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# Bill Gates Funds Research Into Climate Hacking

By [Alexis Madrigal](#)  January 28, 2010 | 4:21 pm | Categories: [Earth Science](#), [Energy](#), [Environment](#)



Bill Gates has sunk at least \$4.5 million of his personal wealth into geoengineering research.

While it's a small chunk of Gates' vast personal fortune, it's a sign that the founder of Microsoft thinks we should at least be looking into the controversial practice of intentionally altering the Earth's climate on a global scale.

"[Gates] views [geoengineering as a way to buy time](#), but it's not a solution to the problem" of climate change, Gates' spokesperson John Pinette told Science Insider. "Bill views this as an important avenue for research — among many others, including new forms of clean energy."

The money will be directed by two high-level scientists at the forefront of geoengineering research: climate scientist Ken Caldeira, of Stanford's Carnegie Department of Global Ecology, and physicist David Keith of the University of Calgary. They will decide which technologies should receive the cash in order to alter the stratosphere to reflect solar energy, filter carbon dioxide directly from the atmosphere and brighten ocean clouds.

Gates' funding is in line with his [recent essay on climate policy](#) in which he called for radical

innovations in electricity generation and transportation.

“If the goal is to get the transportation and electrical sectors down to zero emissions you clearly need innovation that leads to entirely new approaches to generating power,” Gates wrote. “While it is all well and good to insulate houses and turn off lights, to really solve this problem we need to spend more time on accelerating innovation.”

But he did not sound the triumphant, can-do note heard from many advocates of green technology. Gates is worried that the world’s citizens, companies and governments are not focused on the right solutions.

“The world is distracted from what counts on this issue in a big way,” he wrote.

Many researchers have described [geoengineering as a “backstop”](#) if the world’s attempts to cut its carbon dioxide emissions fail, though some climate activists have warned that there is a moral hazard in assuming that geoengineering could bail us out of the worst implications of the derangement of the atmosphere.

“My biggest problem with the backstop argument is that it encourages people to think there’s a do-over if we [screw up our response to climate chaos](#), when in fact, we don’t have any proven response or remedy,” wrote Worldchanging co-founder Alex Steffen on his website 2007.

In a related development Keith, one of the scientists directing Gates’ money, co-authored a *Nature* editorial this week calling for an international fund for “solar-radiation management” in addition to traditional carbon emissions cuts.

“Solar-radiation management may be the only human response that can fend off rapid and high-consequence climate change impacts,” Keith said in a press release Wednesday. “The risks of not doing research outweigh the risks of doing it.”

He and his co-authors, Edward Parson at the University of Michigan and Granger Morgan at Carnegie Mellon University, propose a budget for solar-radiation management (aka geoengineering), beginning with \$10 million a year now and growing to \$1 billion annually by the end of 2020. The organization that manages the funds would also develop the governance structures to provide transparent risk analysis and manage feedback from the world’s countries.

Image: [flickr/batmoo](#)

WiSci 2.0: Alexis Madrigal’s [Twitter](#), [Google Reader](#) feed, and [green tech history research site](#); *Wired Science* on [Twitter](#) and [Facebook](#).

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Posted by: itsruby101 | 01/28/10 | 4:54 pm

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Posted by: Marticus | 01/28/10 | 5:17 pm

What cracks me up is that he pretty much has no faith that we can actually curb emissions. Not that I'm disagreeing, but props for being something of a realist at least, even if the solution itself is a long shot.

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Posted by: stoffer | 01/28/10 | 6:58 pm

Strange, I am Linux junkie, but, I have somewhat more sympathy and respect for Gates than Jobs, even though Apple is making a \*nix operating system.

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Posted by: 8x10 | 01/28/10 | 7:10 pm

NO! NO! NO! Do not do any "intentionally altering [of] the Earth's climate." You do not get an alter 2.0!!!!

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Posted by: cbp | 01/28/10 | 7:14 pm

@Marticus

>> What cracks me up is that he pretty much has no faith that  
>> we can actually curb emissions.

Eh, buzz, you're wrong.

Read Gate's essay:

“Slowing the growth of CO2 ppm is of course a good thing. And there are lots of cheap – and in many cases self-funding – efficiency gains to be made.”

“only innovating our way to what is essentially zero carbon energy technology will do it.”

Come on dude, at least try to be right.

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Posted by: louis | 01/28/10 | 7:16 pm

He already has some knowledge into that. Last time he hired Ballmer at MS, THAT was a major climate change from frigid to dead cold. Maybe he could be used again to unleash tsunamis and major storms onto unsuspecting people who happen to like Google 😊

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Posted by: cbp | 01/28/10 | 7:17 pm

I think it's a good thing that Gates is putting money into climate change research, even if I'm yet to be convinced that geo-engineering is a good idea. Some of the prominent climate change activists (thinking Joe Romm here), whilst good guys, have been overly harsh on Gates and Co.  
The way I see it, the more knowledge and resources we have, the better!

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Posted by: dbaker | 01/28/10 | 7:20 pm

Bill Gates

Hows about bein part of the solution

[dennisbaker2003@hotmail.com](mailto:dennisbaker2003@hotmail.com)

RE : The solution to climate change.

( human excrement + nuclear waste = hydrogen )

The USA discharges Trillions of tons of sewage annually, sufficient quantity to sustain electrical generation requirements of the USA.

Redirecting existing sewage systems to containment facilities would be a considerable infrastructure modification project.

It is the intense radiation that causes the conversion of organic material into hydrogen, therefore what some would consider the most dangerous waste because of its radiation would be the best for this utilization.

I believe the combination of clean water and clean air, will increase the life expectancy of humans.

The four main areas of concern globally are energy, food, water and air!

The radiologic decomposing of organic materials generates Hydrogen

By using our sewage as a source of energy we also get clean air, clean water, and no ethanol use of food stocks. Eat food first, create energy after.

Simply replacing the fossil fuel powered electrical generating facilities with these plants, would reduce CO<sub>2</sub> emissions, and CH<sub>4</sub> emissions, to acceptable levels, globally.

This would require a completely new reactor facility capable of converting human waste into hydrogen and then burning the hydrogen to generate electricity on site.

This solution is sellable to citizens because of all the side issue solutions. I've been able to convince most simply with concept of using nuclear waste to a productive end.

Superbugs ( antibiotic resistant ) apparently are created in the waters sewage is discharged into, which is one more side issue solution.

Anything not converting into hydrogen will potentially be disposed of using Transmutation.

The water emitted from hydrogen burning will have uses in leaching heavy metals from other contaminated site clean ups.

I thank you for your consideration, please feel free to contact me anytime.

Dennis Baker

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