



VIEWS ON METHANE

President Bush Announces Methane to Markets Partnership



Statement by the President – July 28, 2004

Today the United States and several major international partners are forming the Methane to Markets Partnership, a new and innovative program to increase energy security, improve environmental quality, and reduce greenhouse gas emissions throughout the world. The United States will commit up to \$53 million to the Partnership over the next five years. To date, Australia, India, Italy, Japan, Mexico, Ukraine, and the United Kingdom have agreed to participate as founding partners, along with the United States.

Under the Partnership, members will work in coordination with the private sector to share and expand the use of technologies to capture methane emissions that are now wasted in the course of industrial processes and use them as a new energy source. The important benefits of this international partnership include improved energy security and air quality from the use of clean-burning methane as natural gas; improved coal mine safety; enhanced economic growth; and reduced greenhouse gas emissions of methane. The Partnership will be led by Environmental Protection Agency Administrator Mike Leavitt, working closely with the Department of State, the Department of Energy, and the United States Agency for International Development. Administrator Leavitt will host a ministerial-level meeting of the founding international partners later this year. I look forward to working closely with our international partners to achieve the Partnership's important goals.

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 CO₂, 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-CO₂ gases. This literature suggests that small reductions of GHG emissions can be accomplished at lower cost by including non-CO₂ gases; that both CO₂ and non-CO₂ 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 (CH₄) mitigation can be carried out more rapidly, with a more immediate impact on the atmosphere, than CO₂ 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 CH₄ sources are susceptible to reductions in many ways that are otherwise beneficial. Reduction of CH₄ would have the added benefit of increasing atmospheric OH and reducing tropospheric O₃, a pollutant that is harmful to human health and agriculture.

"Global warming in the 21st 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-CO₂ gases can make a contribution to slowing warming that is as large or even larger than similar reductions in CO₂ emissions. To effectively limit climate change, and do so in a cost-effective manner, thus requires that climate policies deal with CO₂ and non-CO₂ gases alike. (p. iii)

There can be considerable leverage in controlling "other" GHGs. They rival CO₂ 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-CO₂ Gases
Prepared for the Pew Center on Global Climate Change
February 2003