Fear of Change can Lead to Worsening Change

John Bos

From the industrial revolution to the advent of artificial intelligence, societies have undergone fundamental changes in how people live and comprehend their place in the world.

Some transformations are widely regarded as bad, including many of those connected to our climate crisis.

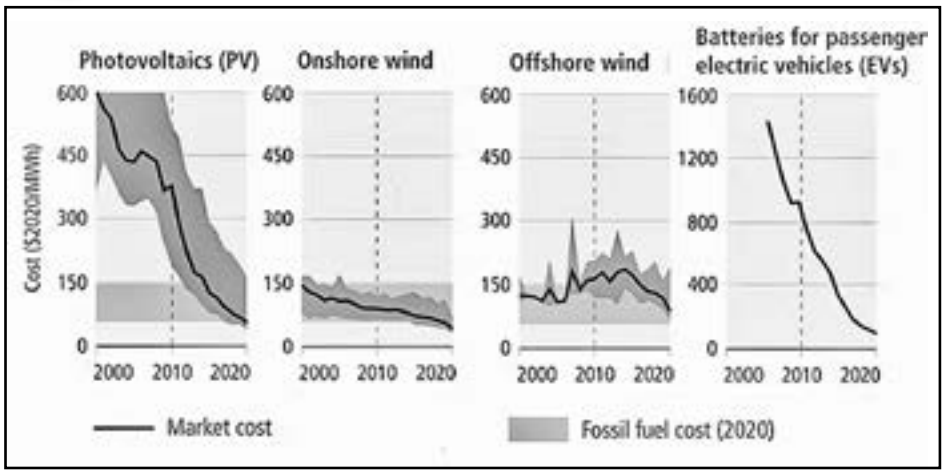
Transformations can have both good and bad effects. There is no question that the industrial revolution vastly raised standards of living for many people. It also spawned inequality, social disruption and environmental destruction.

We often resist transformation because of our fear of losing what we have. That fear is more embedded than realizing that we might gain something better. Wanting to keep the status quo explains all sorts of individual decisions, from who you vote for, to not wearing a mask even when studies have shown that doing so inhibits Covid-19 infection.

This status quo effect is much more pronounced when it comes to larger changes. Ending our reliance on fossil fuels is at the top of the list. History has shown that in the past, delaying inevitable change has led to transformations that are unnecessarily harsh. As more people are now experiencing the unavoidable impacts of climate change firsthand, they are beginning to realize that energy transformation is inevitable if they are to survive.

In the psychology of human behavior, "denialism" can be thought of as a person's choice to deny reality as a way to avoid a psychologically uncomfortable truth. In the sciences, denialism is the rejection of basic facts and concepts that are undisputed in favor of ideas that are radical, controversial, or fabricated. Blatant examples include Holocaust denial and AIDS denialism that ignore or reject the facts of these historical realities.

The fact that human activities have transformed the planet at a pace and scale unmatched in eras of the distant past is also a historical reality. Leading scientists worldwide have warned us that the world's "plans" to combat the change have been inadequate and that more aggressive actions must be taken to avert catastrophic warming.



Costs are falling for key forms of renewable energy and electric vehicle batteries. (IPCC sixth assessment report)

The report released on March 20 by the United Nations Intergovernmental Panel on Climate Change (IPCC) found that the world is likely to miss its most ambitious climate target — limiting warming to 1.5 degrees Celsius (2.7 degrees Fahrenheit) above preindustrial temperatures — within a decade. Beyond that threshold, scientists have found, climate disasters will become so extreme that people will not be able to adapt. Basic components of the Earth system will be fundamentally, irrevocably altered. Heat waves, famines and infectious diseases could claim millions of additional lives by century's end.

These unavoidable transformations are, and will continue to be, the results of too little, too late. It's easy to feel pessimistic when scientists around the world are warning that climate change has advanced so far, it's now inevitable that societies will either transform themselves or be transformed.

The latest reports from the Intergovernmental Panel on Climate Change includes a Synthesis Report. The Synthesis Report is based on the content of the three IPCC Working Group Assessment Reports: WGI – The Physical Science Basis, WGII – Impacts, Adaptation and Vulnerability, WGIII – Mitigation of Climate Change, and the three Special Reports: Global Warming of 1.5°C, Climate Change and Land, The Ocean and Cryosphere in a Changing Climate.

The Working Group I report addresses the most updated physical understanding of the climate system, bringing together the latest advances in climate science and combining multiple lines of evidence from paleoclimate, observations, process understanding, global and regional climate simulations. It shows how and why climate has changed to date, and the improved understanding of human influence on a wider range of climate characteristics, including extreme events. There is a greater focus on regional information that can be used for climate risk assessments.

While this comprehensive review describes the changes facing us, it also describes how existing solutions can reduce greenhouse gas emissions and help people find ways to adjust to the unavoidable impacts of climate change. These IPCC reports make clear that the future inevitably involves more and larger climate-related transformations. The question is what the mix of good and bad will be in those transformations.

To slow the environmental damage already underway, it is not new news that the world must shift how it generates and uses energy, transports people and goods, designs buildings and grows food. There is some reason for a little optimism. For example, renewable energy is now generally less expensive than fossil fuels. Therefore, a shift to clean energy can begin to mitigate greenhouse gas emissions and save money.

The IPCC chart below graphs the diminishing cost of solar and wind energy and increasing capacity of electric EV vehicles.

Transformation is inevitable. It will either result from too little action or from efforts to adapt to, and mitigate, our climate crisis. There have been substantial advances in the last five years. They are simply not sufficient to prevent the climate transformations already underway.

Doing more to disrupt the status quo with proven solutions can help smooth these transformations and create a better future in the process. The status quo includes the vast fossil fuel- industrial complex for which profit, not plants or people, is always the bottom line.

No one group alone can enact these changes. Everyone must be involved, including governments that can mandate and incentivize necessary changes. Like the incentives I have to switch to a heat pump from my propane powered heating and cooling system. It is also not new news that corporate influence controls many of the decisions about greenhouse gas emissions. We, the people, have to turn up the pressure on corporate and political leadership if we want our grandchildren to have a breathing chance for a good life.

John Bos is a contributing writer for Green Energy Times. His column, "Connecting the Dots," is published every other Saturday in the Greenfield (MA) Recorder. Questions and comments are invited at john01370@gmail.com. ♻

OP-ED

The Energy Crisis of the 1970s and Jimmy Carter's Sustainable Vision

Wes Golomb

On February 18, 2023, it was announced that former president, Jimmy Carter, age 98 is in hospice care. I am sad for his imminent loss, because I respect him more than any other president who served on my lifetime.

Several things about him have earned my respect. He was honest. He told it like it was and didn't try to fool the nations. There were no wars during his presidency, and although he is a truly religious man, which I respect, he never tried to foist his views on me, or the nation. Instead, he led, in office and since, by example.

Big issues surrounding energy consumed Carter's presidency, OPEC's oil embargo which caused the first oil crisis and runaway inflation. I remember waiting in line for hours to get gas.

Then there was the Iranian revolution, in large part a result of previous U.S. policy bit Carter in the butt. In 1953 Iran had nationalized the countries, oil, industry, and in response, the CIA fomented a coup d'état in Iran, which overthrew the legitimate government.

Prior to nationalization of the oil industry, foreign interests were reaping most of the economic benefits of Iran's oil. Think about it: how would you feel if some foreign country took over our resources and took them away giving us only pennies on the dollar for their value? This was the situation before nationalization. Foreign oil companies were benefiting while most of Iran remained impoverished, and certainly not benefiting from their own resources.

The coup replaced Mohammed Mosaddeq with the Shah. He was a brutal dictator, who, represented U.S. oil interests. Through the Shah, the U.S. effectively occupied and controlled Iran and its oil. After 27 years of brutal dictatorship, the Iranians had had enough and overthrew the Shah, and the US.

Unlike 1953 we did not try to overthrow Iran, and unlike Carter's successors, he did not take our nation to war over oil. Carter identified fossil fuels as a source of national insecurity, and a way out of that, by making the nation less dependent on oil through what we now would call sustainable measures such as conservation and solar.

During his presidency, the first energy tax credits, incentives for people to do something about our energy situation, were started.

Carter put solar hot water on the White House. This served two purposes, to save money and energy, and to act as an example for the rest of the country. This example and the economic benefits spurred many companies to get into fields related to sustainable energy.

For the first time the tax credits opened up the market for people who wanted to cut their energy costs. It was at this time that I began energy auditing, and soon after that selling solar energy gear for Sears. Some of those systems are still working today, more than 40 years later.

The election of 1980 between Carter and Reagan was a turning point, in US energy policy. There was a clear choice on our energy future a move to a sustainable future or using our might to get what we wanted.

President Carter with a sweater on, in front of a fire, talked to the nation. He talked about conservation and efficiency and new technologies for generating energy. He spoke of a flourishing country, independent of future 'oil crises' and better able to control inflation based on rising energy prices.

Then Governor Reagan spoke about energy, being our inalienable right, and offered the nation a path of power, and might as the source of our energy.

The nation chose Reagan who beat Carter in a landslide in the 1980 election. The tax credits ended and the solar panels were taken off the White House. (They ended up at Unity College).

After his 1980 election, Reagan and his successors, (remember G.W. Bush's "drill baby drill") have taken the path he charted. We've had one war after another all to protect our fossil fuel supply, Iran Iraq, Kuwait conflict in the Balkans (where World War I was sparked over oil), Afghanistan for minerals and hopes of an eastern sea port for shipping oil.

We've traveled a continued imperialistic path for the last 40 years to supply ourselves with

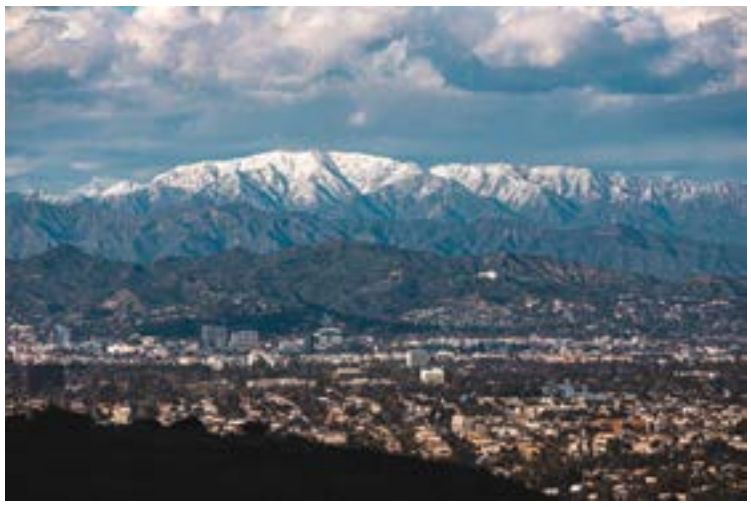
Cont'd on p.23

Winter Climate Extremes in the USA

Dr. Alan K. Betts

The winter climate extremes across the U.S. have been striking. We know that we are responsible for them, but we listen to the webs of lies and pretend we do not know. Back in 1978, James Black, the chief scientist of the current Exxon-Mobil did the global modeling and correctly concluded that doubling atmospheric CO2 would be a disaster for the global climate and for life on Earth. He told management they had five years to change their business plan. Their response was simple: "Be quiet. We have trillions of dollars to bribe politicians and fund webs of lies and advertising to confuse the public for decades." This is exactly what they have done for 45 years. Hundreds of politicians have accepted large bribes to deny climate change. This criminal behavior of the fossil fuel empire, who are consciously and deliberately killing life on earth to maximize their profits, is staggering. The recent COP 27 meeting in Egypt in November 2022 is typical. There were a record number of 636 paid fossil fuel lobbyists to make sure their companies' profits remain protected. Yet we refuse to hold them responsible and bill them for the damages caused, so we are collaborators.

California has had some remarkable weather extremes this winter as the Pacific El Nina circulation has enhanced the west coast storms. Southern California had blizzard warnings for the first time with five feet of snow to the east of Los Angeles. Some towns in Los Angeles County had temperatures as low as 18oF, which were record lows. Atmospheric rivers of moisture coming in across the Pacific brought heavy rain and flooding on other occasions. San Francisco saw more rain over a two-week period than at any other time in 150 years. Some communities were washed out, powerlines were destroyed and dozens were killed. The heavy rains and heavy mountain snows may partly balance the earlier drought conditions, and may also help with moisture and reservoir supplies in spring. Time will tell.



Snowcapped San Gabriel Mountains from MacArthur Park, Los Angeles, CA after the historic snow storm of February 2023. (Adobe Stock/577249596)

With 10 feet of snow in the mountains, emergency workers scrambled to help scores of residents and tourists who were unaccustomed to the sheer amount of precipitation. Snow berms trapped people in cabins and cars in driveways, preventing them from leaving Lake Arrowhead and Big Bear Mountain. Day-tripping skiers and snowboarders from Southern California were simply unprepared, and many had insufficient supplies of food and prescription medicines. Natural gas lines were fractured, sparking five fires in two days. When firefighters arrived to extinguish the flames, they found hydrants encased in ice and feet of snow. The first week of March, Gov. Gavin Newsom declared a state of emergency in 13 counties affected by winter storms, as another 3ft of snow fell the first weekend in March and residents were trapped behind walls of snow and concerned about their dwindling supplies. Yosemite National Park, which broke a 54-year-old daily snowfall record, was closed indefinitely. As I write another atmospheric river threatens heavy rain on deep snow and more flooding.

A winter ice storm hit Texas, Oklahoma and Arkansas, from January 31 to February 2, as an Arctic cold front made its way south to meet with warm, moist air from the Gulf of Mexico. Interstates were closed as accumulating ice led to more than 100 car accidents. Many in Texas lost power as ice brought down trees and power lines.

Other thunderstorms across the southern U.S. brought tornados. In January and February there were more than 173 tornadoes affecting a remarkable list of states: Alabama, Arkansas, California, Florida, Georgia, Illinois, Iowa, Kentucky, Louisiana, North and South Carolina, Tennessee and Texas. The Houston Weather Service office declared a tornado emergency for the first time.

At the beginning of March winter weather advisories and warnings were issued for much of the Upper Midwest and Northeast. The first significant snowfall of what had been a mild winter fell overnight. Up to eight inches of snow blanketed some communities with much more in the mountains. Heavy snow fell across east central New York, western and central Massachusetts, southern New Hampshire and Vermont to western Maine. Road travel was difficult and there were many flight cancellations or delays. A second much larger snowstorm driven by a powerful Nor'easter followed on March 13-15. New York as far south as Albany and all the New England states were blanketed in heavy, wet snow ranging from one to over four feet in higher terrain.

The weather service does a great job warning the public to prepare for unusual extremes, but it may not explain the ongoing climate situation. However as the public experiences so many unprecedented events, understanding the new climate extremes is spreading. Some of the mass media commented correctly that scientists say climate change, supercharged by humanity's burning of fossil fuels, is making storms more ferocious.

This winter an exceptional number of eleven atmospheric rivers brought heavy rain and snow to California and the west coast, and storms have covered the entire country. The central issue, discussed in the first paragraph, is that our society refuses to face the truth and bill the fossil fuel empire for the widespread damage that these climate extremes have caused this winter. The fossil fuel empire has been consciously destroying life on Earth, including our children and grand-children for decades to maximize their profits. This is clearly a crime against all life on Earth, which we should not accept. It is time to simply bill the fossil empire for all the ongoing damage and death they have caused.

Dr. Alan Betts of Atmospheric Research in Pittsford, VT is a climate scientist. See alanbetts.com. ♻

OUR MILD WINTER

– Cont'd from p.1

What will the consequences of our warm winters mean for sugaring seasons? (Flickr/Watershed Post)

hemlocks, or it might not have been long enough. Again, time will tell. That is one undoubted downside to warmer winters; the adelgid has been able to move north through Massachusetts, and into Vermont and New Hampshire, due to the absence of prolonged below-zero weather.

Warm winters can have an impact on farms and gardens by allowing insect pests to winter over in higher numbers. With a higher accumulation of warmer-than-normal days, notes Penn State Extension fruit and vegetable educator Timothy Elkner, growers can expect to see pests like allium leafminers, aphids, and thrips, emerge earlier, and reach damaging levels more quickly. This probably means more damage, as the insects will be munching on plants that are younger and more vulnerable. If this is happening in the garden and farm field, for sure it is happening in the wild. (We can hope, though, that more bugs will mean more food for birds to feed their young.)

There is some speculation that the warm winter may increase harmful algae blooms this summer, but it's important to note that spring did not actually start early. The warm winter weather was bookended by cold and snow. Therefore there will likely not be an increase in organic matter and nutrient flow. We'll have to wait and see.

Big picture; in a warm winter people use less heating fuel, which is good for the planet, and in an open winter they do less snowmobiling, also a net good until electric snowmobiles become widely used. The effect on wildlife is probably mixed. Deer had no need to yard up for most of the winter and probably fared well—but we have too many deer for ecological balance. Rodents like mice and voles lacked snowcover to hide under—bad for them, good for owls, who suffer when there is a heavy, crusted snow layer. As it was also a poor acorn year, the rodent population may take a hit, but that is all part of natural cycling.

There is a lot that we cannot know about the effects of the winter, because they are getting more wild and unpredictable than what used to be normal. We can expect them to be generally warmer, but we should not count on that. As the elder flowers and dandelions are coming out on schedule by the calendar, other new spring activity in nature has been pushed ahead, as we have seen. The times are very confusing.

And yet, there are things that we do know, and for those of us who have been working on reducing our carbon emissions, the path should be obvious. They mean a stronger effort to see that the use of fossil fuels is eliminated. We have the tools, and we know the strategies. We just have to do the work – and hope we can succeed.

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***Jimmy Carter** – Cont'd from p.22*

oil, but the cost in dollars and human lives has been exorbitant. However, if you're invested in fossil fuels or munitions, the past forty years have been a boom time.

Despite 40 years of continued conflict, the war in the Ukraine and the recent rise in gas prices and the resulting inflation remind us we are just as vulnerable now to international effects on our energy supply as ever. And now we know about climate change.

As I think about President Carter, I can't help but wonder what our country would be like if we had made a different choice in November 1980. It's time we gave a serious look to our energy options and commit our nation to energy independence through sustainability. It is not be too late for us to make the right choice.

Wes Golomb is a clean energy advocate and author of the recently published book and video series Warm and Cool Homes, Building a Comfy, Healthy, Net-Zero Home You'll Want to Live in Forever. ♻

President Carter dedicates solar installation at the White House in Washington, D.C. June 20, 1979. (Energy.gov)