

## **Regarding the National Policy Statement on Climate Change of the APS Council: An Open Letter to the Council of the American Physical Society**

As physicists who are familiar with the science issues, and as current and past members of the American Physical Society, we the undersigned urge the Council to revise its current statement\* on climate change as follows, so as to more accurately represent the current state of the science:

*Greenhouse gas emissions, such as carbon dioxide, methane, and nitrous oxide, accompany human industrial and agricultural activity. While substantial concern has been expressed that emissions may cause significant climate change, measured or reconstructed temperature records indicate that 20th - 21st century changes are neither exceptional nor persistent, and the historical and geological records show many periods warmer than today. In addition, there is an extensive scientific literature that examines beneficial effects of increased levels of carbon dioxide for both plants and animals.*

*Studies of a variety of natural processes, including ocean cycles and solar variability, indicate that they can account for variations in the Earth's climate on the time scale of decades and centuries. Current climate models appear insufficiently reliable to properly account for natural and anthropogenic contributions to past climate change, much less project future climate.*

*The APS supports an objective scientific effort to understand the effects of all processes – natural and human -- on the Earth's climate and the biosphere's response to climate change, and promotes technological options for meeting challenges of future climate changes, regardless of cause.*

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\* The statement of the APS Council, adopted on November 18, 2007 is as follows:

*“Emissions of greenhouse gases from human activities are changing the atmosphere in ways that affect the Earth's climate. Greenhouse gases include carbon dioxide as well as methane, nitrous oxide and other gases. They are emitted from fossil fuel combustion and a range of industrial and agricultural processes.*

*The evidence is incontrovertible: Global warming is occurring. If no mitigating actions are taken, significant disruptions in the Earth's physical and ecological systems, social systems, security and human health are likely to occur. We must reduce emissions of greenhouse gases beginning now.*

*Because the complexity of the climate makes accurate prediction difficult, the APS urges an enhanced effort to understand the effects of human activity on the Earth's climate, and to provide the technological options for meeting the climate challenge in the near and longer terms. The APS also urges governments, universities, national laboratories and its membership to support policies and actions that will reduce the emission of greenhouse gases.”*

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