

# SHOULD UC BERKELEY AND OTHER UNIVERSITIES DIVEST FROM FOSSIL FUELS?:

A CONVERSATION WITH DR. LEE FRIEDMAN AND DR. DAN KAMMEN

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A growing number of students at universities around the United States are calling for their schools to divest—that is, to pull their stock holdings—from companies that profit from using fossil fuels. This debate is particularly active at the University of California, Berkeley where students have launched the Fossil Free Cal movement to encourage UC Berkeley and the University of California System to divest their commingled and direct holdings in the top 200 fossil fuel companies with the largest reserves of carbon.

To better understand the various perspectives on this often contentious issue, *PolicyMatters Journal* (PMJ) sat down with Dr. Lee Friedman and Dr. Daniel Kammen, two of the leading minds at the University of California, Berkeley advocating for a swifter transition to clean energy. While Dr. Kammen is a strong supporter of divestment, Dr. Friedman questions whether divestment is the an effective strategy for the clean energy transition. Below are lightly edited excerpts from the discussion.

**PMJ:** Dr. Kammen, can you start by sharing your view on the issue of divestment from fossil fuels as a means of addressing climate change?

**Dr. Dan Kammen:** The science of climate change is clear. We need to reduce emissions by roughly 90 percent between now and 2050. This is a rough estimate of what it will take to get below the 2 degree threshold—equivalent to a world of 450 ppm of CO<sub>2</sub> in the atmosphere. Today we are already over 400 ppm. We need to focus now on making a transition to clean energy. Every single thing we do now to keep the emissions lower will lower the catastrophic risk in the long-term. That's the motivation we need in order to act.

We need to use dramatic measures like divestment in order to get fossil fuels out of our energy mix—out of electricity, transportation fuels, and goods and services. If we don't send strong messages to industries that we must make this transition to clean energy, it will soon be too late. Divestment in a thoughtful, orderly way—a discussion rather than a club—to send those strong messages. We have thirty-six years until 2050. That's not a lot of time, but we also don't have to do this overnight. We can apply policies and pressure, and using financial resources is critical to that effort. Divestment is not the only tool, but it is a powerful one to encourage the transition to clean energy.

**Dr. Lee Friedman:** I am in complete agreement with Dan that the most important public policy action we need to take right now is to reduce our greenhouse gas emissions and start using more sustainable practices. I am in favor of every legal and democratic action that will help us do that. I am skeptical, however, of whether divestment will help us accomplish that end.

**PMJ:** Dr. Kammen, can you talk specifically about how you believe divestment will help the world transition to clean energy?

**Dr. Kammen:** We are kidding ourselves if we say we will green our energy mix while doing nothing to reduce the amount of carbon in transportation fuels, manufacturing, or in goods and services industries. We need to apply financial pressure on companies in order to speed up this process. The first industrial revolution took roughly 150 years: from 1850 to 2000. The next industrial revolution—the green industrial revolution—must happen in only about three decades. We need to help companies make wise choices and use their fossil fuel assets in a way that enables renewables



Dr. Lee Friedman and Dr. Dan Kammen  
*Photo by Alex Lin*

rather than blocking them. We need companies to keep most of their current fossil fuel assets in the ground, or commit to not burning them and using them to make machinery or other goods instead.

**Dr. Friedman:** There is so much that I agree with in terms of everything we have to do. My questions is: Does divestment target the real enemy? If the solution we seek is to limit greenhouse gas emissions, emitting greenhouse gas emissions should be the target—not ownership of fossil fuel resources. The divestment strategy targets and penalizes companies that we rely on for our everyday needs. We rely on them in winter to heat people’s houses and to run our air conditioners in the summer. We need to use these fossil fuels less and less every year, but we also still need those companies to function in an orderly way in the supply chain, even while we are phasing them out. My target would be on the greenhouse gas emissions themselves, rather than creating a scapegoat of companies because they are the large owners of fossil fuel resources.

**PMJ:** Dr. Friedman, that’s a great point about what enemy we are trying to target. Dr. Kammen, what is your response?

Does divestment target emissions or the companies that own the fossil fuel assets?

**Dr. Kammen:** Lee is interpreting divestment incorrectly. Divestment is not about weakening companies with significant fossil fuel assets. Divestment is about pressuring companies to make a transition to cleaner energy. We want companies to increase their revenue from renewable energy generation and to use their fossil fuel assets in other ways besides burning them. Divestment is about pressuring companies to make that switch to a longer-term perspective in ways that make sense for them and for the environment.

British Petroleum is a recent example, although they ultimately tried to do too much too soon. BP announced that they were changing their name to Beyond Petroleum and would become 50 percent fossil fuels and 50 percent renewable energy by 2050. They even funded a half a billion dollar research institute here at UC Berkeley. They ultimately backed out of that strategy, but they started a trend nonetheless. Other companies, like Shell, are now exploring how to create high value products with their fossil fuel holdings that will not include burning them.

An interesting parallel—though not a full parallel—is divestment during Apartheid. Nelson Mandela told the United States that it was critical that we put an embargo on South Africa. He acknowledged that his people would suffer, but it was the only way to pressure South Africa to transition out of its intolerable political situation. Today, we are not saying that we have to put a full lockdown on these fossil fuel companies in two years; we are saying decades.

**PMJ:** How do you think divestment is different now than during Apartheid?

“Does divestment target the real enemy? If the solution we seek is to limit greenhouse gas emissions, emitting greenhouse gas emissions should be the target—not ownership of fossil fuel resources.”

**Dr. Friedman:** Divestment differs from apartheid in some important ways. Apartheid was an unusual political practice located in one relatively small part of the globe. In that case,

we asked people around the world to show their support for stopping this practice. Greenhouse gas emissions, on the other hand, are caused by people all over the world as they drive their cars, heat their houses, and go about their lives. You cannot tell them all to stop. Policy must be focused in the right place: setting limits on greenhouse gas emissions.

I really like some of the things Dan mentioned in terms of encouraging changes in corporate behavior. However, I don't think universities removing their stock holdings from corporations will induce that change.

**Dr. Kammen:** I have to disagree on this point. Cornell's divestment policy, for example, explicitly encourages companies to commit to a transition strategy. It's not the act of holding the assets, but rather committing to a transition that is the key.

The bigger story here is political. Many key social movements—like the free speech and anti-nuclear movements—resulted in sound policy. Through social movements, we can generate public outcry that will hopefully capture policymakers' attention. That's what we hope to achieve with divestment. We are going nowhere fast on climate change issues, and the clock is ticking fast. We are not looking to disrupt business models, but rather to help companies green their business model.

**PMJ:** That's a great segway into the question about UC Berkeley's role, in particular, in divestment. Can you talk about how you see UC Berkeley's role fitting into the larger political picture?

**Dr. Kammen:** California and UC Berkeley have been huge thought-leaders in energy efficiency and renewable energy. Over the past ten years, California's clean energy economy has grown faster than its overall economy, and Berkeley has been central to that progress.

Berkeley divesting alone will not change the global equation, but high profile actions can have an important ripple effect. During Apartheid, Berkeley and Cornell divested from South Africa. Harvard did not, fearing that divestment would create a "pariah" state, which would not achieve the right political ends. History tells us that Harvard made the wrong choice.

We're in a similar situation now.

**PMJ:** Dr. Friedman, do you see any disadvantages to divestment, from UC Berkeley's perspective?

**Dr. Friedman:** There wouldn't be any particular financial cost to the university; there are plenty of good companies in which Berkeley could invest.

I think the biggest disadvantage from Berkeley's perspective

is the opportunity cost of the time and energy spent advocating for divestment. Universities ought to do what they do best, which is to educate. An alternative strategy to divestment is to put a lot more emphasis on political communication. Consider how many people in the United States don't believe that climate change is even an issue. That is an absolute disgrace for science education. It's a disgrace to universities; they have failed to educate people on these facts.

**Dr. Kammen:** I agree with Lee that education is critical, but I view education as complementary to divestment, these are not mutually exclusive. We do need to educate around science, around climate, and around developing innovation.

Universities, however, do much more than advance intellectual understanding. They also play a key role in spurring social movements. We have to use the divestment tool in addition to education, because ultimately it is the financial story that is going to carry the day.

Divestment also increases the effective internal price of carbon, so even if it is symbolic at a certain level, it still has an effect. It encourages companies to generate a strategy for transitioning to the green economy, and it throws a red flag at companies that aren't moving in that direction.

**PMJ:** One of the key differences here is on the issue of opportunity cost. Dr. Friedman believes that UC Berkeley has limited resources in terms of time and energy that can be spent on climate change. Dr. Kammen, it sounds like you place less importance on opportunity costs. Why is that?

**Dr. Kammen:** I don't think there are any opportunity costs. I think this is simply a decision cost. University of California President Napolitano announced that the University of California will be carbon neutral by 2025. That is policy that is already set in place, and Berkeley is ahead of schedule on that transition. I expect that President Napolitano's next move in this area will be to address the issue of divestment.

Divestment effectively says to companies, "We're in a partnership and we all have to ween ourselves off these dangerous materials so we can find other productive uses for your company's human and natural capital." That's a strategy that makes them and us better off. Opportunity costs are not an object.

**Dr. Friedman:** My view is based, in part, on the opportunity cost of students' time. Student time includes rallying and lobbying and convincing the administration to divest. I agree that's a small cost, but it is connected to the low probability that divestment will achieve anything. Ultimately, I don't

think these companies are going to seriously change their behavior until there is a cap on emissions that forces them to do so. As long as people continue to have the same furnaces in their houses, they are going to keep refueling them and the companies are going to keep restocking them. Without caps on emissions, none of this will change. That's what's needed to change behavior and that's where I keep my focus.

**Dr. Kammen:** Yes, we absolutely have to take that policy step, and the United States has unfortunately been unwilling to do it. A carbon cap, through whatever mechanism necessary, is absolutely critical, but it's not the only tool we can use. California, for example, has a robust multi-sector carbon reduction strategy. We have reduction strategies in electricity, transportation, goods and services, and in water management. We need big innovations on the education side, the legal side, as well as on the technical side. That story is not yet written.

**PMJ:** Can UC Berkeley play a policy role in the United States to encourage caps on carbon?

**Dr. Kammen:** Absolutely. Almost every policy that has gone up to the federal level has started in one state or in some combination of states. California is often the lynchpin—from efficiency standards to vehicle standards—to clean energy policies. UC Berkeley, in particular, and California in general have been key for over four decades in driving greener policies.

**Dr. Friedman:** I completely agree with that. I have spent a lot of time in the last year talking with Mary Nichols [the Chairman of the Air Resources Board] and the Governor's office about the importance of California establishing support systems with other places that are willing to consider adopting similar caps to what we have here. We have sent people to China to share our knowledge about how we do our inventories, how we keep track of emissions, and to provide training in those areas as well. We are talking with

Washington and Oregon about setting emissions systems in place. There will soon be federal standards for greenhouse gas emissions for stationary plants; California has the opportunity to share its knowledge since we have already been thinking about this and setting systems in place.

**Dr. Kammen:** We now have an opportunity to combine good policy with incentives and ways to alert industry. This is such a big transition that we need an approach that considers the whole picture. To leave such an obvious piece of the equation—divestment—unused, we are tying our hands behind our back and we're doing a disservice to companies as well. By divesting we can make it clear to them that we want to work collectively, that we want to co-invest in our economy in order to see an orderly transition to cleaner energy.

*Dr. Lee Friedman is an economist and Professor of Public Policy at the Richard & Rhoda Goldman School of Public Policy at the University of California at Berkeley. His work strives to improve the effectiveness of microeconomic policy analysis on actual public policies and practices. He is a recipient of the David N. Kershaw Award for distinguished public policy research, and of the University of California's Distinguished Teaching Award. Dr. Friedman is former Editor of the Journal of Policy Analysis and Management, and has served as President of the Association for Public Policy Analysis and Management.*

*Dr. Dan Kammen is the Class of 1935 Distinguished Professor of Energy at the University of California, Berkeley, with parallel appointments in the Energy and Resources Group, the Goldman School of Public Policy, and the department of Nuclear Engineering. He was appointed the first Environment and Climate Partnership for the Americas (ECPA) Fellow by Secretary of State Hillary R. Clinton in April 2010. Dr. Kammen is the founding director of the Renewable and Appropriate Energy Laboratory (RAEL), Co-Director of the Berkeley Institute of the Environment, and Director of the Transportation Sustainability Research Center.*