

Dear Mr. Stern and members of the review committee:

I am an ecological economist and have just finished my PhD at UC Berkeley's Energy and Resources Group, working with Richard Norgaard and others. My dissertation, which I filed in September, was largely focused on uncertainty in climate science and its implications for policy and the distribution of risk. I am currently a post-doctoral scholar at Stanford University's Center for Environmental Science and Policy.

The attached submission, however, does not address the issue of scientific uncertainty, except peripherally in some concluding notes. Rather it addresses the basic question of the measurement of mitigation costs. In brief, it argues that, just as aggregate damage costs cannot be measured or projected without accounting for distribution and the declining marginal utility of income (so-called "equity weighting"), neither can mitigation costs. Put more strongly, there is no such thing as "the" cost of mitigation that does not account for distribution (politics) and equity weighting (ethics).

Although this analysis is quite separate from my dissertation research, it is nonetheless in an area of my expertise. I have been a close observer of the literature on climate change economics since the beginning of my graduate work at Louisiana State University in 1997. I have

been a co-author on peer-reviewed economic analysis with Steve DeCanio and Florentin Krause, both well respected economists. And I have built and published my own model of international carbon trading, based on the principles used in this analysis.

Most recently, I have been focused on climate risk analysis, and in particular on the scientific and policy implications of the multi-dimensional uncertainty in the climate sensitivity. My work has shown, as has the work of other scholars, that a high probability of staying below a 2°C target requires stabilization of net radiative forcing (GHGs less the offsetting effects of aerosols) at a level of roughly 400 ppm CO<sub>2</sub>-equivalent.

Work I performed on this topic for the Institute for Public Policy Research (IPPR) was the basis of the recommendation on this subject from the International Climate Change Taskforce, co-Chaired by British MP the Right Hon. Stephen Byers and Sen. Olympia Snowe of the United States. John Holdren, an internationally respected scientist and member of the task force, reviewed my work carefully prior to the publication of their report. I am currently pursuing research for IPPR that will extend from the probabilistic analysis of stabilization targets to the probabilistic analysis of emissions pathways, accounting for uncertainty in the carbon cycle, ocean heat uptake, and non-CO<sub>2</sub> forcings.

Furthermore, together with Sivan Kartha (with whom I am jointly submitting this analysis) and others, I am actively pursuing research regarding a proposal for an international mitigation regime based on "greenhouse development rights." Unfortunately the paper describing this work is currently in revision, and will not be completed until January. I hope that you will allow us to submit that paper when it is complete, as it addresses in great detail many of the questions in the Terms of Reference for the review beyond those addressed in this submission.

Sincerely,

Paul Baer