



## President Biden's Legacy

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The eyes of history will pierce the fog of politics. Science has exposed the course upon which our quest for energy has set our planet. Consequences will fall mainly on young people, their children, and grandchildren — unless decisive political leadership abandons wishful thinking and superficial half-measures. Climate change is a global matter and demands a global perspective.

When I was a graduate student, I wrote to Carl Sagan, then an assistant professor at Harvard University, who sent me a stack of his papers on the atmosphere of Venus, our nearest planetary neighbor. We all still hoped that beneath the ubiquitous, pale lemon-yellow clouds that shrouded Venus lay a hospitable landscape with oceans or at least large lakes. Even if we found no dancing nymphs, at least Venus could be a second home for refuge, if we should mess up our home planet.

Cold-hearted scientific inquisition, spearheaded by Soviet Venera spacecraft, drew back the veil of Venus and exposed the awful truth — a scorching surface, hot enough to melt lead. Isotopic remnants of water in the Venus stratosphere revealed that the ocean on Venus had boiled away to space in a runaway greenhouse effect.

Planet Earth is fortunate. Nuclear fusion in our sun's core only slowly burns hotter. It will be billions of years before the sun blows away our atmosphere and burns Earth to a crisp. Before then, humanity must find a new home. But we had better worry about the near-term first.

By the 1970s I became more interested in the implications of rapid changes humans are making to Earth's atmosphere. Congress wondered about the climate effects of President Jimmy Carter's program to subsidize coal gasification and rock-fracturing (fracking) to extract shale oil and tight gas. I turned to full-time research on the climate effects on Earth of growing atmospheric carbon dioxide — a byproduct of the energy obtained when we burn coal, oil, and gas.

In 1988 and 1989 [I testified to Congress](#) that human-made global warming had begun and by the early 21st century people would feel increasing climate extremes: more extreme heat waves, droughts, and fires, but also more extreme rain and floods. These warn us of a threat to young

people and their progeny: Continued high emissions could make low latitudes inhospitable for habitation later this century and rising sea levels could lock in loss of coastal cities — most of the world's large cities. Emigration pressures could make the world ungovernable.

The Framework Convention on Climate Change, adopted by almost all nations after the 1992 Rio de Janeiro conference, professes agreement to avoid dangerous human-made climate change. Yet ensuing actions consist simply of pledges to try harder to reduce emissions. Failure of this approach is guaranteed, as the economic benefits of fossil fuels overwhelm concerns about the future, as long as the waste products of fossil fuels can be dumped freely into the air.

After 1989, I withdrew from public speaking to focus on climate research. But in 2004, as global emissions continued to rise, I publicly endorsed John Kerry for president over incumbent George W. Bush. After the election, the Bush administration tried to prevent my public speaking. The censorship hullabaloo increased my determination to understand the broad problem of climate, energy, and economics.

A turning point was possible in the 2008 presidential election. Barack Obama spoke in his campaign of “a planet in peril.” But how could we be sure that Obama knew what was needed to address climate change? Most environmental groups lived in fairyland, never working with utility experts — who must keep the lights on — and not understanding that most nations will always give priority to their immediate development and economic well-being over the long-term global warming issue.

I wrote a letter to Obama describing the actions needed to address climate. The essential requirement is a rising carbon fee or tax, done in a way that the public does not suffer. I called it [“carbon tax and 100 percent dividend”](#) in 2008, but within months changed it to carbon “fee and dividend” to emphasize that a fee was collected from fossil fuel companies and the funds were distributed uniformly to all legal residents. Most people would gain financially. Wealthy people, who have a large carbon footprint, would lose, but they can afford it.

Economists agree that carbon fee and dividend is the way to phase down fossil fuel emissions. It spurs the economy, creates millions of jobs, and modernizes infrastructure, all in a socially progressive fashion. Economic studies show that it would reduce US emissions 30 percent in 10 years, and faster with the help of additional policy actions. The carbon fee can be made near global via a border duty on products from nations without an internal carbon fee.

Obama was faced immediately with the 2008 financial crisis. Congress had to cooperate with legislation. Obama could have included cost-free fee and dividend — based on conservative economic principles — but he did not try. Instead, he supported the ineffectual Waxman/Markey cap-and-trade climate bill with 3,000 pages of giveaways to special interests. It did not pass.

My letter to Obama included a second requirement: Support modern ultra-safe [nuclear power](#). Existing nuclear power already has been our safest energy on a deaths per kilowatt-hour basis, but we now know how to build reactors that cannot melt down, can shut down in an earthquake, and can withstand the impact of a 747 jetliner. When I asked oil and gas executives in London about windmill depictions on their website, they smirked. They knew that environmentalist support of “all renewables” would yield another century of profits for the fossil fuel industry.

Obama yielded to pressure from anti-nuclear Senator Harry Reid, appointing a Reid protégé as head of the Nuclear Regulatory Commission. The tsunami that hit Japan in 2011 and destroyed

several nuclear power plants at Fukushima was an opportunity played to the hilt. The NRC advised Americans to evacuate Tokyo and Japan to evacuate a huge area near Fukushima. Nobody died from radiation released by the accident, but [3700 people died](#) from the stress and heartbreak of being uprooted from their home and about 20,000 died from the tsunami. Doctors later declared that large-scale evacuation was a mistake, but environmental groups and compliant liberal media continued to frighten the public, leaving the prospects for nuclear power in tatters. Fortunately, China has been far-sighted and has accelerated plans for nuclear power.

President Biden was elected during a global pandemic and a growing climate crisis that affects the psychological well-being of young people. Despite his plummeting popularity, Biden has lived up to his promise to govern from the center as he accumulates legislative accomplishments.

The eyes of history, however, will focus on how Biden affects the course of our world. When he called Taiwan before calling President Xi Jinping of China, it seemed that Biden had gone daft. The Chinese people are not our enemy. They will not storm up our beaches with guns blazing. But the waves of the Atlantic and Pacific will storm up our beaches in our young people's lifetimes if we do not [work with China](#) to stabilize climate.

Biden has been underestimated many times in the past and that may prove true again. He has an opportunity to take the fundamental step on climate change that eluded all past leaders. He can begin the process of putting a price on carbon emissions via the Toxic Substances Control Act, a popular law passed by Congress with bipartisan support decades ago and recently renewed and strengthened with bipartisan support. This law was used by the EPA to initiate the phaseout of chemical substances that deplete Earth's ozone layer.

Several colleagues and I have petitioned EPA to use its existing authority to declare CO2 from fossil fuels a substance that presents an "unreasonable risk of injury to health and the environment." EPA is required by law to respond to our petition by Sept. 14, and it would be helpful if citizens would register their support by submitting a public comment [here](#).

The other crucial action for Biden is to reform the NRC. Prior Democratic administrations used the NRC to cripple and attempt to kill nuclear power, under the pretense of making our safest energy source even safer. In reality, their objective was to make nuclear power construction so slow and expensive that it would die.

President Biden, the eyes of history are upon you.

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