



COALBED METHANE EXTRA

A publication of the Coalbed Methane Outreach Program (CMOP)

www.epa.gov/coalbed



United States and India Announce the Formation of a Coal Methane Clearinghouse

On 16 November 2006, the United States and India signed a Memorandum of Understanding (MOU) to establish and support a Coalbed and Coal Mine Methane (CBM/CMM) information center, or Clearinghouse, in India. Participating in the signing ceremony held at USEPA headquarters in Washington, DC, were William L. Wehrum, USEPA's Acting Assistant Administrator for Air and Radiation, and Ambassador Raminder Singh Jassal, deputy chief of mission, Embassy of India (See Figure 1). An initiative of the US and India under the Methane to Markets Partnership, the Clearinghouse will act as the central source of information on CBM/CMM projects in India, the world's third leading coal producing country.

see CLEARINGHOUSE, page 4



Figure 1. EPA's William Wehrum and Indian Ambassador Raminder Singh Jassal at the signing ceremony on 16 November 2006, in Washington, DC.

In this issue...

- 1 **United States and India Announce the Formation of a Coal Methane Clearinghouse**
- 1 **Methane to Markets Update**
- 2 **Update on CMM / CBM Development Activity in Ukraine**
- 7 **CBM/CMM News**
- 8 **New Publication**
- 9 **Upcoming Events**

Access documents electronically from the "Documents, Tools, and Resources" pages on our Web site at www.epa.gov/coalbed

To subscribe to *CBM Extra* and *CMB Notes*, please go to our website <http://www.epa.gov/cmop/maillinglist.html> and register for our mailing list. You will be added within two weeks.



Methane to Markets Update

Steering Committee Meets in Rome, Italy

On 14 and 15 December 2006, the Steering Committee of the Methane to Markets Partnership met in Rome, Italy. Delegates from 11 Partner countries attended the meeting, which was chaired by USEPA Acting Assistant Administrator William Wehrum.

The Steering Committee made several key decisions at the meeting, including:

- Officially inducted Poland to join the Partnership as the 19th Partner country
- Officially inducted Poland and Germany to join the Steering Committee
- Reviewed the progress of each of the four Subcommittees
- Discussed plans for the 2007 Partnership Expo to be held in Beijing, China on 29 October – 1 November
- Developed charges to the Subcommittees

For more details on the Steering committee meeting, visit the Methane to Markets website, where minutes will be posted:

<http://www.methanetomarkets.org/resources/steering/index.htm>

Coal Subcommittee Meeting Now Scheduled for 3-4 April 2007, in Geneva - see page 5.

see M2M UPDATE, page 5

Update on CMM / CBM Development Activity in Ukraine

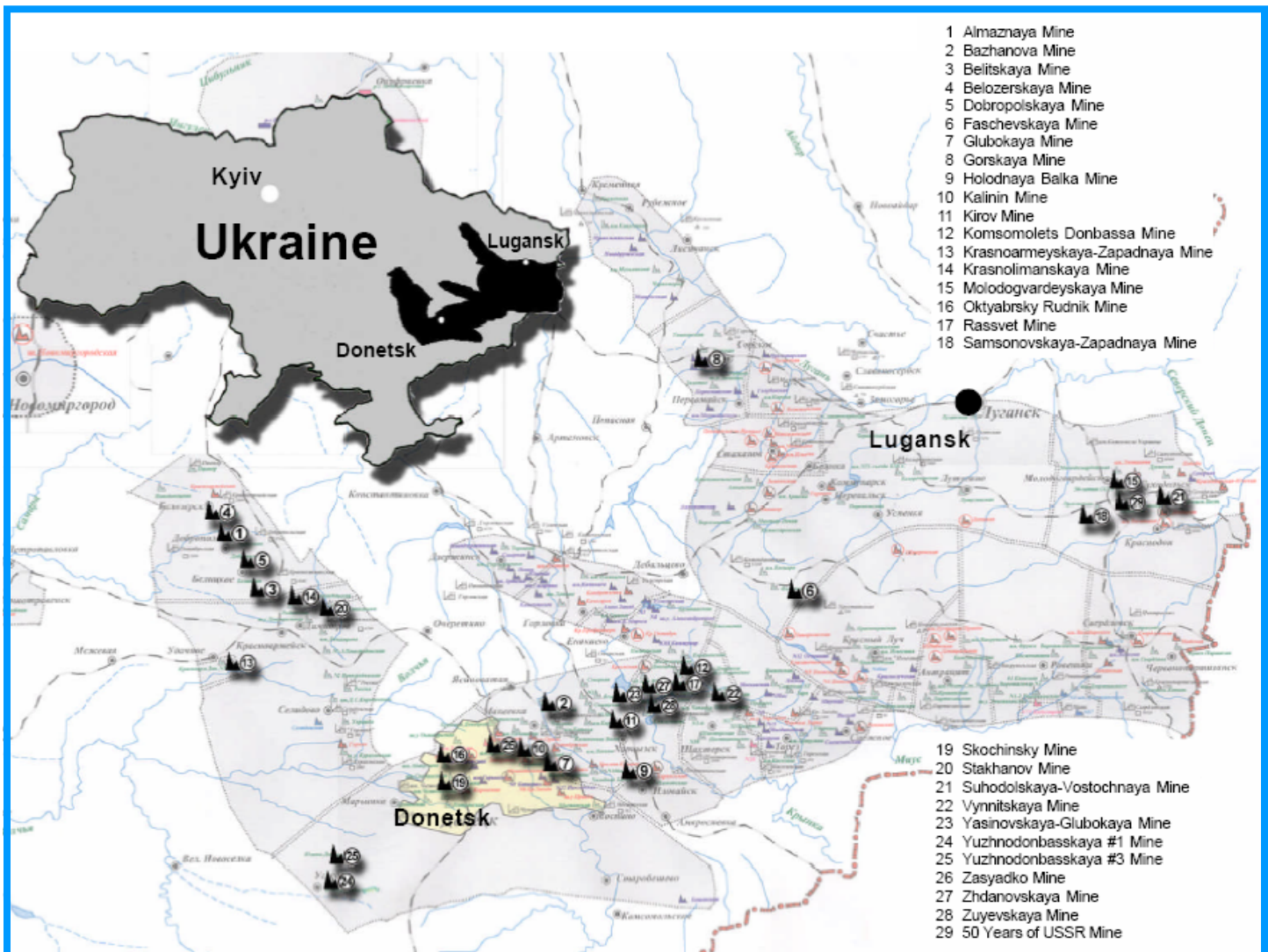
Introduction

Ukraine currently produces approximately 80.5 million tonnes of coal annually, making it the 11th largest producer of coal in the world (BP, 2005). Coal is produced in two major basins in Ukraine, the Donetsk Basin in southeastern Ukraine (and western Russia), and the Lviv-Volyn basin in western Ukraine, which continues into Poland (M2M-Ukraine, 2005). Figure 1 shows Ukraine's coal fields and illustrates the location of the Donetsk region (also known as the Donbass). During the past few years, extensive studies have been conducted that clearly establish the presence of high levels of methane in the coal mines and associated coal beds in the Donbass coal region. Many have been directly supported by US Govern-

ment agencies (including the US Environmental Protection Agency (USEPA), US Department of Labor, US Agency for International Development (USAID), and the US Trade and Development Agency (USTDA)) as well as other governments, including Germany, Great Britain, and Japan.

Ukraine is the world's third-largest emitter of methane emissions from coal mining activities. According to a USEPA-sponsored study (PEER, 2001), 95% of the methane produced from Ukrainian coalmines is vented directly into the atmosphere (see Figure 2), wasting a tremendous amount of energy, and impacting the environment as a major source of greenhouse gas emissions. In addition, the high levels of methane in Ukrainian coal mines represent a serious hazard to the mine worker's health and

Figure 1. Ukraine's Coal Fields



safety. Each year, hundreds of coal miners are killed in Ukrainian mines, mostly due to methane-related explosions and fires – a fatality rate more than 100 times that of US coal mines, equating to a fatality rate of six workers for every one million tonnes of coal produced.



Figure 2. Venting of methane at the Bazhanov Mine.

Current CMM / CBM Development Efforts in Ukraine

Activities to promote the recovery of CMM are underway in Ukraine, with the commercial development and utilization of coal mine and coalbed methane (CMM/CBM) a priority. If successful, CMM/CBM development will have positive benefits to the economy, environment, and the coal industry. The prospects for CMM/CBM development in Ukraine are improving, and several key projects, which are already underway, are highlighted below.

Donetsk CMM/CBM Project.

The Donetsk Regional Administration is currently sponsoring a project to investigate the recovery and utilization of CMM/CBM in several areas of the Donetsk region. The USTDA is currently funding a feasibility study for this project that seeks to examine the technical and economic viability of developing CMM/CBM resources in eastern Ukraine. Participants in the project include two coal mines that will focus on CMM recovery, Bazhanov (see Figures 3 and 4) and South Donbass #3 coal mines, as well as two entities that will focus on CBM production, Ecometan and the Donetskgeologiya Company.

In August 2005, USTDA awarded a \$585,570 grant to the Donetsk Regional Administration for a feasibility study on a proposed CMM/CBM project in the Donbass Region of Ukraine. Preliminary analysis suggests that as much as \$250 million in US exports may be generated for the initial phase of the Project – a significant amount in the Ukrainian market. When fully implemented, the project is estimated to cost approximately \$396 million; subsequent

phases of expanding to other coal mines and coal bed areas are expected to add another \$250 million in project costs.

The USTDA-funded study will examine the possibility of commercial development of CMM/CBM in Donbass to in-



Figure 3. USTDA study group members at the Bazhanov mine in the Donetsk coal basin in June 2006.



Figure 4. Vacuum pump for methane extraction used at the Bazhanov mine.

crease the domestic supply of natural gas, as well as increase the safety and environmental quality of the mines in the region. The analysis will focus on developing the best technical and economic approach for degassing Donetsk regional coalmines; evaluating the technical and economic merits of producing CMM; assessing the most likely markets and infrastructure required to utilize CMM and CBM; and developing a financing strategy, taking into account the potential for carbon credit sales. In addition, the environmental benefits of methane capture and carbon dioxide sequestration will be evaluated, with a focus on the



Clearinghouse *from page 1*


The United States Environmental Protection Agency (USEPA) and the US Trade and Development Agency (USTDA) are providing assistance in the development of the information center. USEPA's primary interest in working to establish a CBM/CMM Clearinghouse in India is the potential to reduce coal mine methane emissions and promote short-term and long-term sustainability. As the fourth-largest source of CMM emissions among developing countries and economies in transition, India has significant potential to reduce greenhouse gas emissions through the capture and use of CMM. Additional benefits are realized when coal-fired generation, which provides three quarters of India's electricity needs, is replaced with CBM and CMM-based power. Development of these resources will provide the ancillary benefits of increasing India's base of clean energy resources and improving mine safety. USEPA has a history of developing successful clearinghouses in several countries (See Text Box).

USTDA's interest in supporting the Clearinghouse is to promote sustainable energy development in India as well as the adoption of US technology and services in the development of this sector. The agencies agree that both coal mine methane and coalbed methane must be integral to the organization's mission and governance.

On the Indian side, the Ministry of Coal (MOC) and the Ministry of Petroleum and Natural Gas (MOPNG) will jointly share responsibilities for the operation of the organization. The MOC is expected to have primary lead juris-

dition with respect to the coal mine methane technical issues, and the MOPNG will have the lead with respect to coalbed methane (virgin coal seam methane) issues. It is likely that the Clearinghouse will have offices in both India's capital, New Delhi, and Ranchi, located near many coal mines.

From the US Government perspective, the expectation is that at the end of three to five years, the Clearinghouse will have become the recognized expert on India CBM/CMM. As such, the Clearinghouse will be the initial point of contact for many foreign and domestic investors and will effectively represent the CBM/CMM industry in India through a website and technical/policy-oriented publications. The clearinghouse will ideally be operating with a designated staff and a physical site capable of sustaining operations after US Government funding ceases.

The Clearinghouse is the latest example of the commitment between the US and India to promote clean development and energy security. The two countries have collaborated on many environmental and energy-related initiatives through multilateral and bilateral partnerships, such as the US-India Energy Dialogue, which includes a Coal Working Group, and the US-India Economic Dialogue, which includes separate energy and environment components. In addition to being founding partners of the Methane to Markets Partnership, both the US and India are founding members of the Asia Pacific Partnership for Clean Development and Climate (AP6). 

EPA's Proven Track Record for Clearinghouses

USEPA has successfully established or funded Coalbed Methane Clearinghouses in several countries. The China, Russia, and Ukraine clearinghouses remain in operation today, and all have excellent track records. Such clearinghouses provide a critical service as a focal point for foreign and domestic investors and project developers to gather data and information and establish contacts regarding project opportunities to harness coalbed and coal mine methane. Typically, EPA provides funding through a cooperative agreement over a period of several years to help the organization establish operations. The goal is to enable the organization to eventually become self-sufficient through consulting and contracting with public and private sector clients. As part of the cooperative agreement, EPA typically provides assistance to support activities such as technical training, workshops, travel assistance, study tours, etc. EPA may also contribute its own technical assistance, typically through contractor support, to aid in training, workshops, etc.

What do you want to know about?

If you have suggestions or requests for future CBM Extra content, please drop us a line.

Franklin.Pamela@epa.gov or Somers.Jayne@epa.gov



Methane to Markets

M2M Update from page 1

Coal Subcommittee Update

The Coal Subcommittee met in Brisbane, Australia, on 6 October 2006. Eight Partner countries sent delegates to the meeting, which was also joined by several members of the Project Network and an observer delegation from South Africa. Five countries (China, India, Nigeria, Russia, and Ukraine) presented overviews of project opportunities for coal mine methane (CMM) development activities at coal mines. These project opportunities are planned to be showcased at the 2007 Partnership Expo. The Subcommittee also discussed the coal sector agenda activities and programs that would be desirable for inclusion in the Expo event, and formed a Task Force to begin addressing these issues. The Subcommittee reviewed updates on project developments and ongoing activities conducted by Partner countries.

The Coal Subcommittee meeting followed a very successful two-day technical workshop co-sponsored by USEPA, Australia's Department of Tourism, Industry, and Resources (DITR), Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO), and Japan's New Energy & Industrial Development Organization (NEDO), which provided travel support for several delegates from developing countries and countries with economies in transition. The workshop focused on technologies to access and utilize coal mine methane, including several case studies from Australia, Germany, and the US. It also included a site visit to the Queensland Center for Advanced Technology (QCAT).

The next meeting of the Coal Subcommittee will be 3-4 April 2007, in Geneva, Switzerland, at the United Nations Palais des Nations. The meeting will focus on preparations for the Partnership Expo. The meeting will be immediately preceded by the meeting of the Ad Hoc Group of Experts on Coal Mine Methane, part of the Sustainable Development Committee of the United Nations Economic Commission for Europe (2-3 April 2007). Registration for the Subcommittee meeting and the UNECE meeting is available at

<http://www.methanetomarkets.org/events/2007/coal/coal-2apr07.htm>

Poland Joins Methane to Markets Partnership

The Republic of Poland was officially inducted into the international Methane to Markets Partnership on 14 December at the Steering Committee meeting in Rome, Italy. Poland joins the United States and 17 other countries in efforts to advance the cost-effective, near-term recovery and use of methane – a potent greenhouse gas – as a clean energy source from four key sectors.

The Methane to Markets Partnership is a public-private partnership that brings together the technical and market expertise, financing, and technology necessary to advance methane recovery and use projects at landfills, agricultural operations, coal mines, and oil and gas systems. Member countries work in collaboration with the private sector, multilateral development banks, and other governmental and non-governmental organizations through the Partnership's Project Network. Currently, more than 480 organizations from around the world have made commitments to this partnership.

In 2003, Poland ranked 8th globally in coal production. Poland's coal mine methane (CMM) emissions ranked 7th globally in 2000 and were about 470 million cubic meters (2003). Poland has a number of coal mine methane projects underway that utilize CMM for power generation, mine boilers, and industrial uses. For a summary of CMM projects and opportunities in Poland, please see its country profile prepared by USEPA in support of the Methane to Markets Partnership:

<http://www.methanetomarkets.org/resources/coalmines/overview.htm>

Asian Development Bank Joins M2M Partnership Project Network

In October 2006, the Asian Development Bank (ADB) formally became a member of the Methane to Markets Project Network. Through this act, the ADB pledged its dedication to promoting methane project development in four key sectors, including coal mine methane.

ADB has extensive experience with clean energy projects, including methane recovery and use at landfills and coal mines. ADB is the second multilateral development bank to join the Methane to Markets Partnership after the World Bank, and its participation will bolster the capacity of

see M2M UPDATE, page 8



Ukraine from page 3

regulatory requirements necessary to implement a project of this type.

CMM emissions reductions from degasification of the two Donbass coal mines are anticipated to be on the order of 2.5 billion cubic feet (Bcf) per year, or about 1.02 million tonnes CO₂ equivalent. Both mines utilize cross-measure boreholes for degasification and the project is expected to be completed in the spring of 2007.

As part of the USTDA-funded feasibility study, an orientation visit is slated for 2007. The delegation will include nine representatives, including Ukrainian government officials and coal mine experts whose support for the development of the Project will be critical for its implementation. The delegation will meet with industry representatives, visit actual production facilities, and meet with relevant US Government agency representatives about the industry, financing, and regulatory requirements. The orientation – with site visits in Washington, DC; Pittsburgh, PA; and Gillette, WY – originally scheduled for late January 2007 has been postponed. A new date has yet to be determined.

Ukraine Methane Group – CMM Recovery and Utilization / 15-MW Power Production.

The CJSC Ukraine Methane Group, a Ukraine Project Development Company, has established one of the first commercial coal mine methane power projects in Ukraine.

A group of US companies has formed a development partnership with a consortium of Ukrainian coal industry companies, to create a commercial program for the recovery and utilization of CMM at active and abandoned mines of the Donbass Coal Basin, commencing with two operating coal mines in Donetsk. With project management and investment from two American sponsors– Ukraine Meth-

ane Partners, LLC and Covalent Energy Corporation, the Project intends to use modern technology and equipment and is patterned after similar projects that have been successfully implemented in the United States and other parts of the world. A key element includes project finance in the form of a direct loan from the Overseas Private Investment Corporation (OPIC). The Project's commercial utilization of CMM is the basis for increasing the safety and efficiency of the mines, and for stimulating economic development in the surrounding coalmining communities.

The \$15.3 million CMM-I Project consists of a combination of components for methane recovery at the coal mines, including horizontal drilling of cross-measure boreholes, re-engineered ventilation shafts, rehabilitated gas drainage/gathering systems, and connector pipelines; and the Project features transfers of advanced technology, including modular power-plant installations with specialized Caterpillar equipment that utilizes methane as a clean fuel to generate heat and electricity.

The aggregate methane recovered from the coal mine degasification system is estimated to be approximately 1.7 Bcf of usable natural gas per annum – equivalent to 0.685 million tonnes of carbon dioxide – which will be used for power generation.

The Company's development plan includes subsequent phases for replicating the Project at other coal mines of the Donetsk region, to improve mine safety and health, and to develop additional commercial uses for the methane. The project is anticipated to begin in mid 2007.

Multi-Phase Coal Mine Safety and Utilization Project.

The US Department of Labor (USDOL) and USEPA have initiated a technical assistance program with the Ukraine State Committee on Labor Safety and the Ministry

USTDA's Involvement in Europe and Eurasia

The US Trade and Development Agency (USTDA) advances economic development and US commercial interests in developing and middle-income countries. The agency funds various forms of technical assistance, feasibility studies, training, orientation visits and business workshops that support the development of a modern infrastructure and a fair and open trading environment. USTDA's strategic use of foreign assistance funds to support sound investment policy and decision-making in host countries creates an enabling environment for trade, investment, and sustainable economic development. In carrying out its mission, USTDA gives emphasis to economic sectors that may benefit from US exports of goods and services.

USTDA has sponsored several energy sector projects in Poland, Ukraine's neighbor to the west. In 2002, USTDA awarded a \$418,398 grant to fund a feasibility study on modernization of a combined heat and power plant (CHP) in Torun, Poland. In 2003, USTDA awarded a \$250,000 grant to help study the feasibility of a 250-megawatt offshore wind energy project, Poland's first major offshore venture.



CBM/CMM News

Contracts signed for CBM blocks in India

On 16 November 2006, British energy major BP Exploration signed a deal with the petroleum ministry for extraction of methane gas from a block in West Bengal. The awarded coalbed methane (CBM) block covers an area of 248 square kilometers in the Birbhum district with estimated natural gas resources of 50 billion cubic meters (BCM).

According to a petroleum ministry press release, this is the last of the 10 CBM exploration blocks offered by India in the third round of CBM block offerings. India expects to see the first commercial gas production from CBM blocks in 2007. So far three operators have established in-place gas reserves of over 6 trillion cubic feet.

The Petroleum Secretary, M. S. Srinivasan, stated that US\$1 billion of investment was expected in exploration of the other nine coalbed methane blocks for which contracts were signed on 7 November 2006. A consortium consisting of Reliance Natural Resources Limited, Reliance Energy Limited, and GeoPetrol signed production sharing contracts for four CBM blocks, where it committed to invest at least US\$22.4 million in the first of the three phases of exploration.

Australia's Arrow Energy-led group, which included the Gas Authority of India (GAIL) Ltd, plans to invest US\$500-600 million over 20 years in the exploration of CBM in its three blocks. A Coalgas Mart-Deep Industries joint venture signed the production sharing contract for two blocks.

Methane gas extracted from coal seams is expected to help India bridge its forecasted shortfall energy resources.

PACE Announces Plans for CBM Pilot in China

Pacific Asia China Energy Inc. (PACE) recently completed a six test well program at the Mayi East Block, which covers about 138 square kilometers. This block is situated within the Guizhou Baotian-Qingshan CBM main permit area, which is 970 square kilometers.

Based on favorable preliminary results, PACE has commenced plans for an initial pilot test production program. This pilot test program will include three vertical fracture (frac) wells and two sets of Dymaxion System horizontal drill holes in Mayi East, as well as two vertical frac wells in the Zhongyi permit area.

Final drill site selection, drilling design, and fracturing are underway for the three vertical wells in Mayi East. This drilling program will include site preparation, widening of a country-side road to accommodate frac trucks, drilling, casing, and cementing of three wells, along with mini-frac, fracture-stimulation, dewatering, and production testing. Final selection of two Dymaxion horizontal hole locations are also underway. The company plans to drill these horizontal holes with its own drill rig as soon as preparations are completed.

PACE reports that progress continues to be made towards signing Memorandums of Understanding (MOU's) to award Production Sharing Contracts in both Chenzhou and Jiaozou. PACE's joint venture partner, China United Coalbed Methane Group (CUCBM), has received preliminary approvals from various Chinese government agencies on these projects.

Independent Resources Starts Drilling on Italy's First Coalbed Methane Project

Independent Resources commenced drilling a stratigraphic borehole to obtain detailed geological information on Italy's first coalbed methane project. The well is expected to provide data for the appraisal of the methane resources which are known to lie in the Fiume Bruna coal basin north of the town of Grosseto in central Italy.

The planned project is based on producing gas from a six meter thick coal seam. Past mining of the coal was limited to shallow depths, and was ultimately halted due to the generation of abundant methane in the deeper shafts.

Drilling is expected to take around two weeks, with results due over the following months. The coal is expected at a depth of around 330 meters

Indonesia's PGN to Tap South Sumatra Coalbed Methane Reserve

Indonesia's state-owned natural gas distributor PT Perusahaan Gas Negara (PGN) said it will tap a 183 trillion cubic feet coalbed methane reserve in South Sumatra, in cooperation with the local government. The company said it will invest \$200 million in the project and will begin extracting 200 million cubic feet a day of coalbed methane in 2009. PGN's Finance Director, Djoko Pramono, said the company will obtain a \$65 million loan from the Islamic Development Bank to help finance the project.

According to a company press release, PGN plans to channel the coalbed methane through a 105-kilometer natural gas pipeline to industrial and residential users in West Java. The pipeline is being built at a cost of \$165 million.



**Announcement:
New Publication!**

Franklin, Pamela M. and Barbora Jemelkova. The Power of Methane. *World Coal*, Vol. 15, Number 9 (September 2006), pages 57 – 62.

This article provides an overview of technologies used to harness coal mine methane from drained gas and from ventilation air shafts to generate power.

M2M Update *from page 5*

the Asia Pacific region to mitigate global climate change.

As a Project Network member, Manila-based ADB will provide fresh opportunities for leveraging funds in future project investments. Most recently, ADB provided a \$117 million loan to the Jincheng Anthracite Coal Group in Shanxi Province, China which is building the world's largest power plant fueled by coal mine methane. 🗑️

Int'l News *from page 7*

Indonesia is estimated to have total coalbed methane reserves of 453 trillion cubic feet.

The government is aiming to reduce its reliance on petroleum-based fuel to 35% by 2009 from 50% in 2005 by exploring alternative energy sources. 🗑️

Ukraine *from page 6*

of Fuels and Energy to improve mine safety and increase utilization of CMM. The program contains three focus areas to improve mining conditions: improving the mine ventilation systems to reduce leakages and increase their efficiency; implementing a state-of-the-art in-mine long-hole horizontal drilling and drainage program; and conducting a training program to identify and implement end-use options for the methane emitted. Work on the ventilation and drilling programs, both funded by the US DOL, began in January and July 2004, respectively. The EPA is supporting the downstream, or utilization, aspect of the program, through a series of workshops and training. The Partnership for Energy & Environmental Reform (PEER) with offices in Kyiv and Donetsk, Ukraine, is implementing organization for the US Government agencies. The current Ukraine coal mine safety program

has been funded at a level of approximately US \$5 million, and is estimated to be fully implemented by July 2008.

Conclusion

The abundance of gassy underground coal mines and the precarious nature of its energy supply make Ukraine a likely target for CMM/CBM development projects. The biggest hurdle faced by potential CMM/CBM developers is not of the technical nature, but rather lies with the political, legislative, and regulatory climate for investment in Ukraine. However, there are positive signs on these fronts as Ukraine continues to push for accession to the World Trade Organization and the European Union. Ukraine's acceptance of a set of internationally agreed-upon rules governing trade and investment will encourage inward flows of capital and improve the prospects for CMM/CBM development in Ukraine. 🗑️

CMOP Contacts

Address inquiries about the *Coalbed Methane Extra* or about the USEPA Coalbed Methane Outreach Program to:

Pamela Franklin

Phone: 202-343-9476

E-mail: franklin.pamela@epa.gov

Barbora Jemelkova

Phone: 202-343-9899

E-mail: jemelkova.barbora@epa.gov

(On detail away from agency until March 2007)

Jayne Somers

Phone: 202-343-9896

E-mail: somers.jayne@epa.gov

Our mailing address is:

US Environmental Protection Agency
Coalbed Methane Outreach Program, 6207J
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Visit our Web site at:

www.epa.gov/coalbed
www.methanetomarkets.org



Upcoming CBM/CMM Events

Nuts & Bolts of Powder River Basin (PRB) Coal

23 – 24 January 2007
Jacksonville, Florida
Phone: +1 (303) 770-8800
Website: <https://www.euci.com/conferences/january-07/0107-nuts-bolts.php>

Hydraulic Fracturing Technology Conference

29-31 January 2007
College Station, Texas
Phone: +1 (800) 456-6863
Fax: +1 (972) 952-9328
Website: http://www.spe.org/spe/jsp/meeting/0,,1104_1535_5215477,00.html

Coalbed Methane 2007: Best Practices for Effective CBM Production

6-7 February 2007
Calgary, Canada
Phone: (613) 526-4249
E-mail: registrar@conferenceboard.ca
Website: <http://www.conferenceboard.ca/conf/feb07/cbm/overview.asp>

Integrating Stress and Pore Pressure Predictions and Their Impact on Drilling, Exploration & Production

11-13 February 2007
Galveston, Texas
Website: http://www.spe.org/spe/jsp/meeting/0,2460,1104_1535_5928877,00.html

SPE/IADC Drilling Conference and Exhibition

20-22 February 2007
Amsterdam, The Netherlands
Phone: +44 (0)20 7299 3300
Fax: +44 (0)20 7299 3309
Email: reglondon@spe.org
Website: http://www.spe.org/spe/jsp/meeting/0,,1104_1535_5158014,00.html

Methane to Markets Conference: Advancing Project Development in India through Public Private Partnerships

22-23 February, 2007
Federation House, Tansen Marg
New Delhi, India
Email: environment@ficci.com
Website: <http://www.ficci.com/m2m/>

Carbon Market Insights 2007

13-15 March 2007
Copenhagen, Denmark
Website: <http://www.pointcarbon.com/Events/Carbon%20Market%20Insights/Events/Carbon%20Market%20Insights/category401.html>

8th Annual Coal Bed Methane Conference

29-30 March, 2007
JW Marriott Denver
Denver, Colorado
Website: <http://www.srinstitute.com/CBM>

American Association of Petroleum Geologists (AAPG) Annual Convention and Exhibition

1-4 April 2007
Long Beach, California
Website: <http://www.aapg.org/longbeach/>

United Nations Economic Commission for Europe Committee on Sustainable Development Ad Hoc Group of Experts on Coal Mine Methane

Held in conjunction with M2M Coal Subcommittee Meeting
2-3 April 2007
Geneva, Switzerland
United Nations Palais des Nations
Email: clark.talkington@unece.org or Catherine.pierre@unece.org
Website: <http://www.methanetomarkets.org/events/2007/coal/coal-2apr07.htm>

Methane to Markets Partnership Coal Subcommittee Meeting

3 April 2007 (afternoon) and 4 April 2007 (all day)
Geneva, Switzerland
United Nations Palais des Nations
Website: <http://www.methanetomarkets.org/events/2007/coal/coal-2apr07.htm>

Rocky Mountain Oil & Gas Technology Symposium

16-18 April 2007
Denver, Colorado
Website: http://www.spe.org/spe/jsp/meeting/0,2460,1104_1535_5571612,00.html

2007 International Coalbed Methane Symposium

21-25 May 2007
Tuscaloosa, Alabama
Website: <http://bama.ua.edu/~coalbed/>

Unconventional Gas Resources - Forum

3-8 June 2007
Colorado Springs, Colorado
Website: http://www.spe.org/spe/jsp/meeting/0,2460,1104_1535_5227540,00.html

National Coal Show/Longwall USA 2007

5-7 June, 2007
David L Lawrence Convention Center
Pittsburgh, Pennsylvania

Rocky Mountain Association of Petroleum Geologists (RMAG) "Coalbed Methane Symposium"

19 June 2007
Denver, Colorado
Contact: Druce Kelso, Phone: +1 (303) 825-3344
Contact: Bob Lamarre, Phone: +1 (720) 488-1396

Methane to Markets Partnership Expo

29 October – 1 November 2007
Beijing, China
China World Hotel
Website: <http://www.methanetomarkets.org/expo>

If you don't receive our weekly email updates, *CBM Notes*, go to www.epa.gov/cmop/maillinglist.html to sign-up now!