



# A Great Year for Natural Gas STAR

## Annual Implementation Workshop

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Houston, TX  
October 24-26, 2005

[epa.gov/gasstar](http://epa.gov/gasstar)



# Introducing Carey Bylin

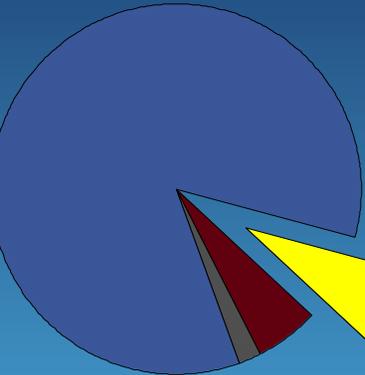


- ★ Program Manager, Natural Gas STAR Program
- ★ As the newest member of the Gas STAR team, Carey will help to:
  - Support current partners
  - Facilitate technology transfer workshops
  - Recruit new Gas STAR partners and endorsers
  - Support Methane to Markets Program

# US Methane Emissions

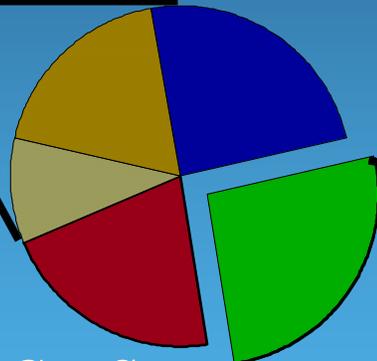


## GHG Emissions



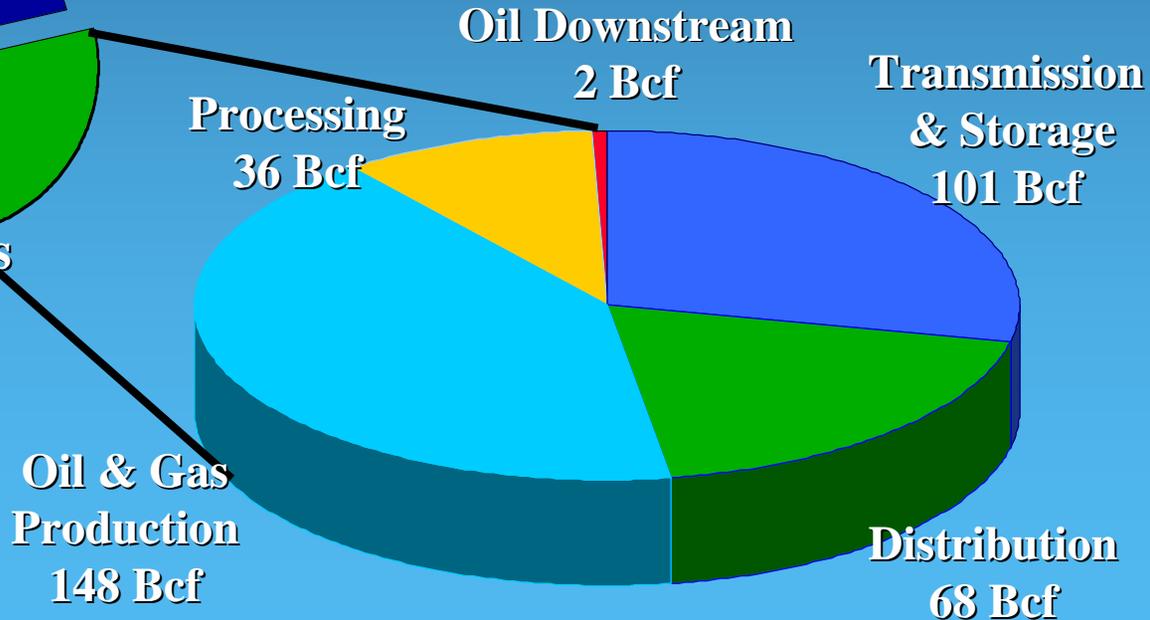
**CH<sub>4</sub> Emissions**  
1,349 Bcf

## CH<sub>4</sub> Emissions



**Oil and Gas Systems**  
355 Bcf

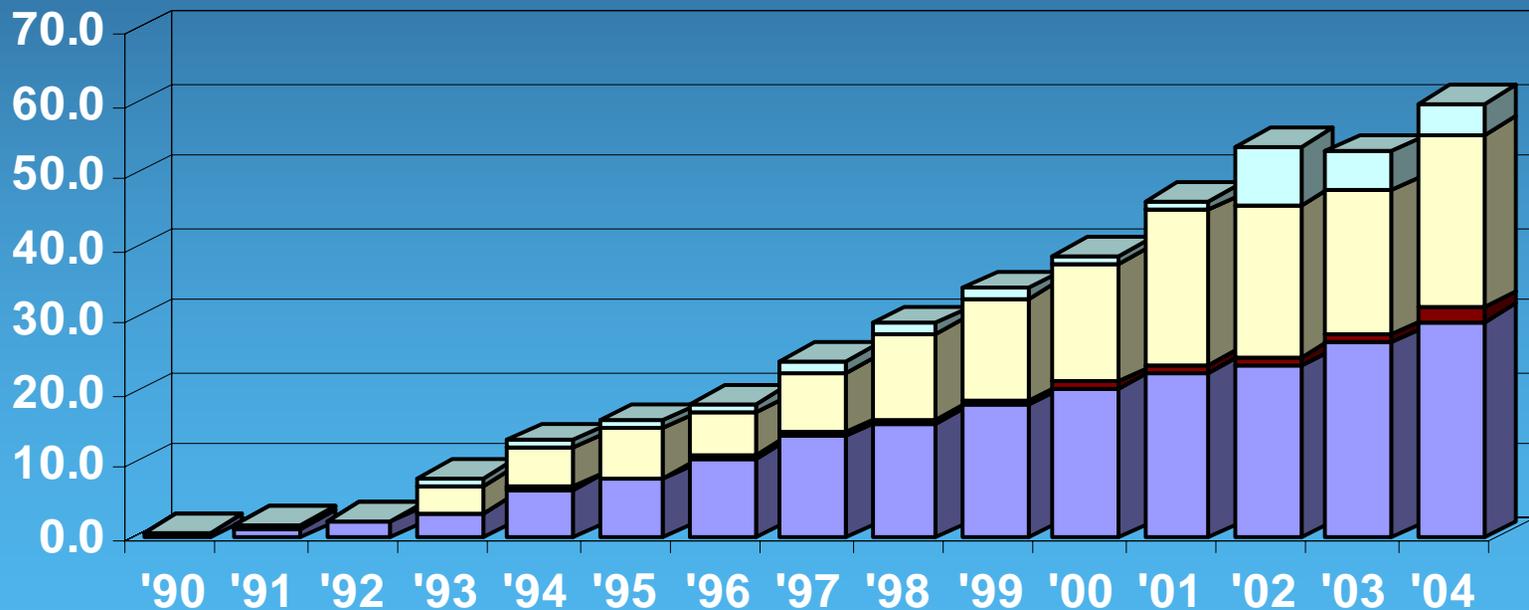
## Oil and Gas Systems



# Natural Gas STAR Partner Accomplishments



★ 403 Bcf in methane emissions reductions since 1990, over \$1.2 billion saved!



■ Production ■ Processing ■ Transmission ■ Distribution

# Natural Gas STAR Program Continues to Grow



- ★ 7 New Partners, 4 New Endorsers
- ★ 6 Partners celebrating 10-year membership
- ★ 5 Technology transfer workshops, 1 Audio Conference
- ★ New presentation topics
  - Nitrogen Rejection Units (NRUs)
  - Pipeline Pigging
  - Distribution System Pressure Reduction
  - Partner/Vendor Presentations

# Gas STAR: An International Leader in Methane Emissions Reductions



## ★ Participation in Methane to Markets Program

- Technology transfer workshops
  - Tomsk, Russia
  - Bogotá, Colombia
- Translating materials for international use
  - PROs in Russian and Spanish
- Gas STAR partner participation
  - Occidental Oil and Gas in Bogotá

# Gas STAR in 2005 and Beyond



## ★ New initiatives

- Partner challenges
- Association outreach – 100% participation
- Increased partner participation in workshops
- International projects & reporting through Methane to Markets
  - Starting March 2006

# New to the 12<sup>th</sup> Annual Implementation Workshop



## ★ Focus on Leadership

- Program accomplishments possible because leadership of individual partner companies
- Highlights of the leadership activities of current Partners

## ★ Ideas and opportunities to grow the program within your company

## ★ Ideas to become a Natural Gas STAR Program leader



What Makes a Natural Gas  
STAR Leader?

# Natural Gas STAR Leaders Actively Support the Program



- ★ Solicit other partners, associations
  - El Paso Pipeline Group mentored Enbridge Energy
- ★ Reinvigoration
  - ConocoPhillips, Duke Energy, Marathon, Kinder Morgan
- ★ Associations – 100% Membership Goal
  - API
- ★ Involvement in M2M
- ★ Workshop Attendance

# Natural Gas STAR Leaders are Innovators



## ★ Northern Natural Gas

- brought vendors to workshops, invited workshop attendees to visit facilities

## ★ Devon Energy

- independently developed online management tools to share with partners
- Sponsorship of numerous workshops in 2004/2005

## ★ Newfield

- Process optimization (PRO OP) paper for SPE

# Natural Gas STAR Leaders are Innovators



- ★ Processing plant leak detection and measurement study
  - Duke Energy Field Services
  - Dynegy
  - BP
- ★ El Paso
  - Identifying cost effective leak detection opportunities
- ★ Dynegy
  - Aerial pilot study – Aerial leak detection testing

# Gas STAR Leaders Grow the Program Internally



- ★ Create incentive within their company to boost participation
  - Internal recognition and awards
  - Intra-company competition for max savings
  - Performance expectations
- ★ Devon Energy
  - Internal newsletters and competition between business units



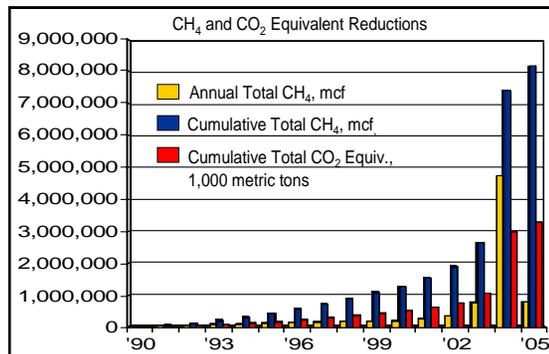
March 2005

Welcome

This is the March 2005 installment of a monthly newsletter highlighting Devon's activities in the Environmental Protection Agency (EPA) Natural Gas STAR Program. These monthly installments summarize Devon's methane emission efforts and a specific partner reported emission reduction opportunity that might be of benefit at certain Devon operations.

**STAR Reductions Through 2005**

| Methane Reduction Activity | Methane Reductions |
|----------------------------|--------------------|
| Central Division           | 3,015,124          |
| Southern Division          | 3,087,134          |
| <b>South Texas</b>         | <b>1,204,526</b>   |
| <b>Carthage</b>            | <b>1,441,498</b>   |
| <b>Groesbeck</b>           | <b>441,110</b>     |
| Western Division           | 2,068,677          |
| <b>Rockies</b>             | <b>864,360</b>     |
| <b>Permian</b>             | <b>1,204,317</b>   |
| Gulf Division              | -                  |
| Midstream                  | -                  |
| <b>Total Reductions</b>    | <b>8,170,935</b>   |



**PRO Fact Sheet of the Month**

**"Portable Desiccant Dehydrators"**

This month, the highlighted PRO (Partner Reported Opportunities) Fact Sheet document is related to "Portable Desiccant Dehydrators". The attached PRO Fact Sheet feature provides more details about the technology and associated benefits of desiccant dehydration units. Additional information on desiccant dehy's may be found in the EPA Lessons Learned report located at [http://www.epa.gov/gasstar/pdf/lessons/ll\\_desde.pdf](http://www.epa.gov/gasstar/pdf/lessons/ll_desde.pdf)

If you have an idea or recognize an opportunity for a process change or pressure setting to improve efficiencies or reduce venting, please discuss these ideas with your EHS specialist or call Steve O'Connell at (405) 552-4672.

Each monthly  
newsletter  
contains a PRO  
Fact Sheet and  
a link to a  
Lessons  
Learned on the  
EPA Gas STAR  
website

**In this Issue:**

- Welcome
- Division Status Table
- Annual Reduction Graph
- PRO Fact of the Month

Check out Devon's EPA video on the K drive at: <K:/Universal/Permanent/EHS Dept. Presentations/Natural Gas STAR>

# Partner Reinvigoration Efforts



## ★ ConocoPhillips

- Set up meetings in Houston and Alaska to help grow participation

## ★ Marathon Oil

- Re-engage upper management
- Hosting a technology transfer workshop

## ★ Kinder Morgan

- Developed a detailed plan to increase Gas STAR participation
- Boosted technology transfer workshop attendance

# Partner Leaders Proudly Feature Their Gas STAR Participation



- ★ Share Gas STAR materials among business units
- ★ Display the Gas STAR logo on web site, annual report, and other materials
- ★ Promote Gas STAR projects through articles in journals and conferences
- ★ Gas STAR Promotion
  - Devon – press endorsed signing ceremony FOX-TV
  - Enbridge, Occidental – press release on joining program
  - Pioneer, El Paso – Partner of the Year press releases

# Annual Implementation Workshop: Focus on Leadership



- ★ Keynote Address – John Morgan, President, Occidental Oil and Gas Corp.
- ★ “Cross Fire” Panel Discussion
  - Growing the Gas STAR Program in Your Company
- ★ Expanded networking opportunities for 100+ attendees
- ★ Technology Transfer Workshop
  - Sponsored by Marathon, following Annual Workshop

# Annual Implementation Workshop: Sponsors



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