

# PARTNER UPDATE

SUMMER 2007



## Let Your STAR Shine: The Basics Behind Winning a Natural Gas STAR Award

In addition to providing Natural Gas STAR partners with guidance on implementing methane emission reduction technologies and activities, Natural Gas STAR provides recognition for partners' achievements. Each year at the Natural Gas STAR Annual Implementation Workshop, the U.S. Environmental Protection Agency (EPA) recognizes a select group of partners for their efforts over the course of the past year. Award categories include Partner of the Year (for each industry sector, including an international partner), Rookie of the Year, Implementation Manager of the Year, and Continuing Excellence. Earning a Natural Gas STAR award increases visibility for your company as an environmental

leader and rewards Implementation Managers and staff for their work to reduce methane emissions.

To be considered for a Gas STAR award, you must submit your Gas STAR Annual Report. Reporting your company's successful methane emission reductions is a key component of participation in the Natural Gas STAR Program. In addition to being eligible for a Gas STAR award, by reporting emission reduction data to EPA, partners create a lasting record of their accomplishments; identify themselves as corporate environmental leaders committed to addressing global climate change; and facilitate the transfer of new, innovative technologies

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### Announcing the 14th Annual Natural Gas STAR Implementation Workshop!

The Workshop will take place October 23 & 24, 2007, at the Hyatt Regency in Houston, Texas. Please visit [epa.gov/gasstar/workshops/imp\\_workshops.htm](http://epa.gov/gasstar/workshops/imp_workshops.htm) for additional information.

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## Technology Spotlight

### Marathon Oil Company Targets Emission Reduction Opportunities During Well Completions



Marathon Oil Company (Marathon), which won Production Partner of the Year for the second time in 2006, first joined the Natural Gas STAR program in 1994, and recently signed a Memorandum of Understanding to join Natural Gas STAR International. During the past

13 years, the company has implemented many best practices for reducing methane emissions. One of the more unique Marathon practices is their patented EXCAPE® Completion Process, more commonly known as Casing-Conveyed Perforating (CCP).

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## Leak Surveys, Inc. Wins Clean Air Technology Award

**P**lease join us in congratulating Leak Surveys, Inc. (LSI) for being recognized as a 2007 Clean Air Excellence Award recipient in the Clean Air Technology category.

For the past seven years, the Clean Air Excellence Awards Program has annually recognized and honored individuals and organizations that have used innovation, acted as leaders in their fields, and improved air quality. Through their efforts, each award recipient has either directly or indirectly reduced emissions of criteria pollutants—ozone, carbon monoxide, total suspended particulates, sulfur dioxide, lead, and nitrogen oxide—or toxic air pollutants.

LSI received a Clean Air Technology award for their Hawk Leak Detection System which uses optical imaging to

detect and repair leaks in petroleum and natural gas processing systems. The Hawk Leak Detection System employs a passive infrared camera to scan for volatile organic compound emissions and has a wide range of applications such as emissions monitoring, vapor recovery system checks, and environmental damage evaluations. The Hawk also has the potential to provide a wide range of benefits, including reducing revenue loss and reducing human exposure to toxic substances and safety hazards.

To learn more about the Clean Air Excellence Awards Program, sponsored by EPA's Office of Air and Radiation, please visit [epa.gov/oar/caaac/clean\\_award.html](http://epa.gov/oar/caaac/clean_award.html). To find more information on Leak Surveys, Inc. and their Hawk Leak Detection System, please visit [leaksurveysinc.com](http://leaksurveysinc.com).

## STARtracker, A New Methane Emissions Reduction Tracking Tool Available to Natural Gas STAR Partners

**D**evon Energy Corporation (Devon), in collaboration with COMM Engineering (COMM) and Louisiana State University (LSU), has developed STARtracker, a Web-based application for tracking and reporting methane emission reductions. The application, to be hosted on individual companies' Webservers, allows users to set up the tool to reflect their

operations in order to track and catalog methane emission reductions across their company. To date, Devon has found STARtracker to be an effective tool in managing the data associated with its emission reductions and has generously donated the application to the Natural Gas STAR Program to share with other interested Partners.



### Related to the Technology Spotlight

**Q:** How does the casing conveyed perforating system reduce methane emissions?

**A:** CCP allows the completion team to perforate and stimulate all intervals in a single day. The higher gas rate associated with perforating and stimulating all intervals allows the well to clean up quickly and can be ready to go to sales the next day. Conventional completion techniques vent gas for up to four days per completion stage and there may be three to four stages per well. Marathon estimates that they have reduced venting as much as 7,850 MCF in a single well.

**Q:** What are the benefits of the casing conveyed perforating system?

**A:** Wells are completed more cost effectively while simultaneously reducing methane emissions and improving safety conditions. There are fewer opportunities for accidents with reduced travel time, reduced work activities associated with re-entering the well, and fewer total man-hours on location.

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# International Partner Profile

## Mexico's PEMEX Gas: Working with Its International Peers to Decrease Methane Emissions

Since its inception in November 2004, Methane to Markets has been sharing innovative methane emission reduction projects among its various Subcommittee members and Project Network members. Mexico was a founding member of Methane to Markets and has since been making strides in reducing methane emissions throughout Mexico's nationally owned petroleum company, Petróleos Mexicanos (PEMEX). PEMEX is an important exporter of oil that not only supplies the country with oil and natural gas, but also produces approximately one-third Mexico's revenue.



As part of its methane emission reduction efforts, PEMEX hosted an international technical workshop and meeting in Villahermosa, Mexico, in February 2007, with various interested parties including: PEMEX Gas, Pemex Exploration and Production (PEP), USAID/Mexico, and Methane to Markets Oil & Gas Subcommittee members. The parties discussed the



finalization of the following activities/projects that were undertaken in 2006 that helped Mexico and other Methane to Markets members reach their methane emission reduction goals. PEMEX shared the following successes:

- ★ Hosting the international technical workshop and meeting of the Oil & Gas Subcommittee in Villahermosa, Mexico in April 2006, that included a technical workshop on modern techniques for methane recovery in the industry.
- ★ Conducting a preliminary analysis of PEMEX Gas methane emissions.
- ★ Calculating baseline measurements for the gas compressors of the Ciudad PEMEX Gas Processing Complex (GPC).
- ★ Performing the identification and quantification of fugitive emissions in the Cactus, Ciudad PEMEX, and Nuevo PEMEX GPCs.

As discussed at the Methane to Markets Oil & Gas Subcommittee May 2007 meeting in Aberdeen, Scotland, the following project summaries highlight innovative activities that PEMEX

### Methane to Markets Partnership Expo: A Forum for Projects, Technology, Financing and Policy

**October 30–November 1, 2007 in Beijing, China**

The Methane to Markets Partnership Expo is the premier international forum for promoting methane recovery and use project opportunities and technologies. Join the international methane community and: showcase project opportunities and technologies; meet with potential project partners and financiers; learn about the latest technologies and services; and explore key technical, policy, and financial issues.

Showcase your organization's technology to the largest international gathering dedicated to methane recovery. For more information on how to exhibit at the event, visit the Sponsors page of the Methane to Markets Web site, located at [methanetomarkets.org/expo/sponsors.htm](http://methanetomarkets.org/expo/sponsors.htm). Opportunities are still available for corporate sponsorship. For complete details about sponsorship options see the Sponsorship Application, located at [methanetomarkets.org/expo/docs/sponsorship\\_form.doc](http://methanetomarkets.org/expo/docs/sponsorship_form.doc). More information in English is available online at [methanetomarkets.org/expo/docs/flyer\\_eng.pdf](http://methanetomarkets.org/expo/docs/flyer_eng.pdf). We look forward to seeing you at the Expo!



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# International Partner Profile

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Gas is currently, or will soon be, implementing as a result of the baseline analyses conducted last year. As part of its role in Methane to Markets, the company will be sharing its project results and successes with its international peers on an ongoing basis.

## Measurement of Methane Emissions Reductions Due to the Replacement of Wet Seals in Gas Compressors

PEMEX will apply a consistent measurement approach to quantify methane emissions before and after the replacement of wet seals in three gas com-



pressors at the Ciudad PEMEX GPC. Based on the project's success, there is potential for replication at 43 additional compressors at PEMEX Gas.

- ★ Proposed schedule: July 7–9, 2007
- ★ Implementation team: PEMEX Gas, PA Consulting, Heath Consultants
- ★ Related Gas STAR resource: [epa.gov/gasstar/pdf/lessons/ll\\_wetseals.pdf](http://epa.gov/gasstar/pdf/lessons/ll_wetseals.pdf)

## Fugitive Emission Measurements

PEMEX will evaluate the elimination of fugitive methane emissions from



devices surveyed in August 2006 at the Ciudad PEMEX, Nuevo PEMEX, and Cactus GPCs. As part of this project, the company will quantify the methane emission reductions resulting from the repairs implemented.

- ★ Proposed schedule: July 2007
- ★ Implementation team: PEMEX Gas, PA Consulting, Heath Consultants
- ★ Related Gas STAR resource: [epa.gov/gasstar/pdf/lessons/ll\\_dimgasproc.pdf](http://epa.gov/gasstar/pdf/lessons/ll_dimgasproc.pdf)

## Fugitive Emissions from Gas Pipelines

To share the results of a fugitive emissions survey made by the Pipelines Division of PEMEX Gas, the company will develop a case study on its methane emission reduction efforts.



- ★ Proposed schedule: June 2007
- ★ Implementation team: PEMEX Gas, PA Consulting, Heath Consultants
- ★ Related Gas STAR resources: [epa.gov/gasstar/techprac.htm#4](http://epa.gov/gasstar/techprac.htm#4)

## Methane Emissions from Crude Storage Tanks and Separation Batteries



PEMEX Exploration and Production will quantify methane emissions from crude storage in the Iride Samaria separation batteries to evaluate the installation of vapor recovery systems.

- ★ Proposed schedule: July 2007
- ★ Implementation team: PEP, PA Consulting, HyBon Engineering, and/or Heath Consultants
- ★ Related Gas STAR resources: [epa.gov/gasstar/pdf/lessons/ll\\_final\\_vap.pdf](http://epa.gov/gasstar/pdf/lessons/ll_final_vap.pdf)

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# Gas STAR Awards

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and practices to others in the industry.

EPA considers the varying sizes of partners' operations in order to fairly evaluate partners' emissions reductions. Award winners are selected by their reported emission reductions relative to the size of their company, as well as the following activities:

- ★ Increasing emission reductions throughout time.

- ★ Implementing new technologies.
- ★ Participating in or making presentations at the annual workshop and/or technology transfer workshops.
- ★ Participating in the development of articles for the Partner Update, Lessons Learned documents, or PRO Fact Sheets.
- ★ Acting as leaders in the Program by working with other partners and sharing their companies' Gas STAR experiences.

To report Gas STAR related activities that you would like taken into account in the award determination process, simply complete the "Additional

Accomplishments" section of the annual reporting form.

If you have questions or need assistance with submitting your 2006 data, please contact your STAR Service Representative. You can find your STAR Service Representative's contact information on the Natural Gas STAR Web site by visiting [epa.gov/gasstar/resources/partnerreps.htm](http://epa.gov/gasstar/resources/partnerreps.htm).

Help us celebrate your company's successes and significant efforts to positively address climate change through voluntary emission reductions by submitting your Natural Gas STAR Annual Report today!

## Calendar 2007 UPCOMING EVENTS

### GAS STAR TECHNOLOGY TRANSFER WORKSHOPS

#### Production

- ★ **Glenwood Springs, Colorado**  
September 11, 2007  
Sponsored by: Williams Production RMT Company

- ★ **Durango, Colorado**  
September 13, 2007  
Sponsored by: ConocoPhillips Petroleum Company

### GAS STAR IMPLEMENTATION WORKSHOP

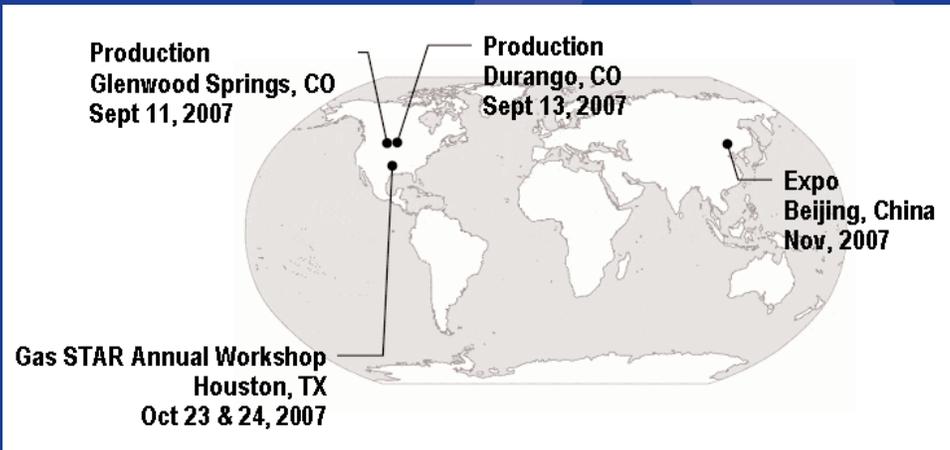
- ★ **Houston, Texas**  
October 23 & 24, 2007  
Hyatt Regency Houston

These are events that the Natural Gas STAR Program is currently planning. For updates and further information, please check out [epa.gov/gasstar/workshops.htm](http://epa.gov/gasstar/workshops.htm) or contact Carey Bylin at [bylin.carey@epa.gov](mailto:bylin.carey@epa.gov) or (202) 343-9669. Additionally, are you a Gas STAR Endorser and have an event you would like listed here? Please notify Gas STAR about it.

### METHANE TO MARKETS WORKSHOP

- ★ **Methane to Markets Partnership Expo**  
*A Forum for Projects, Technology, Financing and Policy*  
October 30–November 1, 2007  
Beijing, China

The Methane to Markets Partnership Expo is the premier international forum for promoting methane recovery and use project opportunities and technologies. Join the international methane community and: showcase project opportunities and technologies; meet with potential project partners and financiers; learn about the latest technologies and services; and explore key technical, policy, and financial issues. More information in English is available online at [methanetomarkets.org/expo/docs/flyer\\_eng.pdf](http://methanetomarkets.org/expo/docs/flyer_eng.pdf).



# Technology Spotlight

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CCP is a new method for completing natural gas wells that successfully reduces costs, well completion time, and methane emissions due to venting. Conventional completion techniques require more time and significantly more venting as the well is completed in stages. Three to four intervals are typically stimulated during each stage of the completion process and require anywhere from one to four days of venting to clean up the well. Then, the process is repeated for each of the remaining stages until the well is operational. In contrast, CCP allows the completion team to perforate and stimulate all intervals in a single day. The higher gas rate associated with perforating and stimulating all intervals at once allows the well to clean up quickly and, therefore, the gas can be ready to go to sales the next day.

The Casing-Conveyed Perforating system is composed of perforating guns external to the casing and integral valves in the casing for zonal isolation [Figure 1]. The system was designed to improve stimulation of productive intervals in a timely and cost effective manner for the overall improvement of the completion process. To accomplish this, Marathon

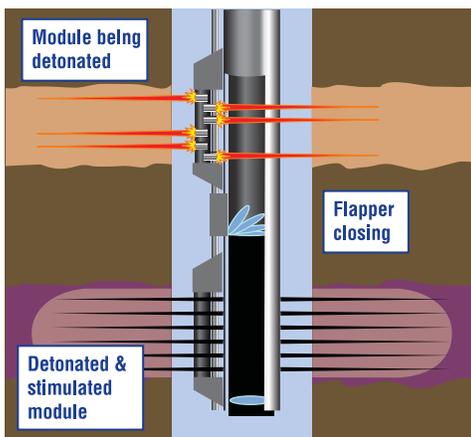


Figure 1: Schematic of one module detonating while the flapper is closing above a previously detonated module.

Oil engineers utilize “perforating modules,” an assembly that includes an isolation valve, perforating gun, and other related hardware designed to stimulate perforation one interval at a time. The perforating guns, which are fired either via hydraulic control lines or by radio frequency identification chips, shoot into and through the casing and formation, thus allowing natural gas to flow into the casing [Figure 2]. Once the guns are fired, isolation devices (such as flapper valves) are actuated and prevent fracturing injections from entering lower intervals. After each interval is stimulated and sealed with an isolation valve, the next perforating gun is fired and the process is repeated until the well is operational.

Since implementing the CCP system, Marathon has observed an 80 percent reduction in time spent on location. Cost savings are significant due to reduced trucking expenses and fuel usage; reduced man-hours spent to complete the well, and lower associated equipment costs while on location. Marathon estimates a reduction in venting anywhere from 2,750 MCF to 7,850 MCF per well—gas that now goes to sales. In addition to the environmental benefits associated with reduced venting, the CCP practice of completing the well has positive safety implications. There are fewer opportunities for accidents with reduced travel time, reduced work activities associated with re-entering the well, and fewer total man-hours on location. Phil Snider, a Senior Technical Consultant for Marathon Oil, recently started tracking the environmental benefits of CCP. According to Mr. Snider, “Marathon Oil’s EXCAPE® Completion Process allows us to complete wells more cost effectively while simultaneously reducing methane emissions and improving safety conditions. The technology is catching on throughout the natural gas production industry and we believe this is a very good thing.”

## Firing Pattern of CCP Gun Assembly

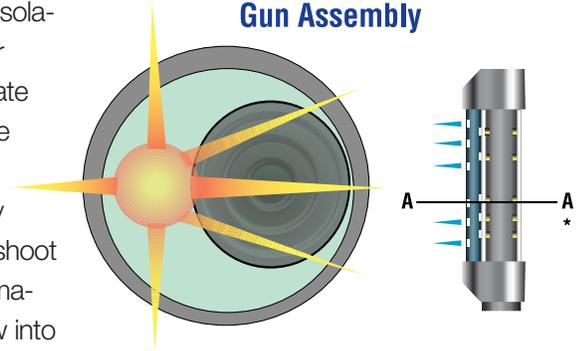


Figure 2: Firing pattern and cross-section view of CCP.

Marathon’s operations in Alaska are leading the way by implementing this technology in approximately 60 percent of its natural gas wells across the state. The company estimates that the 22 productive wells on the Kenai Peninsula that were previously completed with this technology have reduced emissions by more than 95,000 Mcf. Overall, Marathon now uses CCP completion techniques in approximately five percent of its wells nationwide and is looking to increase this number during the next five years.

## Lessons Learned

While CCPS certainly results in many cost savings and environmental benefits, there are challenges associated with employing the new technology. First, the casing

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## Marathon Oil’s CCPS Technology Achieves Cost Savings By:

- ★ Spending less time on location to complete a well.
- ★ Reducing the number of trips to and from the well site by completing a well in just one day.
- ★ Bringing the well on-line for sales quickly.
- ★ Reducing the quantity of fugitive emissions lost to venting.
- ★ Reducing the potential for costly accidents.

# Overview: Proposed Climate Change Legislation Relevant to the Natural Gas Industry

**T**he 110th Congress has been very active on climate change issues this year.

Both the House of Representatives and Senate have held multiple hearings in various committees on a wide range of topics such as climate change science, technologies that reduce emissions of greenhouse gases (GHG), alternative fuels, and potential options for controlling GHG emissions (e.g., cap and trade programs). In addition, over forty bills related to climate change and energy have been introduced to date. While not all of the bills directly affect the natural gas sector, the cap and trade bills are particularly relevant.

To date, nine cap and trade bills for controlling GHG emissions have been introduced and one draft cap and trade bill has been circulated. (The draft bill being circulated is from Senators Bingaman and Specter. It is expected to be introduced by the end of June 2007.) The bills vary based on a number of factors, such as the sources they cover and the point at which they regulate GHG emissions, among many others. The following provides an overview of the major components of the legislation.

## Coverage

Out of the 10 bills, four of them are focused exclusively on the power sector (i.e., emissions from power plants). Although all of the proposed cap and trade legislation might affect the natural

**Background:** Cap and trade is a market-based mechanism for reducing emissions from a group of sources over a broad geographic region. This approach has been used since the early 1990s by EPA's Acid Rain Program (established under Title IV of the 1990 Clean Air Act Amendments) to reduce sulfur dioxide (SO<sub>2</sub>) emissions from power plants on a national level. EPA also runs a nitrogen oxide (NO<sub>x</sub>) cap and trade program and has promulgated the Clean Air Interstate Rule to lower the existing caps for the SO<sub>2</sub> and NO<sub>x</sub> programs. Under this type of approach, the cap establishes a maximum amount of emissions per compliance period, for all affected sources. Authorizations to emit in the form of emission allowances are then distributed to affected sources, and the total number of allowances cannot exceed the cap. To comply with a cap and trade program, affected sources are required to report their emissions and submit an equivalent number of allowances at the end of the compliance period (e.g., one year). Individual control requirements are not specified; instead, sources have flexibility in how they comply and can either limit emissions to meet the number of allowances allocated to them or trade (buy and sell) allowances.

gas sector in some way, the power sector bills are less likely to impact the natural gas sector through direct regulation. In contrast, the other six bills are economy-wide, or covering all major sectors of the economy, and are more likely to affect the sector directly.

In addition, the four power sector bills cap only carbon dioxide (CO<sub>2</sub>) emissions and the six economy-wide bills establish caps for all GHGs.

## Point of regulation:

There are three main choices when it comes to who is regulated in the cap and trade bills:

★ **Downstream:** This type of program focuses on sources that emit GHGs directly to the atmosphere (e.g., power plants and large industrial sources). For example, the four power sector bills, similar to EPA's

Acid Rain Program, affect any power plant with a nameplate capacity of 25 megawatts. The downstream approach used in the power sector bills would clearly have less of a direct impact on the natural gas sector.

★ **Upstream:** This type of program focuses on regulating GHG emissions at a point prior to the emission source, such as the fuel producers or distributors. Currently, the only bill that prescribes a strictly upstream approach is the draft cap and trade bill being circulated by Senators Bingaman and Specter. The Bingaman-Specter draft requires fuel producers (e.g., coal mines, oil refiners, and natural gas processing plants) to hold allowances for the fuel that they sell. The upstream approach in the

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## Technology Spotlight

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must be slightly smaller across the pay intervals to allow enough space for the CCP module. In addition, the CCP modules must be accurately put on depth and verified using a through-casing gamma ray and casing collar log. Second, planning for the CCP requires extensive collaboration among geologists, reservoir engineers, and completion and drilling professionals prior to initiating a well. According to the 2003 SPE/IADC Paper No. 79877 titled, *Casing-Conveyed Perforating System Presents a Unique Set of Drilling and Cementing Challenges:*

*A Case History Study—Kenai Gas Field, Alaska*, some important pre-drilling considerations include:

- ★ Who will choose the perforation locations?
- ★ Is this person best placed on site at the rig or in the office?
- ★ What tools will that person need in order to pick the perforations?
- ★ How long will it take to choose the locations of the perforations and what will the rig do while the decision is under discussion?
- ★ What are the ramifications of incorrectly picking the perforations?

Third, the unusual shape of the CCP casing string requires that the drilling

team pay particular attention to displacing the drilling mud, moving the pipe during cementing, and optimizing flow rates. Marathon Oil successfully overcame each of these challenges through careful planning, teamwork, and experimentation. The company is now perfecting the technology and benefiting from the results.

CCP is proving to be a cost-effective approach to reducing greenhouse gas emissions and improving safety in the production sector—two goals in line with Natural Gas STAR's priorities. For further information on Marathon's use of CCP, contact Phil Snider, Senior Technical Consultant, at [pmsnider@marathonoil.com](mailto:pmsnider@marathonoil.com).

## EPA would like to welcome four new partners to the Gas STAR Program.



### Berkshire Gas

Berkshire Gas has served the energy needs of western Massachusetts for more than 150 years. The company provides natural gas service to more than 36,000 customers. With a distribution system comprising some 727 miles of natural gas mains, Berkshire Gas uses state-of-the-art equipment to assure reliable uninterrupted service to its residential, commercial, and industrial customers. Berkshire Gas was selected by General Electric Plastics to showcase leading-edge natural gas technology in its Living Environments "home of the future" in 1991. For more information, please visit the company's Web site at [berkshiregas.com](http://berkshiregas.com).



### Connecticut Natural Gas Corporation

Connecticut Natural Gas Corporation, a wholly-owned regulated subsidiary of Energy East, distributes gas to approximately 141,000 customers in 21 Connecticut communities in the Hartford-New Britain area and Greenwich. The company has a history of trying new technologies, which today provide the most efficient service at the lowest possible price for the customers of Connecticut Natural Gas Corporation. For further information on the company, please visit [cngcorp.com](http://cngcorp.com).



### Maine Natural Gas

Maine Natural Gas (MNG) was established in 1998 to provide comfortable, clean-burning, versatile, and affordable natural gas energy to communities in Maine. The company believes the future growth and health of Maine's local economy depends, in part, on a more diverse energy supply. MNG is proud to play a role in enhancing Maine's economy by offering a competitive and clean energy option to homes and businesses. As a local natural gas distribution company, MNG has built and continues to expand systems in



Brunswick, Topsham, Windham, Gorham, and Bowdoin. MNG is a subsidiary of Energy East Corporation. Visit the company's Web site, located at [mainenaturalgas.com](http://mainenaturalgas.com), for more information.

### Southern Connecticut Gas Company

The Southern Connecticut Gas Company delivers natural gas energy to approximately 165,000 residential, commercial, and industrial customers in 22 Connecticut communities, most of which are located along or near the shores of Long Island Sound. Southern's service area has a diverse economic base, and encompasses one-fourth of Connecticut's population. The company's diverse gas supply portfolio includes supply attachments to Gulf Coast, Mid Continent, and Western Canadian supply basins and underground storage facilities. Also, as an affiliate of the East Coast Natural Gas Cooperative, Southern has access to more than 10 additional pipeline systems. Since its founding in 1847, the company has supplied southern Connecticut with energy. For more information, please visit the company's Web site at [soconngas.com](http://soconngas.com).



# Climate Change Legislation

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Bingaman-Specter draft would have the most direct effect on the natural gas sector, requiring processing plants to hold allowances.

- ★ **Hybrid:** This type of program combines the two approaches above and establishes emissions caps for both large emitters downstream and for transportation fuels upstream. For example, the Lieberman-McCain bill requires stationary sources (e.g., power plants and large industrial sources) to hold allowances for their emissions and also requires petroleum producers

to hold allowances for the transportation fuel they sell.

In addition, three of the bills do not specify upstream, downstream, or hybrid approaches, but rather leaves the decision on point of regulation up to EPA to determine.

## Early Action:

Also important to note is that six of the bills contain provisions for some type of crediting for early action, or reductions achieved before the start of the cap and trade program. At least three of those bills explicitly mention providing credit for reductions registered with the Department of Energy's 1605(b) program, state, or regional programs. In addition, the Bingaman-Specter draft and the Carper power sector bills allow credit for reductions registered with EPA's Climate Leaders program. The

other bills either leave it up to EPA to determine what is considered a registered reduction or do not specifically mention early action credit. For more information on the exact language on early action credits, please refer to the bill directly online at [thomas.gov](http://thomas.gov).

It is not clear at this time exactly what, if any, type of cap and trade bill will come out of the 110th Congress. However, as the situation evolves, we will continue to provide updates on issues relevant to the natural gas sector. In addition, the next issue of the *Natural Gas STAR Partner Update* will cover more detail on the specific components of each bill, such as the emission trends projected under each proposed cap and whether offset projects (e.g., end-use energy efficiency) are included.

## Summary of the Major Components of Proposed Cap and Trade Legislation for Controlling Greenhouse Gas Emissions\*

	Economy-wide	Power Sector	Downstream	Upstream	Hybrid	Determined by EPA	Early Action
<b>Lieberman-McCain (S. 280)</b>	X				X		X
<b>Olver-Gilchrest (H.R. 620)</b>	X				X		X
<b>Sanders-Boxer (S. 309)</b>	X					X	X
<b>Kerry-Snowe (S. 485)</b>	X					X	
<b>Waxman (H.R. 1590)</b>	X					X	
<b>Draft Bingaman-Specter**</b>	X			X			X
<b>Feinstein-Carper (S. 317)</b>		X	X				X
<b>Carper (S. 1177)</b>		X	X				X
<b>Alexander (S. 1168)</b>		X	X				
<b>Sanders (S. 1201)</b>		X	X				

\* The text for each bill can be found online at [thomas.gov](http://thomas.gov).

\*\* The draft bill being circulated is from Senators Bingaman and Specter. It is expected to be introduced by the end of June 2007.

## In the News

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The key features of STARtracker include the ability to:

- ★ **Centralize data**—the application houses all of a company's reduction data in one place.
- ★ **Input and access data from anywhere**—as a Web application, various users can input data and later access the same data from multiple locations at any time.
- ★ **Simplify management**—the application has been designed to

reduce the amount of data entry for emission reduction projects that have multi-year benefits.

- ★ **Simplify reporting**—with data integrated in one place, comprehensive reports can be generated easily. The application includes built-in reports for managing, tracking, and reporting emission reduction activities.

To help introduce STARtracker to other interested companies, Gas STAR will be hosting a Web cast to provide a broad overview of the tool in Fall 2007. Once scheduled, that information will be found on the Gas STAR Web site at [epa.gov/gasstar/workshops/tt\\_workshops.htm](http://epa.gov/gasstar/workshops/tt_workshops.htm).

To request a copy of STARtracker on CD, please contact Suzie Young at (202) 343-9544 or [young.suzanne@epa.gov](mailto:young.suzanne@epa.gov). The Gas STAR Program is providing this open source application free of charge to partner companies and interested parties. This is not an EPA program or document. EPA is distributing this as a courtesy to our partners and interested parties. EPA will NOT provide technical support for installation, training, operation, or further development. Please arrange for technical support with COMM Engineering, developers of the application.

Gas STAR would like to thank  for donating STARtracker and making this tool available to all partners.

## Oil & Gas Subcommittee Meeting

April 30—May 2, 2007  
Aberdeen, Scotland

**D**uring the recent Oil & Gas Subcommittee Meeting, attendees focused on three key topics: country reports, an update from the Administrative Support Group, and the upcoming Methane to Markets Partnership Expo that will take place in Beijing, China, this fall.



Many of the participants were eager to discuss the Expo and various related points, therefore the second half of the day was almost entirely dedicated to the Expo and the Subcommittee's participation. Action items resulting from the meeting included:

- ★ Selecting leads for each Expo session.
- ★ Assigning responsibilities for recruiting speakers.
- ★ Choosing Oil & Gas Subcommittee participants as presenters and speakers for the Expo.

The meeting also included a tour of the BP oil terminals in Kinneil and Dalmeny which are both towns near Edinburgh, Scotland. Onshore, attendees viewed BP's large storage tank facility and innovative vapor recovery system.



The attendees then took a ferry to the offshore platforms where ships unload oil, which BP transports to its large storage tank facility, which attendees had just toured.



The next Oil & Gas Subcommittee Meeting will coincide with the Partnership Expo and take place in Beijing, China, on November 1, 2007. Further information on the Partnership Expo is located online at [methane.tomarkets.org/expo](http://methane.tomarkets.org/expo) and the agenda, which includes times for the various Subcommittee meetings, is located online at [methanetomarkets.org/expo/docs/agenda.pdf](http://methanetomarkets.org/expo/docs/agenda.pdf).

# International Partner Profile

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## Pilot Project: Fugitive Emissions Evaluation on the United States–Mexico Border

PEMEX is conducting a pilot project to evaluate fugitive emissions at Gasoductos de Chihuahua. It will share its knowledge with Gasoductos de Chihuahua, a subsidiary of PEMEX Gas, and El Paso Natural Gas Company in order to help both companies reduce fugitive methane emissions.

- ★ Proposed schedule: June–December 2007
- ★ Implementation team: PEMEX Gas, Gasoductos de Chihuahua, PA Consulting, Heath Consultants
- ★ Related Gas STAR resources (various documents on types of emission reduction technologies): [epa.gov/gasstar/techprac.htm](http://epa.gov/gasstar/techprac.htm)

## Implementation of an Energy Efficiency Approach to Reduce Methane Emissions

PEMEX will demonstrate that the current diagnosis and analyses techniques are synchronized with the methane emissions. In addition, through this integration, PEMEX will demonstrate it is possible to reach better results—with energy efficiency and increased financial savings.

- ★ Proposed schedule: Starting in August 2007
- ★ Implementation team: PEMEX Gas, PEP, PA Consulting, Clearstone Engineering

- ★ Related Gas STAR resources: [epa.gov/gasstar/reports.htm](http://epa.gov/gasstar/reports.htm)

## Emissions Reduction Capacity Building at PEMEX Gas

PEMEX Gas will train a technical team to evaluate and reduce fugitive methane emissions, providing them with the procedures and equipment required to accomplish this task. The team will disseminate this expertise throughout the company.

- ★ Proposed schedule: July–December 2007
- ★ Implementation team: PEMEX Gas, PA Consulting, other consultants to be confirmed
- ★ Related Gas STAR resources: [epa.gov/gasstar/workshops.htm](http://epa.gov/gasstar/workshops.htm)

## PEMEX Methane Emissions Inventory

PEMEX Gas will improve the company's methane emissions inventory based on the activities previously explained and on the analyses of supplementary information.

- ★ Proposed schedule: Continuous support; updated estimation data will be available in February, May, and September 2007
- ★ Implementation team: PEMEX Corporate Environmental Protection Department, PA Consulting
- ★ Related Gas STAR resources: N/A

PEMEX will continue to keep Methane to Markets updated on its progress to decrease methane emissions throughout its operations. For further information, please view the Methane to Markets Web site at [methanetomarkets.org](http://methanetomarkets.org) or contact Roger Fernandez at [Fernandez.Roger@epa.gov](mailto:Fernandez.Roger@epa.gov).

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