

Net Zero is not Zero: Inside the G7's dystopian decarbonization scheme

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The world's only CCS facility is a backdoor subsidy for oil extraction.

Last week in Germany the "Group of 7" countries (Canada, Japan, USA, Germany, United Kingdom, France, and Italy) declared that "deep cuts in global greenhouse gas emissions are required with a decarbonisation of the global economy over the course of this century." Many interpreted this as a call to phase out fossil fuels by the end of the century.

This interpretation deserves a closer look.

In response to the announcement, Greenpeace warned that "G7 leaders have left the door open for high risk technologies, like nuclear energy and carbon capture and storage." Carbon Capture and Storage, or CCS, is at the core of a push to achieve "net-zero" emissions. Net zero emissions is different from actual zero emissions because it allows burning fossil fuels and emitting carbon, as long as the carbon is eventually sucked out of the air.

The Carbon Brief explains:

The G7 language on decarbonisation this century is not specific, however, and **does not promise an end to the use of coal or other fossil fuels**. Instead, the language could imply reaching net-zero, where any remaining emissions are balanced by sequestration through afforestation or negative emissions technologies.

The most likely method of achieving negative emissions, biomass with carbon capture and storage (BECCS), is controversial because it might require very large areas of land to be set aside for fast-growing trees or other biomass crops.

The G7 “commit to” develop and deploy “innovative technologies striving for a transformation of the energy sectors by 2050”. The communique doesn’t explain which technologies would be considered “innovative”. However, the use of the plural term “energy sectors” perhaps points past electricity generation towards transport, heat and beyond.

[Emphasis added]

The G7 energy ministers’ meeting in Hamburg was more specific in its communiqué:

We recognize that fossil fuels will remain an important part in the energy mix for some time, as we progressively reduce greenhouse gas emissions in our energy systems. In this context, we encourage countries which opt to make use of carbon capture, use and storage to collaborate on large-scale demonstration projects and countries which opt to develop and use shale gas and other unconventional resources to collaborate on safe and responsible development.

It’s as close to an endorsement of CCS as they could get, and leaves little doubt about what the G7 considers “innovative”. Meanwhile, business leaders like Richard Branson have lined up behind “net zero,” conflating it with a decrease in the use of fossil fuels. They are joined by influential economist Jeffrey Sachs and the World Bank, among others.

Will Carbon Capture and Storage allow us keep burning fossil fuels?

The IPCC’s current scenarios rely heavily on Bio-Energy with Carbon Capture and Storage (BECCS) and CCS, which have been called “unicorn technologies”. BECCS involves generating power by growing massive amounts of biomass, then burning it in power plants that capture the carbon at the smokestack and store it underground. Theoretically, this technique would remove CO₂ from the atmosphere.

A few days earlier, ActionAid released a damning report about this version of “net zero,” declaring that:

Adding “net” to a goal of “zero emissions” may prove to be a trap that delays real climate action, and which could drive devastating land grabs and hunger through the large-scale use of land, biofuels and biomass to absorb rising carbon dioxide emissions. Instead of requiring real emissions cuts, “net” counting could allow for business-as-usual greenhouse gas emissions, offset by massive-scale mitigation through the land sector.

The IPCC’s own “net zero” scenarios, the report explains, would require between 500 million and 6 billion hectares of land to keep climate emissions from heating the earth by more than 2 degrees. For comparison purposes, the total area of India is 328 million hectares.

But even if the large-scale dispossession required to suck billions of tonnes of carbon out of the atmosphere went forward, BECCS strategies probably won’t work. As Rachel Smolker explains, BECCS will likely cause additional emissions through fertilizer use and land disturbances. And long-term storage of tens of billions of tonnes of CO₂ creates major dangers:

[O]ur current understanding of earth history, plate tectonics and earthquakes tells us that assuming long term CO₂ storage would be foolish. CO₂ is not only a danger to climate, but in concentrated form, it is a lethal poison. Any abrupt release of concentrated CO₂ could have serious impacts on those exposed, as well as contributing a sudden spike of CO₂ to climate. Multiple small leaks also pose risks. They can occur at many points from capture process to compression to pipeline transport to injection, separation and reinjection and storage site leaks. [...] Experience with the wrongful

claims made by the nuclear industry (Chernobyl, Fukushima etc.) or by the oil industry (Deep Horizon) should serve as clear lessons: Relying on industry claims about safety and reliability is unwise. Precaution is very highly advised!

Even worse, the carbon that is captured will likely end up being used in “Enhanced Oil Recovery” techniques, which pump carbon into exhausted oil wells to extract even more oil.

Indeed, the only operational CCS plant in the world, in Saskatchewan, has been selling its carbon to an Alberta oil company. Because CCS is extremely expensive, the plant has been subsidized with \$2 billion from the people of Saskatchewan. So effectively, the first and only example of CCS we have turns out to be a “backdoor subsidy to oil producers” for extraction that may not have been possible otherwise.

With critics like these, who needs supporters?

Canada’s public broadcaster, the CBC, published some sharp criticism of the G7’s pledge. The Canadian government’s attempts to water down the G7’s statement was “shameful,” said climate scientist David Keith. What the report didn’t mention is that Keith is a prominent geoengineering proponent and carbon capture entrepreneur.

No surprise then, that this critic of the G7 pushes in the same direction as the G7’s own statements. “If you want a stable climate, we have to get to *net zero* emissions. For a government to try and avoid such a statement, is really a shame.” [Emphasis added]

In the lead up to Paris, we’re likely to see more of this false conflict: foot-dragging governments vs. proponents of faster implementation of “net zero”. What’s left out is the need to phase out fossil fuels altogether, a task the G7 governments have shunned for the last two decades.

The portrayal of status quo vs. net zero as the main conflict plays into the hands of the big oil companies, which want to protect trillions of dollars of investments and subsidies and to keep extracting oil until it’s gone. Basic facts about net zero are missing: namely, that it is an epic land-grabbing disaster for the global south that would drive global hunger and almost certainly won’t work as advertised.

As Paris draws closer, it will become crucial to establish that despite many claims to the contrary, “net zero” is not zero, and actual reductions in fossil fuel extraction and use are required. “Net zero” is a well-packaged excuse to keep pumping oil out of the ground while relying on hypothetical, unproven or nonexistent technologies to save us.