



Vol. 49, n° 19, September 30, 2010

Contents

Liquefied Natural Gas

p2- AUSTRALIA: Western Australia starts compulsory acquisition process for land to host Browse LNG project.

- **CENTRAL EUROPE:** Azerbaijan, Georgia, Romania, Hungary agree on LNG project.

- **QATAR:** GE Oil & Gas selected to supply technology to the Jetty Boil-Off Gas Project.

- **FRANCE:** Gazprom Global LNG and GDF SUEZ sign LNG supply agreement.

- **INDONESIA:** Chubu Electric Power to buy LNG from the Donggi-Senoro project.

p3- JAPAN: Tokyo Electric Power wants to source a third of its LNG supplies from equity projects by 2020.

- **THAILAND:** Government plans to import LNG.

- **WORLD:** Global imports of LNG forecasted to rise by 9 percent in 2011.

- **ARGENTINA:** Second LNG terminal planned in the North of Buenos Aires.

p4- CHINA: Floating storage and regasification units may be used for Yangtze River LNG project.

- **QATAR:** Sri Lanka discusses LNG supply deal.

- **SINGAPORE:** Planned LNG terminal may handle over 9 million tonnes per annum.

- **SPAIN:** Osaka Gas allowed buying stake in Sagunto LNG terminal.

p5- VIETNAM: PetroVietnam Gas to make final investment decision on LNG terminal project by end-2010.

Natural Gas Liquids

p5- QATAR: NGL output to reach 1 million bpd by 2011.

Natural Gas

p5- COLOMBIA: Ecopetrol strikes gas in Northern Santander.

- **EGYPT:** Dana Gas finds gas in the West El Manzala Concession.

- **NORWAY:** Edison makes gas discovery in Norwegian Sea.

p6- NORWAY: RWE Dea makes gas discovery near the Heidrun field.

- **BOLIVIA:** First gas from Itau field to be produced in 2011.

- **IRAQ:** Public auction on undeveloped gas fields to be held soon.

- **RUSSIA:** Hydrocarbon reserves in Barents Sea will not be developed before 12-15 years.

- **SAUDI ARABIA:** Gas production could reach 13bcfd feet by 2020.

p7- ALGERIA: Medgaz pipeline technically ready to operate in the fourth quarter of 2010.

- **CENTRAL ASIA:** Framework agreement of Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline signed.

- **INDIA:** GAIL may increase the capacity of Hazira-Vijapur-Jagdishpur pipeline.

- **SLOVAKIA:** Slovakia-Hungary pipeline remains feasible.

- **UKRAINE:** EU to cooperate in modernizing gas transit system.

p8- UNITED KINGDOM: Scotland gas distribution networks to be upgraded.

- **UNITED STATES:** Enterprise Products Partners and Anadarko agree on transportation and processing services.

- **UNITED STATES:** UGI and Citrus Energy sign gas gathering contract.

- **AZERBAIJAN:** Gazprom and Socar sign addendum to increase gas supply.

- **CHINA:** Central Asia gas will supply 17 bcm of gas in 2011.

- **EUROPE:** European Parliament approves a new legislation for limiting the risk of a gas-supply crisis.

p9- INDIA: Gujarat Gas Co and BG India Energy Solutions Pvt ink gas supply deal.

- **QATAR:** Jordan considers gas supply.

- **RUSSIA:** Agreement on gas supply deal to China postponed to 2011.

- **RUSSIA:** Lukoil plans to supply China with gas from Kandym-Khauzak-Shady-Kungrad project.

p10- UNITED STATES: FERC approves 2 pipeline exports plans to Canada.

- **CHINA:** Emerson selected by to provide shutdown systems to CNPC gas storage project.

- **IRELAND:** Providence Resources to study gas storage potential in the Kish Bank Basin.

- **ITALY:** Ministry receives more than 270 expressions of interests in Eni's gas storage expansion projects.

- **UNITED STATES:** Inergy to acquire Tres Palacios Gas Storage facility.

p11- UNITED STATES: Golden Triangle Storage facility entered initial commercial operations.

- **UNITED STATES:** Colusa County Planning Commission approves gas storage project near Princeton.

- **UNITED STATES:** Perryville Gas Storage to hold non-binding open season for a new UGS facility.



LNG

PROCESSING

AUSTRALIA: Western Australia starts compulsory acquisition process for land to host Browse LNG project – CNR/49/19/1

Western Australia State said recently that it has commenced a compulsory acquisition process for land planned to accommodate the Browse liquefied natural gas project.

The state government said it has commenced the process after the Kimberley Land Council and native title claimants were unable to finalize a land use agreement with the state and project operator Woodside Petroleum Ltd. within a required timeframe. Woodside's partners, Chevron Corp., BHP Billiton Ltd., Royal Dutch Shell Plc and BP Plc were considering more long-dated options for the gas, but were also forced by the government to make a final investment decision on a gas development option by mid-2012. (Dow Jones, September 1, 2010)

CENTRAL EUROPE: Azerbaijan, Georgia, Romania, Hungary agree on LNG project – CNR/49/19/2

Presidents of Azerbaijan, Georgia and Romania and PM of Hungary signed recently a joint declaration on implementation of a liquefied natural gas transportation project. According to the project, known as Azerbaijan, Georgia, Romania Interconnection (AGRI), Azerbaijani gas will be delivered via pipelines to a terminal in

Kulevi on Georgia's Black Sea coast, where it will be liquefied. Tankers would then ship the liquefied gas to the Romanian Black Sea port of Constanța and after regasification it will be transported via pipelines further into Europe. A feasibility study will be the first phase of the project, which may take about six months, Vagif Aliyev, head of the Azerbaijani state oil company SOCAR said. (Civil Georgia, September 14, 2010)

TRANSPORTATION-DISTRIBUTION

QATAR: GE Oil & Gas selected to supply technology to the Jetty Boil-Off Gas Project – CNR/49/19/3

GE Oil & Gas has been selected to supply turbo machinery to a project, which aims to minimise gas flaring at the LNG berths at Ras Laffan.

The Jetty Boil-Off Gas Project, which is expected to be completed by late 2013 or early 2014, aims to collect the gas that boils during the loading of LNG tankers, which is now being flared. According to Bill R Alashqar, GE infrastructure account executive, the GE technology helps collect the boil-off gas and brings it to a central facility, where it will be compressed and sent back to the LNG trains. The Jetty Boil-Off Gas Project is being implemented by Qatargas and partners. Qatar has already awarded the engineering, procurement, and construction management contract to Fluor Transworld. (Gulf Times, September 19, 2010)

SUPPLIES - IMPORTS - EXPORTS

FRANCE: Gazprom Global LNG and GDF SUEZ sign LNG supply agreement – CNR/49/19/4

Gazprom Global LNG and GDF SUEZ concluded recently an agreement for the purchase and sale of 15 cargoes of LNG over a two and a half year period. Under this deal, Gazprom Global LNG will

purchase 15 FOB* cargoes of LNG from GDF SUEZ, or around 0.9 million tonnes. The cargoes are intended to be sourced by GDF SUEZ from its diversified LNG portfolio, the first one being planned for early 2011. (GDF Suez press release, September 22, 2010)

INDONESIA: Chubu Electric Power to buy LNG from the Donggi-Senoro project – CNR/49/19/5

Chubu Electric Power Co said recently it would buy liquefied natural gas from the Donggi-Senoro project in Sulawesi in Indonesia. Chubu said it would buy 1 million tonnes per year of LNG for about 13 years starting in the second half of 2014. Chubu officials said it expects to sign a contract on the purchase in October 2010.

It also said it is set to set up a joint marketing venture to sell part of the LNG it buys from the project to third parties. Pertamina, PT Medco Energi International and Mitsubishi Corp plan to build the Donggi-Senoro LNG plant with a capacity of 2 million tonnes per year. The project is expected to go onstream in 2014. Mitsubishi has a 51 percent stake in the project and Pertamina has a 29 percent stake, with Medco holding the rest. (Reuters, September 22, 2010)

JAPAN: Tokyo Electric Power wants to source a third of its LNG supplies from equity projects by 2020 – CNR/49/19/6

Tokyo Electric Power Company plans to be sourcing a third of its LNG supplies from projects in which it has an equity stake by 2020, up from the current 11%, company president Masataka Shimizu said recently. The company intends to stabilize its supplies as well as improve its underlying economics, while maintaining flexibility, he added. Shimizu said. "We will basically try to maintain our long-term LNG contracts even when we go through contract renewals," Shimizu said.

"Even though our basic principle is to maintain long-term LNG imports as the main form, we will also consider including some spot purchases". Shimizu also said that Tepco will look at LNG trading as a way to increase the flexibility in its long-term based LNG imports, after it had previously received requests to re-sell LNG. Shimizu said Tepco plans to spend \$9.53 billion on capital expenditures in expected growth areas including its LNG participation from the current fiscal year to fiscal year 2020-2021 (April-March). (Platts, September 13, 2010)

THAILAND: Government plans to import LNG – CNR/49/19/7

The Ministry of Energy plans to import liquefied natural gas for electricity generation as the amount of natural gas available in the country is found to be on a sharp decline. Deputy Permanent Secretary for Energy Norkhun Sitthipong explained recently that the energy demand in Thailand over the next twenty years was expected to increase in accordance with the size of population, which could top 75 million by 2014, and the economic growth averaging 4.2% per year. Mr Norkhun stated that 72.5% of the total power was currently generated from natural gas. Thailand would definitely face a gas shortage problem when the electricity generation hit the expected maximum of 58,890 megawatts. (TB Petroleum, September 20, 2010)

WORLD: Global imports of LNG forecasted to rise by 9 percent in 2011 – CNR/49/19/8

Bank of America Merrill Lynch forecast recently that global imports of liquefied natural gas will increase by 18 percent in 2010 as Asia and Europe consume more of the fuel. The financial services company also forecasts global imports of LNG to rise 9 percent in 2011. "Global LNG demand growth should be able to soak up the expected supply additions of 4.2 billion cubic feet a day or 14 percent this year, and 3.2 billion cubic feet a day or 9.6 percent next year," analysts said. "In level terms, the market will remain

oversupplied in 2010 as well as in 2011 as utilisation rates at global nameplate liquefaction capacity will be below 90 percent." The growing demand should offset new supply as Qatar, the world's largest producer of the fuel, and Russia start new units to chill the gas and export it by tanker, Merrill said in its report. "The UK is now set to become the world's fourth-largest LNG importer, with imports up 120 percent year on year, potentially exceeding 11.6 million tons, or one-sixth of UK gas supply". (Arabian Business, September 22, 2010)

STORAGE

ARGENTINA: Second LNG terminal planned in the North of Buenos Aires – CNR/49/19/9

Excelerate Energy announced recently that it will build a second LNG terminal in Argentina, expected online in May 2011. Excelerate signed a term sheet with a consortium formed by Enarsa and YPF to build the terminal which will be located in Escobar, 48 kilometres north of Buenos Aires. The terminal, known as Escobar LNG, will have the capacity to deliver up to 500 million cubic feet per day into the Argentine grid year round. Escobar LNG will be similar to the Bahia Blanca terminal that Excelerate brought online in 2008. (Upstream Online, September 20, 2010)



LNGTech

GLOBAL SUMMIT 2010

19th - 20th October 2010 | Rotterdam, The Netherlands
 Book your place **NOW** at www.lngsummit.com

ACHIEVE TECHNICAL EXCELLENCE ACROSS THE COMPLETE LNG VALUE CHAIN

The 5th Annual LNGTech Global Summit 2010 will focus upon:

- Case Study: Bontang LNG Plant
- Case Study: The Mina Al Ahmadi LNG Terminal
- Case Study: Sakhalin LNG Plant
- Small Scale LNG Production
- FLNG Developments
- Operational Excellence
- LNG Project Costs
- LNG in the Post Crisis Environment

Key Presentations Include:



Rob Klein Nagelvoort,
 General Manager Gas Technology,
Shell Global Solutions
The Sakhalin LNG Plant: A Case Study on LNG in Arctic Conditions.



Edward Scott,
 Senior Vice President –Development,
Excelerate Energy
Developments in Floating Liquefaction Technology.



Nanang Untung,
 Director & General Manager,
PT Badak
Case Study: The Bontang LNG Plant.



Khaled Mohammed Al-Hajeri,
 Team Leader,
KNPC
Case Study: The Mina Al Ahmadi LNG Terminal



Barend Pek,
 General Manager Floating LNG,
Shell Global Solutions
Technical challenges in the development and design of Shell's floating LNG projects



Yacine Zellouf,
 Project Manager, LNG Storage
GDF Suez
New developments in LNG storage

To FIND OUT MORE about this event:

Visit: www.lngsummit.com
 Contact: **Richard Jones**
 Email: richard.jones@wtgevents.com
 Call: +44 (0)207 202 7690
 Quoting booking code: **LNG10**

“The Summit was great because it allowed easy contact with clients, vendors and competitors”

TGE Gas Engineering

2010 Sponsors Include:



Premier Media Partners:



CHINA: Floating storage and regasification units may be used for Yangtze River LNG project – CNR/49/19/10

Yao Tongxin, president of China Power PetroChemical International Corporation said recently that a proposed Yangtze River LNG project in China could use floating storage and regasification units to store and supply LNG to the 12 large and mid-sized cities located along the river in central China. "The Yangtze River has a population of 290 million, while experiencing annual energy demand growth of 15% and GDP increase of 9% every year," Yao said. "FSRUs along the Yangtze River could be linked with larger LNG vessels via smaller mobile carriers,

and coastal receiving terminals with capacities of 250,000-1 million mt/year could be built at cities such as Wuhan, Huangshi and Jiujiang," Yao said. CPPEC would be involved in the Yangtze River LNG project by supplying FSRUs, technology and the construction of coastal LNG terminals, through its subsidiary, Enertech, Yao indicated. "The Yangtze river LNG project is currently in the planning stage, with a combination of private sector companies and the six provincial governments of Hubei, Jiangxi, Jiangsu, Anhui, Hunan and Shanghai, which lie along the river, taking part" Yao said. (Platts, September 21, 2010)

QATAR: Sri Lanka discusses LNG supply deal – CNR/49/19/11

President Mahinda Rajapaksa and Head of State of Qatar Kalifa Altani recently discussed the possibility of commencing a liquefied natural gas power project in Sri Lanka. Secretary to the Ministry of Power and Energy, M M C Ferdinando said that an Inter-ministerial Committee on Energy had been discussing the viability of LNG, and agreed that Qatar was the best country to partner when it came to LNG. It has been reported that the Sri Lankan government set up a high-level Committee on LNG.

"The committee is represented by officials of Treasury, Ministries of Power and Energy and Petroleum Resources and Petroleum Resources Development, Ceylon Electricity Board (CEB), Ceylon Petroleum Corporation (CPC), and Westcoast Power (Pvt) Ltd, who were entrusted with the task of exploring possibilities of using LNG and report back.

Though the government accepted a proposal from a private party to set up a 1,000 MW LNG power plant in Kerwalapitiya, so far it had failed to kick-off construction due to struggles with its lead developer. (Asian Tribune, September 22, 2010)

SINGAPORE: Planned LNG terminal may handle over 9 million tonnes per annum – CNR/49/19/12

EMA chief executive Lawrence Wong said recently that Singapore's LNG terminal can potentially be developed to handle over nine million tonnes per annum of liquefied natural gas for domestic consumption alone. This can be ramped up to 12 million tpa or more when future spot trading and other LNG business opportunities arise. The latest projections reflect Singapore's intent to grow the initial Jurong Island terminal in tandem with the growing gas needs of power stations and industries. "Singapore LNG Corporation is currently developing a long-term

master plan 'which will give it the flexibility to configure and develop the terminal for future expansion", Energy Market Authority's Mr Wong said. This will take it beyond the terminal's first phase comprising two 180,000 cubic metre tanks which will provide an initial 3.5 million tpa of capacity. The project is on-track for commissioning in 2013, he reported. The terminal will also offer storage and reloading services. It can also provide a range of different services, like storage and sale of industrial gases like liquefied petroleum gas or LPG, as well as LNG trucking or use of LNG as fuel for ships. (EcoBusiness, September 23, 2010)

SPAIN: Osaka Gas allowed buying stake in Sagunto LNG terminal – CNR/49/19/13

The European Union's executive recently allowed Osaka Gas to buy into a Spanish LNG terminal. The Saggas Company, which runs a regasification plant in the Spanish port of Sagunto, was originally jointly controlled by subsidiaries of Deutsche Bank, Endesa, Gas Natural and ENI. Osaka Gas has bid to buy Endesa's stake.

The European Commission has concluded that the proposed transaction would not raise any competition concerns since Osaka Gas has no presence on the Spanish market for importing LNG. (Deutsche Press Agentur, September 21, 2010)

VIETNAM: PetroVietnam Gas to make final investment decision on LNG terminal project by end-2010 – CNR/49/19/14

PetroVietnam Gas is set to make a final investment decision by the end of 2010 on the country's first liquefied natural gas terminal to be built at Phu Long Island off Vung Tau. A tender for the construction of the LNG terminal is likely to be issued in 2011. The facility is expected to start up in 2014 and will be handling as much as 3 million tonnes of LNG per year. PetroVietnam Gas earlier indicated plans to select an aggregator to buy LNG in the spot market for three years before committing to long-term supplies. (Upstream Online, September 21, 2010)

NATURAL GAS LIQUIDS

QATAR: NGL output to reach 1 million bpd by 2011 – CNR/49/19/15

Samba Financial Group announced recently that Qatar's natural gas liquids output is set to exceed 1mn barrels per day by 2011. According to Samba, revenues from NGLs will 'compensate' for weak gas prices. Samba said: "Lower gas prices are a concern for Qatar, particularly as it works to bring on stream two remaining 7.8mn tonnes per

year LNG mega-trains, but do not affect the overall profitability of its operations. "The cost of getting LNG to market is reported to be less than \$2/mn BTU. In addition, the associated condensate production from the LNG plants helps make them profitable, particularly with oil prices holding at \$70-80 a barrel". (Gulf Times, September 19, 2010)

NATURAL GAS

EXPLORATION – DISCOVERY

COLOMBIA: Ecopetrol strikes gas in Northern Santander – CNR/49/19/16

Ecopetrol reported recently that it has proved the presence of natural gas at its Oripaya 1 exploratory well located in Northern Santander, Colombia, about 20 kilometers to the northeast of Cúcuta. The well is part of the Uribante Exploration and Production Agreement signed between Ecopetrol and the National Hydrocarbon Agency (Agencia Nacional de Hidrocarburos). Ecopetrol conducted initial Drill Stem Tests (DST) for one week. These tests generated an average production of 6.6 million cubic feet per day and 196 barrels a day of water, with a choke of 20/64". Initial analyses indicate that it is a dry gas well, mainly producing methane. During the test period, pressure at wellhead exceeded 3,000 pounds per square inch (psi). The Oripaya-1 well belongs 100% to Ecopetrol. (Ecopetrol press release, September 8, 2010)

EGYPT: Dana Gas finds gas in the West El Manzala Concession – CNR/49/19/17

Dana Gas reported recently a new gas discovery in the Nile Delta. The discovery well South Abu El Naga-1ST is located in the West El Manzala Concession A multi rate test was carried out and yielded a production rate of 19.4 million standard cubic feet per day of gas and 1160 barrels per day

of condensate. The preliminary reserves estimate for the South Abu El Naga-1 ST is in the range of 50 to 90 Billion standard cubic feet of gas, with 1 to 2 million barrels of associated condensate. The South Abu El Naga-1 ST discovery will be further appraised, then development options will be studied. (Scandoil, September 7, 2010)

NORWAY: Edison makes gas discovery in Norwegian Sea – CNR/49/19/18

Edison announced recently a gas discovery in the Norwegian Sea. Preliminary estimates of the size of the discovery range between 5 and 18 billion standard cubic metres of recoverable gas. The well 6507/07-14S is part of production licence 435 (Zidane) and is located approximately 15 kilometres North West of the Heidrun field and 35 kilometres South of the Skarv field in the Norwegian Sea. Licence consortium for the block includes: Edison (20%), RWE (40% and operator), Maersk Oil Norway (20%) e Norwegian Energy Company (20%). (Edison press release, September 16, 2010)

NORWAY: RWE Dea makes gas discovery near the Heidrun field – CNR/49/19/19

RWE Dea Norge announced recently a gas discovery near the Heidrun field in the Norwegian Sea. Exploration well 6507/07-14S has encountered gas in a 150m column, and preliminary estimates of the size of the discovery range between five and 18 billion standard cubic

metres of recoverable gas. The well is located in production licence 435, Zidane. RWE Dea Norge has a 40% operating interest in the Zidane licence, while the other partners include Edison International Norway, Maersk Oil Norway and Norwegian Energy Company, each holding 20% stake. (Offshore Technology, September 20, 2010)

PRODUCTION

BOLIVIA: First gas from Itau field to be produced in 2011 – CNR/49/19/20

YPFB said recently that Total and BG Group will start production in 2011 at their Itau natural gas field in Bolivia, and most of its output will be exported to Argentina. YPFB said that it signed a deal with the local subsidiaries of Total and BG Group, in which the companies agreed to develop Itau and give YPFB control of the field's output.

Total has a 75 percent stake in Itau and BG Group controls the remaining 25 percent. The field, located in Bolivia's southern Tarija region, will start producing 1.5 million cubic meters of natural gas a day in January 2011. But the companies plan to gradually increase output to 5 million cubic meters by 2015. Under a deal signed in March 2010, Bolivia will gradually increase natural gas exports to Argentina from the current maximum of 7.7 million cubic meters a day to 27.7 million cubic meters a day by 2021. (Reuters, September 8, 2010)

IRAQ: Public auction on undeveloped gas fields to be hold soon – CNR/49/19/21

Iraq is to hold a public auction on October 20, 2010 for the rights to work on three gas fields, an oil ministry spokesman said recently. The undeveloped fields have estimated reserves totalling about 317 billion cubic metres. Iraq currently produces a negligible quantity of gas compared with the size of its reserves, and flares off most of what comes out with its crude. Of the

three gas fields on offer, Akkaz is the biggest. Some 50 kilometres long and 18 kilometres wide, it lies west of Baghdad in Anbar province and contains 158 bcm. The second field, Mansuriyah, is located in Diyala province, 100 kilometres northeast of Baghdad, and has reserves of 127 bcm. The third gas field on offer is Siba, located in the southern province of Basra near the borders of Iran and Kuwait. It has reserves of 31 bcm. (AFP, September 20, 2010)

RUSSIA: Hydrocarbon reserves in Barents Sea will not be developed before 12-15 years – CNR/49/19/22

Minister of Natural Resources Yuri Trutnev said recently that Russia will not start developing hydrocarbon reserves in the Barents Sea and Arctic Ocean for more than a decade. "The most optimistic time frame for the development is 12-15 years away," Trutnev said after Russia and Norway signed a historic agreement on the maritime boundary in the Barents Sea after 40 years of talks.

"Once the agreement is made law, there would be exploration and geological studies for around 7-10 years before the development of reserves can begin," he said. Trutnev said Statoil would be the primary partner for Russia in development of the Barents Sea fields. The agreement signed by Russia and Norway states that any cross-border structure would have to be developed jointly, Trutnev said. (Platts, September 16, 2010)

SAUDI ARABIA: Gas production could reach 13bcfd feet by 2020 – CNR/49/19/23

Dr Naif Al Otaibi, a university professor of oil and natural gas engineering, said recently that Saudi Arabia plans to build its largest natural gas plant to supply other industries. The kingdom now produces 8.8 billion cubic feet of natural gas a day

and has said it plans to extend this by another 4.2 billion by the end of the next decade. Al Otaibi said it was expected that demand for the kingdom's gas would increase by five per cent a year in the next two decades, and domestic demand would also rise. (Gulf News, September 15, 2010)

TRANSPORTATION-DISTRIBUTION

ALGERIA: Medgaz pipeline technically ready to operate in the fourth quarter of 2010 – CNR/49/19/24

The Medgaz gas pipeline between Algeria to Spain is expected to technically be able to operate at full capacity in the fourth quarter of 2010, a Medgaz spokesman said recently. Medgaz since July 2010 has been testing with gas in a compressor station at Beni Saf, Algeria.

First gas can be sent to Spain only once all tests are carried out and both Spanish and Algerian authorities have given the final green light for full operations, a spokesman for Sonatrach said. The pipeline has an annual capacity of 8 billion cubic meters and is operated by a consortium comprising Sonatrach, Endesa SA, Cepsa, Iberdrola SA and GDF Suez. (Dow Jones, September 16, 2010)

CENTRAL ASIA: Framework agreement of Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline signed – CNR/49/19/25

Minister for Petroleum and Natural Resources Naveed Qamar recently signed the Gas Pipeline Framework Agreement (GPFA) of Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline. The TAPI pipeline is being planned to bring natural gas from Turkmenistan through Afghanistan to Pakistan and India. A pre-feasibility study

sponsored by the Asian Development Bank in 2004 indicated that the 1,680 km pipeline project was economically and financially viable and the estimated cost was \$3.3 billion, which was revised to \$7.6 billion in 2008. The pipeline will be designed to carry 3.2 billion cubic feet per day gas from Turkmenistan, delivering 0.5 bcf/d to Afghanistan and 1.35 bcf/d each to Pakistan and India. (Gulf Today, September 19, 2010)

INDIA: GAIL may increase the capacity of Hazira-Vijapur-Jagdishpur pipeline – CNR/49/19/26

GAIL India Ltd. may add 60 million cubic meters a day in capacity to the Hazira-Vijapur-Jagdishpur pipeline, boosting volumes to 115 million cubic meters said Rajeev Mathur, executive director for marketing. "We will be able to import spot liquefied natural gas cargoes once pipeline capacity is increased," said Petronet Ltd.'s commercial director Amitava Sengupta. "Capacity will increase in phases starting December," Mathur said. The company will add another 30 million cubic meters a day from three other pipelines supplying northern India, to start in 12 months, he said. (Bloomberg, September 21, 2010)

SLOVAKIA: Slovakia-Hungary pipeline remains feasible – CNR/49/19/27

Jan Petrovic, head of the energy department at Slovakia's Economy and Building Affairs Ministry said recently that plans to build a gas pipeline between Slovakia and Hungary are feasible. "The Hungarians did not unequivocally back the continuation of the project after assessing the results of the first open season [capacity sale] phase. But talks are continuing and we are weighing all of the possibilities. I am sure that the project will be implemented in the foreseeable future," he said. On the basis of a market assessment of use of capacity in the first phase of the pipeline, companies from six countries

signalled long-term interest in buying about 20 billion cubic meters of annual capacity in the pipeline on the Slovakian side, but "the preliminary daily reserved capacity was a maximum 6.8m cubic meters," said Eustream spokesperson Danica Beharkova. "Most interest was for the period after 2015," she added. FGSz Földgázszállító said that the construction of the pipeline continues to be important as it allows Hungary access to liquefied natural gas terminals in Poland as well as other sources of supply, the company added. The 20km of the pipeline in Slovakia would cost about €20 million to build. The 95km on the Hungarian side would cost about €100 million. (BBJ, September 22, 2010)

UKRAINE: EU to cooperate in modernizing gas transit system – CNR/49/19/28

Ukrainian President Viktor Yanukovych and President of the European Commission Jose Manuel Barroso agreed recently to cooperate in modernizing the Ukrainian gas transportation system. The gas transit system pumps 141 billion cubic meters of gas to Europe annually. Ukraine's gas pipeline system, which stretches over 37,500 kilometers, includes 71 booster stations and 13 underground gas storage units of 32 billion cubic meters capacity. (Unian, September 14, 2010)

UNITED KINGDOM: Scotland gas distribution networks to be upgraded – CNR/49/19/29

The European Investment Bank announced recently that it is to lend 250 million pounds to upgrade UK gas distribution networks operated by Scotland Gas Networks and Southern Gas Networks. The three-year upgrade programme will run to 2013, helping connect remote parts of Scotland as well as catering for increased capacity/storage and peak requirements. (Yahoo News, September 22, 2010)

UNITED STATES: Enterprise Products Partners and Anadarko agree on transportation and processing services – CNR/49/19/30

Enterprise Products Partners L.P. announced recently that it has entered into long-term agreements with Anadarko Petroleum Corporation to provide a comprehensive package of natural gas transportation and processing, and natural gas liquids fractionation and transportation services. As part of the arrangements, the partnership will construct a new 17-mile, 20-inch diameter natural gas gathering pipeline originating at Anadarko's central production facilities located

in Dimmit County, Texas, and interconnecting with Enterprise's existing South Texas pipeline system. The new pipeline is expected to be in service in late-October 2010. The services provided to Anadarko under these new six-year agreements include firm natural gas transportation and processing services. In addition to natural gas transportation and processing services, the NGLs recovered from Anadarko's natural gas volumes will be transported and fractionated in Enterprise's integrated NGL pipeline and fractionation assets throughout Texas. (Business Wire, September 21, 2010)

UNITED STATES: UGI and Citrus Energy sign gas gathering contract – CNR/49/19/31

UGI Energy Services signed recently an agreement with Citrus Energy to gather Marcellus shale gas produced by Citrus in Wyoming County, Pennsylvania, for delivery to Tennessee Gas Pipeline's interstate pipeline in Susquehanna County, Pennsylvania. UGI said that it will acquire and construct facilities to handle up to 120,000 dekatherms per day. The service is expected to begin as early as spring 2011, subject to permitting and regulatory approvals. (Energy Business Review, September 21, 2010)

SUPPLIES - IMPORTS - EXPORTS

AZERBAIJAN: Gazprom and Socar sign addendum to increase gas supply – CNR/49/19/32

Alexey Miller, Chairman of the Gazprom Management Committee and Ilkham Aliev, President of Azerbaijan signed recently an addendum to the effective gas purchase and sale contract for Azerbaijani natural gas between Gazprom and the State Oil Company of Azerbaijan Republic (SOCAR). Pursuant to the addendum, the annual volumes of gas purchase will grow to 2 billion cubic meters starting from 2011 and to more than 2 billion cubic meters from 2012. (Scandoil, September 6, 2010)

CHINA: Central Asia gas will supply 17 bcm of gas in 2011 – CNR/49/19/33

China National Petroleum Corp (CNPC) announced recently that China and Central Asian countries have agreed to pump 17 billion cubic metres of natural gas via pipelines in 2011. A coordination committee of the Central Asia gas pipeline between Turkmenistan, Uzbekistan, Kazakhstan and China had made specific plans in terms of monthly gas supplies to China and with

regard to the maintenance schedule for the winter of 2010 and full-year 2011. CNPC, operator of the transborder pipeline that runs nearly 2,000 km through Central Asia before entering Chinese territory in the northwestern Xinjiang region, recently raised the capacity of the line to 24.5 million cubic metres per day. The pipeline's capacity is scheduled to grow to 15 bcm by the end of 2010 and 30 bcm by the end of 2011. (Reuters, September 17, 2010)

EUROPE: European Parliament approves a new legislation for limiting the risk of a gas-supply crisis – CNR/49/19/34

The European Parliament approved recently legislation obliging governments to coordinate policies in the event of a cut off in gas supplies and handing EU regulators an oversight role. "This is a sea change under which member states are moving beyond a purely national approach," said Alejo Vidal-Quadras, a Spanish member who steered the law through the EU Parliament.

The EU, which relies on imports for 60 percent of its gas and expects this to rise to more than 80 percent in 2020 as North Sea supplies shrink, is stepping up efforts to protect and diversify energy sources. Under the new law, national authorities will have to consult with each other and the Brussels-based commission when drawing up emergency plans aimed at limiting the impact of gas supply disruptions. The legislation also provides for the possibility of joint plans "at regional level".

The rules will allow the commission to declare an EU-wide or regional emergency at the request of a member state. In such an event, the commission would coordinate a response on behalf of national authorities, including any action relating to non-EU suppliers. The new legislation also requires actions by national governments and industry to limit the risk of a gas-supply crisis.

One such provision obliges countries to ensure that, in the event of a disruption to the largest gas infrastructure, the capacity of the remaining infrastructure can meet total demand within four years of the law's entry into force. Governments will have to inform the commission of agreements with non-EU suppliers that "have an impact on the development of gas infrastructures and gas supplies." Gas companies will be required to notify details of contracts concluded with foreign suppliers to national authorities, who will pass these data in aggregate form to the commission. (Bloomberg, September 21, 2010)

INDIA: Gujarat Gas Co and BG India Energy Solutions Pvt ink gas supply deal – CNR/49/19/35

Gujarat Gas Co. said recently it has signed an agreement with BG India Energy Solutions Pvt.

Ltd. to purchase 0.50 million metric standard cubic meters of regasified liquefied natural gas a day for 39 months. Gujarat Gas will purchase gas from October 1, 2010 to December 31, 2013. (Dow Jones, September 22, 2010)

QATAR: Jordan considers gas supply – CNR/49/19/36

A Qatari newspaper reported recently that Jordan is considering buying natural gas from Qatar and feed a project to construct a major domestic distribution network in Amman. The Jordanian Minister of Energy and Mineral Resources Khalid Al Irani said. "The talks will cover possible imports of some quantities of gas from Qatar. My delegation during the visit will include the oil and gas officials at the ministry". It said Jordan already gets around 150 million cubic feet of gas per day from Egypt. In July 2010, Al Irani said Jordan is planning to nearly quadruple its gas imports from Egypt and other countries. (Emirates247, September 21, 2010)

RUSSIA: Agreement on gas supply deal to China postponed to 2011 – CNR/49/19/37

Russia's Deputy Prime Minister Igor Sechin said recently that China and Russia failed to agree on a gas supply and may not complete talks until 2011. In 2009, the two parties said Gazprom may export approximately 70 billion cubic meters annually starting in 2015. (Dow Jones, September 21, 2010)

RUSSIA: Lukoil plans to supply China with gas from Kandym-Khauzak-Shady-Kungrad project – CNR/49/19/38

A company's spokesman said recently that Lukoil is planning to export gas it produces in Uzbekistan via the Trans-Central Asia gas pipeline from Turkmenistan to China. "We have infrastructure ready there and now we want to guarantee that our gas will be sold," he added. The spokesman said that the company was inclined to conclude a long-term contract using a gas price formula linked to a basket of oil products. Lukoil now sells all gas it produces in Uzbekistan to Gazprom for onward export. "Next year, however, Gazprom is expected to accept a limited amount of gas meaning it would have no objective reason to

prevent Lukoil from negotiating the possibility of selling gas to other consumers," he added. The Kandym-Khauzak-Shady-Kungrad contract area is being developed under a 35-year production-sharing agreement signed by Lukoil Overseas (90%) and Uzbekneftegaz (10%). Khauzak and Shady, the only producing fields within the license area, are expected to yield around 3 Bcm in 2010, a spokesman with Lukoil Overseas said. Kandym is expected to come on stream in the next two or three years, with output expected to peak at 8 Bcm in three to five years after the start of production, the Lukoil Overseas spokesman said. Kungrad is at the geological exploration stage, a spokesman with Lukoil Overseas said. (UzReport, September 21, 2010)

UNITED STATES: FERC approves 2 pipeline exports plans to Canada – CNR/49/19/39

FERC cleared recently the way for two pipeline companies to start exporting U.S. natural gas supply to Canadian markets, ruling that Iroquois Gas Transmission System LP and Empire Pipeline Inc. could use their respective facilities on the border to export gas as well as import it. FERC granted Empire and Iroquois permission to amend their presidential permits and their authorizations under Section 3 of the Natural Gas Act to reflect their new capabilities.

Both pipeline companies already import gas from Canada into the U.S., and the companies do not require physical changes to their border facilities in order to export. The Iroquois facilities are at Waddington, N.Y., near Iroquois, Ontario, where the Iroquois pipeline system connects with Canadian pipeline TransCanada PipeLines Ltd.. The total design capacity of the Iroquois receipt point at the border is almost 1.2 million Dth/d. The border facilities of Empire, a subsidiary of National Fuel Gas Co., are under the Chippawa Channel of the Niagara River, near Grand Island, N.Y. (SNL, September 20, 2010)

STORAGE

CHINA: Emerson selected by to provide shutdown systems to CNPC gas storage project – CNR/49/19/40

China National Petroleum Corp. has selected Bettis PressureGuard self-contained hydraulic shutdown systems from Emerson Process Management for installation on the Dazhangtuo natural gas storage reservoir project in Tianjing,

China. The Dazhangtuo reservoir is the first gas storage facility in China. It strengthens the peak-gas adjustment capacity of the Shan-jing natural gas pipeline, which extends 585 miles from Yulin, Shanxi, to Beijing. Gas that is not needed immediately is diverted into underground storage facilities. (Downstream Today, September 13, 2010)

IRELAND: Providence Resources to study gas storage potential in the Kish Bank Basin – CNR/49/19/41

Providence Resources recently appointed experts to conduct a study to see if gas can be stored in an offshore salt cavern. The project will be done through its wholly-owned subsidiary Eirgas Limited and has selected AMEC to begin the conceptual development study. The ULYSSES Project, which began in 2008, assessed the natural gas storage and carbon sequestration potential of the Kish Bank Basin, offshore Dublin.

The study confirmed a site that may be suitable for the construction of an offshore natural gas salt cavern storage facility. The initial phase of the study includes planning and gas sourcing and is expected to be completed by the first quarter 2011. (Business World, September 17, 2010)

ITALY: Ministry receives more than 270 expressions of interests in Eni's gas storage expansion projects – CNR/49/19/42

Industry Ministry said recently it had received more than 270 non-binding expressions of interest to take part in Eni SpA's (E) natural gas storage

expansion. The expressions of interest include industrial companies, firms with high-consumption gas needs in sectors such as steel-making and ceramics, as well as electricity generation, the ministry said. (Dow Jones, September 2, 2010)

UNITED STATES: Inergy to acquire Tres Palacios Gas Storage facility – CNR/49/19/43

Inergy, L.P. announced recently that its wholly-owned subsidiary, Inergy Midstream, LLC, has executed a definitive agreement to purchase Tres Palacios Gas Storage LLC, the owner of the Tres Palacios natural gas storage facility. Located in Matagorda County, Texas, Tres Palacios is a high deliverability, salt dome natural gas storage facility with approximately 38.4 Bcf of working gas capacity including 27.1 Bcf of current working gas capacity (Caverns 1 and 2) and 11.4 Bcf of incremental working gas capacity scheduled to be placed in service in the fourth calendar quarter of 2010 (Cavern 3).

The facility is expandable by an additional 9.5 Bcf of working gas capacity which Inergy expects to place in service by or before 2014 (Cavern 4). Located approximately 100 miles southwest of Houston, Tres Palacios is currently connected to a total of ten intrastate and interstate pipelines via a 40 mile, 24" dual-pipe, looped header system. Tres Palacios offers customers greater than six-turn gas storage capability with maximum withdrawal capacity of 2.5 Bcf/day and maximum injection capacity of 1 Bcf/day. (Inergy press release, September 21, 2010)

UNITED STATES: Golden Triangle Storage facility entered initial commercial operations – CNR/49/19/44

AGL Resources announced recently that the first natural gas storage cavern at its Golden Triangle Storage facility near Beaumont, Texas, has entered initial commercial operations. GTS anticipates commencement of full commercial service for approximately 6 billion cubic feet of working gas capacity upon completion of dewatering in December 2010. "Today - after two years of construction and cavern creation -- we began injecting natural gas into Cavern 1 for our customers," said Dana Grams, president of Pivotal Energy Development, a business unit of AGL Resources. "At the same time, we are on

schedule to bring Cavern 2 into service early in 2012." Construction of the surface facilities began in May 2008. Solution mining began in February 2009 and involved injection and removal of water from the well drilled nearly one mile deep into the salt of the famed Spindletop Dome - site of the world's first oil gusher. When the second cavern is completed, it is expected that the facility will be able to store approximately 12 billion cubic feet of working gas capacity. Cavern operations are supported by a 14,025-horsepower compressor system and dual 24-inch pipeline header interconnected to six measurement stations in Jefferson and Orange counties in Texas. (PRNewswire, September 16, 2010)

UNITED STATES: Colusa County Planning Commission approves gas storage project near Princeton – CNR/49/19/45

Colusa County Planning Commission recently approved a natural gas storage project near Princeton. The company will move forward with development once the California Public Utility Commission grants final approval. The project site is about 2 miles southwest of Princeton, 13 miles north of Colusa, above two former natural gas reservoirs approximately 2,200 feet below the surface. The reservoirs produced about 9.8 billion cubic feet of natural gas between 1954 and 1992.

The project will house an 11,500-horsepower compression station and nine injection-withdrawal wells. Once constructed, the company plans to inject approximately 8 billion cubic feet of natural gas into a subsurface geological rock formation, converting a former gas-producing reservoir into a storage field. The storage will allow Central Valley to transmit gas during peak market demands to the Pacific Gas and Electric Co. compression station north of Maxwell, via a 14-mile, 24-inch pipeline through the Delevan area. (Colusa Sun Herald, September 14, 2010)

UNITED STATES: Perryville Gas Storage to hold non-binding open season for a new UGS facility – CNR/49/19/46

Perryville Gas Storage, a subsidiary of Cardinal Gas Storage Partners, will hold a non-binding, 31-day open season to gauge market interest in the remaining available capacity in its 15bcf multi-cycle interstate natural gas storage facility

currently under construction near Delhi, Louisiana. This facility will provide access to markets in the Midwest, Northeast and Southeast, including the Perryville/Delhi Hub. Having fully contracted the first 7.5bcf, this open season is for the remainder 7.5bcf of firm storage capacity. (Energy Business Review, September 2, 2010)



CEDIGAZ NEWS REPORT is an internal publication of CEDIGAZ, edited by Thierry Rouaud with collaboration of Catherine Charlier.

1 et 4, avenue de Bois Préau, 92852 Rueil-Malmaison Cedex, France

Tel. +33 1 47 52 60 12 - Fax +33 1 47 52 70 14

Website : <http://www.cedigaz.org> Contact : info@cedigaz.org