

### VIEWS ON METHANE

**I've asked my advisors to consider approaches to reduce greenhouse gas emissions, including those that tap the power of markets, help realize the promise of technology and ensure the widest-possible global participation....Our actions should be measured as we learn more from science and build on it. Our approach must be flexible to adjust to new information and take advantage of new technology. We must always act to ensure continued economic growth and prosperity for our citizens and for citizens throughout the world.**

President George W. Bush  
June 11, 2001

#### **From the White House:**

Because of the potency of methane relative to carbon dioxide, a “methane-first” strategy for greenhouse gas mitigation is cost-effective.

**White House Global Climate Change Policy Book**  
February 2002

#### **From the National Research Council:**

Methane is an example of a forcing whose growth could be slowed or even stopped entirely or reversed. The common scenarios for future climate change assume that methane will continue to increase. If instead its amount were to remain constant or decrease, the net climate forcing could be significantly reduced. The growth rate of atmospheric methane has slowed by more than half in the past two decades for reasons that are not well understood. With a better understanding of the sources and sinks of methane, it may be possible to encourage practices (for example, reduced leakage during fossil-fuel mining and transport, capture of land-fill emissions, and more efficient agricultural practices) that lead to a decrease in atmospheric methane and significantly reduce future climate change. The atmospheric lifetime of methane is of the order of a decade, therefore, unlike CO<sub>2</sub>, emission changes will be reflected in changed forcing rather quickly.

National Research Council  
**Climate Change Science: An Analysis of Some Key Questions** (2001), p. 13

#### **From the Intergovernmental Panel on Climate Change:**

Only a small set of studies has reported on scenarios for mitigating non-CO<sub>2</sub> gases. This literature suggests that small reductions of GHG emissions can be accomplished at lower cost by including non-CO<sub>2</sub> gases; that both CO<sub>2</sub> and non-CO<sub>2</sub> emissions would have to be controlled in order to slow the increase of atmospheric temperature sufficiently to achieve climate targets assumed in the studies; and that methane (CH<sub>4</sub>) mitigation can be carried out more rapidly, with a more immediate impact on the atmosphere, than CO<sub>2</sub> mitigation.

**Climate Change 2001: Mitigation**  
Contribution of Working Group III to the Third Assessment  
Report of the Intergovernmental Panel on Climate Change, p. 22

### From Dr. James Hansen, NASA:

In addressing air pollution, we should emphasize the constituents that contribute most to global warming. Methane offers a great opportunity. If human sources of methane are reduced, it may even be possible to get the atmospheric methane amount to decline, thus providing a cooling that would partially offset the carbon dioxide increase.

Actions to reduce methane, such as methane capture at landfills and at waste management facilities and during the mining of fossil fuels, have economic benefits that partially offset the costs. In some cases, methane's value as a fuel entirely pays for the cost of capture.

*"Defusing the Global Warming Time Bomb"*  
Scientific American, March 2004

Most CH<sub>4</sub> sources are susceptible to reductions in many ways that are otherwise beneficial. Reduction of CH<sub>4</sub> would have the added benefit of increasing atmospheric OH and reducing tropospheric O<sub>3</sub>, a pollutant that is harmful to human health and agriculture.

*"Global warming in the 21<sup>st</sup> century: An alternative scenario"*  
Proceedings of the National Academy of Sciences  
June 16, 2000

### From Massachusetts Institute of Technology:

Looking to likely emissions over the next half-century, it is also the case that feasible reductions in emissions of methane and other non-CO<sub>2</sub> gases can make a contribution to slowing warming that is as large or even larger than similar reductions in CO<sub>2</sub> emissions. To effectively limit climate change, and do so in a cost-effective manner, thus requires that climate policies deal with CO<sub>2</sub> and non-CO<sub>2</sub> gases alike. (p. iii)

There can be considerable leverage in controlling "other" GHGs. They rival CO<sub>2</sub> in importance as a target for mitigating the threat of climate change and, to the degree that the pace of temperature change in the early decades is at issue, methane is particularly important. (p. 19)

Dr. John M. Reilly et al  
Massachusetts Institute of Technology  
Multi-Gas Contributors to Global Climate Change: Climate Impacts and Mitigation Costs of Non-CO<sub>2</sub> Gases  
Prepared for the Pew Center on Global Climate Change  
February 2003