



April 8, 2019

President Donald J. Trump
The White House
1600 Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear Mr. President:

We write to support the proposal by Dr. William Happer, the distinguished climate scientist who serves as your National Security Council's senior director for emerging technologies, to establish a presidential commission to review the scientific basis for claims that our national security is being threatened by "climate change."

For 30 years U.S. government agencies have made dramatic predictions of possible **future** climate catastrophes caused by warming from carbon dioxide and other non-polluting gasses that are emitted when natural gas, oil, and coal are converted into energy. Meanwhile the **current** data compiled by the United Nations Intergovernmental Panel on Climate Change and by U.S. government scientists continue to show unequivocally that to date:

There has been NO increase in the rate of sea-level rise and the number of droughts, hurricanes, cyclones, or other extreme weather events compared to the first half of the 20th century, when carbon dioxide was insufficient to be a factor in warming.

You and the public deserve to know why these predictions of catastrophe have continually failed to come true. That is what a presidential commission on climate science can do.

These fossil fuels power 80 percent of our economy. If they have indeed caused no catastrophic warming, placing restrictions on them would be itself both a national security threat and the height of economic folly. Calls for ending the use of fossil fuels within a few decades are totally unsupported by facts, in any event. Power from alternative sources of this level of energy is both far more expensive and not reliably deliverable in sufficient quantity to power our nation.

Dr. Happer was one of the founders and a key leader of our organization, the CO2 Coalition of atmospheric physicists, ecologists, geologists, climatologists, agronomists, ocean specialists, statisticians, and energy economists who educate the public on climate science and climate economics. We believe we are in a unique position to assess his qualifications to guide the work of the proposed commission.



We have been mystified by claims in the media that Will Happer is not a climate scientist, and so is unqualified to lead a review of climate science. Nothing could be further from the truth.

Climate science, of course, is a massive field, incorporating dozens of specialized fields like atmospheric dynamics, astrophysics, ocean physics, agronomy, climate statistics, mathematical modeling, proxy data for temperature, and measurement techniques. No human being can possibly be expert in all such fields, which is why we usually avoid the use of the general term in favor of the specific. However, if anybody in America has command of enough scientific fields to be considered a climate scientist, it is Will Happer.

Dr. Happer has a Ph.D. in atomic physics from Princeton. He taught at both Columbia, where he was co-director of the Columbia Radiation Laboratory, and Princeton. He is perhaps best known in physics for inventing the sodium guide star, which uses ground-based lasers to create an artificial star in the layer of sodium atoms at an altitude of about 90 kilometers, and to use the resonance sodium light to control a “rubber mirror” to compensate for the turbulence in an adaptive optics systems.

However, Dr. Happer has also made seminal contributions in the areas covered by the term “climate science.” He served in government as director of energy research in the U.S. Department of Energy, where he guided research in climate physics, including establishing the Atmospheric Radiation Management program that collects crucial data on climate and weather. He has published over 200 scientific papers, including those on his pioneering work on the interaction of light and atoms. This work lies at the heart of atmospheric phenomena, such as the wave spectroscopy that determines the sensitivity of heat to concentrations of warming gasses -- the key parameter in both actual warming and in the climate models that predict it.

In the early 1980’s Dr. Happer co-authored one of the earliest books on climate change, “The Long-Term Impacts of Increasing Atmospheric Carbon Dioxide Levels,” based on his work as part of the U.S. government’s JASON defense group. He continues to publish on spectroscopy today, for example as a co-author of a forthcoming paper on “Infrared Forcing of Greenhouse Gases,” which assesses the impact on temperature of additional industrial emissions of carbon dioxide and methane.

We have personal knowledge of Will’s integrity and his commitment to both science and U.S. national security. We applaud him as the perfect person to lead your commission.

Sincerely,

Patrick Moore, Ph.D., Ecology, Chairman of the CO2 Coalition

Caleb Rossiter, Ph.D., climate statistician, Executive Director of the CO2 Coalition



CO2 COALITION

John H. Moore, Ph.D., Deputy Director, National Science Foundation, 1985-89

Jan Breslow, M.D., Professor at Rockefeller University, member of the US National Academy of Sciences, and former President of the American Heart Association

Craig D. Idso, Ph.D., agronomist, Chairman of Center for the Study of Carbon Dioxide and Global Change

Lars Schernikau, Ph.D., Energy Economics

Gordon J. Fulks, Ph.D., astrophysicist

Professor Don J. Easterbrook, Ph.D., glacial geologist

Patrick J. Michaels, Ph.D., past-President, American Association of State Climatologists

Kathleen Hartnett, M.A., Humanities, former Chairman of the TX Commission on Environmental Quality

David A. Burton, M.A., Computer Science, sea level analyst

Bruce Everett, Ph.D., energy economist, Adjunct Associate Professor of International Business at the Fletcher School of Law and Diplomacy

Bruce Fegley, Jr. Ph.D., geochemist

Walter Cunningham, M.S., Physics, All-weather Fighter Pilot, Astronaut, Apollo 7

Gene McCall, Ph.D., Laboratory Fellow of the Los Alamos National Laboratory of the University of California and past Chairman of the United States Air Force Scientific Advisory Board

Fred Rumak, PGeol, Geologist

Jeff Salmon, Ph.D., former Associate Undersecretary for Science at the Department of Energy

Jim Steele, M.S., ecologist, emeritus director Sierra Nevada Field Campus, San Francisco State University

Hugh Kendrick, Ph.D., Nuclear Engineering

Charles Hohenberg, Ph.D.



CO2 COALITION

Kenneth W. Billman, PhD, Physics and Math

Edward Bohn, Ph.D., energy technology research scientist and entrepreneur

Richard Lindzen, Ph.D., Atmospheric Science, Emeritus Alfred P. Sloan Professor of Meteorology at MIT, and member National Academy of Sciences

H. Leighton Steward, MS, Environmental Geology and Global Climate Change

John Parmentola, Ph.D., Physics

William Hayden Smith, Ph.D., Professor of Earth and Planetary Sciences