Natural Gas STAR Program

Natural Gas STAR 13th Annual Implementation Workshop

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October 24, 2006
Agenda

- 2005/2006 Overview & Program Highlights
- Program Evolution & Future Initiatives
- Introduction to 13th Annual Workshop
2005/2006 Overview & Program Highlights
U.S. Methane Emissions

U.S. GHG Emissions
CH$_4$: 8%

U.S. CH$_4$ Emissions
Oil & Gas: 27%

U.S. O&G CH$_4$
Emissions
Bcf (Bcf saved)

Transmission / Storage:
95 (28)

Production:
159 (34)

Distribution:
67 (4)

Processing:
35 (2)

Oil:
2 (0)

Another Record Year for Emission Reductions

Gas STAR Partners reduced methane emissions by 74 Bcf in 2005
470 Bcf in cumulative reductions since 1990

Natural Gas STAR Emissions Reductions

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Reductions</th>
<th>Cumulative Reductions Since 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>37</td>
<td>74</td>
</tr>
<tr>
<td>2001</td>
<td>44</td>
<td>74</td>
</tr>
<tr>
<td>2002</td>
<td>53</td>
<td>37</td>
</tr>
<tr>
<td>2003</td>
<td>55</td>
<td>181</td>
</tr>
<tr>
<td>2004</td>
<td>64</td>
<td>225</td>
</tr>
<tr>
<td>2005</td>
<td>74</td>
<td>470</td>
</tr>
</tbody>
</table>
Natural Gas STAR Program Continues to Grow

New Partners

- CDX Gas - Production
- Enbridge, Inc. - Transmission
- Panhandle Eastern Pipeline (a Southern Union Gas Company) - Transmission
- Sea Robin Pipeline (a Southern Union Gas Company) - Transmission
- Targa Resources - Processing
- Trunkline Gas (a Southern Union Gas Company) - Transmission
Natural Gas STAR Program Continues to Grow

◊ New Endorsers
  ◊ The Air & Waste Management Association (A&WMA)
  ◊ American Institute of Chemical Engineers (AIChE)
  ◊ Institute for Sustainability
  ◊ Colorado Oil and Gas Association (COGA)
  ◊ Independent Petroleum Association of America (IPAA)
  ◊ Northeast Gas Association (NGA)
  ◊ Petroleum Association of Wyoming (PAW)
  ◊ Petroleum Technology Transfer Council (PTTC)
  ◊ Texas Alliance of Energy Producers
Technology Transfer

Technology Transfer Workshops

Production

• Midland, TX – June 8
• Fort Worth, TX – June 6
• Kenai, AK - May 25
• Rock Springs, WY – May 11
• Gillette, WY – May 9
• Houston, TX – October 26, 2005

Processing

• Hobbs, NM – July 27
• Farmington, NM – February 21

Compressor-focused

• Webcast – January 18
Technology Transfer - 2007

- **Distribution**
  - Webcast - December 6, 2006

- **Production**
  - Elk Hills, CA – March 20 & 21, 2007
    - Oxy
  - College Station, TX - May 17, 2007
    - Anadarko
  - Grand Junction, CO - September 12, 2007
    - Williams

- **Processing**
  - Calgary, AB, CANADA - January 18, 2007
    - CETAC-West
  - Houston, TX - April 24, 2007
    - Duke Energy Field Services

- **Multi-sector International Workshop**
  - New Delhi, INDIA - February 22-23, 2007
Natural Gas STAR International

- Under the Methane to Markets Partnership, U.S. EPA is expanding Natural Gas STAR internationally

- EPA is encouraging existing partners to engage their international operations to voluntarily reduce methane emissions

- Companies world-wide are welcome to join Gas STAR International

Methane to Markets

Oil and Gas Subcommittee
Natural Gas STAR International launched September 26, 2006 with seven charter partners:

- ConocoPhillips
- Devon
- Enbridge
- ExxonMobil
- Marathon Oil Company
- OXY
- TransCanada
Natural Gas STAR International

- Expands domestic program to promote emission reduction activities and project tracking globally

- Participation involves:
  - Developing an implementation plan
  - Identifying and implementing cost-effective projects
  - Reporting your success

- Support from Gas STAR International is available:
  - Identify top cost-effective methane reduction project opportunities
  - Conduct project pre-feasibility analysis
  - On-site training and workshop development
  - $2.5M grant opportunity
Program Evolution & Future Initiatives
Natural Gas STAR Awards

Awards categories

- Partner of the Year (by sector)
- Rookie of the Year
- Implementation Manager of the Year
- Continuing Excellence 5, 7, 10, 12, 15, 17, 20 Years

Award Criteria

- Normalized emission reductions
- Reduction trends
- New technologies and practices
- Support of Program activities
- Other/internal corporate activities
Post-Reporting Benchmarking

2005 Reporting Summary & Benchmarking Report

Report Summary
- Early Natural: Pre-Star
  Annual
- 2006 Annual greenhouse emissions reductions

Benchmarking
- The Natural Gas STAR Program enables participants to achieve gains in emission reductions by raising awareness about activities that other partners have undertaken to achieve scorable emission reductions.

2005 Methane Emissions Reductions

- The carbon offset equivalent of planting 25,000 trees.
- Enough natural gas to heat this many homes for one year:
  - 7,000 (average)
  - 10,450 (annual)
- Running this many miles from the pump:
  - 60,000 (average)
  - 92,450 (annual)

2005 Reductions

- Cumulative Reductions:
  - 1,000,000
  - 200,000
  - 100,000
  - 50,000
  - 25,000
  - 10,000
  - 5,000
  - 1,000

- Graphs and charts illustrating reductions in methane emissions.
2007 and Beyond

- Focus on partner support
  - Targeted technical assistance
  - Technology guidance documents
  - Targeted benchmarking

- Tech Transfer Workshops

- Technical documents
  - New documents
  - Consolidating related technologies

- Feedback – we want to hear from you
Introduction to 13th Annual Workshop
Key Themes

More Methane to Markets in an Era of High Gas Prices

- Fugitive Emissions
  - Leak identification and measurement

- Concurrent Sessions
  - Production, processing, transmission/distribution

- Challenges to Emissions Reduction Implementation

- Corporate Governance

- Emissions Credits

- Keynote - Commissioner Victor Carrillo
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