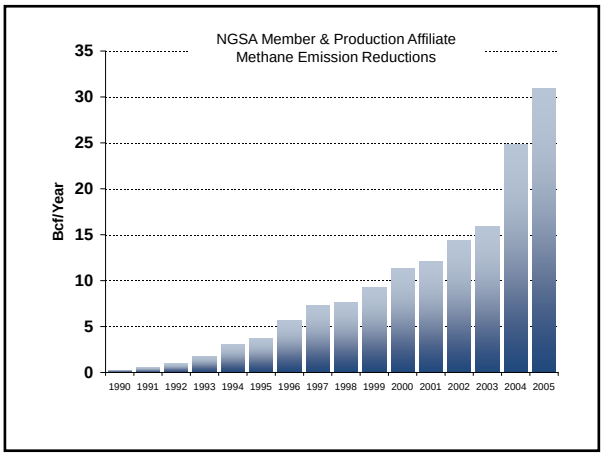
Competitive Natural Gas Markets Spur Technology Innovations for Both Consumers and the Environment

The voluntary EPA Natural Gas STAR program identifies and promotes the implementation of cost-effective technologies and practices to reduce emissions of methane and provides evidence that competitive energy markets benefit consumers and the environment by spurring efficiency and innovation. Thanks to market-driven technology advancements, NGSA members and their production affiliates logged into the program a 31 billion cubic foot (Bcf) improvement in the 2005 emissions of escaped methane (the primary component of natural gas). Not only did this mean extra supply available to customers, but these methane savings also equate to more than 1,800 tons of carbon dioxide (CO_2) that was not vented into the atmosphere.

Since the program's launch in 1990, according to the EPA, NGSA members have recovered a total of more than 150 Bcf of methane - enough to heat more than 2.1 million homes for a year - that otherwise would have been released to the atmosphere. The CO_2 –equivalent savings, meanwhile, were more than 8,500 tons, since methane's global greenhouse gas warming effect is estimated to be 23 times greater than CO_2.

The Gas STAR program works because it allows market forces to spur innovations that reduce emissions and add supply to the market. In an open market, the sale of the recovered methane also helps pay for the costs of ongoing research and development into capturing even more natural gas that might otherwise be released into the atmosphere. Importantly for consumers, that saved natural gas is sold into the market or used on-site. To put these savings into perspective, the more than 30 Bcf of methane that NGSA members recovered in 2005 alone was enough to heat more than 425,000 homes for one year, and represents about half of an average day of U.S. natural gas consumption.



That might not sound significant, but by adding any supply to a tight U.S. energy market, these program-driven efficiencies increase natural gas availability and, thereby, mitigate prices. Program participants also share best practices with other program partners, promoting more operational efficiency with continuing major reductions in fugitive methane emissions.

Some recent innovations include:

Vapor recovery units (VRUs) which allow the capture of methane and other gases that otherwise would be vented into the atmosphere. The captured methane can then be used on-site or sold as natural gas.
Plunger lifts installed in mature wells allow for more efficient removal of liquids, which increases well production and decreases methane emissions.
Green completions eliminate the need to vent methane while cleaning the well-bore, reducing methane emissions and adding natural gas supply and liquids to the market.

Competitive market forces spur technological advancements that save natural gas and help meet environmental goals. The EPA Natural Gas Star program (www.epa.gov/gasstar) is one way to quantify the value to consumers and the environment that is already being achieved through these innovations. Competitive natural gas market signals will continue to yield such enhancements and add more natural gas supply to the market.