



COALBED METHANE EXTRA

A publication of the Coalbed Methane Outreach Program (CMOP)

www.epa.gov/cmop



Australia Carbon Tax

On July 10, 2011, Australia's Prime Minister, Julia Gillard, unveiled a plan for a carbon tax on Australian businesses, intended to lower carbon emissions and aid in the fight against climate change.

Australia emits 1.5% of the world's greenhouse gases primarily because it generates about 75% of its electricity from coal. It is roughly as polluting as South Korea, Britain and France, which have populations two to three times Australia's 22 million people - making Australia the biggest carbon emitter per person of any OECD country.

The plan proposes that from July 2012, 500 of Australia's biggest polluters will have to pay a tax of A\$23 (US\$25) per tonne on their own carbon emissions. This price will rise by 2.5 per cent a year in real terms until July 2015, when a market-based emissions-trading scheme will replace the fixed tax. The number of carbon emission permits issued by the Government each year will be capped and liable businesses will need to buy and surren-

der to the Government a permit for every tonne of pollution they produce. It is hoped that the carbon price will drive businesses to innovate and improve their energy efficiency, in order to lower their pollution emissions and therefore pay less in carbon taxes.

The government will spend half the tax's revenue compensating households for higher electricity and other living costs that polluters pass on. Another 40% of revenue will help industries to lower their costs by switching to cleaner forms of energy, if they face competition from untaxed foreign competitors. About A\$10 billion will be invested over five years in wind, solar and other renewable sources. Australia now aims to cut its emissions by 80% of their 2000 levels by 2050 instead of 60%, the government's previous figure.

The final outcome of the plan is uncertain as public opinion has turned against carbon tax legislation after being fully in favor

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and register for our mailing list. You will be added within two weeks.



GMI Partnership-Wide Meeting - Oct 12-14

The **Global Methane Initiative (GMI) Partnership-Wide Meeting 2011** will be held from 12-14 October 2011 in Krakow, Poland.

We are grateful to the Government of Poland for offering to host this important meeting.



This event will include:

- Sector-Specific Site Tours - coal site tour to the Central Mining Institute's experimental mine, followed by a visit to a hard coal mine to view methane drainage and ventilation systems.
- Plenary Sessions
- Sector-Specific Technical and Policy Sessions (Agriculture, Coal, Landfills, Oil & Gas, and Wastewater)
- Steering Committee Meeting
- Sector-Specific Subcommittee Discussions
- Networking Opportunities

Online registration, sponsorship opportunities and a preliminary agenda are available on the [Global Methane Initiative website](http://www.gmi-international.org).



Australian Carbon Tax

Australia Carbon Tax, *from page 1*

only four years ago. The plan has yet to be passed into law although the government believes it has the votes to get the plan through parliament later this year.

Detractors of the law warn about the tax's possible impact on jobs and the cost of living, but the proposed tax has not deterred investment in the Australian coal sector. The Economist Magazine reports that Peabody Energy, an American coal company, and Arcelor Mittal, a steelmaker, recently launched an A\$4.7 billion takeover bid for Macarthur Coal, a big Australian miner that sells coal to steel mills in Asia, Europe and Brazil.

The Economist also quotes Greg Combet, the minister for climate change, saying 19 new coal mines are due to open in Australia; the tax could encourage them to capture methane emitted during the coal-mining process. The government also hopes that Australia's plan will boost incentives for China and South Korea, which are exploring market-based anti-carbon mechanisms themselves.

Climate Change Authority

The government will create an independent body, the Climate Change Authority, to track Australia's pollution levels and provide independent advice to law makers on the performance of the carbon price and other initiatives. Around 60% of Australia's carbon pollution will be covered by the carbon price, including pollution from electricity generation, stationary energy, some business transport, waste, industrial processes, and fugitive emissions, mainly from coal mines. A carbon price will not apply to agricultural emissions or emissions from light on-road vehicles. Households, smaller businesses and farmers will also have no direct obligations under the carbon price.

Electricity Generation

Coal-fired electricity generation accounts for 75 % of Australia's electricity, and more than 30% of Australia's carbon pollution. In fact, Australia has the highest polluting electricity sector of all OECD countries due to the reliance on coal powered generation, and emission levels are set to increase significantly with rising demand for electricity. It is believed that a price on carbon will result in a comprehensive transformation of Australia's electricity generation technologies with a drive to shift from coal to gas and renewable generation.

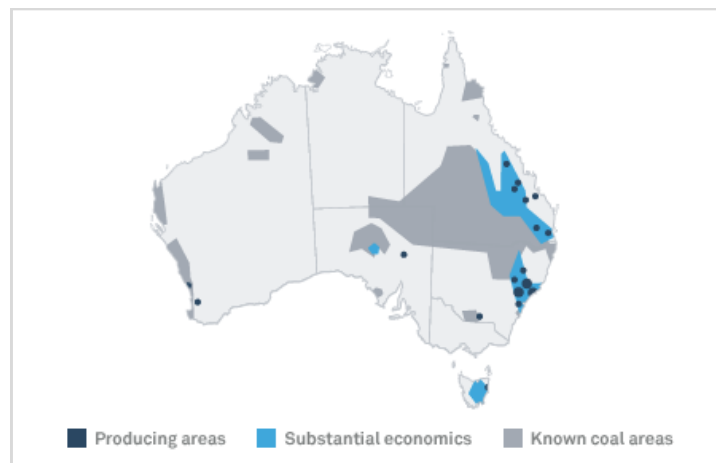
The Australian Government is seeking to negotiate the closure of around 2000 megawatts of highly polluting generation capacity by 2020. The idea of closing down some of the high polluting

coal-fired capacity is to make room for investment in low pollution plant, and aims to kick start the transformation of the energy sector in a responsible way.

Coal Sector Jobs Package

The Australian Government's "Clean Energy Future" plan includes an A\$1.3 billion Coal Sector Jobs Package. This is intended to provide transitional assistance over six years to help the coal industry to implement carbon abatement technologies for the mines that produce the most carbon pollution. The amount of carbon pollution produced by coal mines varies greatly, so the assistance will be targeted at those mines that are most impacted by the introduction of the carbon price.

Fugitive methane emissions from coal mining accounted for 4.5% of Australia's CO₂eq emissions in 2007. Underground mines accounted for 2.8%, open-cut mines 1.4% and abandoned mines 0.3%. In tonnes of CO₂ equivalent (tCO₂e), this corresponds to 16.7 million, 8.3 million and 1.7 million respectively for a total of 26.8 million tCO₂e. (Source: Australian Coal Association)



Australia's Coal Resources
(Source: Australian Coal Association)

Most Australian coal mines do not release a great deal of carbon pollution and are expected to face relatively minor cost impacts from a carbon price. A small number of coal mines, however, have high volumes of 'fugitive' emissions - mainly methane - most of which is released from coal seams during mining. These 'gassy' mines may face significant cost pressures in the early years of a carbon price.



EPA News



Mark your calendar for the 2011 U.S. Coal Mine Methane Conference!

October 18-20 Park City, Utah.

The conference, taking place at the Marriott Hotel in Park City, features experts on methane gas recovery and use from both government and industry, showcases the latest technological advances, provides expert discussion on legal and financial issues, examines intriguing case studies, and provides attendees with important networking opportunities.

A [draft agenda](#) (PDF, 4 pp, 82K) and [online registration](#) is now available.

We're excited to announce this year's conference also features a special site visit to Solvay Chemicals' trona mine in Wyoming to view its ventilation system. The mining methods used and the ventilation system employed at the trona mine are similar to those used in underground coal mines, so attendees will be able to relate much of what is learned on this site visit to coal mine methane projects.

[Site visit details](#) (PDF 1 pg, 40K) are now available.

Sponsorship and Exhibitor Opportunities

The 2011 U.S. Coal Mine Methane Conference provides a great opportunity for companies to showcase themselves in front of high-level decision makers in this important industry.

Our Exhibit Hall becomes more and more popular each year! This is a great opportunity to get your product and information in front of an engaged audience!

If your company is interested in supporting this event or to reserve a spot in the Exhibit Hall please review the Sponsorship Information Sheet and fill in the Exhibitor Form on the [CMM Conference website](#).

We look forward to seeing you in Park City.

Technical Corrections, Clarifying and Other Amendments to Certain Provisions of the Mandatory Greenhouse Gas Reporting Rule

On August 4, 2011, the U.S. Environmental Protection Agency (EPA) issued proposed technical corrections, clarifying and other amendments to seven subparts under the Greenhouse Gas Reporting Rule. This includes Subpart FF (Underground Coal Mines). These corrections are actions taken by EPA to amend Part 98 and are intended to correct technical and editorial errors and to address certain issues identified as a result of working with reporters during rule implementation and outreach.

In general, these proposed amendments, if finalized, do not change the overall requirements of the rule but improve clarity and ensure consistency across the calculation, monitoring and data reporting requirements. Most of the amendments apply to subparts finalized during 2010 and for which data collection began in 2011. Many of the proposed amendments were identified as a result of working with affected industries to implement these subparts.

Proposed amendments to Subpart FF include:

- Making technical corrections to Equations FF-1 and FF-2.
- Clarifying the placement and timing of sampling for moisture content, and including reference to calibration and documentation of procedures for moisture content monitors.
- Clarifying the sampling requirements for facilities that may use MSHA data.
- Clarifying the types of monitoring equipment required; also allow the use of infrared and flame ionization analyzers, if calibrated appropriately.

The net effect of the proposed changes would be to reduce the burden for those required to report, and in general would improve the accuracy of data. The proposed changes would not affect the total amount of emissions that this program covers.

In addition, EPA is also proposing a limited, one time extension of the 2012 reporting deadline for reporting GHG information for subparts required to start collecting data in 2011. This extension would allow sufficient time for stakeholder testing of the online reporting tool for these new source categories.

More information on these actions can be found on the "Greenhouse Gas Reporting Program" section of EPA's [Climate Change website](#).



GMI Updates

Coal Subcommittee Webinar Meeting

The Global Methane Initiative's (GMI's) Administrative Support Group (ASG) convened all four subcommittees via webinars earlier this month. This was the ASG's first use of virtual meetings to encourage greater participation by both delegates and Project Network members. Webinar participants are encouraged to contact the [ASG or Subcommittee chairs](#) with opinions on the success of the webinars.

The ASG provided an update on new Partner Countries and discussed draft guidance that was recently distributed for development of GMI Partner Action Plans (see [Moving Forward with GMI Partner Action Plans](#)).

The Coal Mines Subcommittee held its webinar on June 20, 2011 and was attended by more than 30 participants. Partner Countries, including **Australia, China, India, Indonesia, Mongolia,** and the **United States,** reported on projects completed or in development since the last Subcommittee meeting in October 2010, relevant policy changes, and an overview of activities planned for the rest of 2011.

Raymond C. Pilcher with Project Network member Raven Ridge Resources, provided an update on the United Nations Economic Commission for Europe's activities to disseminate information from the [Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines](#) (PDF, 86 pp, 1.8 MB).

It was also noted during the webinar that a Draft Policy White Paper - "[Flaring of Coal Mine Methane: Assessing Appropriate Opportunities](#)" (PDF, 8 pp, 113K) has been put together by the United States. This is a review draft white paper on flaring as a coal mine methane end use. The Coal Subcommittee will be discussing this paper during the next Subcommittee meeting in Krakow, Poland in October 2011 and comments and feedback are requested from the Coal Subcommittee members on this paper. Comments can be sent to the ASG at asg@globalmethane.org.

A draft update to the [technology database](#) (PDF, 14 pp, 122K) has also been developed. (See "New Publications" on page 7)

Attendees also discussed the agenda for the next Subcommittee meeting, and anyone interested in assisting with development of the agenda for technical sessions should email the ASG at asg@globalmethane.org.

The Coal Subcommittee Meeting presentations are now posted on the [GMI's "News and Events" web page](#).

CMM Capture and Use Technologies Seminar & Best Practices Guidance for Effective Methane Drainage and Use Workshop in Donetsk, Ukraine

September 21-22, 2011

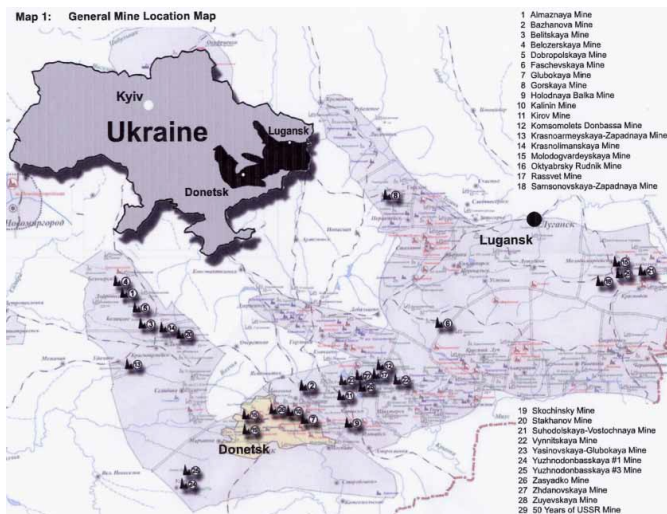
The USEPA, through the Global Methane Initiative, will hold a technical seminar on *Practices and Technologies: Coal Mine Methane Recovery and Utilization in Ukraine* on September 21-22, 2011 in Donetsk, an important coal mining and economic region in eastern Ukraine.

The seminar will bring together key experts in coal mine methane recovery and utilization to share information about modern drilling, ventilation air methane (VAM) oxidation technologies, and methane concentration systems. The seminar will build upon the success of last year's *International Investment Forum: Funding of Coal Mine Methane Projects in Ukraine*, which attracted more than 100 participants.

Also at this event, the United Nations Economic Commission for Europe (UNECE), through its Ad Hoc Group of Experts on Coal Mine Methane, will feature a half-day workshop to promote the UNECE publication "[Best Practices Guidance for Effective Methane Drainage and Use](#)". (PDF, 86 pp, 1.8 MB).

Access the [draft agenda here](#) (PDF, 3 pp, 102 KB). or on CMOP's "Workshops/Conferences" webpage.

For more information on the coal and coal mine methane sector of Ukraine, please visit the [Global Methane Initiative Coal Mine Methane Country Profile for Ukraine](#). For more information on the UNECE Best Practices Guidance for Effective Methane Drainage and Use, please visit the [UNECE website](#).





U.S. News

New VCS Methodology for CBM



The Verified Carbon Standard (VCS) approved the first VCS methodology to address methane seeping from coal bed

methane deposits. [VM0014 - Interception and Destruction of Fugitive Methane from Coal Bed Methane \(CBM\) Seeps v1.0](#), was developed by the Southern Ute Indian Tribe Growth Fund and WSP Environment and Energy.

The methodology sets out specifications for quantifying the volume of GHG emissions avoided when methane seeping from coal bed outcrops near active CBM production operations is captured and flared or used, instead of escaping directly into the atmosphere. The methodology was assessed and approved for use by Det Norske Veritas and Bureau Veritas through the VCS Double Approval Process.

More information on the VCS Methodology Approval Process can be found on their [website](#).

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Australia Carbon Tax

Australia Carbon Tax, from page 2.

At an A\$23 carbon price, the average non-gassy mine is estimated to face an emissions cost of around A\$1.40 per tonne of coal produced. By contrast, if no assistance were provided, the average gassy mine would face a cost of around A\$7.40 per tonne of coal produced, and the gassiest mines could face a cost of around A\$25 per tonne of coal produced.

The Coal Sector Jobs Package will provide assistance based on historical emissions intensity data. This is intended to reward coal mines for reducing pollution. Eligible coal mines will be mines that had a fugitive emissions intensity in 2008-09 of at least 0.1 tCO₂e per tonne of saleable coal produced. Assistance will be provided to eligible coal mines for up to 80 per cent of their fugitive emissions exposure above the 0.1 tCO₂e per tonne of saleable coal threshold. Assistance will be based on production up to a cap of base period production levels (the higher of 2007-08 or 2008-09).

The Coal Sector Jobs Package will not assist new mines or expansions of production in existing mines. The government intends that the carbon price will provide incentives for expanded coal production in Australia to be sourced from lower-emissions coal seams.

An additional Coal Mining Abatement Technology Support Package will also provide transitional assistance to help the coal industry implement carbon abatement technologies. Assistance will be provided in the form of grants on a co-contribution basis. The government has allocated \$70 million over six years to this program.

Sources: Australian Government, Australia Coal Association, The Economist

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and register for our mailing list.

You will be added within two weeks.



News In Brief

GHG Accounting for Coalmine Methane Projects

The Greenhouse Gas Management Institute (GHGMI) has announced the launch of its latest e-learning course, *GHG Accounting for Coalmine Methane Projects*.

Coal mine methane (CMM) projects are an important source of offsets, and there are a number of GHG accounting standards for a variety of offset programs. This course provides guidance for navigating these programs as well as comprehensive and detailed technical instruction on accounting for GHG reductions, project emissions, and displacement at CMM projects.

Key concepts covered include:

- GHG standards and programs
- CMM GHG project accounting using CDM, GHGS, and other methodologies
- Defining a CMM project
- Establishing the baseline scenario and selecting relevant GHGs
- Quantifying emissions and removals
- Monitoring, documenting and reporting

The GHG Accounting for Coalmine Methane Projects course is deployed on [GHGMI's interactive e-learning platform](#).

U.S.-Poland Cooperation on Clean Energy

On May 28, 2011, the White House issued a statement: "President Obama and Prime Minister Tusk welcomed new momentum in the two countries cooperation on energy and climate security, especially in view of Poland's forthcoming European Union presidency. They hope for intensified cooperation between the governments and private sectors in the development of unconventional sources of energy, including shale gas, renewable energy sources like wind and biomass,

clean coal technologies, and civil nuclear power capability in Poland."

The two leaders agreed to hold a high-level session of the U.S.-Poland Strategic Dialogue on clean and secure energy cooperation, aimed at enhancing energy security, building research and development cooperation on energy technologies, and expanding U.S. investments, exports, and participation in technology tenders in Poland. Warsaw's September 2011 International Framework for Nuclear Energy Cooperation (IFNEC) Ministerial, the next U.S.-EU Energy Council meeting, *the upcoming meeting of the Global Methane Initiative's Steering Committee*, and the fall meeting of the U.S.-Polish Business Roundtable provide further opportunities to advance common the United States and Poland's joint energy and energy security interests.

[Full press release »](#)

Alpha Natural Resources Affiliate Recognized for Environmental Practices

Coal Gas Recovery, LLC (CGR), an affiliate of coal company Alpha Natural Resources, Inc., recently received the Southwestern Virginia Technology Council's High Tech Excellence in Green Technology Award. The award recognizes businesses in the region that have put environmentally sound practices in place while embracing technological advances.

CGR won the award for the development of its coal mine methane (CMM) recovery program. CGR uses surface directional wells, drilled into the coal seam, to remove large volumes of methane, which is then purified in CGR's state-of-the-art gas processing plant and injected into the U.S. interstate pipeline system.

Source: [www.prnewswire.com](#)

Coal Company News

Alpha Natural Resources, Inc. announced June 2011, that it has completed its acquisition of Massey Energy Company, creating one of the largest coal companies in the United States. Alpha now controls the second largest coal reserve base in the U.S. with approximately five billion tons in the major coal basins of Central and Northern Appalachia, the Illinois Basin and the Powder River Basin.

Furthermore, Alpha's metallurgical reserve base is among the largest and highest-quality in the world. Alpha's diversified assets now include approximately 150 coal mines, 40 preparation plants and a combined workforce of 14,000. Pro forma revenues of \$6.9 billion in 2010 rank Alpha second among U.S. coal suppliers.

Source: [www.prnewswire.com](#)

CONSOL Energy Inc. has decided to close its Mine 84, located near Washington, PA. CONSOL had ceased production at the mine in the first quarter of 2009 and the closing is part of the company's ongoing efforts to reallocate resources into more profitable coal operations and Marcellus shale drilling activities. In the future, CONSOL will re-assess the opportunities to access the metallurgical reserves in the Mine 84 area.

USEPA's "[Profiles of Selected Gassy Underground Coal Mines](#)" estimates the mine liberated 5.1 million cubic feet of methane per day while in operation, none of which was drained or utilized.

Source: [CONSOL Energy](#)

New Publications

New on the CMOP Website

Coal Mine Methane: A Review of Capture and Utilization Practices with Benefits to Mining Safety and to Greenhouse Gas Reduction

This [review article](#) in the International Journal of Coal Geology (pdf, 36 pp., 4.87 MB), was co-authored by personnel from the National Institute of Occupational Safety and Health (NIOSH), CMOP, and Ruby Canyon Engineering.

The article reviews the technical aspects of CMM capture in and from coal mines, the main factors affecting borehole designs for effective methane capture, aspects for removing methane from abandoned mines and from sealed/active gobbs of operating mines, benefits of controlling and capturing CMM for mine safety, and benefits for energy production and greenhouse gas reduction.

(March, 2011)

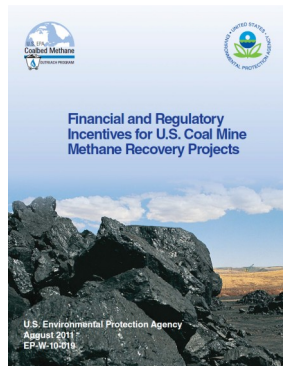


Financial and Regulatory Incentives for U.S. Coal Mine Methane Recovery Projects

Recently released by USEPA, this [analysis](#) (pdf, 18 pp., 531 KB), examines selected energy and GHG governmental and voluntary programs that include financial and regulatory incentives and mandates focusing on the capture and use, sale, or destruction of CMM (CMM Recovery Projects).

The analysis also examines recent federal and state legislation, enacted and proposed, as well as regulatory action and regional GHG agreements that may facilitate or guide development of the next generation of CMM Recovery Projects.

(August, 2011)



Latest GMI Updates

The 13th Session of the Global Methane Initiative Coal Subcommittee met via webinar on June 20, 2011. Partnership countries reported on projects completed, or in development, since the last Subcommittee meeting in October 2010, along with relevant policy changes, and provided an overview of activities planned for the rest of 2011.

Presentations:

- [Update on Administrative Support Group Activities](#) (PDF, 10 pp, 478 KB)
- [Australia Country Update](#) (PDF, 3 pp, 248 KB)
- [China Country Update](#) (PDF, 4 pp, 252 KB)
- [Indonesia Country Update](#) (PDF, 6 pp, 506 KB)
- [Mongolia Country Update](#) (PDF, 5 pp, 441 KB)
- [United States Country Update](#) (PDF, 15 pp, 231 KB)

Audio Recording: If you were not able to participate, you may [listen to the webinar](#) (WMV, 102 MB)

Draft Coal Mine Methane Mitigation and Utilization Technologies and Project Profiles (also referred to as the Draft Coal Mine Technology Database) (PDF, 29 pp, 362 KB)

This is a [review draft database](#) that provides basic descriptions of several key technologies applicable to coal mine methane recovery and utilization, including each technology's current status and commercial availability. This database is an updated and revised version of the database originally compiled by Australia's Department of Tourism, Industry, and Resources, on behalf of the Global Methane Initiative.

Inclusion in this database is intended for informational purposes only and does not imply endorsement by the Global Methane Initiative.

Flaring of Coal Mine Methane: Assessing Appropriate Opportunities (PDF, 8 pp, 113K)

This review on [flaring as a coal mine methane end use](#) is a Draft Policy White Paper put together by the United States.

The Coal Subcommittee will be discussing the "Draft Database" and the "Flaring Review paper" during the next Subcommittee meeting in Krakow, Poland in October 2011. Comments on the two items can be sent to the Administrative Support Group at asg@globalmethane.org.



CBM/CMM Events

22nd World Mining Congress & Expo

September 11-16, 2011

Istanbul, Turkey

Website: www.wmc-expo2011.com

28th Annual Pittsburgh Coal Conference

September 12-15, 2011

Pittsburgh, Pennsylvania

Website: <http://webster.engr.pitt.edu/pcc/2011conf.html>

34th Annual Coal Marketing Days

The Seminal Coal Buyers/Sellers Event

September 19-20, 2011

Pittsburgh, Pennsylvania

Website: <http://www.platts.com/ConferenceDetail/2011/pc126/index>

Technical Seminar on CMM Recovery and Utilization in Ukraine and UNECE Best Practices Guidance for Effective Methane Drainage

September 21-22, 2011

Donetsk, Ukraine

Website: <http://www.epa.gov/cmop/docs/cmm-workshop-2011-agenda.pdf>

6th Latin American and Caribbean Carbon Forum

September 27-29, 2011

San Jose, Costa Rica

Website: www.latincarbon.com/2011/english/objective.htm

7th Session of the UNECE Group of Experts on CMM

October 11, 2011

Krakow, Poland

Website: <http://live.unece.org/index.php?id=25288>

Unconventional Gas – Oasis of China’s Energy Industry

October 11-12, 2011

Urumqi City, Xinjiang Uygur Autonomous Region, China

Website: http://www.coalchemchina.com/email_04.html

GMI Partnership-Wide Meeting

October 12-14, 2011

Krakow, Poland

Website: http://www.globalmethane.org/news-events/event_detailsByEventId.aspx?eventId=347

2011 U.S. CMM Conference

October 18-20, 2011

Park City, Utah

Website: www.epa.gov/coalbed/conf/cmm_conference_oct11.html

Low Carbon Earth Summit 2011

October 19-26, 2011

Dalian, China

Website: www.lcesummit.com/index.asp

AAPG 2011 International Conference and Exhibition

October 23-26, 2011

Milan, Italy

Website: www.aapg.org/milan2011

Indonesia Coal Investment Forum 2011

October 31 - November 3, 2011

Jakarta, Indonesia

Website: <http://www.immevents.com/our-events/indonesia-coal>

International Symposium on Occupational Health and Safety

November 9-11, 2011

Sinaia, Romania

More information: [Event brochure \(PDF\)](#)

17th United Nations Framework Convention on Climate Change

November 28 - December 9, 2011

Durban, South Africa

Website: www.cop17durban.com/Pages/default.aspx

11th International Symposium on CBM/CMM in China

December 1-2, 2011

Beijing, China

Website: http://www.nios.com.cn/c/index_en/coalbed/cbmcon/6174.html