



Some Of Vox's 9 Experts On Billionaire Climate Spending Are Off Base

Michael Barnard

November 13th, 2019

Recently, Sigal Samuel of *Vox* asked 9 experts, “**How should billionaires spend their money to fight climate change?**” It’s a worthwhile question, as right now a lot of billionaires are spending a lot of money on the subject and related concerns, and some of it is a waste of money. This article will look at some of the suggested solutions, and look at a few billionaires and how they are actually spending their money, and make some judgments about the experts and their opinions.

First off, the experts are a pretty good list. If asked, my list would have overlapped substantially with the one that Samuel ended up with. Bill McKibben, Ashok Gupta, Alan Robock, Kerry Manuel, Kate Marvel, Adrienne Hollis, and Tamara Toles O’Laughlin — redundant with Bill, but hey... — are great choices. I wouldn’t have bothered with the geoengineering leader or the Breakthrough Institute director, mostly because their opinions are incredibly predictable and incredibly wrong. In fact, they are both representatives of the Breakthrough Institute, making it very overrepresented. I probably would have picked one of Bill or Tamara from 350.org, and I would have added Michael Mann, Mark Z. Jacobson, and Katharine Hayhoe at minimum. While I’ve interacted with all three, I don’t actually know what Hayhoe’s solution set would look like, so that would be interesting.

The omission of Mark Z. Jacobson is particularly odd. He’s a global top 100 climate solutions influencer (#19 actually) and the lead researcher on a solution set target for 100% renewables for 50 US states and 139 countries globally. He’s controversial too, with many people who like nuclear and mechanical carbon capture really upset with his exclusion of those failing technologies. Depth, influence, and controversy: what’s not to like for a publication like *Vox*? But that said, no one from the data-centric top 100 influencers was asked their opinion. That’s probably good for Angus Taylor out of Oz, as he’s not a fave of my climate-centric Australian friends for his energy policies, but it doesn’t explain Jacobson’s, Jenkins’, or Gore’s exclusion. I’ve received immediate responses from both Jacobson and Jenkins when I emailed them for insights on their research, so it’s not as if they are inaccessible. I can see not reaching out to someone of Gore’s global stature and expecting a response, but the others are odd.

To this point, I reached out to Jacobson, and he told me he wasn’t asked for his opinion and that the experts seem “*like a random assortment of people, most of whom are not experts on energy solutions.*”

But for an article undoubtedly on a deadline, it’s not a bad list and it has coverage. Certainly, it’s not like the Breakthrough Institute doesn’t have its adherents and there aren’t people who inexplicably think that more geoengineering of the atmosphere is exactly what we need after 250

years of unintentionally messing with its chemistry. It's quite possible 20 emails went out and nine responses came back, and the Breakthrough Institute loves getting press.

Let's start with the good ideas. Then we'll do a quick scan of the bad ideas, followed by a selection of billionaires and what they are actually doing, both good and bad.

Good ideas for climate billions

Good idea #1: Get Democratic representatives elected

Putting a Pigovian tax on carbon will cause rational economic actors to shift to low-carbon options because they'll be cheaper. It uses market signals to drive broad ranging innovation. As *CleanTechnica's* ongoing series on Democratic candidates climate change plans points out, you can't have a really good climate action plan without pricing carbon, although it is inadequate as a lever if it's the only one pulled.

Remarkably, only one expert called for a carbon price, specifically a fee and dividend, which was Alan Robock of Rutgers. And he's very clear about how the billionaires should spend their money to get a carbon fee enacted, which is to spend the money getting Democratic candidates elected. He rightly points out that the Republican Party has been captured by the fossil fuel industry, and getting them out and Democratic representatives in is a very good use of the money. That makes a great deal of sense.

Good idea #2: Renewables, grid, & storage

Robock also calls for for transitioning to 100% renewables with grid and storage investments. *CleanTechnica* has covered HVDC, the amazing cost reductions of renewables, the massive overabundance of pumped storage hydro, the reliability of high renewable grids, and the work of Mark Z. Jacobson numerous times. This is the obvious path forward because global empirical evidence has proved it to be, not because of theoretical technologies that have never made it out of labs and into the marketplace.

Good idea #3: Build the environment movement to counter the denialist movement

Bill McKibben, unsurprisingly, calls for this one. It makes a lot of sense. The fossil fuel industry has spent billions on disinformation campaigns. The Koch brothers alone with a couple of their friends are spending \$10 million a year on anti-EV campaigns on top of their lobbying, climate change denying foundations, and fake wine purchases. As recent stories have shown, the fossil fuel industry carpet bombs climate change conferences with their lobbyists and representatives, more money that needs to be countered.

They have deep pockets and spend a lot of money to insert doubt where there is none, delay where velocity is required, and confusion among the electorate. Billionaires providing equivalent PR funding to the people who actually are on the right side of history and the climate would go a long way to defusing the dark money behind denial and delay.

Good idea #4: Make an exemplar red state green

Ashok Gupta, senior energy economist with the Natural Resources Defense Council, suggests this. Given a billion, he'd take the state of Kansas, which already is a leader in wind energy, and pivot it to Paris Accord targets aggressively. Solar, storage, EVs, buildings, agriculture, leadership: he'd push Kansas directly to 2050 without passing go, making it a Republican voting

heartland state from the future. This would provide a clear indication to other Republican states about what was possible. I frequently point to Texas for the same reason, as it's built up wind and solar from 6% of demand to 20% of demand in the past decade, while simultaneously increasing grid reliability and maintaining low electricity prices.

Good idea #5: Investing in women and communities

This comes from Kate Marvel, one of the climate scientists in the group, and Adrienne Hollis, climate justice and health focal for the Union of Concerned Scientists of the US. We need leadership, talent, drive, and intelligence at all levels, and that means grassroots and enabling people of every color and gender. The Green New Deal, another thing that *CleanTechnica* has assessed, is very useful in highlighting the historic inequities associated with the industries that got us into the climate crisis we are in, and we need to be firing on all cylinders to solve it, not just the white male ones.

Good idea #6: Resilience

This is an important point. Adaptation doesn't mean building infrastructure that won't break, but building infrastructure that will bend and if it breaks is easily fixed. And it includes helping the poor people in places that are going to be hit hardest to relocate, so that we don't have to keep fixing what will keep getting broken. Adrienne Hollis again brings this idea forward as well.

Now for the bad ideas

Bad idea #1: Nuclear energy

Unsurprisingly, the Breakthrough Institute, which apparently grew Michael Shellenberg in a vat before letting him become a free-range nuclear advocate, loves nuclear energy, ignoring the last decade of empirical evidence that it's irrelevant for the future. It's pretty much impossible to defend any actually existing commercial nuclear technology, so the Institute's Jessica Lovering is all about a massive push to create a bunch of new technology reactors, despite the complete inability of anybody to get any next generation technologies to market without multi-billion dollar cost and multi-year schedule overruns. Nothing like betting on something which has never paid off. But her idea of a billionaire building their own skunkwork reactor in their backyard is beyond even that degree of bad ideas.

As *CleanTechnica* has pointed out in rather nauseating detail, the past decade of nuclear industry experience vs renewables experience makes it clear to anyone who has continued to pay the remotest degree of attention to the subject with an unbiased eye that renewables are clearly fit for purpose, reliable, much faster to build, much cheaper to build, can be built in every country in the world, and that nuclear can't compete. We have the trillion dollar economic downside of Fukushima, about \$2 billion for every nuclear reactor in operation, as an abject example of why this is a head-scratching idea in 2019.

That's kind of why it's a pity that Kerry Manuel, one of only three actual climate scientists on the list, is still focused on nuclear, and naturally on Gen IV reactors which continue to fail to deliver to promises. He points to a handful of long past examples when the conditions for older nuclear rapid build-out existed, and ignores the reality of modern renewables. Some experts on climate change should accept that they aren't experts on solutions, especially in the complex field of electrical generation.

Bad idea #2: Solar geoengineering

Unsurprisingly, the solar geoengineering representative in the piece, Kelly Wanser, principal director, Marine Cloud Brightening Project, is for investment in solar geoengineering. Also unsurprisingly, Wanser is also associated with the Breakthrough Institute, which manages to maintain a remarkably high profile while also promoting remarkably bad ideas.

As *CleanTechnica* has pointed out a few times, solar geoengineering simply defers elimination of CO₂ and masks one of the symptoms of global warming. It's hard to argue that it isn't incredibly risky and it's impossible to argue that it won't lead to increased oceanic acidification. Yet the Breakthrough Institute loves solar geoengineering as well as nuclear energy.

Samuel admits up front that *Vox* wanted a range of views and that solar geoengineering was controversial, so presumably they went looking for an advocate.

But what about the actual billionaires?

It's unsurprising that *Vox* avoided this topic, but *CleanTechnica* has game on celebrating the good guys and dunning the bad guys (or at least misguided guys), so we'll name names. This time, we'll open with the walk of shame, then close with the good guys.

Bad Money #1: The Koch Brother

It used to be brothers, but one of them left for parts further south and much hotter recently. These fossil fuel barons have been using Koch Industries' profits for decades to found and fund climate denial spouting organizations such as the Cato Institute and the Heartland Institute, giving care and feeding to vaguely credible climate change deniers and action delayers such as William Happer, Willie Soon, Patrick Moore, and Bjorn Lomborg. They are central to a web of dark money flowing to very ugly things. As mentioned earlier, they are spending a lot to blow smoke about EVs too. Of course, the family has form on bad choices, as father Koch helped Stalin build refineries in the Soviet Union.

Bad Money #2: Robert Mercer & daughter Rebekah

\$5 million to climate denial profits in 2017 alone, and \$15 million to Trump in 2016. More money to William Happer, who appears to be doing nicely on the kindness of strange, rich people. Are we supposed to call them eccentric, or is it allowed to call them insane and evil? The snowflakes on the right are so precious that it's hard keeping up with what they won't get offended by. They love them some Heartland Institute as well, to the tune of \$6.7 million since 2008.

Bad Money #3: Peter Thiel

Yeah, the founder of Big Brother–inspired Palantir — what, you thought it was a *Lord of the Rings* thing? — who spent millions and years to destroy a media outlet that had published an incredibly well known fact about him is a bad guy on climate. Part of it is just that he's dead wrong on the subject, something absurdly common among the Libertarian set, and especially the oligarchic Libertarians for whom no freedom is too much for them, and any freedom for peons — right to life, liberty, and security of person — which inconveniences them is too much for the peons. Yes, Thiel is a denier of human-caused climate change. Beyond that, however, he came out supporting Trump in a big way in 2016, presumably because in addition to wanting to

disenfranchise women because that action was bad for capitalism in his view, he also wants the world to burn, just like a badly written character in an Ayn Rand novel.

Bad Money #4: Bill Gates, & he probably wouldn't be happy to be included here

Let's start with the good thing that can be said about Gates, unlike his billionaire siblings above: he both accepts that climate change is real and wants to find solutions for it. Unfortunately, he's spending his billions and influence among the bad ideas of nuclear energy and solar geoengineering. He's apparently under the thrall of a Canadian who isn't me, Vaclav Smil, a 76-year old professor from one of the colder and less populated provinces, who has written over 40 books and 500 papers which say that renewables won't work, the transformation won't happen, and we're all going to die. Not a light read for the beach. And not one which leads to Bill, who claims to have read 36 of Smil's books, throwing his weight and money behind sensible, proven, scalable solutions, but instead throwing it at the next-next-generation nuclear firm he founded in 2006 and was asking Congress for billions for early in 2019. Oh, and solar geoengineering research and efforts.

Bad Money #5: Tom Steyer & Michael Bloomberg

These guys should be taking their cue from Robock, and funding actual Democratic campaigns by people who know what they are doing, or perhaps McKibben's idea of funding a lot of information campaigns. Instead, they arrogantly think that their billions, masculinity, and pale skin make them exceptional candidates for the Democratic nomination. Never mind good governance, good policy, knowing what they are doing, and the like — instead they are going to act as spoilers in #Election2020, spending money that would be a lot better in Warren's war chest and debunking anti-Warren nonsense. She's the frontrunner, after all, and has the best climate change plan of the four frontrunners by a considerable amount, so if they actually care about climate change, they'd be boosting her.

Now for the good money

Good Money #1: Elon Musk

It's probably obligatory in a *CleanTechnica* piece to mention Elon Musk, but there's a really good reason here. What are his major initiatives that are climate change related? Well, there's Tesla, which is leading the electrification of road transportation globally, dragging the legacy automotive industries of America and Europe along despite themselves. And Tesla's energy division, which is currently the #2 commercial solar installer, #1 provider of grid storage, and a top 5 residential solar installer. Then there's SpaceX, which has among its other goals getting our eggs out of one basket so that we don't fry in this one if we fail to adapt to reality. Musk opens Tesla product launches with climate change. He's put his money where his mouth is multiple times.

Good Money #2: Louise J. Bowditch, Robert S. Bowditch, Abigail Disney, Sean Eldridge, Stephen R. English, Agnes Gund, Catherine Gund, Nick Hanauer, Arnold Hiatt, Chris Hughes, Molly Munger, Regan Pritzker, Justin Rosenstein, Stephen M. Silberstein, Ian T. Simmons, Liesel Pritzker Simmons, Alexander Soros, George Soros, Hansjörg Wyss

These billionaires, Soros unsurprisingly among them, published an open letter asking presidential candidates to put a wealth tax in place, to tax them more. First on the list of things

that the wealth tax would go to? “*A Wealth Tax Is a Powerful Tool for Solving Our Climate Crisis.*”

To put a tinge on a bit of this, the Pritzkers are one of the primary families behind the Breakthrough Institute, so they really could spend their money more wisely, but they make up for it by signing this. Of course, the Breakthrough founder, Rachel Pritzker, isn't signatory, so maybe that means something.

Good Money #3: Stewart & Lynda Resnick

They pledged \$750 million for climate research to Caltech. Sure, they got a building with their name on it, but at least the money will be going to solar science, climate science, energy, biofuels, decomposable plastics, water and environmental resources, as well as ecology and biosphere engineering. Oh wait, that last one is geoengineering again. Hopefully most of the research dollars will be usefully spent.

I'm sure that there are more billionaires doing right by climate. But the class of billionaires could do a lot better.

The *Vox* article was an interesting, if flawed, addition to the discussion. It was journalism, so they tried to spread a broad net and provide balance.

CleanTechnica doesn't do journalism in quite the same way. We do analysis. We make choices about what to cover and what not to cover. We articulate hard decisions and support them. We don't give false hope about magic bullets if we can, and when we do, we usually fix that with follow-up pieces. We've yanked pieces that weren't helpfully articulating solutions, but pushing snake oil; and we've published follow-ups to correct the record in cases where we messed up, as we did with Joi Scientific. As a result, we're big boosters of the things that will work: renewables, grid storage, HVDC, electrification of everything, agricultural remediation, carbon pricing, reforestation, and the like.