

American Physical Society Rejects Climate Anti-Science

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Like the American Association for the Advancement of Science, the American Geophysical Union, the American Meteorological Society, and most other science societies, the American Physical Society (APS) has a climate change policy based on main-

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stream science. It is a short statement of only three succinct paragraphs, approved in November 2007. Here is the full text (see www.aps.org/policy/statements/07_1.cfm):

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.

At the May 2009 APS Council meeting, Robert Austin of Princeton asked the

APS to review that position, and he proposed a replacement. The APS Council appointed a committee to review the statement and planned to discuss the issue in November 2009 (see www.aps.org/publications/apsnews/200910/climate.cfm). The following are two key paragraphs from the proposal petition:

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 recon-

gases, and even the conservation of energy nonexistent. Purposeful effort to obscure knowledge is called *anti-science* or *agnostology*.

In response, the committee simply referenced mainstream climate research summaries—the 2007 IPCC AR4 WG I report and the U.S. National Research Council's 2006 "Surface Temperature Reconstructions of the Last 2,000 Years"—compared them straightforwardly with the Austin proposal, and recommended rejection. The committee did

optimal, especially sealed, temperature-controlled greenhouses. Water is often the main growth limiter. Higher temperatures not only increase evaporation, but Hadley cell expansion will shift rainfall away from places like the U.S. Southwest. California grows half the fruit and vegetables for the U.S., and we already have water stress. CO₂ is especially beneficial to weeds like poison ivy and kudzu, but milder winters also encourage bark beetles that have already ravaged Colorado's lodgepole pines and now thrive in much of British Columbia. Some trees may grow slightly faster with more CO₂, but not if they're already dead.

In support of the proposal, an April–November campaign (letter in *Nature*, ads in newsletters, Internet publicity, and much direct recruiting) had gathered 206 signers—0.45 percent of the 47,000 APS members. Of these, one seemed to be a credible climate scientist. A few others had published a few peer-reviewed climate papers, which often failed to stand up under scrutiny or new data. A few had written books that included outright pseudoscience.

This petition might *seem* like a grassroots groundswell, but it was actually led by a core group connected with think tanks experienced in anti-science disinformation efforts, starting with tobacco companies. The proposal seems less an attempt to convince the APS than to impress the public with a list of PhDs. While a few may have abandoned critical thought, most APS members have not.

For a detailed study of this campaign, see my "Science Bypass: Anti-science Petition to APS from folks with SEPP, George C. Marshall Institute, Heartland, and CATO" at www.desmogblog.com/another-silly-climate-petition-exposed. Signer demographics are quite unrepresentative of the APS in age, gender, politics, geography, organizational concentration, and social networks, indicating extra-science reasons for signing. After the first twenty pages, the remainder of the document is mostly detailed backup material, so do not be daunted by the length. □

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structed temperature records indicate that 20th 21st [*sic*] 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.

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suggest further review of the current version for issues of "clarity and tone," but wrote, "The APS would be well advised not to retract its support of policies and actions that are aimed at reduction in the production of greenhouse gasses." The APS Council has rejected the Austin proposal (see www.physicsfrontline.aps.org/2009/11/10/aps-council-overwhelmingly-rejects-proposal-to-replace-societys-current-climate-change-statement/.)

Austin's proposed plant comment is true but misleading at best, and it is derived from 1990s marketing campaigns by coal companies. Plant growth is limited by the least available factor, an idea first called Liebig's Law of the Minimum. Competent gardeners know it. Like many farm kids, I learned it by age ten. CO₂ is modestly helpful where sunlight, water, and other nutrients are