

Will this help the endowment?

I have read the resolution and listened to some arguments pro and con. While I recognize the concern of the administration regarding portfolio performance when additional constraints are imposed, my view is that the timeline proposed in the resolution is sufficiently long that effects on investment growth will be negligible. In contrast, should such a resolution not be passed, it would call into question the commitment of this institution and its faculty toward solving a problem that--left unsolved--will have a profoundly negative effect on the quality of life of human beings worldwide, with a disproportionately large effect on the poorest nations. This resolution is one small step toward solving the daunting problem of human-induced climate change. I support its passage.

Jonathan Lunine

Dear Joe: As you will have by now confirmed, the divestment issue is more than a little controversial. I am writing to point out that this matter comes at a very unfortunate time for many at Cornell who have both an intellectual and material interest in the outcome. I am writing you from Moscone Center on day one of the AGU (American Geophysical Union) annual meeting. As you would expect, many of our faculty are here in attendance, including our representative to the Senate. I am pleased to see interest stirred by this resolution, but regret that its announcement was essentially "hidden" in the agenda announcement for the Faculty Senate, something that I suspect many faculty do not read regularly. Although some of our faculty were aware of that this was in the offing at some point, and had been discussing it among themselves, we had little time between the formal announcement and AGU to give it a thorough internal airing. As a Department that could be seriously affected by the fallout of this vote, we do not feel that there had been adequate time since it was announced as a "real" proposal for a thorough consideration by either our faculty or the University. Thus I welcome the discussion but would hope there would be more time for discussion among all the stakeholders before it comes to a vote.

In my personal opinion the resolution is both counterproductive and unnecessarily divisive. A vote at this time is likely to enhance both of these characteristics.

To be sure, our faculty, who are themselves not unanimous on this issue, will participate in posting to the dialog site you have set up. I would hope that they could participate in the flesh before a vote were taken.

Cheers and good luck. There is a lot of passion, if not necessarily light, on this topic.

Larry Brown, Earth and Atmospheric Sciences Chair

Perhaps it's an opportune time to dust off the Faculty Online Forum. (Tho I suspect that's ancient history by now.)

Don Schwartz
Emeritus, Communication

I do not believe there is “overwhelming evidence” that fossil fuel use is changing the global climate. Fossil fuels will continue to be a critical component of the world’s energy future and the well-being of people on all continents will depend on them. Consequently, I oppose the resolution to divest from fossil-fuel stocks.

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Cornell Investment and Divestment Strategies for a Sustainable Future

December 9, 2013

The Faculty Senate Resolution regarding potential divestment in selected fossil fuel companies causes me considerable concern. It diverts attention from the research that is critical to the resolution of the world's complex energy issues.

Climate, energy, population, health, education, water, and resource availability are among the critical global challenges that deserve research and teaching efforts at Cornell University. The unencumbered engagement with all legitimate players in these areas is in the best interests of the University and broader society. While perhaps not intended as disengagement, the proposed Faculty Senate Resolution is exactly that; it serves to select a limited number of companies, and pending unspecified changes by 2035, label them as not fit for investment. By default the Resolution implies that the many other companies involved directly or indirectly in the carbon economy are suitable for investment. The "bad actors" are principally the companies that we rely on individually and collectively for basic energy requirements and for the generous life style that we enjoy. This contradiction will not be lost on those outside Cornell. There is a high likelihood that this gesture will be dismissed as political posturing, or worse, academic grandstanding, on an issue that deserves our most serious efforts.

Mankind's ever expanding use of fossil fuels and its consequences presents major challenges which can only be addressed through credible science, technological solutions and cultural change. This requires collaboration among academics, industry and governments. Fossil fuel companies are by necessity part of the solution and many of the well intentioned people, including numerous Cornell graduates, within these companies are open to collaboration in the search for a better future. Cornell University is well placed to encourage research on all aspects of the fossil fuel economy and to foster the open and honest debate that should follow.

Financial forecasting is inexact, open to interpretation, and must always be led by appropriate disclaimers. Individual faculty should certainly invest to meet their needs and follow their conscience, and the University should do likewise. If the future of fossil fuel companies appears limited, the University should divest at an appropriate time to maximize the returns needed to sustain the University. A divestment resolution is not needed for this purpose.

The Cornell Faculty represents all sides of this debate, and if brought to the forefront, that debate will bring credibility to the University and to those participating. Unfortunately, the proposed Faculty Resolution will have the opposite effect; it will be polarizing, will discourage open dialogue, and will cut us off from the people who most need to be involved. Selective, philosophical divestment is, in my opinion, a poor mechanism for encouraging change.

John Thompson, Wold Family Professor in Environmental Balance for Human Development, EAS

Cornell has broad-based, interdisciplinary, 21st century research and education programs that seek to create and promote more sustainable relationships between our society's energy needs and our planet's resources. In addition, Cornell has committed to transitioning its own operations to sustainably-produced, carbon neutral energy usage by mid-century. These achievements and goals are, unfortunately, marred by a 20th century mindset that governs the university's investment strategy.

Just as we cannot teach temperance from a bar stool, we cannot address the problems of climate change and energy security through our research and teaching activities, while at the same time supporting the university through investments in fossil fuels.

Chris B. Schaffer
Department of Biomedical Engineering

Why Cornell Should Refrain from Investing its Funds in Fossil Fuel Stocks
Elizabeth Sanders, December 10, 2013

There is now a great movement afoot to educate the public and leading institutions about the dangers of climate change and the need to make sacrifices to mitigate it. Cornell can throw its considerable weight behind that movement by announcing its intention to divest, and that will likely speed participation by other institutions. Universities do compete to be green.

Every day we get information about new technologies that will ease the transition away from fossil fuels. So arguments that investment in newer technologies yield lower returns, or that alternatives are hopeless, may soon become outdated.

If a university, home to great scientific expertise, cannot take the lead in this movement, how can we expect others to make short-term financial sacrifices? Poor, low-lying countries are already paying an enormous price for climate change that has been caused largely by rich western nations, like the United States. With five percent of the world's population, the U.S. for decades has produced 25% of the planet's greenhouse gasses. The American military machine alone is the world's largest single consumer of petroleum. Doesn't that confer some moral obligation on those of us who have lived so well and done so little to conserve energy?

China is currently suffocating in the fumes of fossil fuel, but it is also desperately working on new non-fossil fuel technologies, and its own people are rising up to demand cleaner air. A stronger U.S. stance on reducing fossil fuel dependence would encourage countries like China and India to cooperate in international agreements.

So many of the things Cornell is doing under the rubric of sustainability, and advertising with great fanfare, were pressed on the administration by students and the city and town of Ithaca. Students gave us the Big Red Bikes initiative, but the university still lags in building safe bike lanes, covered parking for bikes, and ramps by staircases to make biking more convenient and less life-threatening. Students created a "Lights Out" initiative, but the administration has not cooperated. Thousands of bright outdoor lights blaze all night, along with lights inside locked buildings. Most of the outdoor lights are purely ornamental and not needed (or counter-productive) for safety. Buildings are heated and cooled all night with no one in them. The Student Assembly tried without success to get the administration to ban plastic water bottles a couple of years ago.

This all suggests a weak commitment to genuine sustainability, as does the Atkinson Center's showcasing of speakers (like Peter Kareiva, Andrew Revkin, and Mark Linas) who urge cooperation with big business, including those with the worse environmental reputations, no restrictions on GMOs, and support for fracking.

In short, Cornell needs to take bolder stands on the environment, and be a friendlier

place for those who offer diverse, unconventional ideas—like those who advocate for greater energy conservation, and moving away from fossil fuels; and those who encourage new ways of producing and marketing food that are healthier and less damaging to the natural environment.

It is not true that people can't live well on much less fossil fuel—many European countries are doing so. And yields from agricultural methods that don't use GMOs and pesticides are as high or higher than those used by agribusiness (as Norman Uphoff's work has shown).

If we accept the science that tells us we have very little time to avoid the disastrous consequences of climate change, how can we offer arguments based on a couple of percentage points of short term financial returns in one segment of Cornell's portfolio as a reason for not divesting in fossil fuels...starting with coal, gas produced by hydraulic fracturing, tar-sands oil, and oil from the vulnerable arctic?

We have to start somewhere. We don't have much time.

Comment on the Faculty Senate Resolution “Cornell Investment and Divestment Strategies for a Sustainable Future”

Most of the faculty would like to do something about climate change if we could. Two questions give us pause:

1. Would adopting this resolution have a meaningful effect on carbon emissions?
2. Would the cost to the endowment be too high?

My answer to #1 is that over the long term it might. Yes, the direct impact of divesting would be small. But students absorb the values of their university. By signaling our values in this resolution — that in the 21st century we no longer consider it responsible behavior for a large institution to abet the burning of fossil fuels — we begin the process of training a new generation of government and business leaders who share these values.

My answer to #2 is that focusing only on the endowment ignores the considerable advantage to Cornell of claiming the moral high ground. Cornell would be taking the lead on one of the great moral issues of our time. Simply put, this resolution gives our students and faculty a reason to be **proud** of Cornell for doing the right thing. Proud students and faculty make good evangelists. The positive reputational effect is hard to quantify, but it may well exceed the endowment effect over time.

I support the resolution.

Lionel Levine
Assistant Professor
Mathematics

Statement on the proposed faculty resolution -- Cornell Investment and Divestment Strategies for a Sustainable Future

The proposed resolution that Cornell divest its investments in energy companies that produce fossil fuels, especially those with large reserves of such fuels, raises concern about what the actual outcome might be of such action on our part. The high standard of living that we enjoy in developed countries is a direct result of having access to affordable energy from fossil fuels that energy companies currently provide. The cars we drive, the airplanes we fly in, the heated and air conditioned homes we live in, and many materials we consume have been and continue to be the primary drivers behind developing hydrocarbon resources and the infrastructure needed to supply them at affordable costs. Our reliance on hydrocarbons is not an accident nor is it a result of unilateral action or promotion by the energy industries.

Few would argue with the urgent need to transform our energy system to make it cleaner by reducing environmental impacts, and more efficient in how we supply and use energy with much lower consumption of depletable resources and much higher utilization of renewable energy sources. Will divestiture achieve this intended outcome or lead to yet another polarized situation where nothing positive can happen? In my view, working with the energy industries to change the direction and outcome of our long-term energy future would be far more productive than alienating ourselves from them as a result of divestiture. A faculty effort to formalize and endorse a process that encourages engagement and open dialogue with government and private industry is more likely to accelerate the changes that we urgently need in our energy system to achieve a sustainable long term solution.

Cornell's Climate Action Plan clearly shows that becoming carbon neutral will require both significantly lowering energy demand and transforming to a totally renewable energy supply system. Beyond the current improvements already implemented at Cornell will require substantial additional investment of capital; Cornell as an institution must be economically strong to make these investments in sustainability. Therefore, Cornell must be free to prudently invest in a manner that will provide the return needed for the transformation, and not be constrained by a selective divestment decision. If we, the Cornell faculty, are really serious about achieving a zero carbon footprint by 2035, perhaps we should first commit to re-engineer our own personal energy portfolios even as we ask others to change.

Jefferson W. Tester
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I support the resolution. While I realize that the issue is extremely complicated--much more so than South Africa divestment which was under discussion when I was an undergraduate at Cornell--I feel very strongly that the faculty should stand with students in raising this as a strategy toward immediate action on greenhouse gas emissions. Passing the resolution (or no) is only a first step in a battle that should already be on the center stage of the theater of war; a battle that cannot be won at the local level, but a battle that we must engage in with all of our intellectual and cultural might as a university. I look forward to further discussions on the question with our Trustees, our investment counselors, our students, colleagues, parents and all constituencies.

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Karen Pinkus

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We can do this!

If you are causing or allowing harm should you stop? This is the ethical question at the center of whether Cornell University should stop using carbon fossil fuels, and, beyond this, taking a stand on reducing their use by society. The harm is the increasingly well-documented climate disruption related to greenhouse gasses produced by human activity. The harm is lives lost and disrupted by increasingly destructive storms. The harm is the increasing economic cost of droughts and reduced food production.¹ The harm will be the loss of coastal towns. And there is a cost to our quality of life when other species become extinct.

These harms to the planet and to people come from our individual and collective actions. It is our choice to stop. The problem is (to quote The Ethical Investor: University and Corporate Responsibility) “the guilt of all becomes the guilt of no one” and it is all too easy to carry on with business as usual. A Student Assembly resolution with substantial support from Cornell students proposed divesting from companies and funds involved in fossil fuel industries by 2020 and investing in companies and funds positively screened for sustainability practices. The University Faculty Senate will have the opportunity to support a resolution that sets a 2035 target date for Cornell achieving climate neutrality and divesting from the 200 companies with the largest carbon reserves on a schedule related to achieving climate neutrality.

Recognizing the emerging threat from climate disruption, President Skorton joined many other university presidents in supporting the President’s Climate Commitment. In the past six years Cornell has made impressive progress in reducing CO₂ emissions. Technology innovations have played a large role, but so too have our changed behaviors. Primary credit for our achievements under the Climate Action Plan go to Cornell staff and students. Cornell’s target date for climate neutrality is 2050. Recent research and our failure to substantially reduce CO₂ emissions establish that 2050 is too late to avoid dangerous and irreversible

¹ David Skorton Nov 2013 "Inequalities in society and climate change are the two biggest challenges we face in the world today"

World Bank 2012. “The distribution of (climate change) impacts is likely to be inherently unequal and tilted against many of the world’s poorest regions, which have the least economic, institutional, scientific, and technical capacity to cope and adapt.” Intergovernmental Panel on Climate Change 2007. “It is the poorest of the poor in the world, and this includes poor people even in prosperous societies, who are going to be the worst hit.”

impacts.²

We could reduce this harm very substantially with existing technology and supportive behavior. Institutions and cities that are achieving climate neutrality now or in the present decade are proving that we can do this at a faster pace. The Architecture 2030 challenge sets a target date for climate neutrality that seems very ambitious, until you realize that self-sustaining buildings are being constructed now. They exist in increasing abundance around Ithaca. Copenhagen has a goal to achieve climate neutrality by 2020. With Malmo and Kalmar having achieved climate neutrality, Sweden is trying to become the first climate neutral country. A research team involving Cornell faculty has created a plan for renewably-sourced electric power in NY by 2030.³ These are examples of what Cornell also can achieve before 2050.

Most discussion about reducing human climate disruption comes down to our willingness to take action. Do we care enough to stop causing harm? Indeed our lack of care and reluctance to act has become a research topic. We have learned from this research that peer and social pressure has greater influence on our behavior than moral persuasion. Reflecting on this result, some Cornell students concluded that if Harvard and Yale lead then Cornell is more likely to act. It's too bad we need leadership from others. Yale has taken the lead on ethical investing. In a proposal similar to the one being considered by Cornell faculty, Yale is considering removing investments from companies that fail a set of general ethical standards around extracting fossil carbon. Acting ethically can be reason enough to demonstrate leadership.

We then get to the central issue of carbon divestment: how soon do we stop causing harm? What might justify inaction when we know our behavior is harmful to others and to the planet? The sponsoring faculty members have carefully and critically considered many alternatives. We have concluded that the moral and practical issues are too great for well-meaning faculty not to act now.

Brian F. Chabot
Professor, Ecology & Evolutionary Biology

² Hansen, J. et al. 2013. Assessing dangerous climate change: Required reduction of carbon emissions to protect young people, future generations and nature. PLOS One 8:e81648

³ Jacobson, M.Z. et al 2013. Examining the feasibility of converting New York State's all-purpose energy infrastructure to one using wind, water, and sunlight. Energy Policy 57:585-601

Investing for a Sustainable Future

Unfortunately, a number of my colleagues in the Department of Earth & Atmospheric Sciences have mischaracterized what this resolution before the Faculty Senate is all about. It is not simply a divestment resolution; instead, our faculty group, with representatives from around the University, is promoting a carefully conceived “investment and divestment” strategy. Rather than demanding immediate divestment, it is our intention that this effort will provide a roadmap with milestones for Cornell to follow in making the transition from fossil fuels to other non-fossil energy sources. The milestones are intended to be consistent with a revised Cornell Climate Action Plan that has a goal of carbon neutrality by 2035. Divestment in specific companies will only be triggered if they fail to meet the milestones after a prescribed period of time. In reality, what we are proposing is more of an investment strategy for a sustainable future rather than a divestment strategy.

Our ultimate goal is to generate the actions necessary to achieve the internationally accepted mandate for preventing dangerous changes to Earth’s climate system. It should be pointed out explicitly that it is not our intention to disengage with the energy industry, but rather to engage more effectively with it by mobilizing forces that can be used to encourage a more rapid transition to non-fossil energy sources. There has been no attempt by our group to demonize the industry, nor place all of the blame upon it. However, society’s dependence on fossil fuels will remain in place as long as the energy industry has the political power to steer market forces so that they need only offer what is most profitable in the short term.

It is the long term that we are most concerned about. The climate science is clear, and we must achieve the transition to non-fossil energy sources by the second half of this century. The challenge of doing this is immense, especially given the narrowing window of time available to us. Institutionally, Cornell has a duty to invest in a manner that not only focuses on short-term investment returns on its endowment, but also insures the long-term sustainability of the institution and its values.

Charles H. Greene
Director, Ocean Resources & Ecosystems Program
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Divestment for what are essentially political reasons is simply a terrible idea. The practical consequences, measured against the intended long term goals, are unlikely be substantive. I would be embarrassed to be a Cornell faculty member by such an action.

Volker M. Vogt

I am writing in response to several comments expressing concerns about the fossil fuel divestment Resolution.

(1) One comment said, "in place of this resolution, the Faculty Senate should do something bolder that is in keeping with Cornell's tremendous effectiveness at engagement with society."

I would say instead: after passing this resolution, the Faculty Senate should do some bolder things that are in keeping with Cornell's tremendous effectiveness at engagement with society. Additional directions for engagement such as the ones that this comment suggests remain open to us after the resolution has been passed. But we will have to be innovative. The ongoing sequence of international climate conferences that fail to reach agreements leading to collective action, and the continuing massive investments in extraction of extreme fossil fuels such as tar sands, tell us that "business as usual" isn't solving the problem.

(2) Several comments have argued that we should instead remain engaged with fossil fuel companies. However, Cornell's holdings in fossil fuel reserves are primarily in funds and private equity partnerships, not in direct stock ownership. As a result, there is already very opportunity for Cornell to engage with corporations as a stockholder. This is very different from many other institutional investors (e.g., some large pension funds). We would lose what little opportunity we have for this kind of engagement, but it's essentially zero already. The Resolution does not put limits on any other kind of engagement.

(3) Several comments suggested a contradiction between divestment and continued reliance on fossil fuels. The Resolution does not call for immediate divestment. It says that we should gradually divest, in parallel with Cornell's ongoing commitment towards achieving carbon neutrality. As other comments have noted, we cannot preach sustainability if we don't practice it, and instead continue to profit from extraction of non-sustainable fossil fuels – that would be the real hypocrisy.

Finally, I urge everyone to note how limited the Resolution is in scope. It is not a copy of the Student Assembly resolution. It was carefully designed, after hours of discussion with the Office of University Investments, to have at most minuscule effects on Cornell's annual revenues. These calculations are in the supporting documentation for the Resolution, and will be reviewed at the Faculty Senate meeting.

Steve Ellner
Ecology and Evolutionary Biology

Statement regarding the Faculty Senate resolution on divestment

At the outset, let me state that I have no financial connections, research agreements, or consulting arrangements with any energy companies save what might be buried in my TIAA CREF portfolio. This is a discussion about tactics only, not a referendum on climate change. I am deeply concerned about anthropogenic climate change and yet, I believe that this resolution is not just a poor tactic but a counterproductive one for three fundamental reasons:

First, it paints in stark black and white the very complicated issue of climate change and energy consumption with its many shades of gray. As educators who value the marketplace of ideas we should highlight those shades of gray and not mislead our students that meaningful solutions to anything this complicated are easy or simple.

Second, the resolution demonizes just the companies and organizations that need to be involved in any effective solution to the climate and energy crisis. I would much prefer the approach of constructive engagement as championed by The Nature Conservancy and the Environmental Defense Fund. The comparison of the proposed resolution to divestment associated with apartheid is not only incorrect and deeply insulting, but is hardly a constructive way to start a dialog with a fossil fuels company.

Third, the resolution barely acknowledges the faculty's own complicity in global warming as consumers of fossil fuels, nor the role that faculty must play in helping Cornell to achieve carbon neutrality, especially on an accelerated schedule. The University already carries significant debt from past projects to reduce its carbon footprint. A more concrete suggestion from the faculty would be to advocate for a nationwide carbon tax, and insist that Cornell levy its own "carbon tax" on all faculty travel and commuting. We cannot expect our institutions, companies, or politicians to hew to a higher standard than we set for ourselves.

Richard W. Allmendinger

Professor, Earth & Atmospheric Sciences

Comments for the 11 Dec 2013 Cornell Faculty Senate Meeting
Regarding Divestment from Fossil Fuel Companies

The comments below are offered regarding the “Divestment” resolution before the Cornell University Faculty Senate and the response to it by the University's Chief Investment Officer, AJ Edwards. I am a Cornell Senior Research Associate and an alumnus. I am not funded by any federal research funding which I allude to below.

I am a PhD chemist, and work for Cornell in a business partnerships role. Day-to-day, I work at the interface of the private sector with Cornell research. I am in partial agreement with Mr. Edwards’ comments; however, they are based solely on economics, and therein lies a dangerous omission that, when considered, changes the analysis. The discussion of climate change is a scientific one, so I believe this discussion demands that science be included in the economic analysis. In doing so, I conclude *a more positive economic outcome* for Cornell research will result from approving this resolution.

I urge the Senate to approve the resolution, or a substantially similar one, during their meeting on Wednesday 12/11/2013.

- 1) I partially agree with Mr. Edwards that beginning the divestment from fossil fuel companies would be a symbolic move; however,
- 2) I firmly disagree with his belief that it will be solely symbolic, and that it will have no real impact. True, the immediate financial implications for those companies will be negligible; but this symbolic move will help advance the national discussion of our national energy policy and of climate change. I feel this move is required before either discussion can advance.
- 3) I fully agree with Mr. Edwards’ notion that continuing to fund ongoing research at Cornell is among the most effective ways that the University can positively effect our energy systems. However, I disagree with his analysis that divestment would jeopardize this. My analysis is that this divestment would help increase research funding for energy at Cornell and elsewhere. Return from our endowment currently provides 8.8% of the University budget, while sponsored research is nearly twice that at 17.1%. Most sponsored research dollars are from the Federal Government, not private industry. A national energy policy will encourage more energy research, not less.
- 4) The United States has no National Energy Policy. It is also the only remaining large industrialized society in which climate change is still considered a debate. It is unlikely that either of these will change until the influence of our nation’s energy companies in these discussions is recognized.
- 5) The parallels between this movement and the recent regulation of tobacco industry are useful to consider (though I do not detail them further here).
- 6) Energy corporations are required by their fiduciary responsibility to shareholders to make decisions based on maximizing profits. Financial returns in the United States are evaluated on an increasingly short time horizon. They are not allowed to consider science except how it impacts their bottom line, especially in the short-term. Social science (e.g. market forces) is a much stronger factor to them.
- 7) The issue of climate change is a scientific issue. The topic demands that science fact be brought to its discussion, which is typically only an economic discussion in this country. We must demand that science be part of the analysis, inform the discussion, and be included in the reporting.
- 8) From my read, Mr. Edwards’ argues for not pursuing an immediate, complete divestiture. However, the text of this resolution does not call for anything immediate. It calls for a gradual adjustment to the endowment’s portfolio away from fossil fuel companies by 2035 – more than 20 years hence. In short, it calls for a plan to divest, not an overnight switch of these stocks to the off position.

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9 December 2013
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Comments for the 11 Dec 2013 Cornell Faculty Senate Meeting
Regarding Divestment from Fossil Fuel Companies

Selected parts of the Resolution (here) and Mr. Edwards comments (below), for reference.

Whereas there is overwhelming evidence that the use of fossil fuels is disrupting the Earth's climate system and acidifying its oceans, and that such disruptions will create significant challenges for Cornell University, the state of New York, the United States, and all countries for the next millennium;

And whereas Cornell has committed to becoming carbon neutral by 2050 and has made significant progress in achieving this goal;

...

And whereas the Cornell Student Assembly has passed by an overwhelming majority a resolution calling upon the University to adjust its investment practices to draw further attention to the detrimental effects of fossil fuel use;

...

Be it further resolved that Cornell investments in companies producing such fuels be reduced consistent with Cornell's progress towards carbon neutrality so as to achieve full divestment by 2035.

Be it further resolved that this should be done by a schedule that prioritizes divestment from those companies holding the largest fossil fuel reserves;

Comments from Mr. AJ Edwards
Chief Investment Officer, Cornell University

1) I think it is important to note that divesting will have no real impact on the companies involved and would be nothing more than a symbolic move. ... As I have stated before, and the President has said this as well, having funds available to support the ongoing research at Cornell is the most effective way to find the next abundant and renewable source of energy.

...

3) The idea that fossil fuels will be "unburnable" is questionable at best - the US Energy Information Administration (EIA) estimates that gas production alone in the US will increase by more than 70% from today's levels through 2030-2040. This data can easily be extrapolated around the globe. To think that all of that cheap, plentiful energy will not be used is questionable.

Mutolo's response to Point 3:

The amount of energy resources the US expects to have available is unrelated to the impacts of burning those resources. The former can be viewed as an economic issue. The latter is clearly a scientific one. Many scientists have publicly reported the cataclysmic effects of burning much more, or even all, of the planet's carbon-based fuel resources.

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Dear Dean Burns, I read with great interest the comments regarding faculty involvement in the universities' investment program. In my opinion, which is probably very much in the minority, this just doesn't make any sense. Teaching hospitality business management as I did it would make about as much sense for me to advise other faculty in the university teaching courses such as philosophy, mechanical engineering or courses in astronomy. My old friend, Carl Sagan, would no more think of advising me on curriculum areas in my field than I would in his. As we used to say in business "stick to your knitting"! Teaching & doing research as well as actively engaging their students should constitute a fairly busy schedule. Rather than involvement in areas where they have little or no expertise I would suggest that they increase the time that they are available for students! Given the tuition cost and the employment opportunities of grads these days this could be very constructive. Warm regards.....

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I am writing in opposition to the resolution “Cornell Investment and Divestment Strategies for a Sustainable Future”. The resolution addresses an important topic and generates good discussion. However, it misses the mark in terms of presenting a practical solution. What solution is the resolution asking for? Divestment will have little practical impact and may have large negative consequences.

- The practical impact of divestment would be small. The amount divested by Cornell would likely be less than 1/10th of a percent of the market value of major oil and gas corporations. It will make news, but not much practical difference.
- Divestment may have an unintended consequence: a silencing effect on industry-university dialogue. Industry often advocates for private gains at society's expense; when it does, those actions should be called out and admonished. However, industry, including the oil and gas industry, has the potential to help solve problems. This resolution is blind to the oil industry's role. It is not asking for reform, but is effectively asking for the shutting down of the oil business. It closes dialogue rather than inviting dialogue.

A thought experiment is telling. Even if all of America "disinvested" from oil and gas, this would not mean shutting down of production. This may still mean no reduction in US gasoline usage (assuming oil consumers see no change in price). Furthermore, foreign investors and states may happily own, extract, and use the oil reserves.

Note: In my opinion, a far better use of divestment would be a surgical approach: Cornell should divest from companies that actively lobby against near-term regulations and actions that would help society. Instead, Cornell would invest in those that do. For example, if Exxon were to actively oppose climate change legislation by opposing cap-and-trade, fuel efficiency standards, or carbon measurement regulations, it would be given 1 year notice and then there would be divestment. If Chevron were to lobby for climate change legislation and vehicle electrification, there would be investment. This is not as dramatic as an all-or-nothing approach, but it would continuously engage industry in dialogue on near-term actions.

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Statement in support of the proposed faculty resolution -- Cornell Investment and Divestment Strategies for a Sustainable Future

The question before us can be viewed in many ways; I see it through two particular lenses:

- 1) Our best path to minimizing the crisis of climate change that has already begun is to put a price on carbon – how best can Cornell help steer the US to a national energy policy of which one cornerstone is a price on carbon?
- 2) If we accept that fossil fuel extractive companies are indeed important to portfolio performance (I actually do not accept this argument but leave it to others to best make the case of the stranded asset risk which I firmly believe will be an issue), is it ethical for Cornell to exploit such returns from an industry that does not pay the fair cost of disposing its wastes and that arguably are not environmental just?

Some are confused about the timescale of climate change. Climate change is not a problem of the future, of our grandchildren, or even our children, it is a problem we face *now, today*. As the floods in Colorado and Hurricane Sandy demonstrate, just to name two U.S. extreme weather catastrophes that have befallen us in the past 12 months, climate change is here now. Below are plots of the shifting distributions of the summer time temperature anomalies looked at between 1951 – 2011; *i.e., in the past*. The data is courtesy of Dr. James Hansen of The Earth Institute at Columbia University and his colleagues (Hansen *et al.*, 2012) and the figure is taken from their NASA Science Brief (http://www.giss.nasa.gov/research/briefs/hansen_17/). Hansen's team calculates the summer-mean temperature anomalies relative to average temperature in the base period 1951-1980, where summer is defined as the June-August period. The figure at the left shows the distribution of the anomalies between 1951-80. Each subsequent figure shows how this distribution has shifted over the previous three decades to the right, *i.e.*, the probability that an anomaly is warm has steadily increased. Looking at the right-most figure we see that by 2011, two years in the past, the probability that the temperature anomaly exceeded three standard deviations from the long-term mean has increased by more than an order of magnitude as seen by

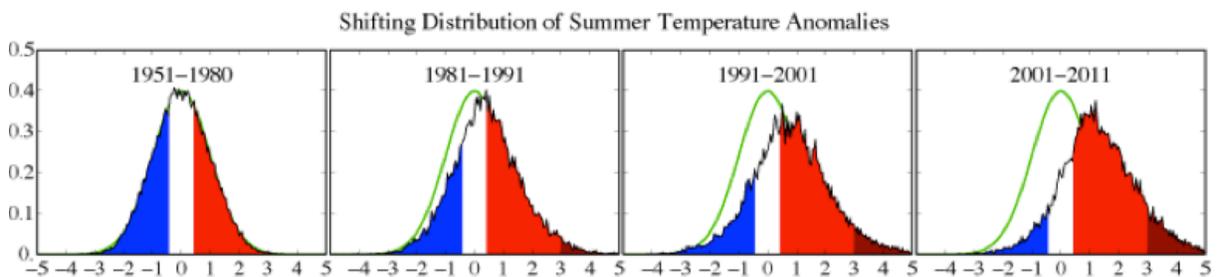


Figure: Frequency of occurrence (vertical axis) of local June-July-August temperature anomalies (relative to 1951-1980 mean) for Northern Hemisphere land in units of local standard deviation (horizontal axis). Temperature anomalies in the period 1951-1980 match closely the normal distribution ("bell curve", shown in green), which is used to define cold (blue), typical (white) and hot (red) seasons, each with probability 33.3%. The distribution of anomalies has shifted to the right as a consequence of the global warming of the past three decades such that cool summers now cover only half of one side of a six-sided die, white covers one side, red covers four sides, and an extremely hot (red-brown) anomaly covers half of one side. Image credit: NASA/GISS.

the area shaded red-brown. Notice that in the 1951-1980 period an imperceptible area of the figure is occupied by red-brown shaded regions and by 2001-2011 this area is significant. These are the greater than “3-sigma” events, that is, they are the extreme events. This is climate change. This has already happened. In one more decade, if we fail to act now, the situation will be more dire.

There are many contributors to climate change and many challenges to understanding them. However, absent a price on carbon we know that fossil-fuel based energy production is subsidized by the people – with our health and by risks of extreme weather, changing precipitation patterns, and rising sea levels and the enormous impacts this will have on our ability to feed and house ourselves. This is happening already. Absent carbon sequestration technology, there is no role by 2035 for most carbon intense fuels. Since Congress has proven its inability to act on climate change despite the recent reports that many major corporations are already internally putting a price on carbon, it is the responsibility of forward-thinking institutions such as Cornell to lead nationally and internationally to a net-zero carbon economy. The starting point is to sever our relationship with companies that intend to burn every last gram of carbon they have found while continuing to search for more. It is well understood that we have all the fossil fuel we need to make the transition to renewable energy, but at this point, the absence of a true price on carbon hinders this transition, as fossil fuels are artificially cheap. Further, as an investment, carbon-intense companies represent an increasingly risky class of investment. At some point in the near future, it will no longer be cost-free to discharge carbon into the atmosphere – a price for carbon is coming – I hope within 3 years and certainly within 10 years. Investments that leverage carbon will suffer and no one can predict with accuracy when the market will start to factor in a carbon cost to the asset class. It simply makes sense to starting the shift to less risky asset classes now.

Cornell would make a tremendous statement by demonstrating its commitment to a sustainable future. We would garner significant public press, largely positive, and most importantly it would demonstrate our leadership in the arena of climate change.

Thank you to the students for pushing us to take up this critically important issue.

Sincerely,



Edwin A. Cowen (Todd)
Professor and Director, DeFrees Hydraulics Laboratory.
Faculty Director for Energy, The David R. Atkinson Center for a Sustainable Future

Reference

Hansen, J., Mki. Sato, and R. Ruedy, (2012). [Perception of climate change](#). *Proc. Natl. Acad. Sci.*, **109**, 14726-14727, E2415-E2423, doi:10.1073/pnas.1205276109. Early draft posted as "Public perception of climate change and the new climate dice", [arXiv.org:1204.1286](https://arxiv.org/abs/1204.1286).

December 10, 2013

Dear Dean Burns,

I support the divestment resolution coming to vote before the faculty senate this Wednesday.

Divesting Cornell's endowment from holdings in fossil fuel companies is necessary to tie the university's finances with its mission.

Arguments that divestment will damage the university's financial health miss the point. Financial arguments were used in support of slavery. Finances should never supersede morals. The fossil fuel industry continues to profit off products that damage the earth and its people, as documented by scientists and sociologists.

Arguments that divestment would stifle any chance we have to solve climate change by working with fossil fuel companies also delude my 10 years of experience in renewable energy research. During this time I have not seen fossil fuel companies contribute significant funding to renewable energy research. Their own findings related to renewable energy are also scant in the literature.

Instead, these companies fund anti-science and anti-climate campaigns. They prefer fights in the courtroom rather than acknowledge the lasting damage they've done to fisheries, water supplies, and air quality.

I do not pretend that fossil fuels are going away tomorrow and nor does the proposed resolution. I drove a gas powered car to a joyful Thanksgiving dinner with my family. I admit my own reliance on fossil fuels. Yet the proposed resolution brings about the institutional change everyone acknowledges is necessary to affect how we get and use energy.

Cornell's Climate Action Plan is a step in this direction, yet funding the university on profits from the very companies this action plan strives to wean itself from is inconsistent with the goal of carbon neutrality.

Now is the time to be bold. It's time to look ourselves in the mirror and commit to lasting change.

With decades of climate science underpinning this resolution, now is time for action. Institutions have histories of hoping "issues" go away by dragging them out. The appendix prepared by the 38 faculty sponsors of the resolution meticulously cites the climate and economic research that supports passage of this resolution.

It is important to acknowledge change doesn't come unanimously. 30% of the House and Senate voted

against the Civil Rights Act of 1964.

In all, the privilege of a Cornell education should not be tainted by financial support from companies that undermine the university's goals, in particular, its climate action plan.

As staff in the chemistry department, I've cc'ed the two faculty senators and alternate from my department on this email.

Warmest Regards,

Jimmy O'Dea

James R. O'Dea, Ph.D.
Postdoctoral Associate
Dept. of Chemistry and Chemical Biology
Energy Materials Center at Cornell
Cornell University, Ithaca, NY

Divestiture and Climate Change

There is a resolution before the senate stating that Cornell University should divest itself of all hydrocarbon stocks. The resolution is politically motivated and intended, together with other initiatives, to apply political pressure for the rapid conversion to a low carbon economy over the next decade.

Adopting this resolution would be a great mistake because it will make it more difficult for academics, Cornell academics in particular, to contribute to meeting the world's complex and nuanced energy challenge. The increased polarization that would result from passage of the resolution is the opposite of what is needed.

The energy challenge is nuanced because economic as well as environmental considerations are involved, and because the changes that are significant will occur in the developing, not the developed, world. We must consider what will be persuasive to the developing world, and proceed in a way that realistically considers economic harm. An optimized path needs to be found, and this will take free, informed, and constructive discussion.

Climate change is nuanced because it involves many interacting factors, both human and natural, which are not fully understood. A survey of the members of the American Meteorological Society has found that views on climate change show a strong correlation with political persuasion. The authors of that survey state: "We suggest that AMS should: attempt to convey the widespread scientific agreement about climate change; acknowledge and explore the uncomfortable fact that political ideology influences the climate change views of meteorology professionals; refute the idea that those who do hold non-majority views just need to be "educated" about climate change; continue to deal with the conflict among members of the meteorology community." ^{/1}

Changes in hydrocarbon use can significantly reduce greenhouse warming, but these are nuanced and must be pragmatic to be effective. For example, switching from coal to gas in electricity generation and for some oil in transportation can reduce greenhouse warming by 40% of that possible by transitioning to zero carbon energy sources at the same rate.^{/2} This kind of change is already occurring in the U.S. for economic reasons, and is significantly reducing U.S. greenhouse gas emissions. Encouraging India and China to shift to gas from coal may be the best way to have a positive impact on global warming, particularly considering that coal is the long term climate threat. With gas substitution and strong economic growth in the developing world, oil and gas will play out and force a transition to non-hydrocarbon fuels in the next 100 years with ~1°C of global warming, but only 15% of the coal reserves will be depleted^{/3}.

Academics are starting to make significant progress with companies to determine the best energy path forward. Because the issues are nuanced and complex, it is especially important that there be high quality, open, independent, and continuing discussion of the kind that academia can uniquely offer. Polarizing the discussion into good versus evil, and moral vs immoral groups, as the resolution would do, will make it much more difficult for academia to provide the input that is needed. Open non-judgmental discussion will be more persuasive to those outside academia and be more constructive internally.

The proposed divestiture resolution should be rejected. L. M. Cathles, December 6, 2013

1. <http://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-13-00091.1>

2. Cathles, L. M., Assessing the greenhouse impact of natural gas, *Geochemistry Geophysics Geosystems*, 13(6), doi: 10.1029/2012GC004032, 18p

3. <http://sp.lyellcollection.org/content/early/2013/10/18/SP393.6.full.pdf+html>

My name is Larry Brown. I am currently Chair of the Department of Earth and Atmospheric Sciences. However, the opinions expressed here reflect solely my personal views on the divestment resolution. I have been on the faculty at Cornell for almost 36 years, during which time I, like most researchers in the solid earth sciences, have had a number of interactions with the oil and gas industry. While my research has rarely been directed to oil and gas exploration production *per se*, it has heavily used technologies developed by that industry, and on a several occasions been supported at modest levels by that industry. However, the vast majority of my work has been funded by the NSF. My department receives regular funding for its programs from oil and gas companies, and many of our students, including mine, find careers in that industry. I also live in Horseheads, N.Y., and like many of my neighbors have benefitted financially from gas production near my house that predates the shale gas boom. For those who would like to consider this a conflict of interest that devalues my comments below, feel free to do so. I prefer to think that this experience has provided me with first-hand knowledge of that industry and the people who work in it.

I, like everyone I know at Cornell, share many of the concerns that this resolution seeks to address: the need to reduce the quantity of greenhouse gases that we as a society are injecting into the atmosphere to avoid potentially catastrophic changes in climate. However, I believe that the approach represented by this resolution is fundamentally counterproductive. It undermines Cornell's most precious asset in effectively addressing any controversial issue: its reputation as an unbiased source of scientific knowledge and wisdom. With due respect to the good intentions of its authors, passage of this resolution will be viewed by many—certainly most of those engaged in the oil and gas industry, but more importantly much of the general public— as:

1. **Fundamentally dishonest.** It purports to be an economic argument to protect the long term financial interests of the university but in reality it is a thinly veiled attempt to vilify the oil and gas industry. Surely Cornell's investment experts are competent enough to recognize a valid economic argument and act accordingly. Does it really require a Senate resolution for them to simply do their job?

2. **Morally repugnant.** By seeming to equate the oil and gas industry with apartheid, it trivializes the latter and sacrifices even the pretense of moral authority. More importantly, it only serves to reduce the incentive of the fossil fuel industry to engage with Cornell faculty in any meaningful way. If Cornell is really interested in having a serious impact on the behavior of the fossil fuel industry, singling them out as the “bad guys” is unlikely to elicit a constructive response.

3. **Insulting** to the hundreds, if not thousands of Cornell alumni, who work in the oil and gas industry, and its dependent industries (e.g. petrochemicals). Few would consider themselves as cogs in a morally vacuous corporate machine. Those I know are ardent environmentalists who believe that they are making important contributions, not only to maintaining the high standard

of living enjoyed by faculty at Cornell, but to raising the standard of living of the rest of the world.

5. **Hypocritical**, since it fails to recognize that Cornell, and the careers of its faculty, owe their existence and standard of living to the inexpensive energy that the fossil industry has provided over the past century. Sitting in rooms lighted and heated by fossil fuels, having arrived in vehicles powered by fossil fuels (and that includes all those electric vehicles too), using laptops and iPads not only powered by fossil fuels but constructed from petrochemicals, and getting ready for our next international meeting by purchasing tickets on airplanes that balloon our individual carbon footprints, we cannot help but be labeled by both the industry and general public as hypocritical in spite of our best individual efforts to reduce and/or offset our personal carbon footprints. The will be magnified by the suspicion that few, if any of us, have taken any action to reduce the role of the fossil fuel industry in our own personal portfolios. By the way, as far as I know, I have no such investments unless they are hidden in TIAA/CREF.

6. **Willfully ignorant** of the complexity and difficulty of finding and providing the energy that we as a society have demanded, and the remarkable intellectual and engineering accomplishments of that industry in meeting that demand.

7. **Elitist**, since we as well-paid, tenured faculty are not at any personal risk due to any possible negative economic impacts of divestment on the university in particular or the economy as a whole. The staff and students of Cornell will undoubtedly bear the brunt of any loss of revenues engendered by divestment, and certainly any reduction in career opportunities with that industry provoked by this resolution (yes the oil industry can be petty too)

8. **Damaging** to the many research and academic programs at Cornell that are funded by the oil, gas and petrochemical industry, and the career prospects of Cornell students that are interested in working in those industries. Funding from these industries has been used at Cornell to support research to reduce the environmental risks of energy extraction, to apply industry knowledge and tools to a myriad of earth science problems (e.g. natural hazards), to train students in careers in both environmental science as well as resource exploration, and even to the development to renewable energy sources and technologies to minimize and mitigate the impact of greenhouse gases. To cite one obvious example, the oil and gas industry is the prime repository of both the knowledge and technology needed for underground carbon sequestration, one of the few options we have to divert CO₂ from the atmosphere.

9. **Setting a dangerous precedent.** Will the Senate now proceed to vote to divest from any industry or activity that some vocal faculty contingent believes is damaging to society? Shouldn't we also now divest from wind energy companies to express our displeasure at all those dead birds and bats? From the automotive industry for not moving fast enough to produce electric cars? From the entertainment industry for polluting the air waves with reality shows? From the medical industry for promoting unnecessary and costly medical treatments? From the

investment industry itself, for its recent role in trashing the international economy, throwing millions out of work?

10. **Silly.** Perhaps the most worrisome aspect of passing this resolution is that it will be viewed by many in the general public and more than a few of our academic colleagues as simply silly, just another attempt by the ivory tower to make a grand, quixotic gesture that proves just how out of touch we are. Real energy reform, i.e. effective action to accelerate the transition to low carbon energy sources, will require major shifts in our culture as well as improvements in alternative energy. It will require political actions that are challenging at best. This will only be achieved if we can influence the attitudes and behavior of human society at large. This resolution, while “preaching to the choir” of like-minded individuals, is likely to turn off at least as many of the general public as it inspires and thus undermine broader support for tough political action (e.g. carbon tax) on energy issues.

Let me make it clear that I do not for a minute believe that the authors of this resolution intended any of these negative implications, nor do I share some of these reactions. I certainly respect the desire to encourage the fossil fuels industry to be more constructive, and less obstructive, in moving us forward to a low carbon economy. Nor would I argue that some of the potential immediate negative impacts on a program at Cornell necessarily trumps the larger considerations of the social good. Moreover I personally find some of the utterances and actions of corporate leaders of the fossil fuels industry to be disgraceful. But then, I can say the same for many corporate actors in our society upon which we depend.

But the inescapable fact of the matter is that there is NO viable path to sustainable energy which does not involve the fossil fuel industry as a major stakeholder, and the wording of the resolution-its very origins as a movement- no matter how well intentioned will only serve to isolate Cornell from meaningful engagement with this industry. In my opinion it will more likely put Cornell on the sidelines of perhaps the most critical challenge that our society faces today.

I am a big movie buff, and greatly enjoy all those actions movies in which the hero or heroine overcomes monumental odds to defeat a venal, usually corporate (and almost always monumentally stupid) foe, a role that the fossil fuel industry has often come to occupy in the minds of Hollywood more unimaginative writers. But the real world is not a Steven Seagal movie, the issues are complex, and we are all responsible. If there are any “bad guys”, it is the consumer society of which we are part, a society that has been made possible by the cheap energy provided by the fossil fuel industry and a society of energy addicts that has shown little willingness to give up that standard of living. Moreover, the rest of the world is yearning to achieve even a fraction of the luxuries we take for granted. Making the fossil fuel industry, warts and all, the fall guy for our own appetites is perhaps satisfying to our own sense of self-righteousness, but it is unlikely to accomplish anything but our own marginalization.

Financial effect on the endowment of the Cornell Investment and Divestment Strategies for a Sustainable Future

The resolution has been designed for maximum symbolic effect to draw public attention to the role of the fossil-fuel reserves in repressing the economic actions (e.g., carbon tax) needed to address climate change at little financial risk to the university. Only a tiny effect on the endowment is predicted, which may be either positive or negative.

While similar in spirit to the resolution passed by the Student Assembly, it differs significantly in implementation; financial analyses of that resolution are not relevant here.

The Resolution

- 1) specifically addresses the 200 companies most profiting from and financially committed to the burning of *fossil-fuel reserves, not energy companies* in general.
- 2) *does not constrain reinvestment* of divested funds.
- 3) is linearly *phased* in over 22 years consistent with reductions in Cornell's fossil fuel usage.
- 4) allows for ongoing adjustment over this time period to publically acknowledge companies that take positive actions in this domain. *Reinvestment* in companies that do so is encouraged.

The numbers:

- 1) 9% of Cornell's long term investment pool (LTIP) is invested in energy
- 2) However, 2/3 of this is invested in private partnerships that do not invest in the established, publically traded companies in the 200 list. Therefore, at most, 3% of the investments could be affected by 2035, when the resolution has been fully phased in.
- 3) Less than 3% will be affected at that time, since only some of the energy investments are in the 200 companies. The Office of University Investment has not provided the information needed to determine the fraction. We only know that 3% is an upper bound.
- 4) Only 1/22 of this amount will be affected by the end of the first year. The time average over the 22 year period is one-half. Therefore, a maximum of less than 1.5% of investment will, on average, be affected during the 22 year period.
- 5) An analysis of the effect of complete, immediate divestment from the entire Oil, Gas and Consumables market sector (7.6% of the total market) on the Russell 3000 Index (a standard representative of the overall market) over ten-year periods in the past (with ending dates ranging from 1997-2012) has been performed. The annualized return of the divested portfolio was better or worse than a complete

market portfolio, depending on the period chosen. However, the difference in annualized return was always small—typically $\pm 0.2\%$.

6) Using this benchmark and accounting for the small fraction of the endowment affected, particularly in the early years, this implies that the effect on Cornell's investment return will be $\pm 0.00025\%$ ($\pm \$5,250$) in the first year of implementation. The average annual effect over the 22 year period is estimated to be $\pm 0.01\%/year$ ($\pm \$210,000/year$).

7) There is plenty of time to make adjustments during the phase-in period should any untoward effects occur.

We get the full educational, publicity, and motivational benefit of this symbolic statement as soon as the Resolution is passed for insignificant investment risk.

David Shalloway
Professor, Molecular Biology and Genetics

I am intrigued by the resolution's objective of changing the date for carbon neutrality at Cornell from 2050 to 2035.

But I was surprised that there were no details about how this would be achieved considering that there is a Cornell Climate Action Plan and other campus activities focused on how the University can become carbon neutral.

I would suggest that the resolution be tabled until we have sufficient information to evaluate the costs and benefits of this part of the resolution. While achieving carbon neutrality as soon as possible is a worthy goal, there will be real costs involved that could siphon resources from the University's core missions. On the other hand, the benefits of the accelerated plan could outweigh the costs. But without more details on how carbon neutrality would be achieved by 2035, we have no way to evaluate this.

--

Matt Pritchard
Associate Professor
Earth and Atmospheric Sciences

The only chance that we have to meet the challenges of global warming is to have an educated public and it is for that fundamental reason that I am a co-sponsor of the resolution.

The twenty-year divestment plan matches the University's plan for carbon neutrality in both timeline and purpose. Both strategies are moderate and compel the campus community to think long-term. Both strategies reaffirm the idea of leading and teaching by example. Both strategies respect scientific research and those aspects of human nature that are decidedly nonscientific. It all squares beautifully with what the Founders of Cornell had in mind: science shaped by the sensitivities brought about by liberal education. That is our strength as a university and it is our responsibility to share that strength with society.

I welcome the tensions that have been prompted by the resolution. Alternative strategies and perspectives are coming out of the wood work and that is healthy—not divisive. The likelihood of a happy outcome a hundred years from now is maximized if all hands are on deck and I want Cornell to be on that deck with a respectful separation from the energy companies.

The resolution is the first step in that direction.

Charles Van Loan
Computer Science

I can't help but observe that the resolution appears to be divisive even among those who are wholly in agreement with the goal (as I am) that it is imperative to reduce net carbon dioxide emissions. This is a red flag to me that this resolution is not a constructive way to reach toward this goal.

Sol Gruner 12-11-2013

Joe:

This afternoon I voted in favor of the divestment proposal. I believe that it is largely symbolic and that symbolic acts can have real consequences. If it helps prompt other faculty and students to think about climate change and take action, that will be a positive consequence. I agree with my colleagues that it is not the most effective thing Cornell can do. We need to promote other things such as conservation and alternative energy investment. I hope that we can have other resolutions on these things. Today's vote should not be the last one. To that effect, I wonder whether we might invite Robert Harrison, Chair of the Board of Trustees, investment banker, and supporter of sustainability, to speak with the Senate Faculty about what conservation activities and investments in alternative energy Cornell might undertake. After that, the group that produced today's resolution might work on resolutions to promote these worthy goals. In any case, I hope today's resolution is not the only one on climate change the Faculty Senate will have to consider. Climate change is too complex an issue for that. Its resolution requires both symbolic and technical strategies for arousing the crowd and getting something done practically.

Thank you for your continued leadership on this issue.

Best regards,

Bill Sonnenstuhl

Dear Joe,

Neither chemistry senator can attend the meeting -- we are interviewing a faculty candidate today -- and our alternate is out of town. I would be in favor of putting off a vote until next week, or into January, if possible. I find making a 20 year decision in less than a week a little rash.

Most faculty that have contacted me are a "no". Our other senator, Jack Freed, is a "no". The alternate is a "no". I am a "yes".

My yes is a very nervous yes. When the university's endowment recently tanked, my department lost 1/3 of it's staff over a few week period and on short notice I was reassigned teaching duties that were essentially a full time job. This is a lot of potential pain to bear I think, when there are other things to be done to change the national discussion on energy policy. Nevertheless, I think it's time to do something -- anything -- to make some noise about our needless addiction to cheap oil.

I have asked two non-voting staff to attend so I can at least get the flavor of the discussion.

Sincerely Yours,
John A. Marohn
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The fossil fuel companies' current valuation is based on the assumption that the world will be able to burn not only their current reserves but also additional reserves that they are actively prospecting for. But even at the most generous end of the scale, scientific estimates indicate that we cannot burn more than one-third of current reserves if the global warming has to be restricted to 2 C (a goal that 167 governments agree with as per the Copenhagen accord). So this represents a big risk to the value of fossil fuel investments in the medium term addressed by the resolution. So by adopting the resolution, Cornell would be minimizing its exposure to this risk.

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This letter to the editor was published in the Cornell Sun last week; we would like to draw it to the attention of the Senators.

Inspired by the Student Assembly's recent resolution urging Cornell to divest from fossil-fuel companies, we and twenty-seven faculty Senators have submitted a resolution entitled *Cornell Investment and Divestment Strategies for a Sustainable Future* to the Faculty Senate for the Dec. 11 meeting. This resolution includes goals for Cornell to reach climate neutrality by 2035 and to phase in divestment by then. We focus on the 200 companies holding the largest fossil-fuel reserves. These reserves already comprise three to five times more than the total amount of fossil fuels that can be burned before exceeding the 2°C rise in mean global temperature that scientists and governments have agreed is the threshold for dangerous climate change. Nonetheless, these companies are financially committed to burning these reserves and continuing to explore for even more.

In spite of repeated warnings from the scientific community and the obvious extreme weather effects of fossil fuel-induced climate change that we are already beginning to witness, adequate action by our government in the face of predictable catastrophe seems a distant dream. At the recent global conference on climate change in Warsaw, the United States and other large emitting nations made no new commitments to reducing their greenhouse gas emissions and the prospects for essential commitments in 2015 look bleak. Given the dire predictions from the scientific community, the actions being taken are too little and soon will become too late. Either from denial, despair, or the hope that someone else will take care of it, the highly profitable fossil fuel business continues with little change. But this is a knowledge-based issue, and that is *our* business. It is also our responsibility. Universities in general, and Cornell in particular, must be the leaders of last resort in this eleventh hour.

If we speak loudly as representatives of a great university to say that the fossil fuel *business as usual* must stop, we will be heard. Leadership from Cornell will help spur action by our peer institutions, and our concerted voices will help to wake our society from its sleepwalk and raise a grassroots demand for meaningful governmental and industrial action. Our scientific papers, public presentations, and advice to policymakers have not spoken loudly enough. For better or

worse, we need to “put our money where our mouth is.” And we can do this in two ways: first, by becoming carbon neutral and, second, by simultaneously stopping our investment in the ongoing extraction of fossil fuels. Although some financial sacrifice in pursuit of our institutional responsibility would be justified, we have conducted the analyses and determined that the proposed actions will not only have a negligible impact on growth of the University’s endowment, they may significantly reduce overall risk in the University’s investment portfolio. Our students have led the way. It is time for the faculty to step up to the plate. Our goal is to make a strong public statement that will draw attention to the need for society to transition from fossil fuels to truly clean sources of energy that are fossil carbon neutral. We recognize that the University’s divestment actions can result in only a relatively small direct financial impact on these companies. However, the moral courage demonstrated first by Cornell, and then by its peer institutions, will have a galvanizing effect on the movement within this country and internationally. There has never been a more important time in its history for Cornell to demonstrate its leadership.

Brian Chabot, Professor, Ecology and Evolutionary Biology

Stephen Ellner, Professor, Ecology and Evolutionary Biology

Charles Greene, Professor, Earth and Atmospheric Sciences

Anthony Ingraffea, Professor, Civil and Environmental Engineering

Linda Nicholson, Professor, Molecular Biology and Genetics

Robert Oswald, Professor, Molecular Medicine

David Shalloway, Professor, Molecular Biology and Genetics

Robert Strichartz, Professor, Mathematics

I support the resolution.

Marina Welker
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Cornell has a major role in addressing the scientific, technological and policy issues that are needed to deal with the globally important challenge of anthropogenic climate change.

Two interrelated concerns cause me to oppose this resolution because it falls short of what we should be doing.

First, the resolution implies that we think the best approach is to disengage, when our identity is to be an engaged University. It therefore misrepresents Cornell's way of working; it ignores Cornell's many effective initiatives; and it sends the message that the forces exacerbating climate change have nothing to fear from us. If one were to start from the desired outcomes in the resolution and list effective actions to get there, one would find most of those happening at Cornell. I doubt one would find divestment on the list supported by an evidence-based argument.

Second, it misses an excellent teaching moment for undergraduates whose admirable enthusiasm and commitment should be met with an offer of the tools and knowledge to reach their desired goal, not with acquiescence to their naïve idea.

We have opportunities to provide the knowledge, and resulting power, for interested students in the various majors across the University, as well as through institutes and centers focused on research and policy in specific areas pertaining to climate change.

As one example, a member of KyotoNow! told me that he thought divestment by several leading universities would so impress our legislators that they would change our nation's energy policy. I know from personal experience that Federal legislators could not care less about such a move. Wouldn't it be valuable if this student were, through the Cornell in Washington program, to serve as an intern on the Senate Energy Committee? That experience would empower him to exert influence that really does make a difference. He might return to campus with an intense interest in our curriculum, including advanced courses he hadn't noticed before.

Therefore, in place of this resolution, the Faculty Senate should do something bolder that is in keeping with Cornell's tremendous effectiveness at engagement with society.

Thomas Björkman

Member of Faculty Senate
Department of Horticulture
Cornell University
Geneva, NY

"In March of this year, Mark Jacobson of Stanford, I, and several colleagues at Cornell, UC Davis, and elsewhere published a plan to make the State of New York largely free of fossil fuels by 2030. In our peer-reviewed paper (available at <http://www.stanford.edu/group/efmh/jacobson/Articles/I/NewYorkWWSEnPolicy.pdf>), we demonstrated that the cost of this transition is in fact less than the current cost of illness and death in New York from air pollution caused by the use of fossil fuels. Far more jobs are created than through a continued reliance on fossil fuels. When one also considers the urgency of addressing global climate change, the fact that climate change is caused overwhelmingly by fossil fuel combustion, and the reality that all fossil fuels are damaging to the climate (natural gas is no "bridge fuel!"), the necessity for a rapid transition to a State and world powered by sunlight, wind, and hydropower becomes quite clear. I urge the Senate to adopt this goal, and to support making Cornell a leader through divestment of fossil-fuel holdings.

Thank you!

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It is wonderfully ironic that this discussion is occurring in the week when we honor the life and achievements of Nelson Mandela. When I was a graduate student at Princeton in the 1980s there was a very similar debate about whether the university should divest from companies doing business in South Africa. Similar arguments against divestment -- that it would kill the endowment and was less effective than "constructive engagement" with the apartheid regime -- were floated at that time. In hindsight, I think most of us would agree that divestment was the right thing to do and did help bring change to South Africa.

Given that Cornell's identity is so bound up with technological innovation for the benefit of the global community (please open any random copy of Ezra magazine), it is especially important that we become part of the solution to global warming, not part of the problem. There will be no solution, though, until energy companies find themselves under significant economic and political pressure to change the practices that result in the increased use of fossil fuel. Divestment, over the reasonable span of time that is called for in the resolution, is an effective means of creating such pressure, and we can be optimistic that the example Cornell sets would be followed by others.

Beyond that I have little of substance to add to the eloquent letter from Profs. Chabot et. al. (comment #5). I support the resolution.

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