Production Sector Workshop
Introduction to Online Tools

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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.

Gas STAR Online Tools Suite:

Online Reporting

Data Collection and Management Tool

BMP/PRO Economic Analysis Tool

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.

Gas STAR Online Tools Suite:

Online Reporting

Data Collection and Management Tool

BMP/PRO Economic Analysis Tool

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.

Gas STAR Online Tools Suite:

Online Reporting

Data Collection and Management Tool

BMP/PRO Economic Analysis Tool

BMP/PRO Economic Analysis Tool

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.
- ★ Cost estimates obtained from Marshall & Swift (capital) and Producer Price (O&M) indices.
- ★ Cash flows projected over the first 5 years of implementation.

BMP/PRO Economic Analysis Tool

Economic Factors and Attributes

- ★ Key economic parameters can be 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 prices.
- ★ Results calculated both before and after taxes.

BMP/PRO Economic Analysis Tool

Programming Functions and Attributes

- ★ 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

Production BMPs/PROs

- ★ Install flash tank separators
- ★ Reduce methane emissions from pneumatic devices
- ★ Replace wet seals with dry seals in centrifugal compressor
- ★ Install static pacs at compressor stations
- ★ Install electric compressors
- ★ Convert engine starting to nitrogen
- ★ Install plunger lift systems in gas wells
- ★ Install flares
- ★ Install vapory recovery units on crude oil storage tanks
- ★ Convert gas pneumatic controls to instrument air
- ★ Reduce glycol circulation rates in dehydrators
- ★ Replace gas-assisted glycol pumps with electric pumps

BMP/PRO Economic Analysis Tool

Live Demonstration

Links » Address http://www.epa.gov/gasstar/onlinetools.htm

U.S. Environmental Protection Agency

Natural Gas STAR Program

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Gas STAR Online Tools

You are now leaving the EPA Web site to access the Natural Gas STAR online tools. In order to ensure that the fastest data transfer capabilities are available to Natural Gas STAR partners, EPA has chosen to maintain the online Gas STAR tools on the ERG server.

These online tools provide secure data transfer. Access to these tools is password protected to keep information private. Any information entered may only be accessed by the Natural Gas STAR Program and its contractors.

Data Collection and Management Tool - Continue >> EXIT disclaimer

Allows Natural Gas STAR partners to collect, store, and manage methane emission reduction data in an easy-to-access online database. The system allows individuals at facilities across a company to access the system via the Internet and record project-level emission reduction information that can be summarized and edited by the Natural Gas STAR implementation manager.

BMP/PRO Analysis Tool - Continue >> EXIT disclaimer

Enables Natural Gas STAR partners to generate quick and accurate estimates of the economic attractiveness and environmental benefits of methane emission reduction practices on a site-specific basis. The tool provides analyses for specific BMPs and PROs, calculates capital costs and O&M costs, and evaluates a range of investment criteria.

Online Annual Reporting Forms - Continue >> EXIT disclaimer

Allows Natural Gas STAR partners to quickly and easily submit their annual methane emissions reduction data to EPA online. The system allows users to add, modify, view, and/or print methane emission reduction information for the current reporting year prior to submittal.

U.S. Environmental Protection Agency

Natural Gas STAR Program

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Welcome to the Natural Gas STAR On-line Analysis Tool

The objective of the tool is to allow facility and plant managers to generate quick and accurate estimates of the economic attractiveness of specific potential methane reduction technologies and practices.

Anyone may use this site. Simply log on and provide a user name and password of your choosing. As a registered user, you may also save any analyses generated by the tool for reference at a later session. If you haven't registered click here to register.

Log-in

If you don't remember your password; enter the e-mail address you used to sign up and click the Password button. Your password will be e-mailed to you.

E-mail:

Password:

Log-In Reset Password

EPA's Natural Gas STAR team has attempted to make this analysis tool as useful and accurate as possible. The results obtained from the use of this tool are intended to be rough estimates only, and individual results may vary. EPA does not guarantee that implementation of the practices described here will give the results predicted by this model.

- Gas STAR Home Page
- Analysis Tool Home Page
- Set economic variable defaults
- BMP tools
- PRO tools
- Results Summary
- Economic Formulas
- Questions, Comments or Suggestions

Natural Gas STAR
Analytical Tools Overview

Welcome to the Natural Gas STAR On-line Analysis Tool

The objective of the tool is to allow facility and plant managers to generate quick and accurate estimates of the economic attractiveness of specific potential methane reduction technologies and practices. The tool has the following features:

Site Features

1. Calculation tools are based on specific Best Management Practices (BMPs) and Partner Reported Opportunities (PROs).
2. For each BMP or PRO, the user can either accept default values for process and economic parameters, or, in most cases, enter values specific to a particular facility or situation.
3. Calculate the results using pre-defined capital investment algorithms. On the Results page the user can elect to see an overview or detailed analysis, with or without tax effects.
4. The economics of each practice are evaluated using common investment profitability measures. On the Results page, the user can elect to see detailed analyses in addition to an overview, with or without tax effects.
5. A graph of cumulative net cash flow over time vs. initial investment illustrates the payback period for a technology or practice.
6. A Results summary page allows you to see the combined economic impacts of implementing multiple options.
7. To change your e-mail or password click here.
8. A detailed explanation of how to use the site is available.