

**ADVISORY COMMITTEE ON SOCIALLY RESPONSIBLE INVESTING  
COLUMBIA UNIVERSITY**

February 22, 2017

**Report to the Community**

This report summarizes the work of the Advisory Committee on Socially Responsible Investing (“ACSRI” or “the Committee”) over the past three years in assessing various proposals relating to fossil fuels and reports on the recommendations made by the Committee to the Trustees and the President.

Our recommendations are as follows:

1. The University should divest/not invest in coal producers whose primary business (more than 35% of revenues) is “thermal coal” production. (“Thermal coal” is used in coal-fired electricity generating plants; “metallurgic coal” (“met coal”) is used in steel production.) The University should also recommend to its outside managers that they avoid investments in such companies.
2. The University should become a signatory to the CDP Climate Change Program, which aims to assure high quality disclosure of companies’ fossil fuel footprint and other activities, so as to facilitate more robust shareholder engagement.<sup>1</sup>
3. The University should establish a separate “fossil free” investment vehicle to receive the contributions of alumni who would prefer such investment management for their contributions to the University’s endowment, in light of support for broad-based divestment expressed by some alumni.
4. The Trustees should consider requesting Columbia Investment Management Company to send a letter to the endowment’s investment managers similar to the one sent by David Swensen, head of the Yale Investment Office, which stated that “Yale asks [its investment managers] to avoid companies that refuse to acknowledge the social and financial costs of climate change and that fail to take economically sensible steps to reduce greenhouse gas emissions.”<sup>2</sup>
5. Because divestment is too narrow a focus for the University’s engagement with the climate change threat, the President should appoint a representative committee to formulate a Plan of Action that would address (i) further efforts by the University to shrink its carbon footprint including specific goals, (ii) further support for the University’s leadership in climate change research, (iii) support for research into new technologies related to renewable energy as well as atmospheric carbon abatement, (iv) support for public educational efforts on the mechanisms of

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<sup>1</sup> CDP was formerly known as “the Carbon Disclosure Project”, <https://www.cdp.net/en/info/about-us>.

<sup>2</sup> See Letter of David Swensen to Yale Investment Managers, reprinted in Financial Analysts Journal (May/June 2015), pp 11-12, available at <http://www.cfapubs.org/doi/full/10.2469/faj.v71.n3.3> [visited on Nov. 5, 2015].

climate change and the risks, and (v) support for legal, economic, and regulatory analysis of the current US and international approaches to climate change.

Recommendations 2-5 have been presented previously and discussed in prior ACSRI reports of November 17, 2015, and April 15, 2016, which are attached to this report. Thus this memo addresses the additional proposal advanced by the Committee, Recommendation 1, divestment/no investment with respect to coal producers whose primary business is the production of thermal coal.

### **Summary of Prior Proceedings**

The ACSRI's consideration of fossil fuel divestment began in fall 2013 with a proposal by a student group, Columbia Divest for Climate Justice, calling for divestment from the largest 200 coal, oil, and natural gas producers. The Committee rejected this divestment proposal in May 2014 and then, upon a renewed petition, in November 2015.<sup>3</sup> The Committee formulated its own proposal for narrowly-focused divestment from tar sands producers, which it put out for community reaction in August 2016.<sup>4</sup> Subsequently in September 2016 the Committee received a proposal from 25 Earth Institute faculty members calling for divestment focused on coal producers and for sending questionnaires to other fossil fuel producers to test their adherence to climate change science and their preparation for a transition to a regime of low-carbon energy sources, with divestment as a possible consequence of an inadequate response.<sup>5</sup>

A majority of the Committee favored withdrawing the Committee's tentative proposal on tar sands, concerned principally about the Committee's entitlement and capacity to generate its own divestment proposals. Instead, the majority favored supporting a variant of the Earth Institute 25-faculty proposal that focused on thermal coal. (The Committee vote in favor of this modified coal divestment recommendation was 7-4-1.<sup>6</sup>) The Committee generally agreed that the Earth Institute 25-faculty questionnaire proposal to make inquiry of other fossil fuel firms would be administratively burdensome and would lead to a fruitless search for sufficient criteria to recommend divestment.

In response to a survey sent to the Columbia community on August 31, 2016, the Committee learned that, at least among those who responded, there was substantial support in all constituency groups for divestment from coal producers and tar sands producers, although there were also some who did not favor divestment as a tool to address the climate change threat. The largest number of responses came from students (roughly 60% of approximately 1950

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<sup>3</sup> See the Committee Report of November 17, 2015. The November 2015 report includes the CDCJ proposal as an Appendix. The student group, initially known as the Barnard/Columbia Divest for Climate Justice, changed its name in the 2014-15 academic year because of the formation of a specific Barnard group targeting the independently managed Barnard endowment.

<sup>4</sup> See the Committee Report of August 31, 2016.

<sup>5</sup> Proposal by 25 Earth Institute Faculty on Fossil Fuel Divestment and Engagement, September 12, 2016, attached as an appendix.

<sup>6</sup> In presenting the Committee's rationale for its coal divestment recommendation, this report will refer to "the Committee" meaning the views of the Committee majority. The dissents will be separately discussed.

responses). Among a hierarchy of possible University actions, roughly half the responses placed divestment from coal and/or tar sands as first or second in preference.

### **Rationale for the Committee's Divestment Proposal**

The criteria used by the Committee and the Trustees in considering divestment have three elements: (1) broad consensus in the Columbia community; (2) merits that lie clearly on one side, and (3) no feasible alternative to divestment through shareholder engagement or otherwise. The Committee concluded that its survey and other expressions of community sentiment, including prior student petitions and a prior letter signed by more than 300 faculty,<sup>7</sup> demonstrated sufficient consensus for a targeted divestment recommendation. The Committee was also persuaded, in part through its own history of responding to shareholder proposals presented through companies' proxy statement, that shareholder engagement was not a sufficient response to the urgency of the climate change threat. On the "merits," the Committee found that there was a compelling case for divestment of fossil fuel companies whose "primary business" was the production of thermal coal on the following grounds: First, of fuels in general use, coal has the highest level of CO<sub>2</sub> emission per unit of energy. Second, because of the ubiquity of coal usage throughout the world, coal is a particular threat to the possibility of avoiding an atmospheric temperature rise of more than 2°C that scientists regard as the critical threshold for major climate change effects. Third, there are lower- CO<sub>2</sub> -emitting substitutes for coal in electricity generation, specifically, natural gas but also, increasingly, solar and wind. By contrast, there are no adequate substitutes currently available for fuel oil in transportation. A similar focus on substitutes led the Committee to focus on "thermal coal" rather than "metallurgic coal," for which there are no adequate substitutes in steel production.

For these reasons, the submission of the 25 Earth Institute faculty members argued and the Committee generally agreed that

"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."

The Committee is aware that divestment from coal producers would be a form of symbolic speech. Other buyers will step in, stock prices will not directly be affected, and coal producers will not stop producing coal. Nevertheless divestment from fossil fuel producers has become the subject of an international campaign aimed at university endowments and others as a way to signal the seriousness of the climate change threat: a form of self-restraint that is meant to mobilize a broader public constituency. Columbia's decision to divest would have significant impact on this dimension precisely because of Columbia's leadership role in the creation of scientific knowledge about the climate change threat (through Lamont-Doherty and otherwise) and also because of the University's general prominence. The Committee regarded the

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<sup>7</sup> See Columbia Divest for Climate Justice, Proposal for Divestment from the Top 200 Publicly-Trade Fossil Fuels Companies (October 6, 2015), pp. 7-8 (describing various Columbia community manifestations of support for divestment); Proposal from 25 Earth Institute Faculty Members (Sept. 12, 2016), p. 5 (same).

existential nature of the climate change threat as sufficiently unique to distinguish this case of symbolic-speech-through-divestment from possible proposals addressing other concerns.

Thus, as a separate ground, the Committee endorses the proposed divestment as a form of symbolic speech that resonates with the Committee’s previously-developed “stand up for the science” framework. Although the University does not generally engage in symbolic speech on public policy matters, the University can and must “stand up for the science.” A core mission of the University is the production of scientific knowledge and a core responsibility of the University in a democratic society is to encourage the use of the best available knowledge in public decision-making.

As regards climate change science, the actions necessary to avert a climate change catastrophe ultimately depend upon the concerted actions of governments, especially legislatures, necessarily entailing choices, trade-offs, and compromises. Yet a serious threshold problem is that the strong scientific consensus regarding the role of human agency in global climate change is denied by important governmental leaders and regarded as highly contestable within mainstream political discourse. This is a first order problem in addressing the climate change risk. To use a metaphor that the Committee has often employed: The consensus scientific evidence indicates that the threat of catastrophic climate change is, in effect, an on-rushing train, and we stand in the tracks. The denial of the science keeps us frozen on the tracks rather than engaged in the concerted actions necessary to jump away. In the symbolic act of divesting from thermal coal producers, the University would be communicating to the broader public that this science cannot be denied. Such divestment would underscore the University’s commitment to “stand up for the science.”

### **The Climate Change Threat and CO<sub>2</sub> Emissions**

The causal connection between climate change and the combustion of carbon-based fuels that inject CO<sub>2</sub> into the atmosphere is a critical link that informs policy in this area. The submission of 25 Earth Institute faculty members identified the FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE as an authoritative summary statement of the climate change science that connects the climate change threat and the CO<sub>2</sub> emissions.<sup>8</sup> Among the key conclusions in that Report are:

“Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.” (Synthesis Report Summary, p. 2)

“Anthropogenic greenhouse gas emissions have increased since the pre-industrial era, driven largely by economic and population growth, and are now higher than ever. This has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years. Their effects, together

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<sup>8</sup> <https://www.ipcc.ch/report/ar5/syr/>. Subsequent references in this Report are to CLIMATE CHANGE 2014 SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS (“Synthesis Report Summary”), available at the identified link.

with those of other anthropogenic drivers, have been detected throughout the climate system and are extremely likely to have been the dominant cause of the observed warming since the mid-20th century.” (Id., p. 4)

Among the risks are

“Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks.” (Id., p. 8)

The national signatories to the 2015 Paris Climate Conference Accord agreed that avoidance of catastrophic climate change required staying under 2°C of warming above the pre-Industrial global mean temperature.<sup>9</sup> To maintain a 75% or higher probability of staying under 2°C, cumulative CO<sub>2</sub> emissions over the 2015-2050 period cannot exceed approximately 600 Gt CO<sub>2</sub>.<sup>10</sup> By comparison, the CO<sub>2</sub> content of already extant fossil fuel reserves is approximately 2800 Gt CO<sub>2</sub>. The unescapable conclusion is that burning even a significant fraction of known fossil fuel reserves is inconsistent with limiting warming to less than the 2°C threshold.

Coal accounts for 65 percent of the CO<sub>2</sub> content of these reserves, approximately 1800 Gt CO<sub>2</sub>, or three times the entire CO<sub>2</sub> emissions “budget” over the 2015-2050 period.<sup>11</sup> Current annual CO<sub>2</sub> emissions from coal are approximately 14.7 Gt, meaning that even on a no-growth trajectory, coal usage would consume virtually the *entire* CO<sub>2</sub> emissions “budget” over the 2015-2050 time frame.<sup>12</sup> Thus thermal coal is a necessary target for drastic CO<sub>2</sub> emissions reduction. Combustion of coal produces the highest level of CO<sub>2</sub> emissions per unit of energy produced among the fossil fuels. For coal’s principal use, electricity generation, there are existing substitutes (nuclear, hydro, gas, solar, wind) that are beginning to obtain cost advantages over

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<sup>9</sup> The limit agreed to in Paris, in December 2015, to “avoid dangerous anthropogenic interference” with the climate system. See *UN Framework Convention on Climate Change, Article 2: Objective*, [http://unfccc.int/key\\_documents/the\\_convention/items/2853.php](http://unfccc.int/key_documents/the_convention/items/2853.php).

<sup>10</sup> See Malte Meinshausen et al, *Greenhouse-gas Emission Targets for Limiting Global Warming to 2°C*, 458 *Nature Letters* 1158 (Ap. 30, 2009); PBL Netherlands Environmental Assessment Agency & EU Commission Joint Research Center, *Trends in Global CO<sub>2</sub> Emissions 2015*, fig. 2.1. The Meinshausen et al article is the source for the CO<sub>2</sub> level of existing reserves and the projections regarding reserves consumption, projecting a 1000 Gt CO<sub>2</sub> cap over the 2000-2050 period as necessary to protect the 2°C limit with 75% probability. The PBL Netherlands report documents CO<sub>2</sub> emissions of approximately 400 Gt over the 2000-15 period, producing (by subtraction) the 600 Gt CO<sub>2</sub> limit in the text. No adjustment has been made to the stated reserves level because reserve levels having been stable or growing since the Meinshausen et al article.

<sup>11</sup> See CARBON TRACKER, UNBURNABLE CARBON – ARE THE WORLD’S FINANCIAL MARKETS CARRYING A CARBON BUBBLE? (2014)

<sup>12</sup> Draft EPA GHG Emissions and Sinks, 1990-2015, [https://www.epa.gov/sites/production/files/2017-02/documents/2017\\_complete\\_report.pdf](https://www.epa.gov/sites/production/files/2017-02/documents/2017_complete_report.pdf); U.S. Energy Information Administration, International Energy Outlook 2016, <https://www.iea.org/publications/freepublications/publication/CO2EmissionsFromFuelCombustionHighlights2015.pdf>; on-line tables, <http://www.eia.gov/outlooks/aeo/data/browser/#/?id=13-IEO2016&sourcekey=0>

coal. These points are well-advanced in the submission of the 25 Earth Institute faculty members:

“The amount of carbon dioxide (CO<sub>2</sub>) produced when different types of fossil fuels are burned is easily measurable 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>13</sup>:

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>14</sup>:

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13 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>

14 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 [greenhouse gas] 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.<sup>15</sup> According to the Renewables 2016 Global Status Report from REN21,<sup>16</sup> China is the world leader in solar photovoltaic capacity and additions, while India is ninth<sup>17</sup> and China is first in wind power capacity and additions, while India is fourth.<sup>18</sup> 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.<sup>19</sup> In India, solar power is now cheaper to provide than coal.<sup>20</sup> [Indeed, recently released data from Bloomberg

<sup>15</sup> HYDROPOWER GENERATION AND POTENTIAL AROUND THE WORLD (Aug. 22, 2014), <https://www.hydropower.org/blog/hydropower-generation-and-potential-around-the-world>.

<sup>16</sup> RENEWABLES 2016 GLOBAL STATUS REPORT, [www.ren21.net](http://www.ren21.net).

<sup>17</sup> Id. at p. 63.

<sup>18</sup> Id., at p. 77.

<sup>19</sup> Id., at id, at pp 87-97; see also *Solar power is reshaping energy production in the developing world*, The Economist, Ap. 16, 2016.

<sup>20</sup> *Solar Power Now Cheaper Than Coal In India, Says Energy Minister*, Clean Technica, Jan 22, 2016, available at <https://cleantechnica.com/2016/01/22/solar-power-now-cheaper-than-coal-in-india-says->

New Energy Finance indicated that “Solar power, for the first time, is becoming the cheapest form of new electricity.”<sup>21]</sup>

“In contrast, about 71% of the world’s oil goes to transport,<sup>22</sup> and 93% of the energy used for transport in the world comes from oil.<sup>23</sup> 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,<sup>24</sup> out of about 1 billion total,<sup>25</sup> 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.”

The Committee accepted the reasoning of the submission of the 25 Earth Institute faculty members as to the unique risks of thermal coal in leading to severe adverse climate change effects. This led to the Committee’s new recommendation:

“The University should divest/not invest in coal producers whose primary business (more than 35% of revenues) is “thermal coal” production. (“Thermal coal” is used in coal-fired electricity generating plants; “metallurgic coal” (“met coal”) is used in steel production.) The University should also recommend to its outside managers that they avoid investments in such companies.”

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[energy-minister/](#). More generally on the growth of renewables, see *Renewables Overtake Coal as the World’s Largest Source of Power Capacity*, Financial Times, Oct. 15, 2016.

<sup>21</sup> *World Energy Hits a Turning Point: Solar That’s Cheaper Than Wind* (Dec. 15, 2016), <https://www.bloomberg.com/news/articles/2016-12-15/world-energy-hits-a-turning-point-solar-that-s-cheaper-than-wind>

<sup>22</sup> <http://instituteeforenergyresearch.org/topics/encyclopedia/petroleum/>

<sup>23</sup> <https://www.iea.org/topics/transport/>

<sup>24</sup> *Number of electric cars worldwide climbs to 1.3 million*, Evannex (March 1, 2016), <https://evannex.com/blogs/news/77801925-number-of-electric-cars-worldwide-climbs-to-1-3-million-tesla-model-s-takes-top-spot-among-new-ev-registrations>.

<sup>25</sup> *World Vehicle Population Tops 1 Billion Units*, Wards Auto (Aug. 15, 2011), <http://wardsauto.com/news-analysis/world-vehicle-population-tops-1-billion-units>.

## Dissenting views

The Committee's recommendation was not unanimous. Four (of 12) dissented and one member abstained. Committee members had diverse reasons for dissenting. These reasons included:

1. The Coal Divestment proposal does not distinguish among coal companies that are winding down their legacy business vs. making new investments in coal producing capacity; or those that accept the science but want to utilize their productive capacity vs. those who deny the science and actively lobby against further constraints; or those that invest in CO<sub>2</sub>-reducing technology ("carbon capture") and those that do not.
2. Coal combustion, not coal production, is the problem. A Coal Divestment recommendation shifts attention away from the electric power utilities, actors with genuine choice over how to produce electricity and responsibility for the choices they make.
3. Engagement is almost always superior to walking away from a problem. A shareholder, particularly if joined with other shareholders, has influence; a non-shareholder has no influence. If all environmentally conscious shareholders divested from energy companies, the only shareholders that would remain would be those that do not care about the environment. As a result, companies would be free to pursue environmentally damaging strategies without fear of shareholder disapproval. The problems that arise from burning fossil fuels will not be solved by disengagement.
4. Most of the publicly-traded coal companies are foreign domiciliaries producing for emerging market economies, yet our divestment proposal would target them. (US coal producers are almost all private companies.) Such countries may be struggling to meet the energy needs of their people; alternatives may not be readily available. Development opportunities for impoverished people may be set back if coal is not available.
5. The University itself uses power through the Con Ed grid that derives in part from the production of thermal coal. Columbia should first show that complete abandonment of coal (and other fossil fuels) is achievable before we take an action that is meant even only symbolically to prevent others from using it. Even if it were true that Con Ed is not using coal to produce energy that we use, as far as Columbia is concerned that would be an example of moral luck. Others who depend on a grid may be stuck with electricity from thermal coal. Thus our symbolic action would have "at least a whiff of hypocrisy."
6. Divestment would be completely symbolic and without any practical consequence on the production or use of coal. It might make us feel good (i.e. righteous) but if there is no effect, what's the point? A more effective approach would be to continue to pursue research on alternative energy sources, to develop policies that will provide incentives for alternative fuel use especially in developing countries, and to educate our students and the public about the need to do these things. Empty symbolic gestures that distract from the real problem should not be supported, especially if there is potential cost to the University endowment from lost diversification.

7. There is now widespread international agreement on the risk of fossil fuels, reflected in the 177 country signatories to the COP21 Paris agreement. How to achieve the COP21 goals, especially how each nation should achieve its goals, will lead to good faith disagreement among scientists, policy makers, legal experts, the energy industry and politicians, including disagreement among the experts on the Columbia faculty. The University qua university should not take a position on a particular strategy.

8. The Committee should simply accept or reject a proposal put forth by others, not fashioning its own proposal (for example, as regards tar sands) nor revising a proposal as here, where the Committee has narrowed the recommendation of the 25 Earth Institute faculty members on coal divestment and rejected that part of the proposal calling for Committee follow-up with respect to firms that produce oil or gas.

9. The merits of coal divestment “are not clearly on one side,” unlike divestment from tobacco companies or private prison companies. For example, many people across the globe have access to electricity because of coal, which fosters economic development and improvements in clean water supply and development. While it may be indisputable that it is necessary to phase out coal as an energy resource, there is no consensus over how this should be achieved. In its rejection of the CDCJ proposal ACSRI stated, “the more the Committee has deliberated over the possibility and the scope of a possible divestment recommendation ... the stronger has become the feeling that divestment is too narrow a lens through which to consider Columbia University’s engagement with the climate change issue.” The questions over how we should grapple with coal combustion are far more nuanced and warrant a more sophisticated approach than the divestment approach used for the tobacco and private prison industries.

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