entered contracts on sale of gas to Germany, Denmark, France and Great Britain. The contracts cover half of the gas planned to be transported through the Nord Stream pipeline. Construction of the pipeline will begin in April 2010, but already buyers for half of the gas that will be transported to Europe have been found, he said. Nord Stream will be 1,220 kilometres long and will consist of two parallel lines. The first one, with a transmission capacity of around 27.5 billion cubic meters a year is due for completion in 2011. The second line is due to be completed in 2012, doubling annual capacity to around 55 billion cubic meters. Nord Stream is a joint project of Gazprom (51%), BASF/Wintershall (20%), E.ON Ruhrgas (20%) and Gasunie (9%). (Barents Observer, January 19, 2010)

IRAN: German firm inks gas compressor deal with IGEDC – CNR/49/2/27

Iranian Gas Engineering and Development Company (IGEDC) signed recently a deal with a German firm to help improve gas distribution grid. The IGEDC director, Alireza Gharibi, said that according to the contract the German firm agreed to manufacture, install and commission 100 gas-

fuelled turbines and turbo-compressors. "The technical knowledge for manufacturing the turbo compressors would be transferred to Iranian experts" he added. "The German company is to terminate installation of the gas turbo compressors until the end of Iran's fifth development plan," Gharibi said. (Tehran Times, January 20, 2010)

RUSSIA : Gazprom's orders support domestic pipeline industry development – CNR/49/2/28

Gazprom Headquarters hosted recently a meeting dedicated to pipe products supply to the Company in 2010–2012. The meeting participants addressed the issues related to the process of planning and arranging supplies of domestically manufactured large diameter pipes for Gazprom in the upcoming triennial period. Special attention was paid to timely delivery of pipes for top priority gas transmission projects in Russia. In particular, construction of the Bovanenkovo–Ukhta gas trunkline system, the Sakhalin–Khabarovsk–Vladivostok gas transmission system, the Gryazovets–Vyborg, the Pochinki–Gryazovets and the Dzhubga–

Lazarevskoye–Sochi gas pipelines. It was noted that Gazprom's orientation toward the procurement of domestically manufactured competitive pipe products provided considerable support to Russia's metallurgical industry development. (Gazprom press release, January 13, 2010)

RUSSIA: Gazprom launches Portovaya compressor station construction – CNR/49/2/29

Construction of the Portovaya compressor station (CS), which is part of the Gryazovets – Vyborg gas trunkline, was recently launched in the Portovaya Bay near Vyborg, Leningrad Oblast. The compressor station will be a starting point for gas supplies via the Nord Stream gas pipeline. The Portovaya CS will be a unique gas transmission facility in terms of aggregate capacity, working pressure (220 Ata), gas transmission distance and daily gas dehydration volume.

The station will secure gas transmission over the distance of 1,200 kilometers via the Nord Stream and no extra compressor stations will be built on the German coast. The first-stage compressor capacities at the Portovaya CS are projected to be put onstream in 2011, with the subsequent increase up to 366 MW by late 2012. The Portovaya CS will comprise 6 gas-pumping units (GPU) with the capacity of 52 MW and 2 GPU with the capacity of 27 MW. The gas treatment unit (GTU) of the Portovaya CS is designed to dehydrate 120 million cubic meters of natural gas daily. The first phase of the GTU is to be installed by late 2010, the second – by late 2011.

The Gryazovets–Vyborg gas trunkline (length – 900 kilometers, annual design capacity – 55 billion cubic meters) is intended for securing gas deliveries from the Unified Gas Supply System to the Nord Stream gas pipeline and supplying consumers of Russia's Northwestern region. The gas pipeline will cross the Vologda and Leningrad Oblasts. By now, over 600 kilometers of the pipeline have been built. The linear part is to be completed by late 2010. (Gazprom press release, January 15, 2010)

UNITED KINGDOM: Department of Energy and Climate Change publishes guidance to inject biomethane into gas grid – CNR/49/2/30

The Department of Energy and Climate Change (DECC) published recently guidance to inform producers of biogas of the legal, technical and regulatory requirements of injecting renewable gas into Britain's gas grid. The document was published after the government committed to the move in the UK Renewable Energy Strategy in July 2009. The guidance is designed to help producers of biogas, who may not have considered injecting it into the gas grid, to make an informed choice between the various marketing options. Biogas is a term used to refer to a combustible gas created by anaerobic digestion of organic material, and composed of approximately 60% methane, 40% carbon dioxide, and other trace levels of contaminants. Subject to meeting gas quality requirements, biomethane is considered as pipeline quality gas and can be injected into the natural gas network and used in existing gas appliances. It is expected that such

biomethane injection might contribute towards meeting the UK's 2020 renewable energy targets. DECC explains that in order to convert biogas to biomethane, the main requirement is to remove the majority of the carbon dioxide, as well as some of the trace impurities. It notes that there are a number of commercial technologies to perform this "clean up", including water scrubbing, selexol absorption, cryogenic separation, membrane separation, and pressure swing adsorption processes. Also mentioned in the guidance is the proposed financial support subsidy for heat, the Renewable Heat Incentive (RHI), which is due to be implemented in April 2011. The report confirmed that the government intends to consult on the arrangements for the RHI in January 2010, including how biomethane injection into the gas grid could be supported. All biomethane projects that come forward between 15 July 2009 and the start date of the RHI, and that meet the relevant criteria, may be eligible for support under the RHI. (Energy Business Review, January 12, 2010)

UNITED STATES: Merrill Lynch secures excess firm capacity on Western BC pipeline – CNR/49/2/31

Merrill Lynch Commodities Inc recently extended to June 30, 2010, its option to contract for 75 MMcf per day of firm gas transportation service using existing capacity on Pacific Northern Gas' Western BC pipeline system. A non-refundable option extension fee has been paid by MLCI to PNG to extend to June 30, 2010, an exclusive option granted by PNG to MLCI in March 2009 to contract for firm gas transportation capacity for a two to five year primary term, with a right to renew for an additional two to five year term. If the option is exercised, the commencement date for the transportation service is expected to be between January 1, 2012 and January 1, 2013. (Energy Business Review, January 7, 2010)

UNITED STATES: Ruby Pipeline Project receives final EIS from FERC – CNR/49/2/32

Federal Energy Regulatory Commission recently issued the final EIS for the Ruby pipeline project. The Ruby Pipeline Project would extend 675 miles from an interconnect with existing pipelines near Opal, Wyo., across northern Utah and Nevada to interconnects east of Malin, Ore., according to its sponsor, Ruby Pipeline LLC. It would include four compressor stations with 160,500 hp of total capacity in addition to the 42-in. line with an initial capacity of 1.5 bcf/d of gas, the El Paso Corp. subsidiary said. FERC said its final EIS decision was based on factors including more than 44% of

the project using existing right-of-way or land nearby, Ruby's commitment to design and operate the pipeline in accordance with US Department of Transportation regulations, and Ruby's plans to implement site-specific or activity-specific plans, procedures, and agreements to protect natural resources, avoid or limit environmental impacts, and promote restoration of disturbed areas. The project's sponsor said that construction could begin later 2010 after all permits are obtained, with an estimated March 2011 in-service date. (Oil & Gas Journal, January 11, 2010)

SUPPLIES - IMPORTS - EXPORTS

AZERBAIJAN: SOCAR modernizes infrastructure to increase gas supplies to Iran – CNR/49/2/33

In summer 2010, SOCAR (State Oil Company of Azerbaijan) and National Iranian Gas Export Company (NIGEC) will sign a long-term contract for the supply of Azerbaijani gas to Iran, SOCAR President Rovnag Abdullayev said recently. Currently, work is underway on preparation of the contract. Prior to its signing, Azerbaijan will complete the reconstruction of infrastructure, expansion of a gas compressor station in Astara and repair work on the Hajigabul-Astara pipeline. Abdullayev said that this will enable to export Iran three to five million cubic meters of gas per day. Currently, the infrastructure enables to transport Iran 2.2-2.3 million cubic meters of gas per day.

Today, of this volume, 1 million cubic meters per day is delivered to Iran under swap operations in order to supply gas to Nakhchivan Autonomous Republic, which has no common border with Azerbaijan. The head of SOCAR said that signing a long-term contract is expected in summer in order to increase gas supplies to Iran in autumn. Upon the long-term contract, the annual supply of Azerbaijani gas to Iran could reach 1.5 billion cubic meters and more. Azerbaijan and Iran are connected with the Gazi-Magomed-Astara-Bind-Biand gas pipeline length 1,474.5 kilometers, including 296.5 kilometers in the territory of Azerbaijan. Its design capacity was 10 billion cubic meters a year, now it is lower. This route is a branch of the Gazakh-Astara-Iran pipeline commissioned in 1971.

Three compressor stations, including in Gazi-Magomed, Aghdash and Gazakh, were built on its route. The transmission system is designed to pressure 55 atmospheres. The pipe's diameter is 1200 mm. (January 16, 2010, in partnership with TREND News Agency, <http://en.trend.az/>)

AZERBAIJAN: Gazprom ready to buy all the gas available – CNR/49/2/34

Gazprom CEO Alexei Miller said recently that Gazprom was prepared to buy all the gas that Azerbaijan could supply. "The specifics of the contract with Azerbaijan are that there is no upper limit for gas purchases. This is Gazprom's sole contract which prescribes such conditions. We are ready to take as much gas as our Azerbaijani colleagues are prepared to supply," Miller said. The two states signed a contract on October 14, 2009, under which Azerbaijan was to supply 500 million cu m of gas to Russia from January 1,

2010, with the possibility of increasing the import levels. The Azerbaijani State Oil and Gas Company said in December 2009 that Azerbaijan would double natural gas supplies to Russia to 1 billion cubic meters per year from 2010. Miller also said that Gazprom was prepared to boost gas supplies to Turkey, if necessary. "In recent years, Turkey has regularly asked us about gas supplies above the contracted volume in winter time... We have always met Turkey halfway and supplied additional volumes," Miller said. (RIA Novosti, January 19, 2010)

AZERBAIJAN: Georgia receives about 2.3 million cubic meters of gas per day from SOCAR – CNR/49/2/35

A source in SOCAR said recently that, at present, Azerbaijan exports about 2.3 million cubic meters of its own gas per day to Georgia as a part of SOCAR's activities in the Georgian market. SOCAR carries out gas supplies to Georgia via a pipeline linking the two countries in the Gazakh region of Azerbaijan. The pipeline's capacity is about three billion cubic meters of gas per year. In November 2008, Azerbaijan and Georgia signed the agreement to stir up SOCAR's activity on Georgian gas market during next 5 years beginning

from 2009. Under the agreement, SOCAR will launch subsidiaries to supply gas to consumer groups pinpointed by the Georgian government. In December 2008, SOCAR and the Georgian Government signed an agreement to operate 30 gas supply grids and gas distribution networks in the Kakheti, Mtskheta-Mtianeti, Shida and Kvemo Kartli, Ajaria, Guria, Imereti, Samegrelo regions of Georgia.

These networks are operated by 24 companies. The sides also signed an agreement on gas deliveries for five years, including to social groups of subscribers identified by the Georgian government under the invariability of prices within five years. SOCAR received the networks in February 2009. In April 2009, SOCAR Energy Georgia acquired a gas distribution network in the Marneuli region populated by Azerbaijani community. In 2009, the company transferred about 302 million cubic meters of social gas and 140 million cubic meters of commercial gas to the Georgian market, a source in SOCAR Energy Georgia said earlier. (January 16, 2010, in partnership with TREND News Agency, <http://en.trend.az/>)

COLOMBIA: Pacific Rubiales starts gas supply to San Andres Province – CNR/49/2/36

The president of Canada's Pacific Rubiales Energy said recently that the company will begin shipping natural gas from mainland Colombia to the nation's Caribbean province of San Andres in mid-2010. Ronald Pantin said that Pacific Rubiales plans to send 36 million cubic feet per

day of compressed gas to San Andres, which lies off the coast of Nicaragua. He said the initiative would reduce energy costs for San Andres and provide an outlet for gas that Pacific Rubiales is currently leaving in the ground due to limitations in pipeline capacity. (Bogota Free Planet, January 18, 2010)

EGYPT: Sudan seeks to buy gas – CNR/49/2/37

Egypt has received recently a formal request from Sudan to ink a gas supply deal. The Egyptian petroleum minister Sameh Fahmy said that his government is considering supplying its southern neighbor with natural gas to meet its growing energy demand. (Sudan Tribune, January 11, 2010)

UNITED KINGDOM: Ofgem foresees threat to gas supplies – CNR/49/2/38

Alistair Buchanan, chief executive of Ofgem, said recently that there was a risk that new gas supplies from Russia and the Caspian region might not be available in time to meet UK demand as domestic gas production fell. The warning comes after a week in which Britain's gas system came under strain in the cold weather. National Grid, which runs the gas transmission network, said the system has worked well. Four times in eight days it issued gas-balancing alerts to encourage increased supply and reduced demand, and each time the system responded. Organizations representing manufacturers and big energy users say they are "concerned at the complacent nature of some of the comments about the UK's energy supply" following last

week's disruption. "As a nation, we need to take security of our energy supply more seriously". Ministers think UK demand for gas will fall sharply between now and 2020, in part because of steps to cut CO 2 emissions. But Ofgem thinks demand may stay around its present level because energy efficiency improvements may not deliver hoped-for savings, and power generators will be increasingly reliant on gas-fired plants that are cheap and quick to build. Mr. Buchanan said the Ofgem analysis raised the prospect that the UK strategy of creating one of the world's most liberalized and competitive energy markets might not work amid global supply shortages. He said: "The question is: is the Anglo-Saxon model robust enough to handle the challenge we face?». (Financial Times, January 13, 2010)

UZBEKISTAN: Gas supply to Tajikistan reduced by 50% – CNR/49/2/39

Uzbektransgaz recently reduced its supplies of natural gas to Tajikistan by 50% due to a dispute over payment. Shavkat Shoimov, deputy head of Tajikistan's state-owned Tajiktransgaz said Uzbektransgaz demanded prepayment for gas, but his country does not "have such means and there are no free resources." Shoimov said, "We do not have funds to make prepayments now.

Funds we have are enough for only 2 or 3-day gas shipments," he said. "This is the reason for gas supply cuts from 480,000 cu m to 240,000 cu m/day," said Shoimov, who added that his firm in turn has had to impose cuts on to Tajik factories. "In an effort to end this cycle of debt and supply cut-offs, Uzbekistan last year began requiring its main gas debtor countries, Kyrgyzstan and Tajikistan, to make prepayments for gas

supplies," an analyst said. Tajiktransgaz and Uzbektransgaz signed recently an agreement on Uzbek gas shipments to Tajikistan in 2010. Under the agreement, Tajikistan is due to import 250 Mcm of gas from Uzbekistan in 2010. Tajiktransgaz head Saidmamat Sharofiddinov said the gas price would vary quarterly depending on the on world market trends Sharofiddinov also said that Tajikistan would buy Uzbek gas on a take-or-pay agreement and that under the contract "The conditions remain the same—we will make prepayments every 10 days.". (Oil & Gas Journal, January 11, 2010)

STORAGE

EUROPE: Gas storage capacity in Western Europe forecasted to nearly double by 2025 – CNR/49/2/40

According to PricewaterhouseCoopers, gas storage capacity in Western Europe is expected to be nearly doubled by 2025. Reinhard Ruemler, Robert Senger and Stefan Tenner, from PWC's energy team, indicated that the boom in storage is fuelled mainly by supply security concerns, rising imports from the Middle East and an increasing popularity of gas-fired power stations. Western Europe's gas storage capacity will be nearly doubled from the current 66 billion cubic meters to 125 bcm until 2025. Germany, which already is the largest storage market in Europe, is due to

increase its capacity from 20 bcm to 28 bcm. Italy will boost its storage capacity by 79 percent to 25 bcm, with Britain even planning to triple its capacity by 2020 to 13.5 bcm. Austria, Spain and the Netherlands are all planning to roughly double their storage capacity. In France, the authors said "In the French market storage capacity is allocated by the storage systems operator only to companies that have access to end customers". "While this regime meets mandatory public obligations such as security of supply, it limits third party access to storage and hence the development of a liquid and liberalized market". (EU News Network, January 19, 2010)

UNITED KINGDOM: King Street Energy receives approval to develop Northwich storage facility – CNR/49/2/41

King Street Energy, a Glasgow-based gas storage developer, won recently government approval to develop ten underground caverns in the salt deposits of Northwich, Cheshire, UK. The Department of Communities and Local Government has also given planning permission for a twin pipeline from Cheshire to the Mersey Estuary, which will enable sea water to be used to create the caverns safely. King Street Energy indicated that the facility will have capacity of a 240 million cubic metre. (Energy Business Review, January 15, 2010)

UNITED STATES: Blue Sky halts its project of gas storage facility in Logan County – CNR/49/2/42

Blue Sky Gas Storage, which received an order granting a certificate for a proposed gas storage project in Logan County from the Federal Energy Regulatory Commission (FERC) in December 2009, sent recently a declining to accept the certificate. Blue Sky said that the efforts to find an investor that could provide necessary injection of capital has been unsuccessful. For that reason, Blue Sky will not be able to go forward with the

project and must decline to accept the certificate issued for the project. The project, which was recommended for approval by the Logan County Planning Commission in December of 2008, was to be generally located at the intersection of County Road 35 and C.R. 66, all north of C.R. 37, south of C.R. 31.2 and west of C.R. 68 in Logan County. The depleted and abandoned Armstrong Field was planned to be redeveloped for subsurface storage of natural gas. Plans called for a total of 10 gas storage well pads, (Journal-Advocate, January 6, 2010)

UNITED STATES: Gill Ranch Storage, LLC breaks ground on UGS facility in California – CNR/49/2/43

Gill Ranch Storage, LLC, a subsidiary of NW Natural announced recently it has begun construction of a new underground natural gas storage facility at Gill Ranch near Fresno. In 2007, NW Natural entered into a joint project agreement with Pacific Gas & Electric Company, a subsidiary of PG&E Corporation, to develop the project. The Gill Ranch natural gas storage project will provide approximately 20 billion cubic feet of underground gas storage once the initial phase is completed, targeted for August 2010. The storage development will utilize depleted, sandstone natural gas reservoirs. Storage is located about 25 miles west of Fresno and will include an approximately 27-mile, 30-inch pipeline, which will connect to the PG&E Line 401 north of Panoche, Calif. (Business Wire, January 11, 2010)

UNITED STATES: Inergy to acquire Seneca Lake gas storage in New York State – CNR/49/2/44

Inergy, L.P. announced recently that its wholly-owned subsidiary, Inergy Midstream, LLC, has executed a definitive agreement to purchase the Seneca Lake natural gas storage facility located in Schuyler County, New York, and two related pipelines for approximately \$65 million from New York State Electric & Gas Corporation. Seneca Lake is an approximate 2.0 billion cubic feet underground salt cavern storage facility located on Inergy's US Salt property outside Watkins Glen, NY, and has a maximum withdrawal capability of 145 MMcf/day and maximum injection capability of 75 MMcf/day. Seneca Lake

is connected to the Dominion Transmission System via the 16-inch, 20 mile Seneca West Pipeline and indirectly to the city gate of Binghamton, NY, via the 12-inch, 37.5 mile Seneca East Pipeline, which runs within approximately 4 miles of Inergy's Stagecoach North Lateral interconnect with the Millennium Pipeline. Seneca Lake began commercial operation in 1996 and at close of the acquisition is expected to be contracted with a weighted average maturity of its firm storage capacity extending to 2015. The acquisition is subject to customary closing conditions and regulatory approvals. Inergy anticipates closing the transaction by mid-2010. (Business Wire, January 11, 2010)

UNITED STATES: Enstar in final talks on natural gas storage project in Alaska – CNR/49/2/45

Enstar Natural Gas Co. is in the final stages of negotiations with a TransCanada Corp. subsidiary on an agreement to build a gas storage facility on the Kenai Peninsula. Cook Inlet Natural Gas Storage LLC, a recently formed subsidiary of TransCanada, would develop and operate the facility, which would be located in a depleted gas field. Several gas reservoirs are being considered, but the Cannery Loop field near Kenai is the leading candidate, said TransCanada spokesman Michael Barnes. The project would inject gas into the reservoir for storage during the summer months and withdraw it during the winter, when regional utilities experience peak demands. (Alaska Journal of Commerce, January 8, 2010)

USE FOR POWER GENERATION

AUSTRALIA: AGL proposes to build an 850 MW gas-fired power station – CNR/49/2/46

AGL Energy recently lodged a referral document outlining the company's proposed Tarrone Power Station and associated pipeline infrastructure to the Federal Department of the Environment, Water, Heritage and the Arts under the Environment Protection and Biodiversity Conservation Act 1999. The Tarrone Power Station, which has a planned capacity of up to 850 MW, involves the development of up to four open-

cycle gas turbines and a 500 kilovolt substation. Two underground gas pipeline investigation corridors, an 8 kilometer east-west corridor and a 10 kilometer north-south corridor, are currently under consideration to connect the SEA Gas Pipeline to the Tarrone Power Station. Construction on the proposed \$500 million gas-fired power station could begin as early as July and is scheduled to be completed by the fourth quarter of 2012. (Gas Today, January 8, 2010)



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