

FOURTH ANNUAL CONFERENCE ON CARBON CAPTURE & SEQUESTRATION

Developing Potential Paths Forward Based on the Knowledge, Science and Experience to Date

CALL FOR PAPERS

May 2 – 5, 2005
Hilton Alexandria Mark Center
Alexandria, Virginia

The U.S. Department of Energy, in cooperation with the U.S. Departments of Commerce, Agriculture, the Environmental Protection Agency, working with various international entities including the Carbon Sequestration Leadership Forum is seeking paper and poster presentations for the *Fourth Annual Conference on Carbon Capture & Sequestration* being convened by the National Energy Technology Laboratory. This year's conference will build on the very successful 2003 and 2004 conferences, which both attracted over 400 experts from around the world and included presentations by key government officials.

Working together with an **international steering committee representative of carbon capture, separation, sequestration and transport technology** developers, purveyors and ultimate users, the 2005 conference will pay particular attention to the progress made to date on the myriad of projects under way for the past several years and possible paths forward based on the knowledge, science and experience now acquired.

History of the Conference...

The Carbon Sequestration Conference was initiated in 2001 in order to facilitate the exchange of information and experience primarily between the engineers and scientists involved in projects funded by the National Energy Technology Laboratory and other Dept. of Energy programs. No conference was held in 2002, but a 2003 was planned. During that hiatus, President George W. Bush launched the Administration's **Climate Change Science Program** and directed the U.S. government agencies to develop the resources and capability to reduce carbon intensity in the U.S. by 18 percent over the next ten years. The U.S. Department of Energy established a **government-wide Climate Change Technology Program to complement the science initiative and work on technologies to mitigate climate change possibly caused by carbon emissions**. Following that action, the **Carbon Sequestration Leadership Forum** was created to **facilitate U.S. cooperation with the international community** to work to develop carbon capture, separation and sequestration technologies that would allow developed and 'emerging economy' nations to utilize their vast fossil resources but in a manner that would reduce carbon intensity.

The resulting 2003 conference was, as described by many participants—"a watershed event" focusing on **carbon capture, separation and sequestration technologies to mitigate climate change and bringing together U.S. federal agencies supporting work on carbon cycle RD&D along with their counterparts from around the world**. The 2004 Conference followed in the footsteps of the 2003 event. In a nutshell, the DOE-NETL Annual Carbon Capture & Sequestration Conference:

- Focuses on carbon capture, separation and sequestration technologies deployable in the U.S. and North America;
- Provides a forum for the exchange of experience of the international scientific and engineering communities;
- Facilitates the dialogue between technology developers/purveyors, carbon emitting industries and the public on the development and deployment of viable technologies and putting in place the necessary institutional and intergovernmental frameworks to move the technology forward.

Sponsored by...

in coordination with...



AN INVITATION TO PRESENT A PAPER...

Technical papers for oral and poster presentations are sought in the areas listed below. Please feel free to submit sub-topics not specifically defined but are related to the main topics listed below in bold type. The 2005 Conference is intended to focus on the results of the myriad of projects funded over the past several years on the potential path forward based on the accumulated experience, knowledge and science.

Topics

- **Separation and Capture**
 - Industrial Efforts
 - Absorption Studies
 - Power Systems Concepts
 - Environmental Aspects
 - Membranes
 - Advanced Concepts
- **Sequestration of Carbon Emissions in Geologic Formations**
 - Enhanced Oil/Gas Recovery
 - Enhanced Coal Bed Methane
 - Saline Aquifers
 - Modeling Data
 - Environmental Aspects
 - Co-Benefits
 - MMV Technologies
- **Determination of the Contribution of Natural Sinks/Processes to Carbon Sequestration & Capture**
 - Retentinal Properties of Naturally-Occurring CO₂ Reservoirs
 - Distribution of N. American Carbon Sinks
 - Maintenance and Enhancement of the data Collection and Synthesis Capabilities of National Networks of Long-term Experimental Sites in Forest, Rangelands, Wetlands, Agricultural Lands, and Other Ecosystems
- **Ocean Sequestration**
 - Direct Injection
 - Fertilization
 - Effects on the Ocean Biosphere
 - Environmental Aspects
 - Co-Benefits
- **Enhancing Natural Sinks/Terrestrial Sequestration**
 - Ecosystem Behavior
 - Science-Based Ecosystem Potentials
 - Microbial Indicators
 - Soil Enhancement
 - Environmental Aspects
 - MMV Technologies
 - Co-Benefits
- **Technology/Systems for the Measurement, Monitoring and Verification of Carbon Emissions**
 - Design of Data Bases
 - Available Data Bases
 - Updating DOE GHG Registry
 - Other Registries
 - Links to Commercial Mechanisms
 - Standards and Protocols
- **Advanced Conversion/Capture Concepts**
 - Carbonates
 - **Biological/Chemical Processes**
 - Conversion to Methane
 - Environmental Aspects
 - Co-Benefits
- **Modeling and Assessments**
 - Case Studies
 - **Economics**
 - Environmental Aspects
 - Co-Benefits
 - **Verification of Carbon Cycle Models**
- **Risk Assessment**
- **Potential Commercial Mechanisms to Support Reduction of Carbon Intensity**
 - International Experience
 - Domestic Experience
 - Analysis and Tool Development
- **International Initiatives and Programs**
 - Case Studies
 - Policy Issues
 - **Opportunities for Capture & Sequestration in Emerging Economies**
- **Overview/Assessments of Carbon Sequestration Systems/Technologies**
- **Economics**
- **Technology Development Roadmaps**
- **Role of Sequestration in Stabilization**
- **Emissions Trading and Offsets**
 - Domestic & International Experience
 - Intra-Company
 - GHG Markets
- **Market Assessment of Carbon Sequestration Systems/Technologies**
- **Environmental Aspects/Impacts of Atmospheric Carbon**
- **Emission Control Strategies**
 - Options for Fossil Fuel Use
 - Flue Gas
 - Biomass Fuels
- **Commercialization Barriers/Incentives**
- **Utilization/Investment by Carbon Emitting Industries**
 - **Power Industry**
 - **Non-Power Industry**
- **Policy Issues**
 - Government Drivers vs. Market Forces
 - Regulatory Framework
 - Reporting and Verification
 - Certification (1605b)
- **Regional Partnerships Between Technology Developers and Carbon Emission Generators to Identify and Develop Carbon Capture & Sequestration Opportunities**
- **Education and Outreach**
- **Public Acceptance**
 - Scientific and Socioeconomic Criteria That Could Be Used to Evaluate the Sensitivity of the Carbon Cycle and the Vulnerability and Sustainability of Carbon Management Approaches

Guidelines for Abstracts: Submit a **250 word abstract** vial e-mail including: Paper Title, Author/Co-Authors, Name of Paper Presenter and Affiliation, Title Address, Phone, Fax and E-mail Address for each individual.

Abstracts Due: March 4, 2005; **Acceptance Notification:** March 11, 2005

NOTE: *Full papers are required. Oral presentations time will be limited to 20 minutes. The full paper must be submitted as an Acrobat PDF file and will be included in an electronic proceedings. Acrobat PDF files of PowerPoint presentations will be accepted in lieu of technical paper. (Will Be Available on CD and Web). Inclusion of Photographs Not pertinent to Technical Discussion Highly Discouraged.*

ALL OVERHEADS/VIEWGRAPHS MUST BE IN POWERPOINT—NO EXCEPTIONS
E-mail Abstracts to: carbonsq@exchangemonitor.com; (**Website:** <http://www.carbonsq.com>)
(Please indicate topics/sub-topic area from list above)

AN OPPORTUNITY FOR VENDORS...

Showcase Your Company's Services, Products, and Technologies by joining the

2005 CO₂ Sequestration Technology Exhibit

The *Fourth Carbon Sequestration Technology Conference* attracted over 400 participants from key federal agencies including DOE, EPA and USDA, industry and small business operators. They represented organizations involved in developing technologies and services and those looking for ways to address their emission problems.

• IT'S FIRST COME, FIRST SERVE—EXHIBIT SPACE LIMITED •

Participation: Conference exhibitors will be limited.

Dates and Times: The Exhibit schedule will revolve around many of the catered functions and will provide ample opportunities for one-on-one discussions with Conference participants.

What to Do: **Reserve space now** for the Exhibit by faxing the form below. For more information contact the Conference Coordination Office at: 1-877-303-7367

Costs: *All Fees Include One Complimentary Registration to the Workshop (\$795 Value).*

Exhibit:	SMALL COMPANIES (Fifteen or Fewer Employees) \$1,495	MEDIUM TO LARGE COMPANIES (More than 15 Employees) \$1,850
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RESERVATION FORM

Please reserve space for my company
(Indicate method of payment on Form)

Reserve Space NOW!
Fax this form and Conference
Registration form to: 202-296-2805

Name _____

Title/Position _____

Company/Affiliation _____

Address _____ Mail Code _____

City _____ State _____ Zip _____

Phone _____ Fax _____ E-mail _____

Method of Payment: ____ Bill Me (PO No.: _____)

Charge My: ____ VISA ____ MASTERCARD ____ AMEX

Card No.: _____ Exp. Date: _____

Cardholder Name: _____

(As It Appears on Credit Card)

We will exhibit on the following product(s) and/or service(s):

ACCOMMODATIONS

The rate for Conference attendees at the **Hilton Alexandria Mark Center** is **\$179.00** for single or double occupancy plus applicable city and state taxes. **A number of rooms are available for government employees** at the \$150.00 government per-diem rate. **To qualify for this special rate, you must have a government identification card.**

To guarantee a reservation, call the **Hilton Alexandria Mark Center** at **703-845-1010** by **April 9**. Identify yourself as a **Carbon Conference Participant**. If space is available, the above rates will apply for attendees two days prior and two days after our program dates. We recommend getting your reservations prior to April 5 to assure a place.

GROUND TRANSPORTATION

From Regan National Airport: The Hilton Alexandria Mark Center provides complimentary transportation to and from National Airport every hour (6 a.m. to 11 p.m.) A private taxi is also a reasonable choice. **From Baltimore Airport:** Call Super Shuttle and make reservations for the most economical rate. **From Dulles Airport:** Taxi will be around \$50.00. Other means are available— see the Airport info desk.

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(WEBSITE: www.carbonsq.com)

HILTON ALEXANDRIA MARK CENTER

The Conference site is the Hilton Alexandria Mark Center, 5000 Seminary Road, Alexandria, VA 22311; Phone 703-845-1010. It is located seven miles southwest of Washington, DC and National Airport and Twenty miles southeast of Dulles Airport, just off the Seminary Road exit from I-395. It is ten minutes from Washington, DC, the Smithsonian and all monuments.

The Hotel operates a Business Center that can provide photocopies, facsimiles, Internet access, word processing, workstation and equipment rental, 24-hour call-in dictation, packaging and shipping with UPS, FedEx, and Airborne. All of the guestrooms are equipped with a dataport for modem hookup. An Executive Fitness Center and indoor/outdoor pool are on the Hotel premises.

Registration opens at 3:00 p.m. Monday, May 2 followed by a Reception and Dinner at 6:00 p.m. The Opening Plenary is at 8:00 a.m., Tuesday, May 3. The Forum ends at 12:00 p.m., Thursday, May 5.

REGISTRATION FORM

THIRD ANNUAL CONFERENCE ON CARBON CAPTURE & SEQUESTRATION May 2 – 5, 2005

Registration Fees: CIRCLE ONE
General admission: \$795.00
All government, academic,
NGO's* or public interest groups,
and national lab employees**: \$495.00
(Add \$100.00 to all fees after April 4, 2004)

(Includes: Three continental breakfasts, two lunches, three receptions, one dinner, a copy of the Briefing Book and a CD copy of the Proceedings.)

***Does not include industry-based not-for-profits**
****DOE Contractors ARE NOT government employees**

Return this form and payment to: **EXCHANGEMONITOR FORUMS**, P.O. Box 65782, Washington, DC 20036-5782, Tel: 877-303-7367 ext. 109, Fax: 202-296-2805.

CITIZENSHIP: U.S. _____ Other _____ (specify)
(Required to Process form)

Payment/Cancellation Policy: Anyone who registers and cancels after **April 15, 2004** is subject to a **\$200.00 service fee. Fees paid will be forfeited for non-attendance or cancellation after April 22, 2004**
Substitutions welcome.

I am bringing _____ guest(s)* to all social events at \$150.00 per guest.

Please list guest names _____

Name _____

Title _____

Affiliation _____

Address _____ Mail Code _____

City _____

State _____ Zip _____

Phone _____ Fax _____

E-mail address _____

_____ Check is enclosed. _____ Charge My:

Card Type: _____ VISA _____ MASTERCARD _____ AMEX

Card No.: _____ Exp. Date: _____

Cardholder Name: _____

(As Appears on Credit Card)

***Guests are defined as spouses and significant others NOT BUSINESS ASSOCIATES**