

World Sustainability Series

Walter Leal Filho
Constantina Skanavis
Arminda do Paço
Judy Rogers
Olga Kuznetsova
Paula Castro *Editors*

Handbook of Theory and Practice of Sustainable Development in Higher Education

Volume 2

 Springer

Divestment and Investment: Strategic Financial Decisions in Higher Education to Promote Societal Change Toward Sustainability

Jennie C. Stephens, Elizabeth Palchak and Bonnie Reese

Abstract

The aim of this paper is to review the increased use of strategic financial decisions in higher education to promote social change toward sustainability. The social movement to divest from fossil fuels has been growing rapidly, and universities are playing a critical role. New types of university investments to support sustainability transdisciplinary programs and initiatives are also enhancing the societal relevance of many universities. This chapter analyzes the language and themes used to defend university divestment decisions (among both organizations that are committed to divestment as well as organizations that are not committing to divestment) as well as justifications for new investments in sustainability initiatives. The diversity of institutional approaches to using strategic financial decisions to engage with social change represents divergent perspectives on the role of universities in promoting a more sustainable society.

Keywords

Divestment · Investment · Energy · Finances · Universities

J.C. Stephens (✉)

School of Public Policy and Urban Affairs, Northeastern University,
360 Huntington Avenue, Boston, MA 02115, USA

e-mail: j.stephens@northeastern.edu

URL: <http://www.jenniestephens.com>

E. Palchak · B. Reese

Rubenstein School of the Environment and Natural Resources,
81 Carrigan Drive, Burlington 05405, VT, USA

© Springer International Publishing AG 2017

W. Leal Filho et al. (eds.), *Handbook of Theory and Practice of Sustainable Development in Higher Education*, World Sustainability Series,
DOI 10.1007/978-3-319-47889-0_22

305

1 Introduction to Divestment, Investment, and Dynamic Role of Universities

Humanity is facing unprecedented challenges associated with climate disruption, fossil fuel dependence, and unsustainable provisioning of food, energy, and water to the growing population (AAAS 2007; McKinsey Global Institute 2011; McKibben 2012). Given the urgency for confronting sustainability challenges, opportunities are emerging for individuals and organizations to engage in new and different ways (Klein 2014). Universities are critical anchor organizations within society offering stability and capacity for long-term thinking and analysis (Hahn 2003; Coalition of Urban Serving Universities 2010). As such higher education has a unique and particularly interesting potential to facilitate societal responses to the sustainability challenges facing the world (Stephens et al. 2008). Strategic financial decisions represent an increasingly important mechanism for higher education to shape a more sustainable society.

The fossil fuel divestment movement has been dubbed the “fastest growing social movement in history” (Brooks 2014). The movement has been developing throughout the past decade with rapid growth since 2012 (Lenferna 2013; Mandery 2014). Within this dynamic social movement, higher education, foundations, private companies, public entities, pension funds, and many individuals are making decisions to move investments out of companies based upon fossil fuel extraction and production. Fossil fuel divestment campaigns are emerging in countries around the world and are particularly visible on college and university campuses. As of early 2016, divestment campaigns are active in over 400 campuses while over 49 colleges and universities have committed to some form of fossil fuel divestment. While 38 are committed to full fossil fuel divestment, others are divesting from coal or both coal and oil tar sands. By linking investments in fossil fuel companies to global climate change, activists have created urgency and momentum, especially within higher education.

Many identify Swarthmore College as the seed of the movement as it was the first institution of higher education to divest in 2011 (Gelles 2015; Grady-Benson and Sarathy 2015). In 2012, the international group 350.org became involved with the fossil fuel divestment movement (350.org 2015), and since then many universities as well as state pension funds, foundations, and individuals have intentionally divested. The divestment movement gained further attention and momentum following a 2012 article in Rolling Stone magazine by Bill McKibben, a scholar in residence at Middlebury College. The high profile piece entitled, “Do the Math”, linked the role of fossil fuel corporations to global climate change. McKibben implicated fossil fuel companies writing, “we have met the enemy and they is Shell” (McKibben 2012). The year following the publication of the Rolling Stone article was very active for divestment on college campuses. As the movement grows in size and influence, the discourse and frames justifying individual organizations decisions on whether or not to divest have been evolving.

As fossil-fuel-based energy systems are becoming increasingly destabilized, fossil fuel divestment is not only a proactive progressive step for universities to take, divestment and careful reinvestment in sustainable initiatives, also has huge potential to reduce the vulnerability of universities and enhance their resilience in a rapidly changing world. At the same time that divestment has taken off, universities are increasingly investing in transdisciplinary programs and initiatives focusing on sustainability to enhance the societal relevance of their research and teaching (Martin and Samels 2012; Trencher et al. 2013).

Universities have distinctive organizational cultures that value and promote learning for social good. Higher education, therefore, can play a critical role in processes of societal transformation that are reliant on educating new generations of citizens and leaders. Higher education has always been responsive to societal needs, and the history of higher education demonstrates an evolution of university structure and purpose that reflects directly on the dynamics of society's socio-technical systems (Freeland 1992; Clark 1983; Bursztyrn 2008; Vorley 2008). As long-established, often deep-rooted institutions, universities can be slow to respond when societal needs emerge rapidly. Delay between the emergence of a societal impetus for change and the realization of universities' potential contributions to the needed change has been identified throughout centuries of history of higher education (Altbach et al. 1994; Clark 1998). While all organizations respond to and participate in social change, universities as learning organizations represent a specific set of organizations with distinct potential for improving understanding of the interface between organizational change and social change.

Discussions of the role of higher education in society are often characterized by tension among three agendas: generating knowledge, educating citizens and leaders, and addressing pressing social issues (Vorley 2008). It can be argued that all universities transmit powerful educational messages far beyond their specific teaching and research activities (Boyle 2007; Waas and Vergruggen 2008). Concepts of "universities as citizens" (Boyle 2007) and/or "universities as change agents" (Troyer 1974; Stephens et al. 2008) capture the potential for universities to be active, contributing, influential, responsive entities in society. Some suggest that higher education is currently experiencing a swing-back, a return, to an original purpose of cultivating civic responsibility and citizenship via a scholarship of engagement (DiPadova-Stocks 2005; Freeland 1992). Such movement would require institutions of higher education to model civic responsibility and engagement at the organizational level (Boyle 2007), which explicitly incorporates strategic financial decisions and their investment portfolios.

As university engagement in the divestment movement shifts cultural assumptions regarding fossil fuel reliance and as new university investments are strengthening the capacity of many universities to contribute to social change toward sustainability, this chapter reviews this dynamic landscape, highlighting the emerging opportunities for universities to act as change agents, reduce vulnerability and enhance resilience through their strategic financial decisions. This chapter first describes the methods used to analyze divestment and investment. Then the results and discussion of the divestment analysis is presented followed by results and

discussion of sustainability funds in higher education. The chapter concludes by suggesting that the diversity of institutional approaches to using strategic financial decisions to facilitate social change represents divergent perspectives on the role of universities in moving toward sustainability.

2 Methods

The research presented here includes two different sets of analysis. The divestment research includes text analysis of the public statements of 83 colleges and universities that have justified their institutional decision to divest or not. Most of these statements were issued by senior administrators in response to student-run divestment campaigns on campus. Text of the public statements were retrieved from institutions' websites, and the text was coded using HyperRESEARCH text analysis software identifying a set of specific themes developed iteratively by the research team. The research on sustainability investments focuses on a review of different kinds of sustainability funds established in multiple universities.

3 Diversity of Divestment Decisions

As of early 2016, our analysis suggests divestment campaigns have been active in over 400 campuses while over 49 colleges and universities have committed to some form of fossil fuel divestment. While 38 are committed to full fossil fuel divestment, others are divesting from coal and oil tar sands. By linking investments in fossil fuel companies to global climate change, the divestment movement has created urgency and momentum and a very specific financial strategy for having an influence in changing the status quo fossil-based system. This movement has been contributing to the destabilization of the fossil fuel regime, which is a critical component of the renewable energy transition (Geels 2014).

Justifications of universities and colleges that have made public statements regarding divestment span a broad spectrum. Analysis of how different universities are defending their fossil fuel divestment decisions, reveals dynamic communication strategies within higher education with regard to priorities and current perceptions of higher education and its role in changing energy systems (More details available in Palchak and Stephens, forthcoming).

Among the 49 universities that have made formal, public divestment decisions as of December 2015, 38 are committed to full divestment of all kinds of fossil fuel stocks, while 10 have divested only from coal and/or coal and tar sands (Palchak and Stephens, Forthcoming, in preparation). One institution, the Australian National University agreed to divest from seven specific companies engaged in coal and mining activities. Divesting from coal has been particularly resonant with

several large universities as the social, health, and environmental impacts of coal are increasingly acknowledged and the coal industry continues to decline. Thirty-four other institutions have officially stated that they will not divest from any fossil fuel companies. Among those that have committed to divest, justifications include multiple dimensions. One frequent message is that divestment provides an opportunity to align the university's mission and values with the university's financial strategy. Another justification involves demonstrating leadership on climate change action and social justice; divestment is an opportunity to provide leadership on a critical issue facing the world. Divestment activists have effectively framed the movement as a moral imperative, so some universities are also using that frame to justify their decision to divest. Ethical responsibility is frequently mentioned, with a focus on consideration of future generations. Several universities also connect this ethical responsibility with religion and the university's religious responsibility for considering all of humanity.

Among the 24 institutions that have made public statements explaining why they will not divest, most of these focus on their fiduciary responsibility to the organization to maximize the financial gains through their investments (Palchak and Stephens, Forthcoming, in preparation). Nonetheless, financial risks of fossil fuel investing are becoming more widely accepted as the volatility and decline of these stocks has many shareholders concerned about the stranded assets associated with the fossil fuel industry (Ansar et al. 2013).

In 2010 the Securities and Exchanges Commission required that companies report on the vulnerabilities to climate change. Recently this standard has been reaffirmed, setting the context for more transparency and accurate assessments of risks associated with the fossil fuel sector (Securities and Exchanges Commission 2010). This will continue to influence investment decisions. The vulnerability associated with fossil fuel investments has only recently been recognized by some, although some universities that are divesting do connect their decision to divest as a way to be more resilient in the future. Several universities highlight the decision to divest as one of fulfilling fiduciary responsibility by reducing risks associated with the fossil fuel sector. This is a new and important perspective on fiduciary responsibility that connects vulnerability and building resilience through strategic financial decision-making.

4 Investing in Sustainability: Universities and Sustainability Funds

In conjunction with the fossil fuel divestment movement, many universities are simultaneously making strategic investments toward investing in sustainability initiatives of all kinds. In addition to strategic investments in new interdisciplinary programs, curricula, degrees, and research, many universities have set up internal sustainability funds. Designated sustainability funds with specific budgets allocated for sustainability projects have been adopted by over 300 universities in the United

States. These funds are generally designed to provide financial support for a variety of innovative campus sustainability initiatives (Breen 2010).

The structure and goals of sustainability funds at universities varies widely. The Association for the Advancement of Sustainability in Higher Education (AASHE) has categorized these funds into two categories: sustainability revolving loan funds and green funds (AASHE 2016). The primary difference between these two types of funds is fund structure.

Sustainability revolving loan funds need to provide a return on investment and have therefore been mostly focused on efficiency projects. Revolving loan funds provide “dedicated funding for schools to invest in energy efficiency or resource efficiency projects while capturing the cost savings from the reduced energy and/or resource use” (Breen 2010). Revolving loan funds are often used to finance infrastructure improvements on campus. There are a wealth of opportunities for universities to make significant infrastructure changes and reduce their environmental footprint. This fund structure is particularly well suited to this type of investment because the up-front costs can be recouped through efficiency savings. “The number of green revolving funds has more than quadrupled since 2008..... A major incentive is the financial benefit. Our survey found a median annual return on investment of 32 percent” (Wakefield 2012). With this level of financial return, it is not surprising that over eighty universities now have sustainability revolving loan funds. Although these funds have been successful, and significant savings are likely in the early years of a revolving loan fund, use of these funds is vulnerable to decline over time for a variety of reasons related to leadership and participation (Levy and Dilwali 2000).

The other major category, green funds, have been created to support less financially compelling projects. Green funds offer more flexibility and are generally funded through grants, student fees, alumni and administrative budgets (AASHE 2016). Campus green funds provide dedicated “funding of projects such as renewable energy installations, energy retrofits, educational outreach, and the hiring of sustainability personnel occurring on campus and for the benefit of the institution’s sustainability efforts.”

Our analysis highlights that many universities have recognized that investing in sustainability initiatives is a critical component of their organizational response to sustainability (Weisbord 2011). Designated sustainability funds to support various different types of sustainability initiatives are gaining traction. Categorizations of revolving loan funds and green funds are helpful, although assessing the effectiveness of these different types of sustainability investments is challenging.

An interesting dynamic in universities involves the position of many universities to focus on investment as part of their response and justification for why they will not divest. Many institutions choosing not to divest from fossil fuels are committing to a number of commitments related to new investments, new campus infrastructure, different investing policies and the creation of fossil free funds for donors. For example, Williams College, a prestigious small liberal arts college in Massachusetts with international recognition for their sustainability efforts, made a public statement justifying their decision not to divest from fossil fuels by saying “We will

invest, not divest”. Williams also released a commitment to engage five other peer colleges to procure more renewable energy for their campuses. Similarly Harvard University created and announced a new position, a Vice President of Sustainable Investing, in conjunction with its public statement justifying their decision not to divest. Swarthmore College created a fossil free fund for donors and has instructed its investing managers to “describe [the] approach to climate change”. Both Tufts University and the University of Vermont created a fossil free fund for donors and Wellesley College developed a Green Revolving Loan Fund for energy investments on campus. Yale University committed \$21 million to capital investments in energy conservation over three years and has initiated an experiment on campus with carbon pricing, led by economist William Nordhaus. Middlebury College placed \$150,000 under student management to be invested in socially responsible companies and has earmarked \$25 million from the endowment to be used for positive investments, targeting companies with high ESG (environmental, social, governance) ratings.

5 Divestment and Investment: Key Components of the Renewable Energy Transition

The fossil fuel divestment movement and the role of universities within that movement, can be situated within the larger renewable energy transition (Brown et al. 2015). The field of socio-technical transitions offers many ways to analyze these complex, multi-scalar changes and continues to evolve as scholars attempt to capture and define the multitude of effects that contribute to complex socio-technical transitions. The multi-level perspective (MLP), refined most recently by Geels (2010) attempts to create a cohesive and reflexive theory of sustainability transitions, allowing for conceptualization of interacting elements shaping various “levels” of an energy transition. Analysis of the divestment movement is an area of work bridging the gap between the niche innovation level and the regime level within the multi-level perspective (Geels 2010). Niche innovations, like the divestment movement, work to dislodge and disrupt current regimes that are unsustainable.

The global divestment movement can be seen as an example of pressure on an entrenched regime as student activists attempt to indirectly affect the power of the fossil fuel industry through investments. This outside pressure and interaction between the various levels of the MLP is essential for system change (Ravetz 2006; Shove and Walker 2010; Geels 2010). Within this context, the value of researching the fossil fuel divestment movement is heightened by several recent papers calling for expanding social science research about the energy transition (Webler and Tuler 2010; Sovacool 2014; Araújo 2014). Specifically, new work calls for a focus on social considerations of energy system change (Miller et al. 2013, 2015; Stephens et al. 2015). In broadening a discussion of energy to more explicitly acknowledge

the role of universities and their financial strategies, this piece situates the divestment and investment movement within the larger energy system transition.

6 Conclusions: Growing Potential Influence of Universities' Strategic Financial Decisions

As the world grapples with questions of resilience, vulnerability, and how to effectively respond to the growing risks of inevitable and ongoing climate changes, consideration of the social impact of universities' investment portfolios and their strategic financial decision-making provides a new opportunity for universities to have influence. The fossil fuel divestment movement within universities has been recently called campus sustainability's "last frontier" (Peterson and Wood 2015). The movement has received considerable attention in major media outlets, also indicating a robust conversation outside of academia about the role of universities in addressing climate change. The Guardian has followed the divestment movement closely, covering many major divestment decisions (Carrington 2015; Goldberg 2015; Tutu 2014). The New York Times has printed several high profile editorials on the topic and The Economist has included several stories on divestment and the valuation of fossil fuels (Mandery 2014; Fleischer 2015; Welch 2014; The Economist 2013, 2015).

The diversity of institutional approaches to using strategic financial decisions to facilitate change represents divergent perspectives on the role of universities in advancing sustainability. Although many universities have now formally committed to addressing climate change and other sustainability challenges facing the world, this research demonstrates that whether and how colleges and universities apply strategic financial-decisions to advance this commitment varies considerably. The broad socially responsible mission of institutions of higher education encompasses new opportunities and challenges for universities as they manage their financial resources and their investments and leverage these resources to increase resilience in rapidly changing markets affected by global change.

This analysis raises a larger set of questions about whether and how higher education can contribute to a progressive agenda and radical social change. In many respects, the stability and tradition of higher education renders colleges and universities as conservative anchor organizations perpetuating prevailing economic and social norms. The overall impact of strategic manipulation of some of their investments is difficult to assess, and could be dismissed as inconsequential toward the more radical progressive change that is likely required to deal with the world's most complex "wicked" problems. But perhaps these forays into financial mechanisms for influencing change will catalyze more challenging conversations and actions in higher education.

References

- 350.ORG. (2015). *What we do* [Online]. Available <http://350.org/about/what-we-do/>
- AAAS. (2007). *Grand Challenges of Sustainability Science Symposium at the American Association for the Advancement of Science Annual Meeting*, February 17, 2007, San Francisco.
- AASHE. (2016). *Association for the advancement of sustainability in higher education*. <http://www.aashe.org/resources/green-funds/>
- Altbach, P. G., Berdahl, R. O., & Gumport, P. J. (1994). *Higher education in American Society*. New York: Prometheus Books.
- Ansar, A., Caldecott, B., & Tilbury, J. (2013). *Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?*. Oxford University: University of Oxford's Smith School of Enterprise and the Environment.
- Araújo, K. (2014). The emerging field of energy transitions: progress, challenges, and opportunities. *Energy Research & Social Science*, 1.
- Boyle, M. (2007). Learning to neighbor? Service-learning in context. *The Journal of Academic Ethics*, 5, 85–104.
- Breen, S. D. (2010). The mixed political blessing of campus sustainability. *PS: Political Science and Politics*, 43, 685–690.
- Brooks, L. (2014). Glasgow becomes first university in Europe to divest from fossil fuels. *The Guardian*, October 8.
- Brown, L., Larsen, J., Roney, J. M., & Adams, E. E. (2015). *The great transition: Shifting from fossil fuels to solar and wind energy*. New York, Earth Policy Institute: W.W. Norton.
- Bursztyjn, M. (2008). *Sustainability science and the university: Towards interdisciplinarity*. Working paper for center for international development at Harvard University, No. 24.
- Carrington, D. (2015). Fossil fuel firms risk wasting billions by ignoring climate change, says IAE. *The Guardian*, July 9, 2015.
- Clark, B. R. (1983). *The higher education system: Academic organization in cross-national perspective*. Berkeley: University of California Press.
- Clark, B. R. (1998). *Creating entrepreneurial universities: Organizational pathways of transformation*. Oxford, New York: Pergamon.
- Coalition of Urban Serving Universities. (2010). *Urban universities: Anchors generating prosperity for America's Cities*.
- DiPadova-Stocks, L. (2005). Two major concerns about service-learning: What if we don't do it? And what if we do? *Academy of Management Learning and Education*, 4, 345–353.
- Fleischer, V. (2015). Stop universities from hoarding money. *New York Times*, August 19.
- Freeland, R. (1992). *Academia's golden age: Universities in Massachusetts 1945–1970*. New York: Oxford University Press.
- Geels, F. (2010). Ontologies, socio-technical transitions (to sustainability), and the multi-level perspective. *Research Policy*, 39, 495–510.
- Geels, F. W. (2014). Regime resistance against low-carbon transitions: Introducing politics and power into the multi-level perspective. *Theory, Culture & Society*, 31, 21–40.
- Gelles, D. (2015). Fossil fuel divestment harnesses the power of shame. *New York Times*, June 13.
- Goldberg, S. (2015). Episcopal church votes to divest from fossil fuels: 'This is a moral issue'. *The Guardian*, July 4.
- Grady-Benson, J., & Sarathy, B. (2015). Fossil fuel divestment in US higher education: Student-led organising for climate justice. *Local Environment*.
- Hahn, A. (2003). *Colleges and universities as economic anchors: Profile of promising practices*. Baltimore: Annie E. Casey Foundation.
- Klein, N. (2014). *This changes everything: Capitalism vs. the climate*.
- Lenferna, A. (2013). Betting on climate failure: The economics and economics of fossil fuel divestment. *Resilience.org*.

- Levy, J. I., & Dilwali, K. M. (2000). Economic incentives for sustainable resource consumption at a large university—Past performance and future considerations. *International Journal of Sustainability in Higher Education*, 1, 252–266.
- Mandery, E. J. (2014). The missing campus climate debate. *New York Times*, November 1, 2014.
- Martin, J., & Samels, J. E. (Eds.). (2012). *The sustainable university: green goals and new challenges for higher education leaders*. Baltimore: Johns Hopkins University Press.
- McKibben, B. (2012). Global warming's terrifying new math. *Rolling Stone*, August 2, 2012.
- Mckinsey Global Institute. (2011). *Resources revolution: Meeting the world's energy, materials, food, and water needs*.
- Miller, C. A., Iles, A., & Jones, C. F. (2013). The social dimensions of energy transitions. *Science as Culture*, 22, 135–148.
- Miller, C. A., Richter, J., & O'Leary, J. (2015). Socio-energy systems design: A policy framework for energy transitions. *Energy Research & Social Science*, 6, 29–40.
- Palchak, E., & Stephens, J. C. (Forthcoming, in preparation). *Fossil fuel divestment: The discourse of a dynamic social movement*.
- Peterson, R., & Wood, P. (2015). *Higher education's new fundamentalism*. New York.
- Ravetz, J. R. (2006). Post-normal science and the complexity of transitions towards sustainability. *Ecological Complexity*, 3, 275–284.
- Securities and Exchanges Commission. (2010). 17 CFR PARTS 211, 231 and 241. Securities and Exchanges Commission.
- Shove, E., & Walker, G. (2010). Governing transitions in the sustainability of everyday life. *Research Policy*, 39, 471–476.
- Sovacool, B. K. (2014). Energy studies need social science. *Nature*, 511, 529–530.
- Stephens, J. C., Hernandez, M. E., Roman, M., Graham, A. C., & Scholz, R. W. (2008). Higher education as a change agent for sustainability in different cultures and contexts. *International Journal of Sustainability in Higher Education*, 9, 317–338.
- Stephens, J. C., Wilson, E. J., & Peterson, T. R. (2015). *Smart grid (r)evolution: Electric power struggles*. Cambridge: Cambridge University Press.
- The Economist. (2013). Unburnable fuel; Energy firms and climate change. *The Economist*.
- The Economist. (2015). Fight the power. *The Economist*, June 27, 2015.
- Trencher, G., Yarime, M., McCormick, K. B., Doll, C. N. H., & Kraines, S. B. (2013). Beyond the third mission: Exploring the emerging university function of co-creation for sustainability. *Science and Public Policy*, 1–29.
- Troyer, M. E. (1974). Needed correlative university reforms: In role as change agents: Governance climate and structure. In *Annual Meeting of the American Educational Research Association*. Chicago, Illinois: ERIC.
- Tutu, D. (2014). We need an apartheid-style boycott to save the planet *The Guardian*, April 10.
- Vorley, T. A. J. N. (2008). (Re)Conceptualising the academy: Institutional development of and beyond the third mission. *Higher Education Management and Policy*, 20.
- Waas, T., & Vergruggen, A. (2008). *University research for sustainable development: Characteristics identified. EMSU 2008*. Barcelona, Spain.
- Wakefield, J. (2012). *UVM's \$13 million commitment to green challenge is country's largest; Surpasses Harvard*. The University of Vermont, August 02, 2012. Web. January 07, 2016. http://www.uvm.edu/newsstories/news/uvm%E2%80%99s_13_million_commitment_green_challenge_countrys_largest_surpasses_harvard
- Webler, T., & Tuler, S. P. (2010). Getting the engineering right is not always enough: Researching the human dimensions of the new energy technologies. *Energy Policy*, 38, 2690–2691.
- Weisbord, D. (2011). Greening the bottom line: The trend toward green revolving funds on campus. *Sustainable Endowments Institute*. Web accessed January 11, 2016. <http://files.eric.ed.gov/fulltext/ED539860.pdf>
- Welch, I. (2014). Why divestment fails. *New York Times*, May 9.

Author Biographies

Jennie C. Stephens is the Dean's Professor of Sustainability Science and Policy at Northeastern's School of Public Policy and Urban Affairs. Her research, teaching, and community engagement focus on social, political and cultural aspects of the renewable energy transition and strengthening climate resilience. She is a 2015–2016 Leopold Leadership Fellow, and she was previously on the faculty at the University of Vermont (2014–2016), Clark University (2005–2014), and she earned her PhD at Caltech in Environmental Science and Engineering.

Elizabeth Palchak is a graduate student in the Rubenstein School of Environment and Natural Resources at the University of Vermont. As a Graduate Fellow in the Office of Sustainability, she researches and supports the development of recommendations for socially responsible investing at the university. Her dissertation research focuses on the social aspects of renewable energy transitions, specifically the role of higher education and strategies for energy conservation behavior.

Bonnie Reese is a graduate student in the Rubenstein School of Environment and Natural Resources at the University of Vermont. Her research is focused on energy innovation in the university setting. Bonnie has an MBA from Babson College and a BS in Psychology from Trinity College in Hartford, CT.