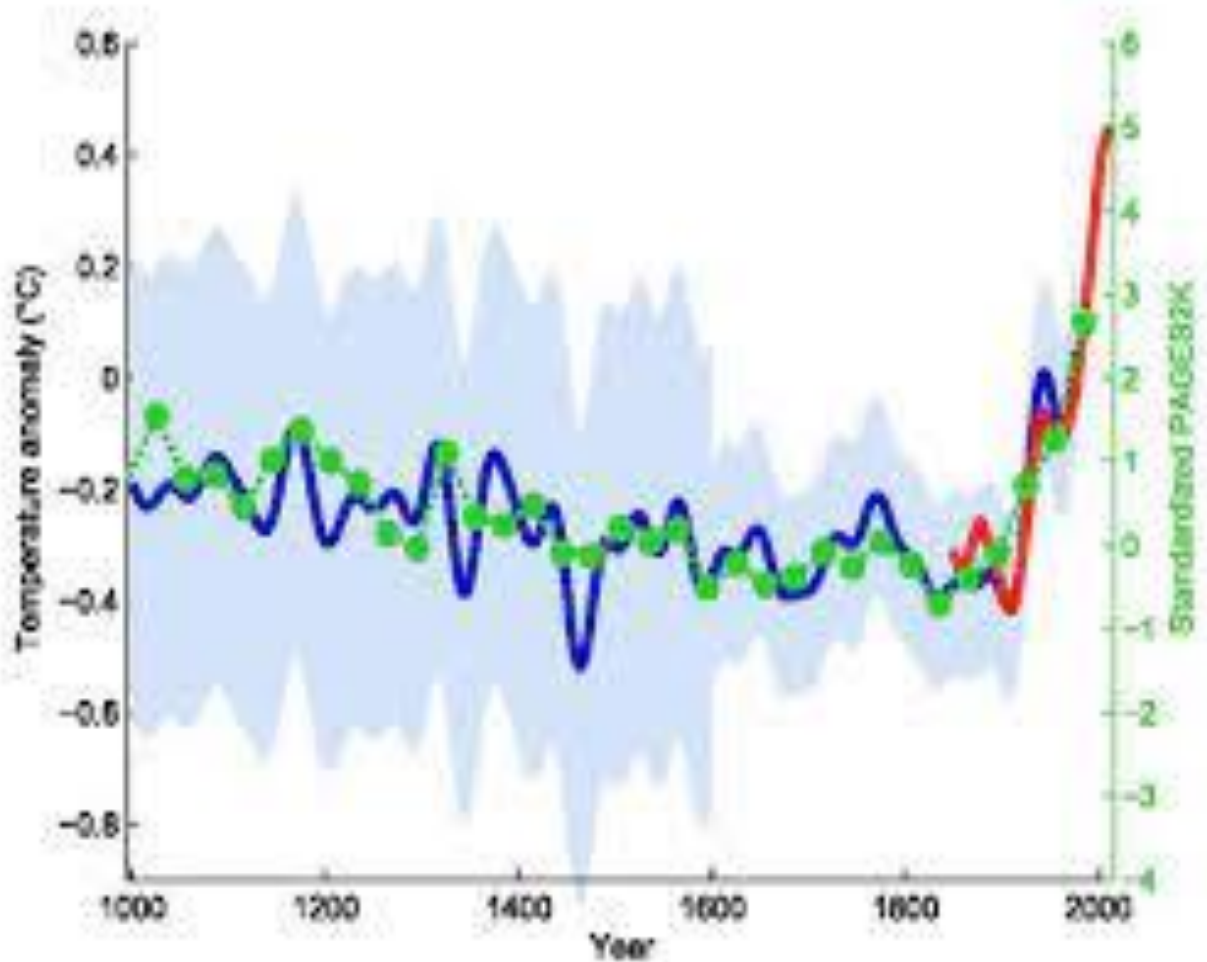


Will *Homo Sapiens* Be Able to Take Measures to Stop Global Warming and Save Themselves?

Michael E. Mann [The New Climate War: The Fight to Take Back Our Planet (New York: Public Affairs, Hachette Book Group, 2021)] is a climate scientist who, with colleagues, published the so-called “hockey stick” graph in 1998. It was a graph of the steep rise of carbon dioxide in our atmosphere since the industrial revolution, as seen below. There the red trend line on the right is going up and shows carbon dioxide in the atmosphere and is correlated with the rise of temperature anomalies, the green dots, plotted from the year 1000 AD. On the left side is a scale in fractions of centigrade degrees. This graph became the center of a huge controversy, but Mann survived the battles. Science has confirmed the “hockey stick”. Carbon dioxide traps heat in our atmosphere; the more carbon dioxide, the more heat is trapped, and it has been building up since the industrial revolution, when we started to burn coal in large quantities.



Most people have heard that the fossil fuel companies ran decades-long public relations campaigns (PR) to deny **any** climate change due to the burning of fossil fuel. But by 2021, most people agree that there is climate change because of all the bad weather. All over the world people have experienced super storms, wildfires, droughts, floods, and heat waves. This has caused people to agree with scientists that something is wrong. In the wake of that change, the fossil fuel companies have had to change their PR. What the fossil fuel companies are now saying to delay action, Mann calls “the new climate war”.

One method of the new PR strategy is “deflection” as seen in focusing on an individual’s [climate footprint](#). The individual is told to look at her lifestyle, the car she drives, how much she flies, and how much energy she uses. The idea then is for the individual to change her lifestyle, use less stuff, so her carbon footprint is smaller. Mann points out that **the energy and environmental policy of the government is ignored** in this approach. The idea of the individual’s carbon footprint was invented by a PR firm to change the subject. We need both individual lifestyle changes and smart governmental policy to solve this problem.

What policies? Mann discusses a carbon tax as well as the cap-and-trade of emissions permits. We need to understand that the use of fossil fuels is currently subsidized because the waste products, the CO₂ and other gases, are dumped into the atmosphere without the companies who sell the product or people who use the product having to pay a fee. When we must go to the local dump with garbage or construction waste, we must pay for what we dump. Who is going to pay the costs of what burning fossil fuel is dumping in our atmosphere? Not the oil companies, if they can help it. And they get other subsidies through the tax system like the “oil depletion allowance”.

In another form of “deflection”, some of the companies are saying they will be carbon neutral by a certain date in the future. But look at the fine print, Mann writes. The companies are only counting what they themselves produce in their operations, not what is put into the air when their product is burned.

Mann uses the term “inactivists” throughout the book. These are the people that understand there is climate change, but do not think it will be much of a problem, or don’t think there is much we can do without sacrificing our standard of living. There is another position he calls “[doomism](#).” Some doomists point to the positive feedback loops, like the melting of permafrost to make their case. As the temperature rises, permafrost melts and releases more methane which is a strong greenhouse gas. It is too late to do anything, they say!

But Mann says over and over that we can still stop global warming from becoming an existential crisis. We can put a price on carbon. Specifically, we can withdraw the subsidies to the fossil fuel companies, private and national. Although he does not say how we get national companies like Qatar Energy and Saudi Aramco, that produce so much of their countries national wealth, to agree. In turn, we can subsidize renewables. He does not think we must get rid of market economics to solve the problem.

What are the fossil fuel companies doing in light of our situation? According to the [20 May 2022, North American edition of The Guardian Weekly](#), “Oil and gas majors are planning scores of vast projects that threaten to shatter the 1.5 C climate goal.” The story is the result of a special investigation by *The Guardian Weekly*. A dozen fossil fuel companies are planning on spending \$387 million daily to drill and pump oil and gas through 2030. These are huge projects called [carbon bombs](#): it is “an oil or gas project that will result in at least a billion tonnes of CO₂ emissions over its lifetime.”

It appears the fossil fuel companies, and their executives and investors just don’t care about the rest of us and are doing only what the law and their investors ask of them: that they maximize the profits of their companies. For the fossil fuel companies, the oil and gas reserves that they have located but not gotten out of the ground and

refined are assets that increase the value of their companies. The current size of the fossil fuel sector's reserves is so large that [if just 60% of these assets are extracted](#), we would pass the agreed upon the 1.5-degree centigrade limit. And they want to find more reserves!

Even [The Seattle Times](#) of June 3, 2022, printed an article on the front page explaining that the greenhouse gases are at a record high. I quote: *"The amount of heat-trapping carbon dioxide in the atmosphere has shot past a key milestone — more than 50% higher than pre-industrial times — and is at levels not seen since millions of years ago when Earth was a hothouse ocean-inundated planet, federal scientists announced Friday."*

And now for the good news: Mann writes that as soon as we humans stop the increase in greenhouse gases and achieve **net zero** (the amount of carbon dioxide humans cause to be emitted balanced by the amount absorbed by natural processes like photosynthesis and rock decay), the atmosphere and weather will stabilize within a few years. Likewise, in the new book [Regeneration: Ending the climate crisis in one generation](#). (New York: Penguin Books, 2021) by Paul Hawken, Hawken quotes the International Panel on Climate Change report of 2020: "if we bring carbon dioxide [emissions] down to net zero, the warming will level off...within a decade or two.... This is a remarkable change in the scientific consensus." (p.9).

There is so much we can do. [We have over 80 proven methods of drawing down carbon dioxide out of the atmosphere](#). And with Mann, we can subsidize renewable power and withdraw the subsidies from fossil fuels. And with Hawken, we can pass a farm bill subsidizing the best regenerative agricultural practices and plant billions of trees, plant millions of acres of hemp, and farm kelp like the Chinese are doing.

We need the political will and to get that will, in my opinion, will require that our current political system be reformed. When several Supreme Court decisions, the best known is [Citizen's United](#), declared money in political campaigns to be like "free speech", [bribery for politicians became legal](#). Mann does not get into these aspects of climate change policy.

There is more good news. In the book [Electrify: An Optimist's Playbook for our Clean Future](#) by Saul Griffith (Cambridge, MA: The MIT Press, 2021), there is a detailed plan for converting our economy off fossil fuels. Griffith looks at the end use of energy: "We don't just need to change our fuels; we need to change our machines." (p.54) Because, electric motors are so much more efficient than internal combustion engines, **for 42% of the energy we now use**, we could power our cars and our heat pump space and water heaters and have the same standard of living as we have now! We would need to put solar panels on our roofs and wind turbines wherever we can. If we replace machines that burn fossil fuels **as they wear out** with electrically powered machines, we can make the transition in the time needed.

Griffith wants the Federal government to do the financing in the same way they financed home buying after the Great Depression. We also need to change hundreds of regulations in all jurisdictions. The transition would create millions of new jobs. Griffith suggests we nationalize the big fossil fuel companies. No private investor would lose money as that sector is drawn down. We will thank them for their service, for without fossil fuels, we would never have had the industrial revolution.

We would need a new electric grid designed like the Internet. Each household or business could put in energy and take it out as needed. Again, the transition would need to be comparable to the effort by the Federal Government during World War II to mobilize industry to win the war. Private companies will do the work, but they will be managed by a public agency not by a board of directors wanting to maximize their profits in a “free” market.

Griffith uses an FDR quote for his epigraph: “This is an emergency as serious as war itself.”