

SUBMISSION ON GEO-ENGINEERING RESEARCH TO AMERICA'S ENERGY CHOICES

June 15, 2009

The Clean Air Task Force (CATF) is a non-profit environmental organization dedicated to reducing atmospheric pollution through research, advocacy, and collaboration. Much of its activity is focused on mitigating climate change.

CATF strongly supports a robust research program on potential geo-engineering options to mitigate climate change. We need a research program because of the amount of warming in the pipeline already, the significant inertia from CO₂ and associated warming, and the dearth of scalable options to reduce CO₂ at the rate that would be needed to mitigate significant warming in the next several decades.¹

CATF would urge consideration of research on the full range of geo-engineering options but especially those which are readily reversible and have the lowest risk of unintended consequences:

- For example, proposals to increase Arctic albedo through the use of removable floating white surfaces, see <http://ice911.org/>, are deserving of serious examination because of their potential impact and their low negative environmental footprint.
- Air capture of carbon dioxide for geologic or the forms of storage is an option which is targeted even more precisely at the problem of CO₂ concentrations and would appear to have little collateral effect.

Given the hundreds of billions of dollars annually that are being contemplated for conventional climate change mitigation, a significant geo-engineering research program – certainly in the range of tens of millions of dollars annually – is well justified.

¹ See, e.g., S. Solomon et al, "Irreversible climate change due to carbon dioxide emissions," Proceedings of the National Academy of Science, vol 6, no. 106, 1704-1709 (February 2009); H. Damon Matthews and Ken Caldeira,, "Stabilizing climate requires near-zero emissions," Geophysical Research Letters, Feb. 2008. See also V. Ramanathan and Y. Feng, "On avoiding dangerous anthropogenic interference with the climate system: Formidable challenges ahead," PNAS (Sep. 23, 2008); K. Anderson and A. Bows, "Reframing the climate change challenge in light of post-2000 emission trends," Phil. Trans. R. Soc (August 2008) at p. 2838.