NiSource Natural Gas STAR Workshop
Introduction to Online Tools

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June 3, 2003
Merrillville, Indiana
Natural Gas STAR Online Tools Suite

- Online Reporting
- Data Collection and Management Tool
- BMP/PRO Economic Analysis Tool
Online Reporting

Enhances and streamlines the annual reporting process by allowing Natural Gas STAR partners to submit reports via the Web.

- Provides secure data transfer.
- Calculations are performed automatically.
- Online instructions are provided.
- Users may view and print their report prior to submitting.
Data Collection and Management Tool

Allows Gas STAR partners to collect and manage methane emissions reduction information for numerous locations.

- Allows partners to continuously track/collect/manage data.
- IMs have complete control of data and users.
- System can be modified to fit company’s unique data collection needs.
- Various summary reports are available.
BMP/PRO Economic Analysis Tool

Allows users to quickly generate estimates of the economic attractiveness and environmental benefits of methane reduction practices.

★ Based on Natural Gas STAR BMPs and PROs.
★ Anyone may use the tool.
★ Quick and easy: many fields are pre-populated with industry-wide default values that users can accept or modify to fit site-specific conditions.
Cost Engineering Functions and Attributes

- Capital costs and O&M costs calculated using an incremental analysis approach.
- Default values provided for critical capital and annual cost factors, methane emission reduction factors, and other operating assumptions.
- Cash flows projected over the first five years of operation.
- Cost estimates obtained from Marshall & Swift (capital) and Producer Price (O&M) indices.
Key economic parameters are supplied by the user.

Capital investment measures include:
- Net present value
- Discounted cash flow internal rate of return
- Simple payback period
- Simple return on investment

Escalation allowed for O&M and gas price.

Results calculated both before and after taxes.
BMP/PRO Economic Analysis Tool

Programming Functions and Attributes

★ Users may enter site-specific values or accept default values.
★ Results displayed in graphical and tabular format with various levels of detail.
★ Results from multiple calculations may be displayed and compared (sensitivity analysis).
★ Users may print results and/or save for later access and use.
BMP/PRO Economic Analysis Tool

Transmission and Distribution BMPs/PROs

- DI&M at compressor stations
- DI&M at gate stations and surface facilities
- Reducing methane emissions from pneumatic devices
- Convert engine starting to nitrogen
- Replace wet seals with dry seals in centrifugal compressor
- Use inert gas and pigs to perform pipeline purges
- Use hot taps for in-service pipeline connections
- Use pipeline pumpdown techniques to lower gas line pressure before maintenance
- Install static pacs at compressor stations
- Install electric compressors
- Install electric starters
- Install flares
- Install vapory recovery units on crude oil storage tanks
- Increase walking survey from 5- to 3-year basis
- Recycle line recovers gas during condensate loading
- Reduce emissions when taking compressors off-line
- Reduce emissions from compressor rod packing systems
- Convert gas pneumatic controls to instrument air
BMP/PRO Economic Analysis Tool

Live Demonstration