



Natural Gas STAR and NiSource

A Winning Partnership

Reducing Emissions
Increasing Efficiency
Maximizing Profits



<http://www.epa.gov/gasstar/>

Outline

- ★ Gas STAR Program Overview
- ★ New Gas STAR Features
- ★ Gas STAR and NiSource
- ★ Today's Agenda



The Natural Gas STAR Program

The Natural Gas STAR Program is a *flexible, voluntary partnership* between EPA and the oil and natural gas industry designed to *cost-effectively* reduce methane emissions from natural gas operations.



Natural Gas STAR's role in Climate Change

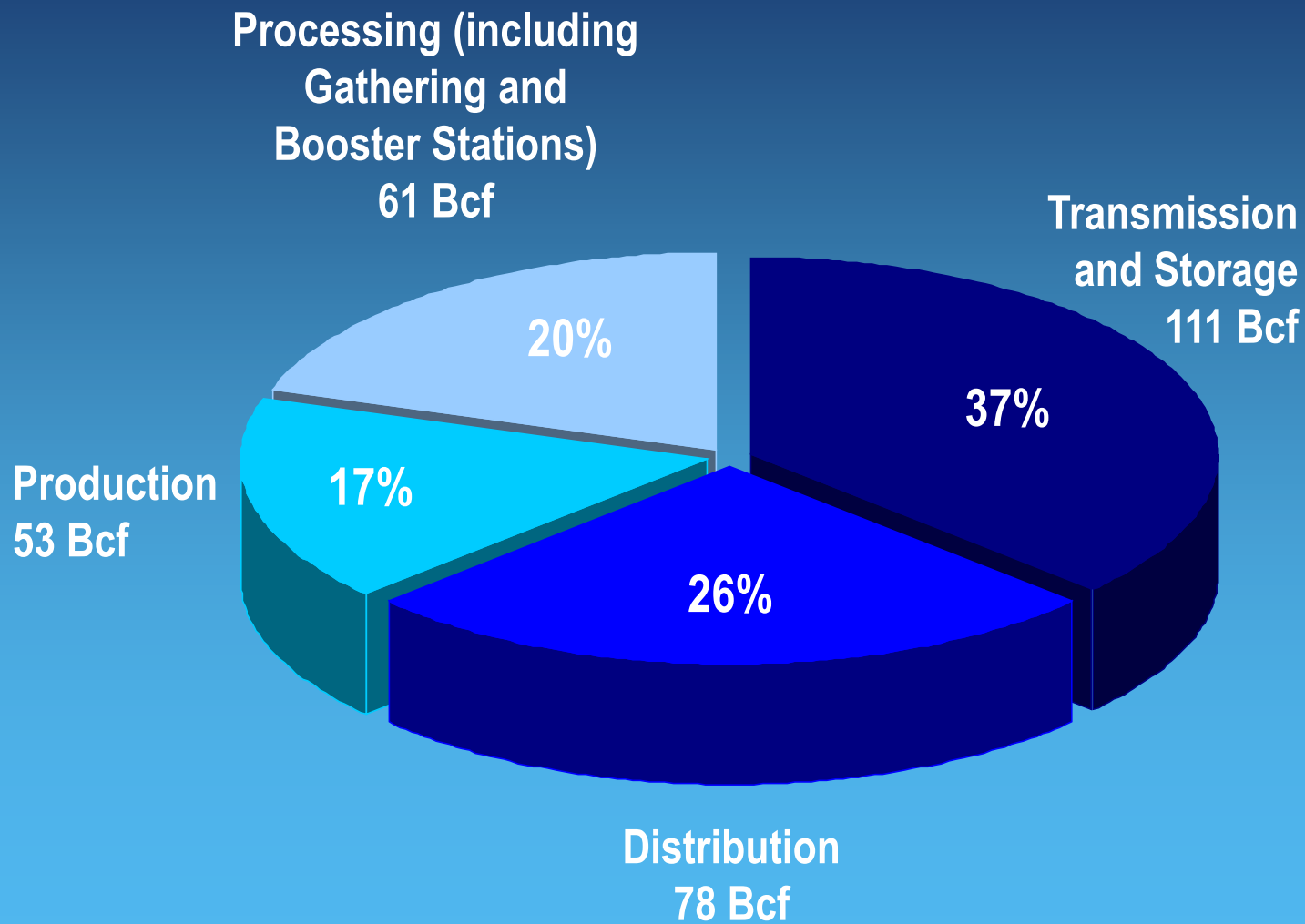


“We will challenge American businesses to further reduce emissions...”

President G.W. Bush, February 14, 2002

- Natural Gas STAR is a key component of President Bush's climate change policy
- API Climate Challenge Program
 - 100% member participation in Natural Gas STAR
- Endorsed by 11 industry organizations including the Interstate Natural Gas Association of America

Emissions by Industry Sector (per year)



Program Accomplishments

- ★ 217 Bcf in total reductions
- ★ Annual Emissions Reductions:

Previous: 3.6 Bcf

1993: 7.3 Bcf

1994: 12.4 Bcf

1995: 14.8 Bcf

1996: 17.9 Bcf

1997: 23.8 Bcf

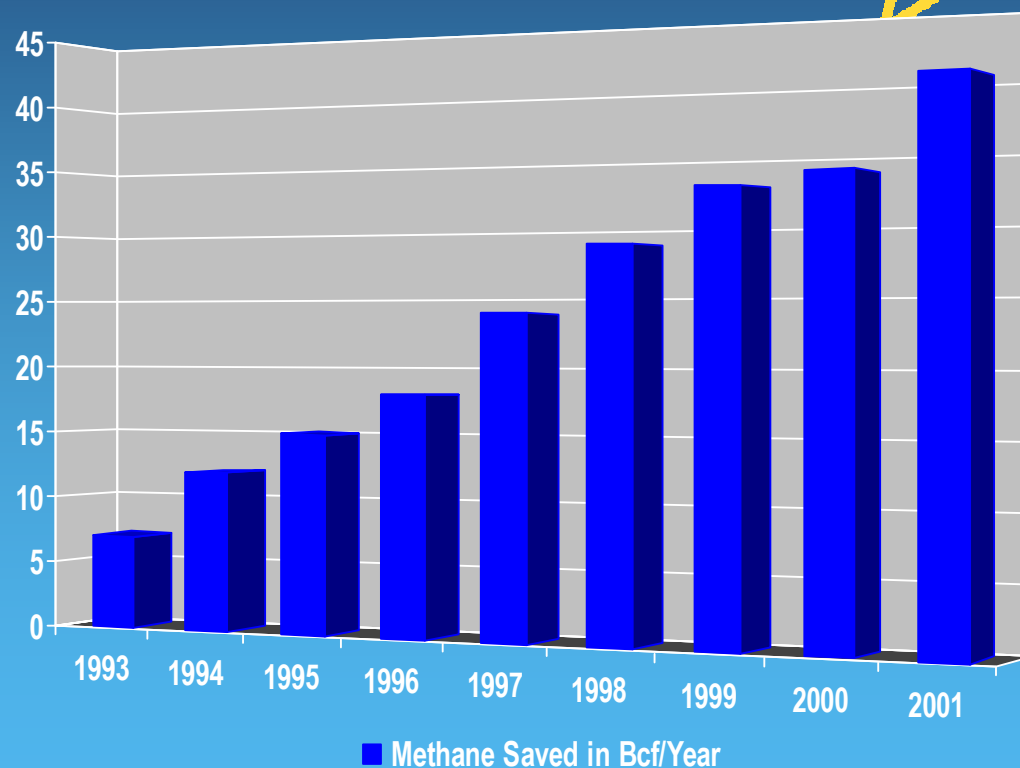
1998: 29.2 Bcf

1999: 33.3 Bcf

2000: 34.0 Bcf

2001: 40.6 Bcf

Total: 216.9 Bcf



Transmission Partner Accomplishments



- ★ Transmission partners have reported 79.3 Bcf in methane emission reductions through 2001
 - ★ 11.6 Bcf reported in 2001 alone
- ★ Source of Reductions
 - ★ 32% of reductions from directed inspection and maintenance (DI&M) activities
 - ★ 55% of reductions from Partner Reported Opportunities (PROs)

Distribution Partner Accomplishments



★ Distribution partners have reported 10.6 Bcf in methane emission reductions through 2001

★ 1.2 Bcf reported in 2001 alone

★ Source of Reductions

★ 30% of reductions from directed inspection and maintenance (DI&M) activities

★ 49% of reductions from rehabilitation of leaky pipe

★ 11% of reductions from replacement of high-bleed pneumatics

Gas STAR Program Benefits



Save time identifying the “right” technologies and practices to reduce methane emissions

- *Technical studies and fact sheets based on real company applications*
- *Case studies describing successful partner experiences*
- *Economic analysis software to estimate financial returns*
- *One-on-one assistance*

Gas STAR Program Benefits



Build network with industry peers and draw upon their experience and successes

- *Technology Transfer workshops*
- *Annual Implementation Workshop*

Gas STAR Program Benefits



Enhanced corporate reputation

- *Environmental message*
- *Public recognition by EPA and industry*
- *Achievement awards*
- *Communications Toolkit*
- *Easy methods to equate environmental benefits*

Gas STAR Program Benefits



Voluntary record of reductions & internal benchmarking capability

- *Methodology to track and record methane emission reductions*
- *Data to develop internal benchmarks*
- *Flexibility and assistance in preparing methane emissions reduction summary*

Gas STAR Program Benefits



Minimal resources required to manage Program & “real-time” assistance

- *Standardized forms and methane emission default values*
- *Data collection software*
- *On-line record keeping and reporting*
- *Technical support staff available to partners*

Guide to Program Participation



★ Sign the Memorandum of Understanding

- Agree to evaluate technologies and practices that reduce methane emissions and implement where cost-effective

★ Develop an implementation strategy

- Determine objectives of participation and which emission reduction activities will be considered

★ Submit an Implementation Plan

- Summarize how STAR Program will be incorporated into operations

★ Plan annual reporting process

- Document emission reduction activities undertaken

New Features - Lessons Learned Studies



- ★ 12 existing studies under revision
- ★ Four new studies nearing completion
 - Composite Wrap
 - Desiccant Dehydration
 - DI&M at Gas Processing Plants
 - Reducing Pressure in Distribution Systems

New Features - Individual Partner Accomplishments Report



- ★ Summarizes partner's historical participation in Gas STAR
- ★ Compares emissions reduction with industry peers
- ★ Suggests additional practices that may be cost-effective
- ★ Coming this Summer

New Features - Other



- ★ Participation Certificates
- ★ New partner packets
- ★ Website overhaul
- ★ Collaboration with industry trade associations
(API, GPA, AGA, DPC, INGAA)

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<u>Distribution Companies</u>	<u>Year Joined</u>
Columbia Gas of KY	1993
Columbia Gas of OH	1993
Columbia Gas of MD	1993
Columbia Gas of PA	1993
Columbia Gas of VA	1993
Bay State Gas	1994
Northern Indiana Public Service Co.	1994
Kokomo Gas and Fuel Co.	2001
Northern Indiana Fuel and Light	2001

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Transmission Companies

Year Joined

Columbia Gas Transmission

1999

Columbia Gulf Transmission

1999

Production Companies

Columbia Natural Resources

2001

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Emissions Reductions: Distribution

★ 6,808,629 Mcf since 1993
(includes 2002 reports received by 5/29/03)

★ @ \$3/Mcf : \$20.4 million

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Emissions Reductions: Transmission

★ 23,938,146 Mcf since 1999

★ @\$3/Mcf : \$71.8 million

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Distribution PROs

- ★ Walking surveys on a 3-year cycle
- ★ Install excess flow valves
- ★ DI&M at remote sites

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Transmission PROs

- ★ Use fixed/portable compressors for pipeline pump-down
- ★ Replace wet seals with dry seals
- ★ Composite wrap repair
- ★ Redesign ESD system
- ★ Install flares on dehydration equipment
- ★ Reroute glycol skimmer gas

Today's Agenda



- ★ Reports on NiSource transmission, distribution experiences with Gas STAR
- ★ Technical presentations on BMPs, PROs
- ★ Demonstration of on-line tools
- ★ Discussion of emissions inventory development

Natural Gas STAR: Voluntary and Effective



- ★ Fosters private initiative and innovation
- ★ Achieves economic and environmental goals
- ★ Enables future government and industry cooperation
- ★ Proves that non-regulatory, cooperative programs work
- ★ Simple to participate, a win-win approach

Contact Information



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