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Physics Proves Carbon Dioxide is Now a Weak Greenhouse Gas So That All Net Zero Policies Will Have A Trivial Effect on Temperature, But Disastrous Effects on People Worldwide

The United States and countries worldwide are vigorously pursuing regulations and subsidies to reduce carbon dioxide emissions to Net Zero by 2050 on the assumption, best stated by the Intergovernmental Panel on Climate Change (IPCC), that the “evidence is clear that carbon dioxide (CO₂) is the main driver of climate change,” and is “responsible for more than 50% of the change.”

We are career physicists with a special expertise in radiation physics, which describes how CO₂ affects heat flow in Earth’s atmosphere. The physics of carbon dioxide is that CO₂’s ability to warm the planet is determined by its ability to absorb heat, which decreases rapidly as CO₂’s concentration in the atmosphere increases. This scientific fact about CO₂ changes everything about CO₂ and climate change.

Carbon Dioxide is Now a Weak Greenhouse Gas. At today’s CO₂ concentration in the atmosphere of approximately 420 parts per million, CO₂ has little ability to absorb heat and therefore is now a weak greenhouse gas. Its ability to warm the planet and at higher levels of CO₂ is very small. This also means that the common assumption that carbon dioxide is “the main driver of climate change” is no longer true and is scientifically false.

More carbon dioxide cannot cause catastrophic global warming or more extreme weather. Neither can methane or nitrous oxide, the levels of which are so small that they are irrelevant to climate.

In reality, CO₂’s role has fundamentally flipped. Now more CO₂ does two beneficial things for humanity: (1) it provides a slight increase in warming, and (2) it creates more food for people worldwide, covered further below.

Implications.

First. Net Zero Efforts Will Have a Trivial Effect on Temperature. Physics has a mathematical formula that computes CO₂’s ability to absorb heat. We applied the formula to the massive efforts by the U. S. and worldwide to reduce CO₂ emissions to Net Zero by 2050 in a technical paper.¹ It shows that all the Net Zero carbon dioxide efforts, if fully implemented, will have a trivial effect on temperature:

- United States Net Zero by 2050 -- only avoids a temperature increase of 2/100 °F
- Worldwide Net Zero by 2050 -- only avoids a temperature increase of 13/100 °F.

These numbers are trivial, but their cost is disastrous to people worldwide.

Second. Disastrous Net Zero Effects for People Worldwide. The United States and worldwide Net Zero regulations and subsidies will have disastrous effects, including eliminating fossil fuel electric plants that provide the majority of electricity worldwide, gas furnaces, gas stoves and gas heaters, fossil fuels because they are the source of approximately 90% of human carbon dioxide emissions, fossil fuels critical to producing nitrogen fertilizer that feeds nearly half the world,

and related jobs and the revenue they create; substantial market investments in businesses that create jobs and GDP because of subsidies and regulations diverting huge amounts of capital to achieve Net Zero, for example, the \$12 trillion in global renewable energy investment, and the increased food that more carbon dioxide creates.

In addition, various countries will require electric vehicles (EVs), heat pumps and electric appliances be purchased,, and require companies to report information on carbon dioxide and other greenhouse gases emissions. However, since carbon dioxide and the others have weak greenhouse effects, this data is immaterial, misleading and very expensive. It should not be required.

Third. More Carbon Dioxide Means More Food. Contrary to common reporting, more carbon dioxide increases the amount of food available to people worldwide, including drought stricken areas. Doubling carbon dioxide to 800 ppm, for example. will increase the food available worldwide by approximately 60%.²

Thus, carbon dioxide emissions should not be reduced, but increased to provide more food worldwide, with no risk of catastrophic global warming or extreme weather because carbon dioxide is now a weak greenhouse gas. Reducing carbon dioxide emissions will reduce the amount of food available to people worldwide, with no benefit to the climate.

Fourth. Fossil Fuels Must Not Be Eliminated. Net Zero requires fossil fuels be eliminated because fossil fuels account for about 90% of human CO₂ emissions. Since carbon dioxide is now a weak greenhouse gas, fossil fuels must not be eliminated and should be expanded because they (1) provide more carbon dioxide which makes more food, (2) make nitrogen fertilizer to make food for about half of the world's population, and (3) provide reliable and inexpensive energy for people everywhere, especially for the two thirds of the world's population without adequate access to electricity.³

Fifth. All Net Zero Actions Worldwide Should Be Stopped Immediately. All Net Zero carbon dioxide regulations and subsidies in the United States and worldwide must be stopped as soon as possible to avoid the disastrous effects on people worldwide, especially in developing countries.

¹ R. Lindzen, W. Happer and W. van Wijngaarden, *Net Zero Avoided Temperature Increase*, <http://arxiv.org/abs/2406.07392>, ([Net Zero Averted Temperature Increase - CO2 Coalition](#)).

² R. Lindzen, W. Happer and S. Koonin, "Fossil Fuels and Greenhouse Gases (GHGs) Climate Science" (April 2024), p. 3, [Lindzen-Happer-Koonin-climate-science-4-24.pdf](#) ([co2coalition.org](#))

³ R. Bryce, "Powering the Unplugged: Overcoming the Barriers to Electrification in the Developing World" (2023).