

## October Meeting

At a meeting of the Advisory Committee on Socially Responsible Investing, held on October 19, 2016 in Trustees Room 212, Low Library, the following members participated:

|                          |                            |
|--------------------------|----------------------------|
| Michael Anagnos          | Gail O'Neill               |
| Marshall Bozeman         | Philip Protter             |
| April Croft (non-voting) | Ailsa Röell                |
| Paul Goldschmid          | Neil Schluger              |
| Dan Goldschmidt          | Anne Sullivan (non-voting) |
| Jeffrey Gordon           | Ramon Verastegui           |
| Brennon Mendez           |                            |

*The following members of the administration were also in attendance:*  
Colin Redhead

*Absent with regrets:*  
Stephen Christensen

The meeting was called to order at 6:00 p.m.

Chair

### **Announcements**

Chair Gordon welcomed the new student member, Michael Anagnos.

Chair

### **Approval of the September 14, 2016 Minutes**

The Committee approved the minutes of September 14, 2016.

Committee Members

### **Presentation of Coal Divestment Proposal by Two Faculty Members from the Earth Institute**

In response to an invitation by the chair, Michael B. Gerrard, Professor of Professional Practice and Director, Sabin Center for Climate Change Law; and Edward Lloyd, Professor of Environmental Law, formally presented a proposal signed by 25 members of the Earth Institute faculty that calls for Columbia's divestment of coal stocks. The presentation of the previously submitted written proposal, which is attached to these minutes, was followed by a question & answer period.

Michael Gerrard and  
Edward Lloyd /  
Committee Members

A committee member will prepare a preliminary statement in response to the coal proposal for the ACSRI's review.

**ACSRI Tar Sands Divestment Proposal and Columbia Community Outreach Survey Results**

Committee Members

The Committee reviewed the final results from the tar sands proposal outreach survey to the Columbia community.

The Education and Communications Subcommittee is tasked with reviewing and analyzing the survey comments.

There being no further business, the meeting was adjourned at 8:15 p.m.

Adjournment

Respectfully submitted,  
April B. Croft  
Associate Director  
ACSRI

## **ACSRI Proposal Submission Overview**

Date of Submission to the ACSRI: September 12, 2016

Subject of Review: Fossil fuel divestment

Contact Name: Michael B. Gerrard

Contact Email: michael.gerrard@law.columbia.edu      Phone Number: (212) 854-3298

University Affiliation: Andrew Sabin Professor of Professional Practice

Dept./Office: School of Law

Requesting on behalf of an organization? Yes

If yes, which organization? 25 members of Earth Institute Faculty signing statement

Provide a summary of the issue, the action requested, and the rationale:

There is a University-wide consensus that climate change poses a grave threat to humanity and to the natural systems on the planet, and that the use of fossil fuels is the principal cause. This proposal (formulated and signed by 25 members of the Earth Institute Faculty and others) calls upon the University to engage in an orderly divestment of the shares of the largest coal companies, and to submit questions to the largest oil and gas companies to ascertain their policies with respect to the needed transition from fossil fuels to cleaner sources of energy, the exploration for and production of unconventional fossil fuel resources, the acknowledgment of the need to reduce greenhouse gas emissions, and related matters. Based upon the results of this survey, divestment from some of the oil and gas companies may be recommended.

Please attach in PDF format the following additional required information and supporting evidence (20 pages max):

- 1) State which criteria the proposal is using to make the case (1 paragraph)
- 2) Provide all the critical data with footnotes for any arguments in your proposal
- 3) Provide research on the possible opposite argument against your conclusions
- 4) Conclusion - provide bullet points for the final recommendations to the ACSRI citing the criteria for each one

Email the proposal to the ACSRI Staff Administrator as posted on the website

## **Proposal on Fossil Fuel Divestment and Engagement**

Michael B. Gerrard  
Andrew Sabin Professor of Professional Practice  
Director, Sabin Center for Climate Change Law  
Columbia Law School  
Chair of the Faculty of The Earth Institute

During the 2015-2016 academic year, the faculty of The Earth Institute held intensive discussions about whether Columbia University's endowment should divest from fossil fuel stocks. On March 1, 2016, a statement was released that was signed by 25 members of this faculty and by several Earth Institute researchers. It was not issued as a formal statement of the faculty itself; the faculty had never previously issued a statement on a social/policy issue and some members were uncomfortable with doing so now.

The relevant portions of the faculty members' statement are pasted below. (The remainder called for efforts to advance the efforts to reduce the greenhouse gas footprint of campus operations, and to continue research, educational and public service activities concerning climate change; all of these are being pursued as well.)

I am submitting this proposal to ACSRI on behalf of myself and the other signatories to the statement.

### **Statement on University Investment and Sustainability Policy**

The undersigned faculty and researchers of Columbia University's Earth Institute recommend that Columbia University implement a policy that recognizes the critical need for society to transition to non-fossil fuel energy sources, the role of the University in promoting public good through its investments, and the importance of upholding these principles through activities on its campuses. Columbia University should proactively lead these efforts both within and without the University and recognize that such investment choices need not adversely affect University finances, but they do provide an opportunity to strengthen the University financially, civically and morally. We are aware of no evidence of a clear

correlation between fossil fuel divestment and portfolio return.

1. Coal combustion is the largest and fastest-growing anthropogenic source of greenhouse gas emissions. Major reductions in global coal use are an essential part of any strategy to fight climate change. Coal companies are bad investments for the planet and for forward-looking investment portfolios. If these companies are losing money (as many of them are), Columbia University should not suffer the losses; if they are making money, Columbia should not share in the profits. Columbia should engage in orderly divestment from the stock of any companies that are primarily in the coal mining business, and should refrain from buying any such stock in the future.
2. Companies that are primarily involved with other fossil fuels need to transition to clean sources of energy in the decades to come. In order to stay in or join Columbia University's stock portfolio, oil and natural gas companies should provide satisfactory affirmative answers to these questions, and should provide documentation supporting the answers:
  - a. Has the company publicly and clearly subscribed to the goal agreed to by 196 countries in Paris in December 2015 to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels," and to the limits on GHG emissions needed to meet that goal?
  - b. Has the company left, or never joined, business groups that lobby or litigate against effective climate policies to achieve the temperature goal, and does it refrain from such activities itself?
  - c. Has the company ended, or never engaged in, any exploration and development of unconventional reserves (for example, in the Arctic and much of the Canadian oil sands)?
  - d. Has the company demonstrated that it remains a good investment despite society's transition away from fossil fuels, and has it published and is it implementing a plan to transition to low-carbon energy sources and technologies, as called for by the Paris Agreement?
3. Columbia University should hold no shares in any company, in whatever sector, that directly or through organizations that it supports rejects the scientific consensus on climate change.
4. The University should be an active investor in companies whose shares it continues to hold. The University should initiate or participate in shareholder resolutions

and other activities that urge companies to behave in a responsible manner toward climate change, including, *inter alia*, the reduction in the emission of greenhouse gases and the transition to non-fossil fuel energy sources. In doing so, the University should cooperate with other organizations engaged in similar activities.

### **Applicable Criteria**

ASCRI has identified three basic tests or criteria that must be met before divestment is recommended:

- 1) There must be broad consensus within the University community regarding the issue at hand;
- 2) The merits of the dispute must lie clearly on one side;
- 3) Divestment must be more viable and appropriate than ongoing communication and engagement with company management.

If "the issue at hand" is defined as whether climate change is a serious threat to humanity and to the planet, and the "dispute" is whether fossil fuels are a major contributor to climate change, the first two criteria are easily met. There is broad consensus among the scientific community (including, I believe it is fair to say, every member of the Earth Institute faculty) about the threat caused by climate change, and the central role of fossil fuels in causing it. Nor does there appear to be any serious disagreement within the University community about these points. I have participated in countless meetings and public fora at Columbia about climate change, and I do not recall ever hearing anyone express disagreement on these key points. There is certainly disagreement about the magnitude and pace of the climate threat, and about the best technical and policy tools for addressing it, but not about the underlying merits. The most authoritative current study of the causes and impacts of climate change is probably the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, which is linked [here](#). If

the ACSRI desires further scientific references on these points, I would be happy to provide them.

Many members of the University community support divestment. In October 2013 Spectator conducted a ballot referendum of Columbia College students; 73.7% voted in favor (though it is unclear from what I have found whether that is a percentage of all students, or of all respondents to the poll). Last spring an open faculty letter to President Bollinger and the Trustees received more than 350 signatures (see [here](#)). According to the Columbia Divest for Climate Justice website, linked [here](#), over 2,000 students and faculty members have signed their petition to divest from fossil fuels, representing all undergraduate and graduate schools at Columbia. As the ACSRI is well aware, the issue has been the subject of a great deal of student activism on campus. Not everyone agrees with divestment but to my knowledge no groups have organized to oppose it, and there have been no counter-petitions. This is merely anecdotal, but I will report that in November 2014 I organized and chaired a public forum at the Law School about divestment; I had a great deal of difficulty finding anyone on or off campus willing to speak in opposition, and I had to fly an investment advisor in from Colorado to represent that point of view.

The third criterion is whether divestment is more viable and appropriate than ongoing communication and engagement with company management. There has been extensive shareholder activism with respect to climate change since the early 1990s. As a result a number of manufacturing companies have agreed to reduce their carbon footprint and take other environmentally beneficial actions. However, while this activism has had some effect on the securities disclosures of fossil fuel producers, it has had little discernible effect on the substantive practices of fossil fuel producers (as opposed to fossil fuel users). A large shale oil

producer, Continental Resources, did agree to reduce its flaring (burning) of natural gas at its North Dakota well. ExxonMobil agreed to make certain disclosures (the adequacy of which are now a subject of investigation by the New York Attorney General). There may be other examples, but I have not found any.

Many groups continue to be engaged in shareholder activism on climate change; the Interfaith Center for Corporate Responsibility plays a leading role in organizing such efforts. However, it is unlikely that this kind of activism will induce any fossil fuel companies to move away from their core business. The fossil fuel divestment campaigns are ultimately aiming to achieve a major reduction in the use of fossil fuels around the world. One key element is the movement to "leave it in the ground" -- to not utilize the proven reserves that are a large piece of the asset base of many fossil fuel companies. Regulatory requirements, reduced markets, and economic factors (such as the currently low prices for oil and gas) may help achieve that, but it is difficult to imagine that shareholder activism could induce a company to abandon its assets and effect a fundamental shift in its business model. The more likely that a resolution is to seriously impair a company's profits (as opposed to alter its practices around the edges), the less likely that it will be supported by major investors and come anywhere close to a majority vote.

The present proposal would call for immediate divestment only from coal companies. It leaves room open for engagement with oil and gas companies, as they attempt to demonstrate (or don't) that they meet the other factors set forth in the faculty members' statement.

Few proponents of fossil fuel divestment believe that it alone will move the coal, oil and gas companies or even affect their stock price; there will always be other buyers for the shares. Rather the act of divestment is symbolic, and in important ways. It would help signify that Columbia University is using every tool available to it to address the grave issue of climate

change: we are conducting research and education, we are greening our campuses, and now we would be pulling our shares from coal companies, and perhaps later from oil and gas companies. Divestment would also convey the idea that fossil fuel use is in growing disfavor, and so are the fossil fuel producers (whose views still carry great weight in Congress and other political bodies).

While a large number of entities around the world have announced partial or total fossil fuel divestment (see [this](#) compilation), few leading universities have. But among those that have announced partial divestment are Stanford, Georgetown, Oxford, and the London School of Economics. Columbia could mark itself as a leader in taking this action, while at the same time doing everything it can to reduce its own fossil fuel use and to participate in the scientific quest for alternatives.

### **Differentiating the Fuels**

The proposal would immediately divest from coal companies, and disfavor the development of unconventional reserves. The divestment from coal is largely due to its emissions profile, which is far worse than all other fossil fuels. A major objective of EPA's Clean Power Plan and of many other efforts to reduce GHG emissions is to drive down the use of coal.

The amount of carbon dioxide (CO<sub>2</sub>) produced when different types of fossil fuels are burned is easily measureable and calculable. According to the U.S. Energy Information Administration, the breakdown in tonnes of CO<sub>2</sub> per gigawatt hour (converted from the original data of pounds/million BTUs by multiplying by a conversion factor of 1.5477) is as follows<sup>1</sup>:

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<sup>1</sup> U.S. Energy Information Administration (U.S. EIA), *How much carbon dioxide is produced when different fuels are burned?*, June 18, 2015; <https://www.eia.gov/tools/faqs/faq.cfm?id=73&t=11>

|                             |        |
|-----------------------------|--------|
| Coal (anthracite)           | 353.81 |
| Coal (bituminous)           | 318.37 |
| Coal (lignite)              | 333.38 |
| Coal (subbituminous)        | 331.68 |
| Diesel fuel and heating oil | 249.65 |
| Gasoline                    | 243.30 |
| Propane                     | 215.13 |
| Natural gas                 | 181.08 |

However, carbon dioxide and other greenhouse gases are also emitted during processes other than combustion, including but not limited to extraction, transportation, and processing. Thus an entire “cradle to grave” lifecycle analysis of fossil fuels is a more appropriate measurement of total greenhouse gas emissions. While the definition of a fossil fuel’s lifecycle is not standardized, the World Nuclear Association analyzed 21 different lifecycle reports and reported the following total lifecycle greenhouse gas emissions in tonnes of CO<sub>2</sub> equivalent per gigawatt hour<sup>2</sup>:

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<sup>2</sup> World Nuclear Association (WNA), *Comparison of Lifecycle Greenhouse Gas Emissions of Various Electricity Generation Sources*, July 2011, [http://www.world-nuclear.org/uploadedFiles/org/WNA/Publications/Working\\_Group\\_Reports/comparison\\_of\\_lifecycle.pdf](http://www.world-nuclear.org/uploadedFiles/org/WNA/Publications/Working_Group_Reports/comparison_of_lifecycle.pdf)

| Technology    | Mean                         | Low | High  |
|---------------|------------------------------|-----|-------|
|               | tonnes CO <sub>2</sub> e/GWh |     |       |
| Lignite       | 1,054                        | 790 | 1,372 |
| Coal          | 888                          | 756 | 1,310 |
| Oil           | 733                          | 547 | 935   |
| Natural Gas   | 499                          | 362 | 891   |
| Solar PV      | 85                           | 13  | 731   |
| Biomass       | 45                           | 10  | 101   |
| Nuclear       | 29                           | 2   | 130   |
| Hydroelectric | 26                           | 2   | 237   |
| Wind          | 26                           | 6   | 124   |

To be sure, oil also generates a substantial amount of GHG emissions per unit of energy produced. The question may be asked why, if Columbia should divest from coal, should it not also divest from oil? A major reason concerns the availability of substitutes. The coal used for energy goes almost entirely to make electricity. (Some coal is also an input in certain metallurgical processes.) There are many other, cleaner ways to make electricity. All nuclear, hydropower, and wind turbine energy goes to make electricity, as does most solar and much natural gas. These cleaner energy sources are available in the rapidly developing countries. For example, both China and Brazil have already developed a great deal of hydropower, and many other populous and rapidly developing countries, including India and Indonesia, have the natural features necessary to develop a great deal themselves. See [here](#). According to the Renewables 2016 Global Status Report from REN21, available [here](#), China is the world leader in solar photovoltaic capacity and additions, while India is ninth (p. 63), and China is first in wind power capacity and additions, while India is fourth (p. 77). In the world's poorest countries, where

large segments of the population have no electricity at all, distributed energy (primarily solar photovoltaic) is being rapidly installed and (unlike central station coal plants) does not require the installation of extremely expensive transmission lines. (id, at pp 87-97; see also [this](#)). In India, solar power is now cheaper to provide than coal. See [here](#).

In contrast, about 71% of the world's oil goes to transport, see [here](#), and 93% of the energy used for transport in the world comes from oil, see [here](#). Major efforts are underway around the world to use more electric cars, but there are only about 1.3 million electric automobiles now on the road around the world, see [here](#), out of about 1 billion total, see [here](#) – just 0.1%. There are currently no commercial substitutes for petroleum or gas for heavy duty vehicles (such as trucks and buses) or for aircraft.

In other words, today there are many large-scale substitutes for coal in making electricity; the substitution of oil for transport is nowhere near that scale.

With respect to unconventional oil and gas, there are numerous and varying estimates of their emissions intensity. However, these methods of extraction all share one thing in common: they involve a quest for fossil fuel resources that should be left in the ground. We already know where massive coal reserves are located, and they can be extracted with very modest effort. However, most of the easily-recoverable oil and gas reserves (except for those in protected areas such as Antarctica) have already been extracted, and extraordinary efforts are needed to find and produce new ones. Given the solid scientific information available about the need to limit the amount of fossil fuel extracted (despite continuing questions about the exact amounts -- see [this](#)), elaborate hunts for new methods of extracting oil and gas, and the commencement of production in environmentally sensitive areas such as the Arctic and in deep waters offshore, amount to either a rejection of the science of climate change, or a cavalier disregard of its outcomes, in the

same way that development of tar sands amounts to a rejection or disregard of science by deed.

### **Differentiating the Companies**

How would the companies targeted for divestment be identified?

Fossil Free Indexes LLC is a research and investment company based in New York. Its web site is [here](#). It identifies its mission as "to source and analyze carbon emissions data and to generate research, benchmarks, and investment solutions for investors who are attentive to climate risk." One of its products is the Carbon Underground 200, which it describes as "a list of the 100 largest public oil and gas and the 100 largest public coal companies globally, as measured by the potential CO2 emissions of their reported fossil fuel reserves."

The lists are proprietary and available from Fossil Free Indexes for a fee. However, they publicly list the ten largest coal companies:

| Rank | Coal Company              | Coal Gt CO2 |
|------|---------------------------|-------------|
| 1    | Coal India                | 43.104      |
| 2    | Adani Enterprises         | 27.809      |
| 3    | China Shenhua Energy      | 23.143      |
| 4    | Inner Mongolia Yitai Coal | 11.756      |
| 5    | China Coal Energy         | 9.492       |
| 6    | Mechel                    | 9.483       |
| 7    | Exxaro Resources          | 9.433       |
| 8    | Public Power              | 9.339       |
| 9    | Glencore                  | 8.692       |
| 10   | Peabody Energy            | 8.059       |

This list would be a convenient way to identify the coal companies that, under the proposal, should not be in Columbia's portfolio.

Fossil Free Index also maintains a list of the 20 public companies with the largest tar sand

reserves.

The list of the 100 largest public oil and gas companies would also be a good starting point for identifying the companies that are engaged in offshore oil exploration and shale gas production. Much of this information is readily available. For example, Rigzone Data Services publishes information about the owners of offshore oil rigs, for example. See [here](#). Various centers or groups at Columbia could be engaged to carry out the needed research.

The proposal calls upon Columbia to send a questionnaire to oil and gas companies to inquire about certain specified activities and positions. The proposal itself sets forth the key questions (though some refinement and definitions would be in order). The Fossil Free Index would provide the list of companies that should receive the questionnaire.

One of the questions is whether the company has "published and is it implementing a plan to transition to low-carbon energy sources and technologies, as called for by the Paris Agreement." I note that at least one large oil company -- Total, which is headquartered in Courbevoie, France -- has published such a plan. See [here](#).

It is unknown how many companies would respond to this questionnaire. One option would be for Columbia to ask the Carbon Disclosure Project to add these to the questions it includes in its annual Climate Change Information Request. This year's Request form is [here](#). (I am aware that in April 2016 the ACSRI recommended that Columbia become an Investor Signatory to the CDP Climate Change program. I do not know whether this recommended has been acted upon.)

Another task required under the faculty members' proposal is identifying each company "that directly or through organizations that it supports rejects the scientific consensus on climate change." The number of publicly traded companies that fall within that category today is probably

very low. Some of those that formerly did, such as ExxonMobil, no longer do. Few trade associations do so any longer. Some substantial companies still actively do, directly or indirectly, most prominently Koch Industries and Murray Energy, but they are privately held. Ongoing research at Columbia could help identify any such companies, but this is not likely to be a large category.

Much of the information sought can be obtained through research without resort to questionnaires. For example, a great deal of information is available publicly about private leasing of coal lands. See [this](#) and [this](#), and the sources cited therein.

### **Conclusion**

The ACSRI should recommend that the Trustees:

1. Direct the University's fund managers to engage in orderly divestment from the stock of any companies on the list of the 100 largest holders of coal reserves, and refrain from buying any such stock in the future.

2. Request the ACSRI to send a questionnaire to the 100 largest public oil and gas companies, asking them the questions posed in the faculty members' statement, or become an Investor Signatory to the CDP Climate Change program ask CDP to pose these questions.

3. Request the assistance of the ACSRI in helping the University become an active investor in companies whose shares it continues to hold. The University should initiate or participate in shareholder resolutions and other activities that urge companies to behave in a responsible manner toward climate change, including, *inter alia*, the reduction in the emission of greenhouse gases and the transition to non-fossil fuel energy sources. In doing so, the University should cooperate with other organizations engaged in similar activities.