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NATURAL GAS FLARING AND VENTING

Opportunities to Improve Data and Reduce Emissions

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Highlights

Highlights of GAO-04-809, a report to the Honorable Jeff Bingaman, Ranking Minority Member, Committee on Energy and Natural Resources, U.S. Senate

Why GAO Did This Study

Since 1995, the average price of natural gas in the United States has almost tripled as demand has grown faster than supply. Despite this increase, natural gas is regularly lost as it is burned (flared) and released into the atmosphere (vented) during the production of oil and gas. GAO was asked to (1) describe flaring and venting data and what the federal government could do to improve them; (2) report, on the basis of available information, on the extent of flaring and venting and their contributions to greenhouse gases; and (3) identify opportunities for the federal government to reduce flaring and venting.

What GAO Recommends

GAO recommends that the Secretary of Energy consider opportunities to improve data on flaring and venting. In addition, GAO recommends that the Secretary of the Interior consider regulatory changes for federal leases to reduce the most harmful emissions from flaring and venting and to improve oversight.

In commenting on the report, the Department of Energy and the Department of the Interior generally agreed with our findings and recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-04-809.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Jim Wells at (202) 512-3841 or wellsj@gao.gov.

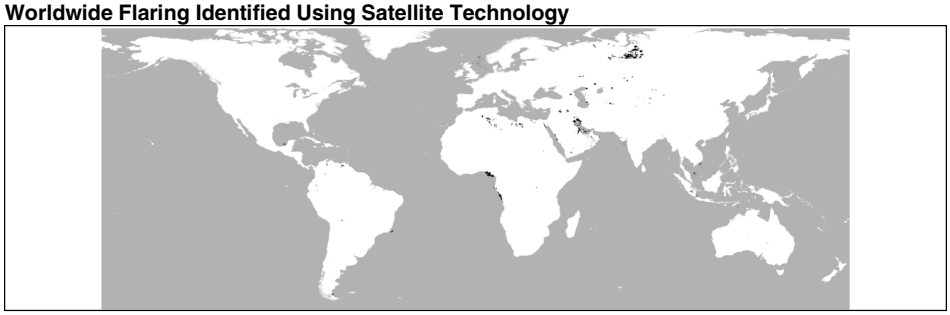
What GAO Found

U.S. and global data on natural gas flaring and venting are limited. First, the Department of Energy's Energy Information Administration (EIA) collects and reports data voluntarily provided by oil- and gas-producing states. Because EIA has no authority to require states to report, some do not, leading to incomplete data. Second, EIA has provided limited guidance to states to promote consistent reporting. As a result, only about one-fourth of the states reporting provide data that EIA considers consistent. Third, the data EIA collects do not distinguish between flared gas and vented gas—an important distinction since they have dramatically different environmental impacts. Data on flaring and venting outside the United States are also limited, since many countries report unreliable data or none at all. To improve data on flaring and venting, EIA could use its authority to collect data directly from oil and gas producers; to obtain more consistent data, EIA could improve its guidelines for reporting. From an environmental perspective, EIA, the Minerals Management Service, and the Bureau of Land Management could require flaring and venting data to be reported separately from each other. Globally, the federal government could set an example by continuing to improve U.S. data, continuing to support global efforts, and using U.S. satellite data to detect unreported flaring.

On the basis of the limited data available, the amount of gas emitted through flaring and venting worldwide is small compared with global natural gas production and represents a small portion of greenhouse gas emissions. Nevertheless, flaring and venting have adverse environmental impacts and result in the loss of a significant amount of energy. Annually, over 100 billion cubic meters of gas are flared or vented worldwide—enough to meet the natural gas needs of France and Germany for a year. While flaring and venting do occur in the United States, less than 1 percent of global production is flared and vented.

Opportunities exist in several areas to help reduce flaring and venting, both in the United States and globally. For example, exploring ways to address market barriers affecting associated gas could help identify approaches to reduce global flaring and venting.

Worldwide Flaring Identified Using Satellite Technology



Source: National Oceanic and Atmospheric Administration.