# **Gambling with the Planet's Future**

Between March 31, 2015 and December 31, 2016, Yale University made a series of direct investments in the stock of Antero Resources Corporation, an oil and gas extraction company that conducts hydraulic fracturing operations ("fracking") in West Virginia, Ohio and Pennsylvania. Made at a time when Yale's Investments Office was engaging its external endowment managers on the impact of climate change on investments, the Antero play sought profits from an industry whose impact on Earth's climate and environment has received growing scrutiny.

## **Investments Office Engages on Climate Change:**

On August 27, 2014, Yale University Chief Investment Officer David Swensen wrote to all of Yale's active external investment managers, urging them to:

"...assess the greenhouse gas footprint of prospective investments, the direct costs of the consequences of climate change on expected returns, and the costs of policies aimed at reducing greenhouse gas emissions on expected returns. Simply put, those investments with relatively small carbon footprints will be advantaged relative to those investments with relatively large greenhouse gas footprints."

According to the Investments Office website, "each manager was subsequently engaged by Investments Office staff in a discussion about the implications of climate change on the portfolio." In 2016, Mr. Swensen followed up, writing that Yale's managers "appreciated the admonition to consider the economic impact of climate change on investments, without placing definitive restrictions on portfolio decisions." The Investments Office announced that it had shed holdings worth less than \$10 million in three companies in thermal coal mining and oil sands extraction businesses.

## **Yale's Antero Resources Play:**

Throughout the period of engagement with outside managers on climate change and divestment of these \$10 million in holdings, Yale's Investments Office made a series of direct investments in Antero Resources Inc., one of the fastest growing natural gas extraction companies in the U.S.

The Antero play involved no independent judgment – Yale acquired the stock directly. According to the University's filings with the federal Securities Exchange Commission (SEC), signed by Mr. Swensen, Yale went from owning no Antero stock on March 31, 2015<sup>4</sup> to holding 8,874,073 shares worth \$230.5 million on June 30, 2016.<sup>5</sup> In its most recent filing Yale still reported holdings of 2,320,051 shares valued at \$54.9 million.<sup>6</sup>

## Fracking, Pollution and Methane:

Antero Resources Corporation is one of the fastest growing hydraulic fracturing ("fracking") operators in the U.S. Fracking involves the injection of water and chemicals at high pressure to create fissures in rock formations that allow drillers to extract natural gas and oil that could not be pumped with conventional drilling. Fracking came into wide use in the U.S. when oil prices reached historic highs in the 2000s, continuing as part of an ongoing U.S. energy production boom.

Fracking has drawn widespread concern from local communities about the risks of contamination of local water supplies by methane, heavy metals and other toxic chemicals, and of the creation of seismic instability. Three states have banned fracking, and more than 500 local governments in the U.S. have taken actions to prohibit the practice.<sup>7</sup>

## **Antero: Drill, Get Sued, Legislate:**

Between 2009 and 2013, Antero was publicly notified of 47 documented violations of state laws and regulations in West Virginia and Colorado alone—two of the only three states the NRDC identified in 2015 as having "easily accessible public violation data" to analyze. During the same five years, Antero was responsible for 22 oil spills in Colorado. According to the NRDC study of that data, those incidents gave Antero the highest rates, for any Colorado operator, of spills per well and of violations per well.<sup>8</sup> A 2013 explosion at an Antero well in West Virginia's Doddridge County killed two and injured 3, leading the state to issue a four-week stop work order for the site until Antero announced plans to add safety equipment.<sup>9</sup> In 2014 Antero was forced to stop drilling at a site near West Union, West Virginia, when drilling for a new well breached an existing well, causing a methane release and contamination of surrounding residents' water supplies.<sup>10</sup>

Fracking in West Virginia has generated hundreds of suits under nuisance laws, which allege Antero has harmed the ability of neighboring property owners to enjoy their property. In March 2015, 40 cases against Antero and another company were consolidated in front of the state's Mass Litigation Panel.<sup>11</sup> . The suits allege a range of harm from the two companies' fracking operations – from noise and light pollution to "air and water contamination" and "noxious emissions."<sup>12</sup> The consolidated suit is still being litigated; thirteen plaintiffs' cases have been dismissed based on past property rights agreements, while 88 new plaintiffs have been added, leaving 115 civil actions in the mass litigation.<sup>13</sup>

In February 2016, the state Senate passed Senate Bill 508. Described as the "Help Antero Out" bill by a pro-industry website, <sup>14</sup> SB 508 would have barred nuisance claims against a licensed business if the activity "doesn't violate the terms of a permit, ordinance or regulation." <sup>15</sup> Since neither state licensing nor local ordinances cover many of the issues in the suits, the bill would have eliminated those claims. S.B. 508 ultimately died in the state House of Representatives.

#### **Natural Gas and Climate Change:**

The oil and gas industry has marketed natural gas as a "bridge fuel" from carbon to a renewable future, particularly to replace coal in power generation, largely because natural gas releases 50 to 60 percent less carbon dioxide than coal when burned.

However, natural gas is made up primarily of methane, a more potent greenhouse gas than CO2. Although methane remains in the atmosphere for a shorter time than CO2, over 20 years it has 84 times the heat-trapping impact of CO2, and over a century at least 28 times the impact. Thus, leakage of methane during the exploration, extraction, processing, transportation and combustion of natural gas can offset the relative climate advantages of burning natural gas.

In recent years, climate scientists have shown that U.S. methane emissions are growing rapidly,<sup>17</sup> and that the EPA has "underestimated U.S. methane emissions generally, as well as those from the natural gas industry specifically." Fracking may pose a high risk of methane release. In October 2014, researchers using satellite imagery and ground observations found very large methane releases over the Bakken and Eagle Force shale formations in North Dakota and Texas, sites of large-scale fracking.<sup>19</sup>

### A \$240 million Gamble:

Yale made a large acquisition of Antero shares while the scientific concern about natural gas was growing rapidly, in effect gambling that short term profits outweigh the possibility that science would reveal long-term harm to the Earth's climate. At the very moment that Yale was receiving accolades for environmentally responsible investing, it placed nearly a quarter of a billion dollar bet on the environmental soundness of fracking.

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- These are likely significant underestimates.
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