

Yale and ARC: Climate Deflection

When Yale CIO David Swensen released a public letter celebrating the Investments Office's actions around climate change, he cited as an example of "productive engagement" a white paper written by ARC Financial Corp, a private equity firm and one of Yale's endowment fund managers. A closer look at Yale's investments with ARC, however, reveals that the framework Swensen's letter praises cannot apply to the companies in which Yale and ARC actually have a stake. Furthermore, though Swensen's letter specifically highlighted the climate risks of tar sands, an ARC fund in which Yale is invested continues to profit from investments in the production cycle for the high-polluting Alberta tar sands.

As recently as June 2015, the last date covered by Yale's most recent tax disclosure, ARC Financial Corp invested Yale's money in the Canadian oil and gas industry. ARC is "Canada's largest energy-focused private equity manager" and invests capital across eight ARC Energy Funds with an aggregate value of 5.3 billion Canadian dollars.¹ ARC Financial Corp has served as one of Yale's fund managers for at least fifteen years, starting in 2001.²

ARC Energy Fund 5 and ARC Energy Fund 6 are invested in several publicly traded Canadian oil and gas companies that are involved in non-conventional operations, particularly hydraulic fracturing ("fracking") in geologic formations within the provinces of Alberta and British Columbia. 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. Yale is invested in both funds. As of its most recent filing in 2015, the two ARC funds managed nearly \$110 million of Yale's endowment.³

While the scientific concern – in the U.S. and Canada – about natural gas was growing rapidly, ARC Financial Corp focused its investment strategy on the short term profits of "advancing technologies in horizontal drilling and multi-stage fracturing" for oil and natural gas and gambled Yale's money on that strategy.⁴

Three Major Canadian Extractors

STEP Energy Services: An Integrated Fracking Business

Two ARC funds, including the Yale-invested Fund 6, own 76.85% of an integrated fracking business called STEP Energy Services as of April 2017. STEP has been an ongoing investment for these two funds, which have made investment commitments in 2011, 2015, and 2016.⁵

STEP has positioned itself as a major, integrated fracturing specialist in Canada. It is already the "third-largest fracturing company in Canada" as measured by horsepower, and it plans to double its production capacity by the end of 2018.⁶

Seven Generations Energy: Player in Oil Sands Production Cycle

In 2014 ARC used Yale funds, in part, to purchase a 10-15% stake in Seven Generations Energy, a natural gas company that notes that its profitability depends, in part, on the ongoing oil sands development in Alberta. Regulations on greenhouse gas emissions are a noted risk factor for the company.⁷

One of the company's principal products, condensate, is extremely useful for extracting bitumen from tar sands. The company writes that the Alberta oil sands (also known as tar sands) are a

“key demand center for the Company’s condensate production.”⁸ Condensate is a by-product of natural gas extraction. As of the end of 2016, one third of the company’s output was condensate (while the other two thirds were natural gas). As of March 7, 2017, after Swensen’s two letters highlighting the damages of tar sands, ARC Energy Fund V, which invests Yale money, still held a 4% stake in Seven Generations.⁹

Painted Pony Petroleum, Ltd: Drilling Operator in First Nations Land

In March 2017, ARC entered into a relationship with Painted Pony Petroleum, a publicly-traded natural gas corporation, when Painted Pony established an agreement to acquire UGR Blair Creek Ltd, the subsidiary of a company in which ARC has a nearly 50% stake.¹⁰ When the deal is complete, ARC will own a 12.4% stake of Painted Pony, worth roughly 84 million US dollars.

Based on company descriptions of its drillings areas, it appears that Painted Pony’s properties and active fracking operations—including the UGR Blair Creek operations now acquired from the ARC deal—predominantly reside within the original treaty territory of the Blueberry River First Nation.¹¹ Painted Pony’s hundreds of thousands of acres are pieces of an industrial patchwork of active petroleum and natural gas tenures that, in total, cover 69% of Blueberry River First Nation’s traditional territory.¹²

When Blueberry River First Nation filed a law suit seeking protection against industrial encroachment, Painted Pony reported its concern that a court victory on the part of the First Nations would have “adverse effects” on the company and its operations.¹³ Because of what a Canadian foundation report called “the scale and rate of industrial disturbances to the landscape” and the First Nation’s way of life, the Blueberry River filed a civil claim against the Province of British Columbia in 2015 and applied for an injunction against new oil and gas activities in 2016; a decision is expected in 2017.¹⁴ Painted Pony identified this bid for First Nation legal protection as a “risk factor” in a 2016 disclosure.

Management Entanglements

ARC Financial Corp’s relationship to these companies goes beyond investment transactions. Several executive-level managers of ARC simultaneously serve as Directors on the board of the companies:

- Kevin Brown, the Co-CEO and a Director of ARC Financial Corp, has been a Director of Seven Generations Energy since September 2010.¹⁵
- Douglas Freil, a Managing Director of ARC Financial Corp. currently serves as the Chair of STEP’s Board of Directors, and has served on the Board since March 2011.¹⁶
- Jeremy Gackle, an executive for ARC Financial Group, has also served as a Director for STEP since March 2011.¹⁷

ARC and Yale Practice Climate Deflection

In February 2016, ARC Financial Corp published a white paper, “Crude Oil Investing in a Carbon Constrained World,” to advise investors and private equity funds on appropriate investment strategies in fossil fuel companies, in the face of the financial risk posed by climate change impacts and by potential government regulation of greenhouse gas emissions. In his April 2016 letter, David Swensen cited this report as an example of “productive engagement” as the university positioned itself as “a leader on sustainability,” and said that “[ARC] conducted carbon audits of its

portfolio companies and assessed the exposure of each to more stringent emissions regulation." He called the white paper "a broadly applicable framework for energy investing in a carbon-constrained world."¹⁸

However, ARC's framework only addressed the crude oil life-cycle, not natural gas generally or its production through hydraulic fracturing. Swensen did not mention this limitation in his letter. Meanwhile, scientific concern about fracking was publicly growing.

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.¹⁹ 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.

Science published a major meta-analysis in February 2014 of over 200 previous studies concluding that the U.S. Environmental Protection Agency had "underestimated U.S. methane emissions generally, as well as those from the natural gas industry specifically."²⁰ Yale's own E360 magazine, published by the University and its School of Forestry and Environmental Studies, reported on the study just four months before Swensen's first letter.²¹

In the subsequent three years, climate scientists have developed evidence using aerial and satellite imaging showing that U.S. methane emissions may be growing rapidly,²² and that areas subject to large-scale fracking exhibit particularly high levels of "fugitive" methane emissions.²³

ARC was invested in companies producing natural gas through hydraulic fracturing at the time of the supposed "carbon audits." In the white paper Swensen cited, ARC claimed the "body of research and tools" were not available to accurately assess the greenhouse gas emissions of natural gas along its entire life cycle.²⁴ Other than this casual dismissal, the white paper made no attempt at specific analysis of the climate impacts of natural gas. This gap in ARC's carbon auditing left major Canadian fracking companies—including Painted Pony, STEP, and Seven Generations—free from the white paper's scrutiny of methane emissions.

To the extent that Yale or its investment managers rely on the ARC white paper as a "broadly applicable framework" to guide their analysis of their investments, their framework is scientifically and ethically incomplete. As the science regarding natural gas extraction generally and fracking in particular deepens, ethical investors must grapple honestly with the serious risks posed by methane release.

David Swensen himself acknowledges that tar sands are a particularly dirty source of energy. Yet the Yale-invested fund ARC Energy Fund V, managed by the company praised by Swensen for developing a preferred "framework" for analyzing fossil fuels, continues to hold shares in a company that profits from the tar sands production cycle.

Yale in ARC Funds

In June 2014, Yale had \$144.5 million invested in AEF 5 US Holdings LP and AEF 6 US Holdings LP, which are directly controlled by Fifth Century LP on behalf of the University.²⁵ A year later, in June 2015, Yale still had a \$109.5 million stake in AEF 5 US Holdings LP and AEF 6 US Holdings

LP. AEF 5 US Holdings LP and AEF 6 US Holdings LP are funds held by ARC Energy Fund 5 and ARC Energy Fund 6, respectively.²⁶ These two funds are among ARC Financial Corp's newer pools of capital, initiated in 2006 and 2008 respectively.²⁷

According to an April 2017 disclosure for STEP Energy, "ARC Energy Fund 6 and ARC Energy Fund 8 will beneficially own or control 15,600,000 Common Shares and 30,600,000 Common Shares, respectively, which in the aggregate will represent approximately 76.85% of the Company's issued and outstanding Common Shares."²⁸

In October 2014, ARC Energy Fund 5, one of the Yale-invested funds, held just over 14.8% of the shares in Seven Generations.²⁹ At the end of 2014, ARC Energy Fund 5 held 11.6% of common shares.³⁰ By March 2017, the same fund held over 15 million shares, 4.3% of common shares.³¹

A notice dated March 31 2017 details an agreement in which Painted Pony Petroleum is acquiring UGR Blair Creek Ltd, the subsidiary of a privately-held company called Unconventional Resources Canada LP (URC) in which ARC holds 48.6% of the partnership interests.³² ARC Energy Fund 5 and ARC Energy Fund 6, the two funds containing Yale endowment money, are the funds that ARC uses to invest in URC. As part of the acquisition agreement, URC received 41,000,000 or 25.5% of common shares in Painted Pony. URC is expected to distribute the common shares among its investors once the acquisition is finalized on May 16, 2017, giving ARC 12.4% of the shares in Painted Pony. As of the date the acquisition agreement was published to Painted Pony's shareholders, ARC's expected stake would have been worth approximately 84 million US dollars.³³

1 <http://arcfinancial.com/>

2 Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2015; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2014; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2013; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2012; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2011; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2010; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2009; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2008; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2007; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2006; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2005; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2004; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2003; Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2002.

3 Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2015;

4 <http://arcfinancial.com/strategy/areas-of-investment/>

5 STEP Energy Services Ltd, Canadian Securities Administrators final long form prospectus, filed April 25, 2017, p. 32.

6 STEP Energy Services Ltd, Canadian Securities Administrators preliminary long form prospectus, filed February, 24, 2017, p. 13.

7 Seven Generations Energy Ltd, Canadian Securities Administrators prospectus, filed October 2014, p. 144

8 Seven Generations Energy Ltd, Canadian Securities Administrators prospectus, filed October 2014, p. 63.

9 Seven Generations Energy Ltd, 2017 Notice of Annual General and Special Meeting and Information Circular and Proxy Statement, filed March 7, 2017, p. 16. Accessed online. https://www.7genergy.com/upload/media_element/attachments/193/Seven%20Generations%20Information%20Circular%20March%207,%202017_Final.pdf

10 Painted Pony Petroleum Ltd, 2017 Notice of Annual General and Special Meeting and Management Information Circular, filed March 30, 2017. Accessed online. [http://s2.q4cdn.com/513538771/files/doc_financials/2016/annual/Information-Circular-\(March-30-2017\).pdf](http://s2.q4cdn.com/513538771/files/doc_financials/2016/annual/Information-Circular-(March-30-2017).pdf). P. 39.

- 11 Painted Pony Petroleum Ltd, Annual Information Form, year ended December 31, 2016, filed March 2, 2017, p. 4; Macdonald, Eliana. Ecotrust Canada. "Atlas of Cumulative Land Disturbance in the Traditional Territory of Blueberry River First Nations, 2016." June 2016, p. 44-45. http://www.davidsuzuki.org/publications/Blueberry%20Atlas%20report_final.pdf
- 12 Macdonald, p. 7.
- 13 Painted Pony Dec 31 2016 information form, p. 15.
- 14 Macdonald, p. 8; Painted Pony Dec 31 2016 information form, p 15.
- 15 Seven Generations Energy Ltd, Canadian Securities Administrators prospectus, filed October 2014, p. 96.
- 16 STEP Energy Services Ltd, Canadian Securities Administrators final long form prospectus, filed April 25, 2017, p. 54.
- 17 Ibid.
- 18 Yale Investments Office. "2016 Update on Climate Change." April 12 2016. <http://investments.yale.edu/2016-update-on-climate-change/>
- 19 Myhre, G., D. Shindell, F.-M. Bréon, W. Collins, J. Fuglestedt, J. Huang, D. Koch, J.-F. Lamarque, D. Lee, B. Mendoza, T. Nakajima, A. Robock, G. Stephens, T. Takemura and H. Zhang, 2013: Anthropogenic and Natural Radiative Forcing. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Table 8.7. These are likely significant underestimates.
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- 21 <http://onlinelibrary.wiley.com/doi/10.1002/2016GLO67987/abstract>
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- 23 Forrest, Jackie and Marcus Rocque, ARC Energy Research Institute. "Crude Oil Investing in a Carbon Constrained World." February 2016.
- 24 Yale University, IRS form 990, Schedule R. Fiscal Year Ending 6/30/2015.
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- 26 <http://arcfinancial.com/funds/energy-funds>
- 27 STEP Energy Services Ltd, Canadian Securities Administrators final long form prospectus, filed April 25, 2017, p. 102.
- 28 Seven Generations Energy Ltd, Canadian Securities Administrators preliminary base prep prospectus, filed October 9, 2014, p. 35.
- 29 Seven Generations Energy Ltd, Canadian Securities Administrators annual information form, year ending December 31, 2014, filed March 10, 2015, p. 95.
- 30 Seven Generations Energy Ltd, 2017 Notice of Annual General and Special Meeting and Information Circular and Proxy Statement, filed March 7, 2017, p. 16.
- 31 Painted Pony Petroleum Ltd, 2017 Notice. P. 39
- 32 Google Finance, Painted Pony Petroleum Ltd: PPY. Share value March 31, 2017.