

Rebuttal to Arguments in Opposition to the Memorial to the Regents

The “Con” arguments invoke the following:

Divestment will have terrible consequences.

Some scenarios discussed in the Con arguments would only be applicable if this Memorial demanded the immediate cessation of all fossil fuel burning. It does not. Everyone recognizes that transition to a carbon-neutral civilization is an enormous task that will take many years.

Divestment will make our investments underperform.

Market returns on energy are relatively low compared to other sectors, and do not justify the risks.¹⁸ Divesting the 3% of the endowment now in major fossil fuel stocks would avoid significant financial risks while maintaining returns.

Divestment will do nothing at all.

The very fact that you are reading and thinking about these arguments means that the Memorial has done something positive. We *have* the technology and resources to transition to a carbon neutral civilization, but we lack the political will to take the necessary steps. This political will is rapidly growing: the goal of this Memorial process is to accelerate that growth, by UC faculty and community, our nation, and our world. By divesting, UC would join the largest divestment campaign in history.¹⁹ After being released from prison, Nelson Mandela singled out UC divestment from apartheid as being a catalyst for its end. Our combined ten campuses comprise an unequaled academic community, and our stand will be heard.

Do something else instead.

The Con Argument suggests several actions that we as UC faculty can take to address the climate crisis. We welcome all of them. The Con Argument lauds the actions that are already being taken by UCOP and the ten campuses, as do we. Divestment brings our investment policy in line with our other efforts. Indeed, by helping to raise awareness of the climate crisis, it encourages us to join and expand these actions.

Let's remove the CO2 from the sky instead.

Most realistic scenarios include eventual “negative emissions” as well as steep emission reductions. However, currently there is no validated industrial-scale technology for removing CO2 from the atmosphere. The best pilot plant costs over twice as much to remove the CO2 emitted from a natural gas power plant as to generate the same amount of power with solar.²⁰ The only realistic alternative for dealing with rising atmospheric CO2 levels in the critical decade ahead is to greatly reduce fossil fuel burning. Indeed, the most recent IPCC report states that

18 <https://www.sicm.com/docs/FFFI-Booklet.pdf>

19 <https://www.theguardian.com/commentisfree/2018/dec/16/divestment-fossil-fuel-industry-trillions-dollars-investments-carbon>

20 In a recent breakthrough, Keith et al. ([https://www.cell.com/joule/pdf/S2542-4351\(18\)30225-3.pdf](https://www.cell.com/joule/pdf/S2542-4351(18)30225-3.pdf)) demonstrated carbon sequestration in a pilot plant. Using the midpoint of their cost per ton of CO2 (\$172.5), plus storage (\$15), and the current US emission intensity for natural gas (489 kg-CO2/MWhr), one arrives at a cost per MWhr of \$92, compared to the levelized cost of utility-scale solar power of only \$40: <https://www.lazard.com/perspective/levelized-cost-of-energy-and-levelized-cost-of-storage-2018/>. Thus, to reduce the current CO2 levels to the 350 ppm IPCC consensus limit would cost, using this still pilot technology, ~\$70 trillion: http://www.columbia.edu/~jeh1/mailings/2018/20181206_Nutshell.pdf

greenhouse pollution must be reduced by 45% from 2010 levels by 2030, and 100% by 2050 to remain under 1.5°C. warming.²¹

The fossil fuel companies are our best hope.

Such companies would have no value if their carbon assets are not burned. But if this carbon is burned, the natural world that supports us and all the creatures in it will be severely and permanently harmed for the foreseeable future. The companies have known this for forty years.²² They will not willingly choose to be part of the solution; and indeed, they cannot because it would violate their fiduciary responsibility.

21 https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

22 <https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html>