VERMONT LAW REVIEW

VOLUME 43 NUMBER 4 SUMMER 2019

CORPORATIONS AND CLIMATE CHANGE: HOW BUSINESSES ARE CHANGING THE ENVIRONMENTAL LANDSCAPE

Vermont Law Review 18th Annual Symposium
September 14, 2018

NOTE

VERMONT LAW REVIEW

VOLUME 43 NUMBER 4 SUMMER 2019

CORPORATIONS AND CLIMATE CHANGE: HOW BUSINESSES ARE CHANGING THE ENVIRONMENTAL LANDSCAPE

Vermont Law Review 18th Annual Symposium
September 14, 2018

NOTE

Vermont Law Review is published four times each academic year: Fall, Winter, Spring, and Summer. *Vermont Law Review*'s mailing address is: *Vermont Law Review*, Vermont Law School, P.O. Box 96, South Royalton, VT 05068. *Vermont Law Review* can be found on the web at http://lawreview.vermontlaw.edu. E-mail: lawreview@vermontlaw.edu.

Subscriptions: Subscriptions are $35.00 (domestic) and $40.00 (foreign) per year, payable in advance. All subscriptions will be renewed automatically unless the subscriber provides timely notice of cancellation. Address changes must be made at least one month before the publication date to ensure proper delivery. Please provide the account number, the old address, and the new address, including zip codes. Please address all correspondence regarding address changes or other requests for subscription information to the Business Manager at lawreview@vermontlaw.edu.

Single and Back Issues: Books from current volumes can be purchased for $10.00 from *Vermont Law Review.* For back issues, contact *Vermont Law Review* or William S. Hein & Co., Inc., 1285 Main Street, Buffalo, NY 14209-1987. For an inclusive index of prior volumes, please contact *Vermont Law Review*.

Manuscripts: *Vermont Law Review* welcomes the submission of unsolicited articles, comments, essays, and book reviews. Submissions may be submitted through the mail or electronically. Manuscripts cannot be returned unless accompanied by a self-addressed, stamped, postage-paid envelope.

Production: *Vermont Law Review* is printed in Times New Roman scalable font by The Sheridan Press, 450 Fame Avenue, Hanover, PA 17331.

VERMONT LAW REVIEW

VOLUME 43 NUMBER 4 SUMMER 2019

VERMONT LAW SCHOOL

2018–2019

ADMINISTRATION

Thomas McHenry, B.A., M.E.S., J.D., President and Dean
Sean Nolon, B.A., J.D., Vice Dean for Faculty and Professor, Director of the Dispute Resolution Program, and Professor
Beth McCormack, A.B., J.D., Vice Dean for Students and Professor
Shirley A. Jefferson, B.S., J.D., Associate Dean for Student Affairs and Diversity and Associate Professor
Laurie J. Beyranevand, B.A., J.D., Associate Dean for Academic Programs, Director of the Center for Agriculture and Food Systems, and Professor
Jennifer K. Rushlow, B.A., M.P.H., J.D., Associate Dean for the Environmental Law Program and Associate Professor

FACULTY

Susan B. Apel, B.A., J.D., Professor Emerita
Tracy Bach, B.A., M.A., J.D., Professor
Margaret Martin Barry, B.A., J.D., Professor Emerita
Joseph Brennan, B.A., J.D., Director of the Academic Success Program and Assistant Professor
Gary Brooks, A.B., J.D., Director of the Experiential Advocacy Program and Assistant Professor
Richard O. Brooks, B.A., M.A., LL.B., Ph.D., Professor Emeritus
Jared Carter, B.A., J.D., Assistant Professor
Stephanie Clark, B.A., J.D., Assistant Director of the Center for Justice Reform and Assistant Professor
Liz Ryan Cole, B.A., J.D., Professor
Michelle Donnelly, B.A., J.D., Staff Attorney at the South Royalton Legal Clinic and Assistant Professor
Michael Dworkin, B.A., J.D., Professor Emeritus
Stephen Dycus, B.A., LL.B., LL.M., Professor
John Echeverria, B.A., M.F.S., J.D., Professor
Arthur C. Edersheim, B.A., M.A., J.D., Staff Attorney at the South Royalton Legal Clinic
Jeannette Eicks, B.A., J.D., Director of the Center for Legal Innovation and Research Professor
Paul S. Ferber, B.A., J.D., Professor Emeritus
David B. Firestone, B.S., J.D., Professor
Clara Gimenez, J.D., Associate Professor
Oliver R. Goodenough, B.A., J.D., Director of the Center for Legal Innovation and Professor
Hillary Hoffmann, B.A., J.D., Professor
Erin Jacobsen, B.A., J.D., Staff Attorney at the South Royalton Legal Clinic and Assistant Professor
Mark James, B.S., J.D., LL.M., Senior Fellow for the Institute for Energy and the Environment and Assistant Professor
Greg Johnson, B.A., J.D., Director of the Legal Writing Program and Professor
Kevin Jones, B.S., M., Ph.D., Director of the Institute for Energy and the Environment and Professor
Nicole Killoran, B.S., J.D., Assistant Professor
Kenneth R. Kreiling, B.A., M.A., J.D., LL.M., Professor Emeritus
Sophia Kruszewski, Clinic Director for the Center for Agriculture and Food System
Siu Tip Lam, B.A., J.D., Director of the U.S.-Asia Partnership for Environmental Law and Associate Professor
Mark Latham, B.S.N., J.D., Professor
Cynthia Lewis, B.A., J.D., M.L.I.S., Director of the Julien and Virginia Cornell Library and Associate Professor
Yanmei Lin, B.A., M.A., LL.M., Associate Director of the U.S.-Asia Partnership for Environmental Law and Associate Professor
Beth Locker, A.B., J.D., Director of the J.D. Externship Program and Assistant Professor
Reed Elizabeth Loder, A.B., M.A., Ph.D., J.D., Professor
James C. May, B.A., M.A., J.D., Professor Emeritus
Philip N. Meyer, B.A., M.F.A., J.D., LL.M., Professor
Marc Mihaly, B.A., J.D., Professor Emeritus
Janet Milne, B.A., J.D., Director of the Environmental Tax Policy Institute and Professor

Jeannie Oliver, B.A., B.L., J.D., Staff Attorney at the Institute for Energy and the Environment and Assistant Professor
Patrick Parenteau, B.S., J.D., LL.M., Senior Counsel to the Environmental and Natural Resources Law Clinic and Professor
Brian Porto, B.A., Ph.D., J.D., Assitant Director of the Legal Writing Program and Professor
Sarah M. Reiter, B.S., M.S., J.D., Director of Online Learning and Assistant Professor
Kenneth Rumelt, B.A., J.D., LL.M., Senior Attorney at the Environmental and Natural Resources Law Clinic and Professor
Christine Ryan, B.A., M.S., M.A., Environmental Law Librarian and Assistant Professor
Robert L. Sand, B.A., J.D., Director of the Center for Justice Reform and Associate Professor
Melissa Scanlan, B.A., M.S., J.D., Director of the Center for the New Economy and Professor
Linda O. Smiddy, B.A., M.A.T., J.D., LL.M., Professor Emerita
Emily Spiegel, B.S., J.D., Assistant Professor
Pamela J. Stephens, B.A., J.D., Professor Emerita
Rachel Stevens, B.A., J.D., M.E.L.P., Staff Attorney at the Environmental and Natural Resources Law Clinic and Assistant Professor
Jennifer S. Taub, B.A., J.D., Professor
Peter R. Teachout, B.A., M.A., J.D., Professor
Jack R. Tuholske, B.A., J.D., Director of the Water and Justice Program and Professor
Joan E. Vogel, B.A., M.A., J.D., Professor
Stephanie J. Willbanks, B.A., J.D., Professor
Jane Woldow, B.S., J.D., M.L.S., Associate Director of the Julien and Virginia Cornell Library and Assistant Professor
L. Kinvin Wroth, B.A., LL.B., Professor Emeritus
Carl A. Yirka, B.A., M.S., J.D., Library Director Emeritus and Professor Emeritus

VERMONT LAW SCHOOL

BOARD OF TRUSTEES
2018–2019

OFFICERS

President and Dean
Thomas McHenry

Chair
Colleen Connor, Esq. ’85

Vice-Chair
Constance Neary, Esq. ’89

Secretary
Ann Debevoise Ostby, Esq. ’88

Treasurer
Kevin Mendik, Esq. ’87

MEMBERS

Richard E. Ayres, Esq.
Edna Y. Baugh, Esq. ’83
Glenn J. Berger, Esq. ’78
Leslie A. Cadwell, Esq. ’94
Caryn Clayman, Esq. ’83
Scott Cullen, Esq. ’97
Amy Davenport
Brian S. Dunkiel, Esq. ’96
Robert Fiske, Jr., Esq.
Michael O. Hill, Esq. ’96
Harold Jones
Byron Kalegerou ’86
Catherine Mackenzie
Kevin Mendik, Esq. ’87
Elizabeth Miller
Pamela Pescosolido, Esq. ’90
Robert Taisey, Esq.

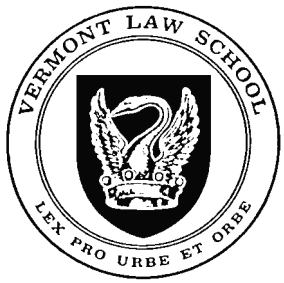
Alumni Trustees
Joanne Jordan, Esq. ’90
Karis North, Esq. ’95

Student Trustees
Angela Sicker ’19
Lewis Grove ’20

Faculty Representative
Assistant Professor Joe Brennan

Staff Representative
Jennifer Lawrence

Trustees Emeriti
J. Scott Cameron, Esq.
Mrs. Ann Debevoise
Professor John W. Hennessey, Jr.
The Honorable Philip Hoff
R. Allan Paul, Esq.



VERMONT LAW REVIEW

SUBSCRIPTIONS

Vermont Law Review is published quarterly each academic year: Fall, Winter, Spring, and Summer. If you wish to order a yearly subscription to *Vermont Law Review*, please complete and mail the form below or call *Vermont Law Review* at (802) 831-1253.

Vermont Law Review
Subscription Order Form

Mail subscription to:
Name (firm or individual) _____
Address _____
_____
_____

Check (payable to Vermont Law School) enclosed for:
_____ $35.00 (domestic)
_____ $40.00 (foreign)

Vermont Law Review
Vermont Law School
P.O. Box 96
South Royalton, Vermont 05068

VERMONT LAW REVIEW

CALL FOR ARTICLES

Vermont Law Review seeks articles, commentaries, essays, and book reviews concerning recent developments in state, federal, Native American, or international law. Interested authors are encouraged to forward their submissions to:

Vermont Law Review
Vermont Law School
Attn: Senior Articles Editor
P.O. Box 96
South Royalton, Vermont 05068

For electronic submissions or submissions questions, please e-mail our Senior Articles Editor for 2018–2019, Kaelyn Barbour, at VLRSeniorArticlesEditor@vermontlaw.edu, or call the *Vermont Law Review* at (802) 831-1253. *Vermont Law Review* encourages double-sided printing of submissions when possible.

COUNTER-INTUITIVE CLIMATE FORCING: POST PARIS AGREEMENT CORPORATE INCENTIVES

Steven Ferrey*

---

* Steven Ferrey is a Professor of Law at Suffolk University Law School, served as a distinguished energy law scholar at Vermont Law School, and was a Visiting Professor of Law at Harvard Law School. Since 1993, Professor Ferrey has served as a primary legal consultant to the World Bank, the European Union, and the United Nations on their renewable energy and climate change reduction policies for developing countries focused on international corporate investment, where he has worked extensively in Asia, Africa, and Latin America. He holds a B.A. in Economics from Pomona College, a Juris Doctor degree and a Masters of Urban & Regional Planning degree focusing on energy and environment, both from the University of California at Berkeley, and was a post-doctoral Fulbright Fellow at the University of London between his graduate degrees. He is the author of 100 articles and seven books on energy and environmental law, the most recent of which are UNLOCKING THE GLOBAL WARMING TOOLBOX, 2010; ENVIRONMENTAL LAW, 7th ed. 2016 & 8th ed. 2019; and THE LAW OF INDEPENDENT POWER, 46th ed., 2018.

I. CORPORATIONS AND CLIMATE

I am pleased in this Article to examine the interface of the corporation in the 21st century American legal system and its critical role in climate change causation and mitigation. In my prior scholarship for both the *Vermont Law Review* and the *Vermont Journal of Environmental Law*, rather than examining this legal policy interface, I have examined in detail court decisions on energy and environmental law, including: analysis of the evolving line demarcating state violations of the Constitution's Dormant Commerce Clause embedded in energy regulation,[1] a legal analysis of conflicting arguments in the still-pending challenge to the Obama Administration Clean Power Plan (CPP) implementing carbon control,[2] and the conflicts in private rights of action under Section 107 of the Superfund law which reallocates billions of dollars of liability of private parties for hazardous substance damage to the environment.[3] For this Article, the *Vermont Law Review* asked me to examine changing U.S. legal policy on one of the most pressing issues of the century and the role of corporate actors.

Corporate responsibility and roles in the U.S. legal system are something that I have addressed from different perspectives at the invitation of other law school symposia and law reviews in the last decade.[4] Here, now post-Paris Agreement, I examine the state of climate through the legal prism of the corporation as both a consumer and a producer of power,

1. Steven Ferrey, *ZEC Oscillations in the Commerce Clause*, 19 VT. J. ENVTL. L. 365, 367 (2018).

2. Steven Ferrey, *Black Swan Reconfiguration: Legal Separation of American Powers*, 43 VT. L. REV. 29, 31–32 (2018).

3. Steven Ferrey, *The Superfund Cost Allocation Liability Conflicts Among the Federal Courts*, 11 VT. J. ENVTL. L. 249, 252 (2009).

4. Steven Ferrey, *Corporate Energy Responsibility: International and Domestic Perspectives on Supply and Demand in the New Millennium*, 25 FORDHAM ENVTL. L. REV. 84, 84 (2013) [hereinafter *Corporate Energy Responsibility*]; Steven Ferrey, *The New Climate Metric: The Sustainable Corporation and Energy*, 46 WAKE FOREST L. REV. 383, 384 (2011) [hereinafter *The New Climate Metric*]; Steven Ferrey, *Corporate Responsibility and Carbon-Based Life Forms*, 35 B.C. ENVTL. AFF. L. REV. 419, 420 (2008); Steven Ferrey, *Corporate Governance and Rational Energy Choices*, 31 WM. & MARY ENVTL L. & POL'Y REV. 113, 113 (2006).

whose operations comprise the major source of anthropogenic climate warming emissions.[5] This Article then takes:

- A microeconomic perspective on now-changing incentives and disincentives for corporations contained in the new federal tax law and other applicable regulations; and
- A macroeconomic assessment of how the U.S. is or is not hitting its climate targets two decades into the 21st century.

There are recent U.S. actions to withdraw from the Paris Agreement of 2015[6] and the U.S. Clean Power Plan[7]—which, as one examines the actual statistics, yield counter-intuitive results as well as an interesting perspective on the role of law in a market-driven economy.[8] This Article starts discussing climate, which bridges both environment and energy law, featuring corporations as the legal vehicle through which much of the Western economic system operates.[9] Environmentally, global temperatures are higher today than at any time in the past 800,000 years.[10] The impacts on the U.S. and the world are well-documented.[11]

Energy is the core technology undergirding the U.S. and all developed-country economies.[12] Electricity production accounts for less than 5% of

---

5. *See* PAUL GRIFFIN, THE CARBON MAJORS DATABASE: CDP CARBON MAJORS REPORT 2017, at 8 (2017), climateaccountability.org/pdf/CarbonMajorsRpt2017%20Jul17.pdf (noting that since 1988, 100 companies have produced 71% of all greenhouse gas emissions).

6. Michael D. Shear, *Trump Will Withdraw U.S. from Paris Climate Agreement*, N.Y. TIMES (June 1, 2017), https://www.nytimes.com/2017/06/01/climate/trump-paris-climate-agreement.html (explaining that the U.S. will withdraw from the Paris Agreement of 2015).

7. Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,095 (Mar. 31, 2017).

8. *See infra* Part V.B (outlining the U.S. carbon emission statistic estimations placing electricity emissions 27–35% below 2005 levels, "even with the CPP regulation repealed by the Trump Administration").

9. *See* STEVEN FERREY, UNLOCKING THE GLOBAL WARMING TOOLBOX v (Pennwell Pub. 2010) [hereinafter GLOBAL WARMING TOOLBOX] (laying out the framework for this explanation).

10. *Figure 14: 800,000 Years of Temperature and Carbon Dioxide Records*, NAT'L ACADS. SCI., ENGINEERING & MED., https://nas-sites.org/americasclimatechoices/more-resources-on-climate-change/climate-change-lines-of-evidence-booklet/evidence-impacts-and-choices-figure-gallery/figure-14/ (last visited Apr. 27, 2019) [hereinafter *800,000 Years of Temperature*] (documenting that carbon dioxide levels are higher now than within the last 800,000 years and showing a close connection between CO_2 levels and temperature change); ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2005: EXECUTIVE SUMMARY 2–3 (2007), http://www.eia.doe.gov/oiaf/1605/ggrpt/summary/pdf/0573(2005)es.pdf [https://web.archive.org/web/20170302105210/http://www.eia.gov/oiaf/1605/ggrpt/summary/pdf/0573(2005)es.pdf]; *Frequently Asked Global Change Questions*, CARBON DIOXIDE INFO. ANALYSIS CTR., https://cdiac.ess-dive.lbl.gov/faq.html#Q7 (last visited Apr. 27, 2019).

11. *800,000 Years of Temperature*, *supra* note 10.

12. *See* MICHAEL TOMAN & BARBORA JEMELKOVA, ENERGY AND ECONOMIC DEVELOPMENT: AN ASSESSMENT OF THE STATE OF KNOWLEDGE 3 (2003), http://ageconsearch.umn.edu/bitstream/10685/1/dp030013.pdf (explaining the significant role energy technology plays in economic development); WORLD ECON. FORUM, ENERGY FOR ECONOMIC GROWTH: ENERGY VISION UPDATE 2012, at 6 (2012), www3.weforum.org/docs/WEF_EN_EnergyEconomicGrowth_IndustryAgenda_

U.S. economic activity, yet is held responsible for about one-quarter of emissions of certain criteria air pollutants.[13] Electric power derived from burning gaseous, liquid, and solid fossil fuels to create electric power releases large quantities of CO_2 into the environment.[14] Fossil-fuel power generation results in 57% of total human-made atmospheric CO_2, and this amount has increased significantly since 1990.[15] Electric power demand worldwide is continuing to increase dramatically.[16] The share of all burned fossil fuels converted to create electricity increased during the 21st century from 1% in 1900 to 25% in 1990.[17]

The importance of the electric sector to the modern corporate industrial economy and to climate change is reflected in its changing dominant role.[18] In 1949, only 11% of global warming gases in the U.S. came from the electric sector; today it contributes more than one-third.[19] The U.S. Energy Information Administration concluded that the electric power sector offered the most cost-effective opportunities to reduce CO_2 emissions, compared to transportation, the next sector.[20] Fossil-fuel-fired power plants and petroleum refineries collectively emit nearly 40% of our national greenhouse gas (GHG) emissions—significantly more than the next most

---

2012.pdf ("Energy is the lifeblood of the global economy – a crucial input to nearly all of the goods and services of the modern world. Stable, reasonably priced energy supplies are central to maintaining and improving the living standards of billions of people.").

13. *The New Climate Metric*, *supra* note 4, at 388, 389 n.34.

14. The amount of carbon released per unit of usable energy decreased each time as human populations moved from wood to coal as the dominant CO_2-releasing fuel in the late-19th century, again moved from coal to oil in the mid-20th century, and will move toward natural gas in the future. 1 STEVEN FERREY, LAW OF INDEPENDENT POWER § 2:1, at 2–8 (Thomson Reuters 46th ed. 2018) [hereinafter LAW OF INDEPENDENT POWER]; *see generally* Peter A. O'Connor et al., *U.S. Energy Transitions 1780–2010*, 7 ENERGIES 7955, 7963, 7969, 7972 (2014) (charting and explaining historical uses of wood, oil, and natural gas in the U.S.).

15. *The New Climate Metric*, *supra* note 4, at 390 (citing INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 36 (2007), https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf); *see generally* Pachauri et al., *supra* note 11, at 45–47 (showing an increase in greenhouse gas emissions); U.S. ENERGY INFO. ADMIN., EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2009 (2011), https://www.eia.gov/environment/emissions/ghg_report/ (documenting an increase in greenhouse gas emissions since 1990).

16. *See, e.g.*, INT'L ENERGY AGENCY, WORLD ENERGY OUTLOOK 2017, at 47, 49–50 (2017), http://www.iea.org/media/weowebsite/2017/Chap1_WEO2017.pdf (explaining that the downward pressure on energy costs, population expansion, and GDP growth is causing global energy demand to increase).

17. Steven Ferrey, *Power Future*, 15 DUKE ENVTL. L. & POL'Y F. 261, 267 (2005).

18. *See id.* at 261 (describing the importance of energy, especially electric energy, to humans and electric energy's effect on the environment).

19. U.S. ENERGY INFO. ADMIN., ANNUAL ENERGY REVIEW 2011, at 303, 309 (2012), https://www.eia.gov/totalenergy/data/annual/pdf/aer.pdf.

20. U.S. ENERGY INFO. ADMIN., INTERNATIONAL ENERGY OUTLOOK 2008, at 4 (2008), http://large.stanford.edu/publications/coal/references/docs/0484(2008).pdf.

significant sector, transportation.[21] This Article addresses the corporation as an actor in both of these significant sectors,[22] which now are heavily dependent upon fossil-fuel combustion.[23] The next Part addresses direct and indirect aspects of transportation.

II. CORPORATIONS, TRANSPORTATION, LOCATION

A. Corporations as Transportation Magnets

"California will fight this stupidity in every conceivable way possible."

—California Governor Jerry Brown, regarding Trump Administration plan to roll back federal fuel economy standards and terminate California's ability to set separate, more rigorous vehicle standards[24]

The use of oil as a commodity over the last 150 years is not evenly distributed over time.[25] About 50% of all historic petroleum consumption took place after 1984, while about 90% of all petroleum consumption occurred after 1958, in the most recent trimester of oil usage.[26]

As of 2006, the U.S. transportation sector consumed about 13.99 million barrels of petroleum per day, 86% more than the 6.87 million barrels then produced in the U.S. per day.[27] According to the U.S. Census in 2000, "[a]mong the 128.3 million workers in the United States in 2000, 76 percent drove alone to work."[28] The report determined that "12 percent carpooled, 4.7 percent used public transportation, 3.3 percent worked at

---

21. *Settlement Agreement*, EPA, http://www.epa.gov/airquality/cps/settlement.html [https://web.archive.org/web/20120602100227/http://www.epa.gov/airquality/cps/settlement.html] (last visited Apr. 27, 2019).

22. *See infra* Parts II.A & III.A (discussing how corporations have a significant role in the electric and transportation sectors).

23. *See* Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,539–40 (Dec. 15, 2009) (to be codified at 40 C.F.R. pt. 1) (describing the significant GHG emissions produced by § 202(a) sources and comparing the percentage of emissions generated by the electricity sector and the industrial sector).

24. Ryan Beene et al., *Trump Moves to Ease Obama Auto-Mileage Rules, California's Clout*, BLOOMBERG (Aug. 2, 2018), https://www.bloomberg.com/news/articles/2018-08-02/u-s-proposes-easing-auto-mileage-rules-california-s-authority.

25. *See* U.S. ENERGY INFO. ADMIN., ENERGY SOURCES HAVE CHANGED THROUGHOUT THE HISTORY OF THE UNITED STATES (2013), https://www.eia.gov/todayinenergy/detail.php?id=11951.

26. *See id.* (graphing historic petroleum consumption in the U.S.).

27. *Table 4-1: Overview of U.S. Petroleum Production, Imports, Exports, and Consumption*, BUREAU OF TRANSP. STAT., https://www.bts.gov/archive/publications/national_transportation_statistics/2007/table_04_01 (last visited Apr. 27, 2019).

28. U.S. CENSUS BUREAU, C2KBR-33, JOURNEY TO WORK: 2000, at 1 (2004), http://www.census.gov/prod/2004pubs/c2kbr-33.pdf.

home, 2.9 percent walked to work, and 1.2 percent used other means (including motorcycle or bicycle)."[29]

One thing many service corporations could shift to at this point in the 21st century, is to not have all employees commute from home to a business location every day, with modern communications providing low-cost audio and video communication interconnection.[30] For example, Sun Microsystems' Open Work Program gives employees the option to work from home and, "in 2006, Sun saved $67.8 million in real-estate costs, prevented nearly 29,000 tons of CO_2 emissions, and increased worker productivity by 34%."[31] "Transportation-related solutions include developing Microsoft Office Live Meeting and other technologies that can, according to a joint study by Microsoft and Forrester Research, reduce corporate travel by 10% to 30%."[32]

There are certain micro-economic incentives which would facilitate this.[33] However, there has not been great success to date in reducing people's transportation needs by state or local regulation.[34] Gasoline use corresponds in reverse relation to the price of gasoline.[35]

Looking just at options in the New England region, in 2011, Massachusetts unveiled a new concept for a transportation plan for GHG emission reductions by suggesting a change in auto insurance rates that could be offered in Massachusetts; yearly miles driven would be a factor in setting individual consumer auto insurance rates.[36] This pay-as-you-drive concept, not dissimilar to pay-as-you-throw rates in several communities

---

29. *Id.*

30. *See* Andrea Loubier, *Benefits of Telecommuting for the Future of Work*, FORBES (July 20, 2017), https://www.forbes.com/sites/andrealoubier/2017/07/20/benefits-of-telecommuting-for-the-future-of-work/#7f15c75816c6 (describing the growing acceptance of working from home).

31. Mark Borden et al., *50 Ways to Green Your Business*, FAST COMPANY (Nov. 1, 2007), http://www.fastcompany.com/magazine/120/50-ways-to-green-your-business.html.

32. *The New Climate Metric*, *supra* note 4, at 424.

33. *See, e.g.*, *id.* at 422–24 (listing potential incentives, such as reduced travel times, lower transportation costs, and more reliable delivery; and how some businesses are obtaining those incentives).

34. *See* Chris Anderson, *The Legal Challenges of Telecommuting*, HR PROF'L MAG., http://hrprofessionalmagazine.com/the-legal-challenges-of-telecommuting/ [https://web.archive.org/web/20180114070600/http://hrprofessionalsmagazine.com/the-legal-challenges-of-telecommuting/] (explaining the legal issues that employers face when considering telecommuting) (last visited Apr. 27, 2019).

35. *But see* Eliana Eitches & Vera Crain, *Using Gasoline Data to Explain Inelasticity*, BEYOND NUMBERS, Mar. 2016, at 1, 2, https://www.bls.gov/opub/btn/volume-5/pdf/using-gasoline-data-to-explain-inelasticity.pdf ("[I]ndividual households (excluding commercial use) buy as many gallons of gas and travel as many or more miles regardless of the price of gasoline.").

36. IAN A. BOWLES, EXEC. OFFICE OF ENERGY & ENVTL. AFFAIRS, MASSACHUSETTS CLEAN ENERGY AND CLIMATE PLAN FOR 2020, at 61 (2010), https://www.greenneedham.org/blog/wp-content/uploads/2011/02/2020-clean-energy-plan.pdf.

trying to minimize waste disposal and increase recycling of waste, was developed in a 2008 Brookings Institution study and MIT research.[37] The *Boston Globe* responded with an editorial position that insurance rates based on greater miles driven disadvantages those with long commutes and encouraged purchasing of more efficient gas-saving cars should be pursued instead.[38] Massachusetts never adopted this proposal that would have impacted mostly those who drive the most thereby contributing the most to global warming and other vehicle pollution; nor has Massachusetts increased its gasoline tax.[39] President Trump announced he is freezing existing increases in the national Corporate Average Fuel Efficiency (CAFE) standards required for new car miles-per-gallon efficiency.[40]

However, in July 2018, the Massachusetts State Senate adopted the first legislation in the U.S., either federal or state, to approve revenue-neutral fees as a way to "put a price on carbon" to curb pollution in the transportation sector by the end of 2020, (which is Massachusetts's biggest source of GHGs), "on commercial and industrial buildings and processes by the end of 2021, [and] on residential buildings by the end of 2022."[41] This affects transportation and corporate buildings first.[42] This now awaits approval in the second chamber of the legislature.[43]

B. The Law on Federal Environmental Review

Environmental review and environmental impact statements (EISs) are embedded in both federal and some state laws since the early 1970s.[44] Section 102(c) in the federal National Environmental Protection Act

---

37. *Id.* at 51 n.46.

38. Editorial, *Driving: No "Pay as You Go" Premiums*, BOS. GLOBE (Jan. 13, 2011), http://archive.boston.com/bostonglobe/editorial_opinion/editorials/articles/2011/01/13/driving_no_pay_as_you_go_premiums/.

39. *See* MATTHEW A. BEATON, EXEC. OFFICE OF ENERGY & ENVTL. AFFAIRS, MASSACHUSETTS CLEAN ENERGY AND CLIMATE PLAN FOR 2020, at 56 (2015), https://www.mass.gov/files/documents/2017/12/06/Clean%20Energy%20and%20Climate%20Plan%20for%202020.pdf (indicating that Massachusetts did not adopt the pay-as-you-drive program).

40. Todd Spangler & Nathan Bomey, *Trump Administration Wants to Freeze Gas-Mileage Standards, Reversing Obama*, USA TODAY (Aug. 2, 2018), https://www.usatoday.com/story/money/cars/2018/08/02/trump-epa-fuel-economy-standards/887683002/.

41. Press Release, MassInsider, MA Makes History: Carbon Pricing Passes the Senate (July 17, 2018), https://myemail.constantcontact.com/MA-makes-history--carbon-pricing-passes-the-Senate--The-Barrett-Report--July--2018-.html?soid=1110058483636&aid=gHSGacHd0wE.

42. *See id.* (stating that the regulations issued by the governor will "impose carbon pricing of some kind on the transportation sector by the end of 2020, [and] on commercial and industrial buildings and processes by the end of 2021").

43. *See id.* (indicating that the bill will now go before the House).

44. National Environmental Policy Act (NEPA) of 1969 § 102, 42 U.S.C. § 4332 (2012).

(NEPA) requires pre-action environmental impact studies where a "major Federal action[] significantly affect[s] the quality of the human environment," the agency must evaluate "the environmental impact . . . [and] any adverse environmental effects" of its actions.[45] This requires "a detailed statement" for "major Federal actions significantly affecting the quality of the human environment,"[46] where a "detailed statement," more commonly known as an EIS, addresses the proposed action's environmental impacts,[47] unavoidable adverse impacts,[48] and alternatives to the proposed action.[49]

While an EIS need not include all of the underlying data on which it is based,[50] an EIS must disclose and discuss responsible opposing views,[51] taking a "hard look" at the environmental consequences of its decision to go forward with a project.[52] A "[c]ourt is not required to decide whether the EIS is based on the best scientific methodology available, or to resolve disagreements among experts. Instead, the [c]ourt's task is to ensure that the procedure followed resulted in a reasoned analysis of the evidence."[53] "While the review [of an EIS] must be careful, the ultimate standard is a narrow one. A court is not to substitute its judgment for that of the agency."[54] The "arbitrary and capricious" standard of judicial review applies, however, there is no private right of action for private parties.[55]

The number, time, and cost of NEPA compliance is less than expected.[56] The Government Accountability Office estimated that approximately 95% of agency actions requiring possible environmental review escape such review based on Categorical Exclusions,[57] while

45. *Id.* § 102(2)(C), 42 U.S.C. § 4332(C).

46. *Id.*

47. *Id.* § 102(2)(C)(i), 42 U.S.C. § 4332(2)(C)(i).

48. *Id.* § 102(2)(C)(ii), 42 U.S.C. § 4332(2)(C)(ii).

49. *Id.* § 102(2)(C)(iii), 42 U.S.C. § 4332(2)(C)(iii).

50. *See* Sierra Club v. Kimbell, 595 F. Supp. 2d 1021, 1039 (D. Minn. 2009) ("There is no requirement that an EIS include all of the underlying data on which it is based.").

51. Pac. Coast Fed'n of Fishermen's Ass'ns v. Nat'l Marine Fisheries Serv., 482 F. Supp. 2d 1248, 1253 (W.D. Wash. 2007).

52. Wilderness Soc'y v. Salazar, 603 F. Supp. 2d 52, 59 (D.D.C. 2009) (citations omitted).

53. *Pac. Coast*, 482 F. Supp. 2d at 1253.

54. *Wilderness Soc'y*, 603 F. Supp. 2d at 59.

55. *See* Exec. Order No. 12,898, 59 Fed. Reg. 7629, 7632–33 (Feb. 16, 1994) (implying that there is no right to judicial review); Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871, 872 (1990) (holding that there is no private right of action for parties under NEPA); Nevada v. Dep't of Energy, 457 F.3d 78, 87 (D.C. Cir. 2006) (explaining how the arbitrary and capricious standard works for the EIS process).

56. *See* GOV'T ACCOUNTABILITY OFFICE, NATIONAL ENVIRONMENTAL POLICY ACT: LITTLE INFORMATION EXISTS ON NEPA ANALYSES 8–9, 13–14, 16 (2014) [hereinafter GAO], https://www.gao.gov/assets/670/662546.pdf (implying that environmental impact assessments are rare contrary to general expectations).

57. *Id.* at 8.

approximately 5% proceed only to much more abbreviated Environmental Assessments (EAs),[58] leaving less than 1% of all reviewed projects that proceed to a full EIS.[59] Full EISs now typically number less than 200 filed each year by all federal agencies, with federal court cases challenging agency compliance with NEPA now less than 100 cases filed annually, with approximately half challenging the adequacy or completeness of the EIS prepared.[60] A NEPA task force report "estimated that an EIS typically cost[s] from $250,000 to $2 million," whereas "an EA typically costs from $5,000 to $200,000."[61] From 2000 to 2012, the average preparation time for an EIS was 4.6 years, having increased on average at a rate of 34 days per year.[62]

In 2010, the Council on Environmental Quality issued a Draft NEPA Guidance on consideration of climate change and GHG emissions, which suggests a threshold level of direct GHG emissions of 25,000 metric tons annually as an indicator that the climate impacts of a proposed project are significant and warrant analysis under NEPA.[63] The guidance suggests that EISs should address climate mitigation and adaptation measures when considering project alternatives, and that EISs should consider emissions from all stages of a project's life cycle when feasible.[64] This includes indirect or induced emissions from vehicles and material supply chains whenever initial scoping indicates that they might be significant.[65]

Two significant changes have happened since. First, during the Obama Administration, to address climate change, EPA enacted regulations

---

58. *Id.*

59. *Id.*

60. Letter from Robert H. Abrams et al., to Chairman Bishop et al. (Apr. 24, 2018), http://progressivereform.org/articles/Law_Professor_Letter_House_NEPA_Hearing_042418.pdf. *But see* GAO, *supra* note 56, at 9 (showing that although there is a downward trend, the numbers have yet to slip below 190).

61. GAO, *supra* note 56, at 13–14.

62. *See* NAT'L ASS'N OF ENVTL. PROF'LS, ANNUAL NEPA REPORT 2012 OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PRACTICE 11 (Judith Charles et al. eds., 2013), https://ceq.doe.gov/docs/get-involved/NAEP_2012_NEPA_Annual_Report.pdf (noting that the average completion time for an EIS was about 4.6 years in 2012). The average completion time for an EA issued by the Department of Energy was thirteen months; by contrast, the average for the U.S. Forest Service was about nineteen months in 2012. GAO, *supra* note 56, at 14–15.

63. *See* Memorandum from Nancy H. Sutley, Chair, Council on Envtl. Quality, to Heads of Fed. Dep'ts & Agencies, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions 1–2 (Feb. 18, 2010), https://www.nrc.gov/docs/ML1006/ML100601337.pdf (encouraging the concept that sources emitting less than 25,000 metric tons a year should still be considered when analyzing a project's cumulative long-term emissions). For long-term projects that have annual emissions of less than 25,000 metric tons, the guidance encourages federal agencies to consider whether the project's cumulative long-term emissions might still warrant analysis. *Id.*

64. *Id.* at 1.

65. *Id.*

pursuant to the Clean Air Act to regulate CO_2 emissions from electric power generation facilities.[66] The Clean Air Act covers all "major stationary sources" that can potentially emit at least 100 or 250 tons of the relevant pollutant annually.[67] As to GHG regulation, EPA chose only to regulate those sources whose GHG emissions exceeded 75,000 tons per year for modifications or 100,000 tons per year for new construction.[68] When challenged, the Supreme Court held that: "an agency has no power to 'tailor' legislation to bureaucratic policy goals by rewriting unambiguous statutory terms. Agencies exercise discretion only in the interstices created by statutory silence or ambiguity; they must always 'give effect to the unambiguously expressed intent of Congress.'"[69] The agency's power to execute the laws "does not include a power to revise clear statutory terms that turn out not to work in practice."[70]

This decision did permit the EPA to impose its GHG regulations on facilities also emitting CO_2 that were already regulated under another part of the Clean Air Act.[71] EPA separately also enacted distinct Clean Air Act Section 111(d) rules restricting CO_2 emissions from existing, as opposed to new, power plants in the Clean Power Plan, which allowed pollution controls administered beyond the fence line of the affected project's site metes and bounds.[72] The *Utility Air Regulatory Group* majority opinion stressed that CO_2 emission controls are placed at the plant.[73]

Second, changing course in November 2017, the Trump Administration announced the repeal of the CPP.[74] In the last few days of 2017, the EPA issued an Advance Notice of a Proposed Rulemaking to replace the CPP.[75] In the interim, the unprecedented stay of the CPP by the

---

66. JAMES E. MCCARTHY, CONG. RES. SERV., R44312, EPA STANDARDS FOR GREENHOUSE GAS EMISSIONS FROM POWER PLANTS: MANY QUESTIONS, SOME ANSWERS, at 2 (Nov. 15, 2013), https://fas.org/sgp/crs/misc/R44312.pdf.

67. STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES & EXPLANATIONS 208 (7th ed. 2016).

68. Util. Air Regulatory Grp. v. EPA, 134 S. Ct. 2427, 2437 (2014).

69. *Id.* at 2445 (quoting Nat'l Ass'n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 665 (2007)).

70. *Id.* at 2446.

71. *See id.* at 2449 ("Our narrow holding is that nothing in the statute categorically prohibits EPA from interpreting the BACT provision to apply to greenhouse gases emitted by 'anyway' sources.").

72. *Id.* at 2453–54.

73. *Id.* at 2450.

74. Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 51,787, 51,787 (Nov. 8, 2017) (to be codified at 40 C.F.R. pt. 60).

75. State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61,507, 61,507 (proposed Dec. 28, 2017) (to be codified at 40 C.F.R. pt. 60).

Supreme Court in *West Virginia v. EPA*[76] reflects the progressive retreat from *Chevron* deference, previously afforded to agency decisions—embodied indirectly in several recent Supreme Court cases,[77] including *Utility Air Regulatory Group v. EPA*,[78] *King v. Burwell*,[79] and *Michigan v. EPA*.[80] The Court's order granting the stay applied directly to EPA's CPP rule, rather than to a lower court judicial decision as it does in all other matters.[81] No party in the matter was able to point to any previous case in which the Supreme Court had stayed an agency rule before any court had reviewed it on its merits.[82] And, in 2018, the Trump Administration removed GHG emissions from EIS consideration.[83]

C. State Environmental Review Requirements

Even with a retreat in environmental and climate matters at the federal level, many states have similar environmental consideration requirements at the state level.[84] Here we highlight an example from both coasts. The California Sustainable Communities and Climate Protection Act requires the state Air Resources Board to establish GHG emission reduction targets for each Metropolitan Planning Organization (MPO) in California, each including a county.[85] Each MPO must then prepare a Sustainable Community Strategy, combining land-use and transportation planning, to achieve state goals, which allows qualifying developments to enjoy streamlined NEPA-like review under California's Environmental Quality Act.[86] This is designed to reduce work-related vehicle miles traveled by

76. West Virginia v. EPA, 136 S. Ct. 1000, 1000 (2016).

77. *Compare* Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842–43 (1984) (establishing the legal test given to determine deference to a government agency's interpretation of a statute), *with* Nicholas R. Bednar & Kristin E. Hickman, Chevron*'s Inevitability*, 85 GEO. WASH. L. REV. 1392, 1408 (2017) (discussing the Court's retreat from *Chevron*).

78. *See* Util. Air Regulatory Grp. v. EPA, 573 U.S. 302, 324 (2014) (disfavoring new agency interpretation).

79. *See* King v. Burwell, 135 S. Ct. 2480, 2488–89 (2015) (disregarding the opinion of non-expert agencies).

80. Michigan v. EPA, 135 S. Ct. 2699, 2707–08 (2015) (interpreting a statute as requiring agency consideration of costs before regulation).

81. *West Virginia*, 136 S. Ct. at 1000.

82. Lisa Heinzerling, *The Supreme Court's Clean-Power Power Grab*, 28 GEO. ENVTL. L. REV. 425, 425 (2016).

83. Nadja Popovich et al., *78 Environmental Rules on the Way Out Under Trump*, N.Y. TIMES, https://www.nytimes.com/interactive/2017/10/05/climate/trump-environment-rules-reversed.html (last updated Dec. 28, 2018).

84. S.B. 375, 2007–2008 Leg., Reg. Sess. (Cal. 2008).

85. *Id.*

86. *Id.*

impacting housing development patterns.[87] Consistent projects that enjoy expedited review must include dense residential developments near public transit, to be served by existing utility infrastructure, and be more energy efficient than required by code.[88]

Moreover, California became the first state to preempt local zoning to require each city or town to permit accessory residential units on existing parcels to promote infilling of more dense residential land-use patterns, which could reduce transportation mileage.[89] In Massachusetts, under the Massachusetts Environmental Policy Act (MEPA)[90]—a NEPA analogue[91]—a 2010 GHG policy provides a list of 95 mitigation measures that should be considered by a proponent during the MEPA review process.[92] Pursuant to the MEPA Greenhouse Gas Emissions Policy and Protocol, if a project requires a mandatory Environmental Impact Report (EIR) or the Secretary requires the preparation of an EIR on a discretionary basis, the Secretary's Certificate on the Environmental Notification Form will include a scope for the quantification of project-related GHG CO_2 emissions.[93] Applicants must identify both the "direct"[94] and "indirect"[95]

87. *Id.*

88. *See The Basics of SB 375*, INST. FOR LOCAL GOV'T, https://www.ca-ilg.org/post/basics-sb-375 (last visited Apr. 27, 2019) (explaining the requirements placed on California through S.B. 375).

89. S.B. 375.

90. 301 MASS. CODE REGS. 11.00 (2013).

91. *See generally* Daniel P. Selmi, *Themes in the Evolution of the State Environmental Policy Acts*, 38 URB. L. 949, 951 n.16 (2006) (highlighting MEPA as one of several state statutes analogous to NEPA).

92. EXEC. OFFICE OF ENERGY & ENVTL. AFFAIRS, COMMONWEALTH OF MASS., REVISED MEPA GREENHOUSE GAS EMISSIONS POLICY AND PROTOCOL 14–17 (2010), https://www.mass.gov/files/documents/2016/08/tb/ghg-policy-final.pdf [hereinafter MEPA REVISED POLICY AND PROTOCOL]. Some of the suggestions made by the Office of Energy and Environmental Affairs include: design the project to support alternative transportation to site including transit, walking, and bicycling; minimize energy use through proper building orientation and use of appropriate landscaping (e.g., trees for shading parking lots or southern facing facades); design roofs at a minimum to be solar ready; use energy efficient boilers, heaters, furnaces, incinerators, or generators; construct green roofs to reduce heat load on roof, further insulate, and retain and filter rainwater; use demand control ventilation; seal and leak-check all supply air ductwork, etc. *Id.* at 14–15.

93. *Id.* at 2. The CO_2 quantification process requires the proponent to: (1) identify the project baseline, (2) calculate estimated GHG emissions from the project baseline condition, and (3) calculate estimated emissions reductions based on mitigation measures by comparing project alternatives to the baseline. *Id.* at 3.

94. EXEC. OFFICE OF ENERGY & ENVTL. AFFAIRS, COMMONWEALTH OF MASS., SUMMARY OF THE FINAL REVISIONS TO THE MEPA GREENHOUSE GAS EMISSIONS POLICY AND PROTOCOL 8 (2010), https://www.mass.gov/files/documents/2016/08/rp/ghg-policy-final-summary.pdf [hereinafter MEPA FINAL REVISIONS]. On-site combustion occurs whenever a stationary source such as a boiler, heater, furnace, incinerator, oven, etc. burns fossil fuels for heat, hot water, or on-site electricity generation. *Id.* If the proposed project will have fleet vehicles on-site, such as forklifts, tractors, fueling trucks, maintenance and security vehicles, then the CO_2 emissions from those vehicles must be included in the calculation of "direct" emissions. *Id.*

sources of GHG emissions that the project will emit or produce. "Indirect" emissions include the CO_2 emitted through the generation of electricity for the project,[96] employing the ISO-New England Marginal Emissions Report, which calculates the average amount of CO_2, expressed in pounds, produced for every megawatt hour of electricity generated for a variety of stationary combustion sources.[97] Projects also generate GHG emissions indirectly through traffic generation and associated fuel combustion, which under state law must be modeled for employees, vendors, customers, and others.[98]

While this Massachusetts analysis focuses primarily on CO_2, analysis of other GHGs may be required for certain projects including emissions from various manufacturing processes, including hydrofluorocarbons and perfluorocarbons from the manufacturing, servicing, and disposal of refrigeration and air conditioning equipment, using the Energy Information Administration's Emissions Factor and Global Warming Potentials or similar sources.[99] When calculating the baseline for transportation-related emissions for a new facility, this state GHG policy requires estimation of the net new trips within the study area identified for the project's traffic study.[100]

---

95. *Id.* "Indirect" emissions are emissions from generating plants supplying electricity to the proposed project and emissions from vehicle trips generated by the project. MEPA REVISED POLICY AND PROTOCOL, *supra* note 92, at 4. The proponent must calculate how much energy, including electricity, heat, and cooling the project will consume and then calculate the GHG emissions produced by off-site facilities providing such energy. *See id.* (explaining what constitutes indirect emissions). With regard to vehicle trips, the proponent must determine the number of employees, vendors, customers, and others who will drive to the project and calculate the CO_2 emissions produced by those trips. *Id.* at 5.

96. MEPA FINAL REVISIONS, *supra* note 94.

97. ISO NEW ENGLAND INC., 2007 NEW ENGLAND MARGINAL EMISSION RATE ANALYSIS 4–5 (2009), http://www.iso-ne.com/genrtion_resrcs/reports/emission/2007_mea_report.pdf.

98. *See* MEPA REVISED POLICY AND PROTOCOL, *supra* note 92, at 9 (detailing the steps required to "calculate a baseline for [indirect] transportation-related emissions from [most] proposed Projects"). The model must estimate projected net new trips within the study area identified for the project traffic study. *Id.* Net new trips are expressed in daily vehicle miles of travel for weekday and weekend conditions, multiplied by annual miles per year by the appropriate EPA MOBILE 6.2 CO_2 emission factors (grams per mile) and divided by 907,185 grams per ton to obtain annual CO_2 emissions (tons per year). *Id.* at 9 & n.6. MOBILE 6.2 provides emission factors by vehicle type, ranging from 368.5 grams per mile for light-duty gasoline vehicles up to 1,633.1 grams per mile for the heaviest diesel trucks. *Id.* at 9 n.7.

99. *Id.* at 3. These data sources are available online at *Frequently Asked Questions*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/tools/faqs/faq.php?id=76&t=11 (last updated Feb. 6, 2019) (noting emissions factors) and *Emissions of Greenhouse Gases in the United States 2009*, U.S. ENERGY INFO. ADMIN. (Feb. 2011), https://www.eia.gov/environment/emissions/ghg_report/pdf/tbl1.pdf (noting global warming potentials).

100. MEPA REVISED POLICY AND PROTOCOL, *supra* note 92, at 9. This should be expressed in daily vehicle miles of travel (VMT) for weekday and weekend conditions and the calculations for

Once the baselines are determined, the proponent must calculate and compare GHG emissions associated with alternative mitigation measures.[101] In addition to outlining the mitigation measures that were chosen, the proponent should explain which alternative measures were rejected, and the reasons for rejecting them.[102] Mitigation for siting and design variables include smaller corporate or industrial building footprints, on-site deployment of solar photovoltaic or other renewable energy sources, and transportation CO_2 mitigation alternatives, like carpooling or alternative means of transportation.[103] The list of measures that corporations can take to reduce the amount of emissions created as a result of transportation could include: changes in siting and project design to emphasize transit options, subsidizing transit passes, bicycle storage and shower areas, a reduction in idling or a prohibition of engine idling in loading areas, an increase in telecommuting, rightsizing parking capacity, alternative fuel, and a concentration on pedestrian access.[104]

For new corporate activities that require a major federal or state permit, funding, or other major action, the EIS process requires evaluation of significant environmental impacts, alternatives, and mitigation options.[105] This now includes GHG emissions and climate impact.[106] However, the consideration of carbon as part of an EIS at the federal or state levels has not been that effective in changing carbon emissions.[107] These consideration processes are procedural rather than substantive.[108] The primary reduction in carbon has been in the regulated power sector and less so in the transportation sector or under the NEPA process, which only

---

customers, employees, and truck trips should be analyzed separately. *Id.* The direct emissions from fleet vehicles, if any, are also calculated by determining VMT. *Id.* at 10. The Office of Energy and Environmental Affairs suggests that proponents consider the vehicle class, number of vehicles, vehicle speeds, and average number and distance of on-site trips for the various fleet vehicles. *Id.*

101. *Id.* at 6.

102. *Id.* at 7.

103. *Id.* at 9.

104. ALICIA MCDEVITT, EXEC. OFFICE OF ENERGY & ENVTL. AFFAIRS, MASSACHUSETTS ENVIRONMENTAL POLICY ACT (MEPA) GREENHOUSE GAS (GHG) EMISSIONS POLICY AND PROTOCOL OVERVIEW 14 (2008)[hereinafter MEPA POLICY AND PROTOCOL].

105. *Corporate Energy Responsibility*, *supra* note 4, at 115.

106. Sierra Club v. FERC, 867 F.3d 1357, 1371 (D.C. Cir. 2017) (citations omitted).

107. MEPA POLICY AND PROTOCOL, *supra* note 104, at 6, 9.

108. *See* ELIZABETH SHEARGOLD & SMITA WALAVALKAR, COLUM. CTR. FOR CLIMATE CHANGE LAW, NEPA AND DOWNSTREAM GREENHOUSE GAS EMISSIONS OF U.S. COAL EXPORTS 27 (2013), http://wordpress.ei.columbia.edu/climate-change-law/files/2016/06/Sheargold-and-Walavalkar-2013-08-NEPA-and-Downstream-GHG-Emissions.pdf (describing NEPA as a procedural statute).

requires a consideration of major new actions that require permits or benefits from government funding.[109]

III. THE CORPORATION ROLE AS SUPPLIER OF POWER

A. The Corporation as Microeconomic Stakeholder

The International Energy Agency predicts that by 2030, world demand for energy will grow by 57% and fossil fuel sources will still supply 82% of the total, with non-carbon renewable energy sources supplying only 6%.[110] It has been estimated that a $10 trillion expenditure in renewable resources will be required over the next two decades just to limit the rise in Earth temperature.[111] This is equal to 0.5–1.1% of global gross domestic product.[112] The role of renewable energy must change dramatically, and quickly, to mitigate climate change.[113]

And there is significant corporate change in the U.S.[114] Recently, renewable energy and energy efficiency were primary sources responsible for the 4.2% decrease in power sector carbon emissions achieved in 2017.[115] Renewable electric energy and natural-gas-powered generation are quickly supplanting coal generation in the last five years in the U.S., with coal receding from supplying more than half of all U.S. electricity; coal provided 30.1% of our nation's electricity in 2017, while natural gas

---

109. *See* EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS 1990-2016, at ES-6 (2018), https://www.epa.gov/sites/production/files/2018-01/documents/2018_complete_report.pdf (highlighting that from 2005 to 2016, CO_2 emissions decreased in the power sector by 591.6 million metric tons CO_2 equivalent and decreased in the transportation sector by 73.2 million metric tons CO_2 equivalent).

110. *Corporate Energy Responsibility*, *supra* note 4, at 87. This assumes an absence of new regulatory renewable energy incentives. INT'L ENERGY AGENCY, *supra* note 16. According to the EPA, the purpose of this new rule is to collect accurate and timely data to inform future policy decisions. *Id.*

111. *IEA's $10 Trillion Climate Price Tag*, ELECTRICITY J., Dec. 2009, at 1–2. It might achieve about as much in saved energy acquisition costs—$8.6 trillion by 2030. *Id.*

112. *Id.*

113. *See* Deepa Badrinarayana, *"Gatting" the New Climate Treaty Right: Leveraging Energy Subsidies to Promote Multilateralism*, 39 FORDHAM INT'L L.J. 179, 197 (2015) ("Renewable energy is crucial to reduce greenhouse gas emissions.").

114. *See* Brad Plumer, *A Year After Trump's Paris Pullout, U.S. Companies Are Driving a Renewables Boom*, N.Y. TIMES (June 1, 2018), https://www.nytimes.com/2018/06/01/climate/companies-renewable-energy.html (explaining companies' investment in wind and solar projects that contribute significantly to renewable energy's growth).

115. BLOOMBERG NEW ENERGY FIN. & BUS. COUNCIL FOR SUSTAINABLE ENERGY, 2018 FACTBOOK: SUSTAINABLE ENERGY IN AMERICA 3–4 (2018), http://www.bcse.org/wp-content/uploads/2018-Sustainable-Energy-in-America-Factbook_Executive-Summary.pdf [hereinafter SUSTAINABLE ENERGY IN AMERICA].

supplied 37.1%.[116] The cost of wind power has dropped to be competitive with the price of some more traditional fossil fuel resources for electricity generation.[117] Wind, along with natural gas, has dominated new sources of electric energy deployed in the most recent decade.[118] In 2012, wind energy was the most installed new U.S. electricity generation source, at 43% of all new electric generation.[119] Wind energy provided 6.3% of total U.S. power supplies in 2017.[120]

Since 2009, U.S. solar generation has increased by 2,000%.[121] The cost to install photovoltaic solar panels has fallen dramatically by about 60%, with photovoltaic module prices decreasing from approximately $1.90 per watt in 2009 to $0.36 per watt in 2017.[122] Solar power inverter prices have also declined by more than 60% from $0.60 to $1.00 or more per watt in 2005 to under $0.20 per watt in 2013.[123] This has permitted the solar photovoltaic market to grow at an average rate of more than 40% each year between 2010 and 2016.[124] Solar energy was predicted to be competitive in cost with retail electricity prices in 47 U.S. states by 2016 under current federal and state subsidies.[125]

---

116. *Industry Data*, EDISON ELECTRIC INST., http://www.eei.org/resourcesandmedia/industrydataanalysis/industrydata/Pages/default.aspx [http://webcache.googleusercontent.com/search?q=cache:kP5cQJxo4O4J:www.eei.org/resourcesandmedia/Pages/IndustryData.aspx+&cd=1&hl=en&ct=clnk&gl=us] (last visited Apr. 27, 2019).

117. Tara Patel, *Fossil Fuels Losing Cost Advantage over Solar, Wind, IEA Says*, BLOOMBERG (Aug. 31, 2015), http://www.bloomberg.com/news/articles/2015-08-31/solar-wind-power-costs-drop-as-fossil-fuels-increase-iea-says.

118. *Energy Dept. Reports: U.S. Wind Energy Production and Manufacturing Reaches Record Highs*, U.S. DEP'T OF ENERGY (Aug. 6, 2013), http://energy.gov/articles/energy-dept-reports-us-wind-energy-production-and-manufacturing-reaches-record-highs.

119. *Id.*

120. *Frequently Asked Questions: What Is U.S. Electricity Generation by Energy Source?*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/tools/faqs/faq.php?id=427&t=3 (last updated Oct. 29, 2018).

121. *Solar Industry Research Data*, SOLAR ENERGY INDUSTRIES ASS'N, https://www.seia.org/solar-industry-research-data (last visited Apr. 27, 2019).

122. WILSON RICKERSON ET AL., INT'L ENERGY AGENCY: RENEWABLE ENERGY TECH. DEPLOYMENT, RESIDENTIAL PROSUMERS - DRIVERS AND POLICY OPTIONS (RE-PROSUMERS) 9 (2014), http://iea-retd.org/wp-content/uploads/2014/06/RE-PROSUMERS_IEA-RETD_2014.pdf.

123. *Id.*; *see* Ian Clover, *IHS Cuts Global Inverter Market Forecast in Face of Dramatic Price Drops*, PV MAG. (Oct. 16, 2013), https://www.pv-magazine.com/2013/10/16/ihs-cuts-global-inverter-market-forecast-in-face-of-dramatic-price-drops_100013052/ (forecasting increased sales of solar inverter units based on a drop in the prices). *See generally* A REVIEW OF PV INVERTER TECHNOLOGY COST AND PERFORMANCE PROJECTIONS, NAT'L RENEWABLE ENERGY LAB. (2006) (detailing the state of inverters in 2006), https://www.nrel.gov/docs/fy06osti/38771.pdf.

124. FRAUNHOFER INST. FOR SOLAR ENERGY SYS., PHOTOVOLTAICS REPORT 5 (2017), https://perma.cc/LH54-ZJYD.

125. Ari Natter, *Solar Energy to Reach 'Grid Parity' in Nearly All States by 2016, Deutsche Bank Predicts*, Energy & Climate Rep. (BNA) No. 207, at 11 (Oct. 27, 2014). This is based on the assumption that the cost of solar systems will decline by about 20% more, from less than $3 per watt

New solar power surpassed new wind and new gas power plant construction in the fourth quarter of 2017, as well as in the first quarter of 2018.[126] Wind projects in the U.S. cost an average $45 per megawatt hour for capacity and energy without other subsidies and $58 per megawatt hour for solar.[127] By 2040, as solar panels become more efficient and manufacturing costs continue to decline, solar could operate at the identical cost to wind.[128] This creates a positive, cost-effective option for corporations to generate some of their own power requirements from wind or solar power on-site on any unblocked roof with solar insolation.[129] Many large retail chain stores and manusfacturers are putting solar panels on their roofs.[130] In descending order of most 2012 solar use: Wal-Mart, Costco, Kohl's, IKEA, Macy's, McGraw-Hill, Johnson & Johnson, Staples, Campbell's, and Walgreens.[131] The amount of solar power capacity per company ranged from 8 to65 megawatts, among the 5,700 megawatts of then-installed solar capacity in the U.S.[132] Wal-Mart is seeking to supply 100% of its energy needs with on-site solar power.[133]

To put solar energy in context: solar energy is the source of all energy on earth, creating wind and water movement and ultimately creating plants, biomass, and animals that become fossil fuels when their organic matter decays.[134] While the energy output of the sun in the direction of the Earth is about 1,300 W/m^2 at its source, only one-quarter of the solar constant value

---

installed to less than $2.50 per watt installed, resulting in a net price from $0.09 to $0.14/kWh, and lowered financing cost for solar projects. *Id*. "The average cost of residential electricity in the U.S. in 2013 was 12.12 cents per kilowatt hour, an increase from 8.95 cents per kilowatt hour in 2004." *Id.*

126. Chris Martin, *Solar Has Overtaken Gas and Wind as Biggest Source of New U.S. Power*, BLOOMBERG (June 12, 2018), https://www.bloomberg.com/news/articles/2018-06-12/solar-surpasses-gas-and-wind-as-biggest-source-of-new-u-s-power.

127. Jim Efstathiou Jr & Brian K Sullivan, *Smarter Wind Turbines Try to Squeeze More Power on Each Rotation*, BLOOMBERG (May 9, 2018), https://www.bloomberg.com/news/articles/2018-05-09/smarter-wind-turbines-try-to-squeeze-more-power-on-each-rotation.

128. *Id.*

129. *Id.*

130. Gail Roberts, *Retail Industry Sees Bright Future with Solar at More Big Stores as Panel Prices Plummet*, ELECTRIC UTIL. WK., Oct. 29, 2012, at 20.

131. *Id.*

132. *Id.*

133. *Id.*

134. Plants are a significant source of energy. Photosynthesis is an endothermic reaction requiring 2.8 mega joules of solar radiation to synthesize one molecule of glucose from six molecules of CO_2 and H_2O. VACLAV SMIL, ENERGIES: AN ILLUSTRATED GUIDE TO THE BIOSPHERE AND CIVILIZATION 42 (1999). Most of the terrestrial phytomass productivity in storage is in large trees in forests; phytoplankton species in the oceans store this mass in the hydrologic cycle. *Id.* at 46. Phytoplankton productions are 65–80% of the terrestrial phytomass total, but phytoplankton has a life span of only 1–5 days. *Id.* at 48. The most voluminous trees are the most massive life forms on Earth, with the most phytomass, and are even larger than blue whales in mass. *Id.* at 51. Tropical forests use available nutrients rather inefficiently. *Id.*

reaches the Earth's spherical surface, one-third of which is reflected back into space by the Earth's atmosphere.[135] Solar energy yields as much as 342 W/m^2 at the surface of the Earth at noon on a cloudless day, or about 170 W/m^2 of solar radiation in an average hour over the course of a year reaches the Earth's oceans, and about 180 W/m^2 reaches the land surfaces.[136]

Human capture of this energy is not efficient; energy used by humans equals only about 0.01% of the total solar energy reaching the Earth.[137] Wind power's global energy potential is 35 times that of current world electricity use.[138] Solar energy provides as much potential energy as humankind uses each year approximately every 70 minutes.[139] In fact, no nation on earth uses more energy than the energy content contained in the sunlight striking existing buildings within the U.S. every day.[140] The solar energy falling on American roads each year contains roughly as much energy content as all the fossil fuel consumed in the world during that same year.[141] All of this is available for corporate capture on land and roofs that corporations own or use.[142]

B. 2018 Tax Law Changes: Not Always Positive for Renewable Technologies

The Republican Tax Cuts and Jobs Act enacted at the end of 2017, effective for 2018 and after,[143] affects investment in the energy sector. The tax reforms particularly affect capital-intensive industries, which characterizes electricity and other energy corporate sectors.[144] Despite the attention over permanent, dramatically lower tax rates for corporations, this

---

135. *Id.* at 4–5. This results in total solar radiation annually of 2.7×10^{24} joules. *Id.* at 6. This amount of energy reaching the Earth in the form of solar radiation is about 8,000 times more than worldwide consumption of fossil fuels and electricity. *Id.*

136. *Id.*

137. STEVEN FERREY WITH ANIL CABRAAL, RENEWABLE POWER IN DEVELOPING COUNTRIES: WINNING THE WAR ON GLOBAL WARMING 36 (2006).

138. Amory B. Lovins et al., *Forget Nuclear*, 24 ROCKY MOUNTAIN INST. 1, 25 (2008).

139. *Id.*

140. GLOBAL WARMING TOOLBOX, *supra* note 9, at 32.

141. *Id.*

142. *Id.*

143. Tax Cuts and Jobs Act, Pub. L. No. 115–97, § 11001(a)(j)(1), 131 Stat. 2054, 2054 (2017) (noting that the effective date begins "after December 31, 2017"). *See generally Legal Alert: Final Tax Reform Bill Released – What Does It Mean for the Energy Sector?*, EVERSHEDS SUTHERLAND (Dec. 19, 2017), https://us.eversheds-sutherland.com/NewsCommentary/Legal-Alerts/207153/Legal-Alert-Final-Tax-Reform-Bill-Released-What-Does-it-Mean-for-the-Energy-Sector (highlighting how the bill will affect investment in the energy sector).

144. For more information, see Michael H. Levin, *Will the Tax Cuts Act Cut Back AD?*, BIOCYCLE (Feb. 8, 2018), https://www.biocycle.net/2018/02/08/will-tax-cuts-act-cut-back-ad/ (discussing how capital-intensive industries, such as renewable energy projects, react to tax reforms).

tax reform, which helps businesses generally, may not significantly help corporations address technologies that mitigate climate change.[145] There are several 2018 tax law changes affecting corporations and climate.[146]

1. Decrease in Corporate Tax Rate

This tax-reform act, effective in 2018, dramatically lowered the corporate tax rate on a permanent basis, unlike the graduated rate reductions for individual taxpayers which are temporary.[147] The corporate tax rate was changed to a flat 21% tax.[148] This reduction of more than 40% from the prior rate creates a much less significant margin to attract tax equity financing for energy projects that cannot utilize non-refundable energy credits or losses in their early years of operation.[149] Tax-equity financing often will constitute one-third of energy investment capital for renewable energy projects that cannot utilize the non-refundable energy credits or losses in their early years of operation.[150] At the reduced corporate tax rate of 21%, reduced from a prior top rate of 35%, the value of these tax credits are reduced by more than 40%, as is the cash-value saving realized from depreciation and bonus depreciation taken by the corporation on capital investments.[151] This reduced cash value affects the ability to monetize both tax credits and depreciation deductions as part of independent renewable energy project financing.[152] This reduction also will cause some existing equity financing structures for energy projects to "flip" partnership structures at an earlier point in time.[153]

---

145. Press Release, Ctr. for Am. Progress, As U.S. House Prepares to Vote on Yet More Tax Breaks and Extenders, New CAP Brief Highlights Fiscal Damage Stemming from the Tax Cuts and Jobs Act (Nov. 29, 2018), https://www.americanprogress.org/press/release/2018/11/29/461591/release-u-s-house-prepares-vote-yet-tax-breaks-extenders-new-cap-brief-highlights-fiscal-damage-stemming-tax-cuts-jobs-act/ (highlighting that the bill fails "to address any of the nation's most pressing challenges—such as . . . preventing climate change").

146. *See generally* Tax Cuts and Jobs Act, 131 Stat. at *passim* (providing an overview for the laws going into effect for fiscal year 2018).

147. Levin, *supra* note 144.

148. *Id.*

149. *Id.*

150. From author's experience working on financing energy projects. For detailed treatment of tax-equity finance for corporate energy projects, *see* LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.115, at 3–282.95.

151. *Id.*

152. *Id.*

153. Levin, *supra* note 144.

2. Depreciation Deductions

The tax-reform act affects the value of depreciation deductions for energy projects.[154] At the new, lower corporate tax rate of 21%, down from a prior top rate of 35%, the value of depreciation and bonus depreciation are reduced.[155] This reduced cash value affects the ability to monetize depreciation deductions as part of project financing.[156]

At the federal level, Modified Accelerated Cost Recovery System (MACRS) consists of two systems that determine how a business depreciates business property: the General Depreciation System (GDS) and the Alternative Depreciation System (ADS).[157] A business must use GDS unless it is specifically required by law to use ADS or it elects to use ADS.[158] The ADS is a system the IRS requires to be used in special circumstances to calculate depreciation on certain business depreciable assets.[159] ADS generally increases the number of years over which property is depreciated, thus decreasing the annual depreciation deduction against income.[160] Each item of property that can be depreciated under MACRS is assigned to a property class, determined by its class life.[161] Solar energy projects enjoy an accelerated five-year depreciation period for corporations under § 168 of the code,[162] as well as bonus depreciation.[163] Bonus depreciation earned by corporations in the power industry is estimated to be $10 billion.[164]

---

154. *See id.* (describing the effect of the Republican tax-reform act).

155. *Id.*

156. *See* LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.115, at 3–282.95 ("[R]eduction . . . will cause some existing equity financing structures for energy projects to 'flip' partnerships at an earlier point in time to put these project ownership from equity financiers to project developers.").

157. *Id.* § 3:56, at 3–223.

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.*

162. I.R.C. § 168(e)(3)(B)(vi)(I) (2012); LAW OF INDEPENDENT POWER, *supra* note 14, § 3:56, at 3–223, § 3:57, 3–230.

163. I.R.C. § 168(k)(1)(A)–(B).

164. *See* Paul Carlsen, '*Bonus Depreciation' Boosting Industry Cash Flow About $10 Billion, But More IRS Guidance Awaited*, ELECTRIC UTIL. WK., Mar. 14, 2011, at 25, 25 (asserting that bonus depreciation would provide $10 billion over the next few years).

3. Expensing of Capital Investments

The tax-reform act[165] allows small businesses immediately to expense up to $1 million in qualified expenditures (including costs of modifications to use biogas or of new roofs to support solar panels)—a 33% increase from past amounts of $750,000.[166] It also allowed all businesses to claim 100% bonus depreciation in the first year on equipment purchased after September 27, 2017 and placed in service after January 1, 2018 (subject to a phase-down of 20% for equipment placed in service during each year after 2022).[167] The 100% figure represents a nominal doubling of the previous bonus depreciation deduction.[168]

4. Interest Deduction on Debt Financing

The tax-reform act capped business interest deductions to 30% of an entity's earnings before interest, taxes, depreciation, and amortization (EBITDA).[169] More severe caps are implemented after 2021.[170] Interest deductions previously were not capped, and all interest was deductible.[171]

5. Net-Operating Losses

The tax-reform act restricts the value and application of project operating losses.[172] Under past and current tax law, tax losses are not refundable in a given tax year.[173] Therefore, they need to be applied to either past or future tax years to offset net operating income.[174] For energy investments, project structure often utilizes special-purpose entities to

---

165. Tax Cuts and Jobs Act, Pub. L. No. 115–97, § 11001(a), 131 Stat. 2054, 2054 (2017).

166. *Id.* § 13101(a), (f), 131 Stat. at 2101; *see also* Levin, *supra* note 144 ("[T]he Act allows small businesses immediately to expense up to $1 million in qualified expenditures (including costs of modifications to use biogas or of new roofs to support solar panels) . . . .").

167. Tax Cuts and Jobs Act, § 13201(a)(1)–(2), 131 Stat. at 2105.

168. *See id.* (doubling the rate from 50% to 100% for equipment "placed in service after September 27, 2017, and before January 1, 2023").

169. *Id.* § 13301(a), 131 Stat. at 2117; Levin, *supra* note 144.

170. Tax Cuts and Jobs Act, § 13301(8)(A)(v), 131 Stat. at 2120; Levin, *supra* note 144.

171. *See* Levin, *supra* note 144 (implying that, until 2018, interest deductions did not have a cap and noting that "all business-related interest generally was deductible").

172. *See id.* ("[T]he Act generally restricts NOL deductibility to 80 percent of an acquirer's taxable income.").

173. *See id.* (explaining that prior to the act, tax losses could either be carried forward or backward; after adopting the act, tax losses can only be carried forward).

174. *Id.*

manage the equity of the project.[175] This insulates company risk to the special purpose entity holding the equity of the project.[176]

Prior to the 2018 tax law changes, project net-operating losses (NOLs) were allowed to be carried back 2 previous tax years or carried forward to 20 future tax years at full 100% value to offset past or future net taxable income.[177] If applied to one of the prior two years with net income, they would generate immediate refundable tax rebates with an amendment of a prior year tax return.[178] If carried forward, the taxpayer would need to wait for future years to monetize these deductions against future taxable income.[179] The 2018 Act also makes use of NOLs unidirectional: it eliminates reverse direction "carryback" of losses.[180] The forward direction is preserved, with 20-year deductibility of NOLs being carried forward.[181]

There also is a 2018 change in value of business losses.[182] The 2018 Act restricts NOL deductibility to 80% of taxable income instead of the prior full 100% deductibility.[183] NOLs were monetized by bringing in new equity owners or partners who had past or future tax year net income against which they could utilize accumulated losses.[184] However, all owners, whether original or new, are subject to these new restrictions on percentage credit value.[185]

---

175. *See* Joel Meister, *Sunny Dispositions: Modernizing Investment Tax Credit Recapture Rules for Solar Energy Project Finance After the American Recovery and Reinvestment Act*, 5 GEO. WASH. J. ENERGY & ENVTL. L. 15, 18 (2014) (explaining that for energy projects, developers often rely on special-purpose entities, such as LLCs).

176. *See id.* (highlighting that if a special-purpose entity defaults, investor assets will be secure from the project's lenders).

177. Levin, *supra* note 144.

178. *See id.* ("'Carrybacks' could generate immediate tax rebates when applied to previous returns.").

179. *See id.* ("'Carryforwards' could reduce future taxes.").

180. *See id.* (describing how the Act effectively eliminates "carryback[s]").

181. *Id.*

182. *See id.* ("[T]he Act generally restricts NOL deductibility to 80 percent of an acquirer's taxable income.").

183. *Id.*

184. *See* Christopher B. Grady, *Finding the Pearl in the Oyster: Supercharging IPOs Through Tax Receivable Agreements*, 111 NW. U. L. REV. 483, 506 (2017) ("NOLs occur when a taxpayer has deductions in excess of gross income for a given tax year, resulting in a net loss for the year. Taxpayers are permitted to carry the loss back to apply to the two preceding years, or carry it forward up to twenty years. In either case, the NOL is allowed as a deduction from the taxable income for that year. Monetization occurs through § 381, which permits an acquiring corporation to carry over certain tax attributes, including NOLs, of the acquired corporation.").

185. *See* Levin, *supra* note 144 ("[T]he Act generally restricts NOL deductibility to 80 percent of an acquirer's taxable income.").

6. Pass-Through Entity Taxes

The tax-reform act affects energy projects which utilize a "pass-through" entity structure, such as an LLC or equivalent structure.[186] The Act provides a permanent 20% tax deduction for these entities' qualifying business income for income-tax calculation.[187] As these tax aspects are passed through to individual energy-project owners, if their income is less than $157,500 for a single taxpayer or $315,000 for a joint taxpayer, this tax reduction can be realized.[188] This may affect how project ownership is structured on future projects or for projects resold.[189]

7. Alternative Minimum Tax

The tax-reform act repealed the corporate Alternative Minimum Tax (AMT), but not the individual AMT.[190] Previously, the AMT raised taxes from energy companies that offset tax by the use of energy investment or production tax credits and other "tax preference" items, and paid tax under AMT rather than ordinary tax rates in the Tax Code.[191] Repeal of the corporate AMT eliminates the risk of AMT recapture during the final six years of eligibility for the ten-year Production Tax Credit (PTC).[192]

C. Corporate Tax Credit Incentives are Reduced and Changing

The U.S. has a price- and cost-driven economic system in which corporations operate.[193] The U.S. tax system, which has embedded in its law and provides tax credits for certain investments and accelerated depreciation of those costs, delivers many incentives.[194] Federal and state

---

186. *See id.* (highlighting that most energy projects utilize an LLC or similar "pass-through" structure).

187. Tax Cuts and Jobs Act, Pub. L. No. 115–97, § 11011(a), 131 Stat. 2054, 2063 (2017).

188. *Id.* § 11011(a), 131 Stat. at 2067.

189. *See generally id.* (providing an overview of the other changes to the tax code).

190. *Id.* § 12001(a)–(b), 131 Stat. at 2092; *see Changes to Alternative Minimum Tax for Corporations and Individuals*, BOWLES RICE, http://www.bowlesrice.com/tax-cuts-and-jobs-act-2018-changes-Alternative-Minimum.html (highlighting that the Act repealed the corporate AMT but left in place the individual AMT) (last visited Apr. 27, 2019).

191. *See* Levin, *supra* note 144 (discussing how AMT was used).

192. *Id.*

193. *See* Anne Sraders, *What Is a Mixed Economy? Pros, Cons and Examples in 2018*, STREET (Oct. 2, 2018), https://www.thestreet.com/markets/what-is-a-mixed-economy-14728913 ("The U.S. . . . [has] a large private sector and free market that allows ample competition and employs efficiency and innovation to produce products . . . .").

194. *See* Mona L. Hymel, *Environmental Tax Policy in the United States: A "Bit" of History*, 3 ARIZ. J. ENVTL. L. & POL'Y 157, 172 (2013) (explaining how the combination of tax credits and

tax credits and falling installation prices augment the success of the solar industry[195] and the proliferation of state net-metering programs—previously in 44 states and now in 38 states.[196] Renewable energy is expected to claim almost two-thirds of the spending on new power plants over the next quarter century—dwarfing spending on fossil fuels—as solar energy moves into a dominant position for new power-generation technology for consumers.[197]

1. Federal Production Tax Credit Legal Changes

Congress created the federal renewable PTC as part of the Energy Policy Act of 1992.[198] The PTC provided a tax credit for the first ten years of operation of renewable energy projects, linked to the amount of kilowatt hours (kWh) of renewable energy generated by the eligible facility.[199] Congress initially set the credit value at $0.015/kWh generated.[200] This value escalated more than 50% since 1992 to a value of $0.024/kWh.[201] The

---

intangible drilling costs deductions caused a rapid depreciation of costs associated with the oil industry, providing an example of how these could apply to greener energy production).

195. *See Solar Industry Research Data*, *supra* note 121 (highlighting that a 70% decline in installation cost and the federal Solar Investment Tax Credit are largely related to the recent success of the solar industry); Sean Paul, *The Solar Industry in a Period of Transition*, GEO. PUB. POL. REV., Nov. 15, 2016, at 2, http://gppreview.com/2016/11/15/solar-industry-period-transition/ (describing how state tax credits for solar development contributed to the recent success of the solar industry).

196. *Compare State Net Metering Policies*, NAT'L CONF. ST. LEGISLATURES (Nov. 20, 2017), http://www.ncsl.org/research/energy/net-metering-policy-overview-and-state-legislative-updates.aspx (explaining that in 2017 there were 38 states that had net-metering programs), *with* Megan Cleveland & Jocelyn Durkay, *State Net Metering Policies*, NAT'L CONF. ST. LEGISLATURES, https://comm.ncsl.org/productfiles/85432742/NCSL_Net_Metering_11_2016.pdf (last updated Nov. 3, 2016) (explaining that in 2016 there were 44 states with net-metering programs).

197. Ehren Goossens, *Renewables to Beat Fossil Fuels with $3.7 Trillion Solar Boom*, BLOOMBERG (June 23, 2015), https://www.bloomberg.com/news/articles/2015-06-23/renewables-to-beat-fossil-fuels-with-3-7-trillion-solar-boom.

198. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:58, at 3–236.7.

199. For past examples, see American Recovery and Reinvestment Act, Pub. L. No. 111–5, 123 Stat. 115, 319–20 (2009); American Tax Payer Relief Act of 2012, Pub. L. No. 112-240, 126 Stat. 2313, 2340–42 (2013); Tax Increase Prevention Act of 2014, Pub. L. No. 113–295, 128 Stat. 4010, 4014 (2014); Consolidated Appropriations Act, Pub. L. No. 114–113, § 301, 129 Stat. 2242, 2416–17 (2015); and the Bipartisan Budget Act of 2018, H.R. 1892, 115th Cong. § 40409 (2018).

200. Energy Policy Act of 1992, Pub. L. No. 102–486, § 45(a), 106 Stat. 2776, 3021 (1992); LAW OF INDEPENDENT POWER, *supra* note 14, § 3:58, at 3–236.7.

201. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:58, at 3–236.7; *see also* Credit for Renewable Electricity Production and Refined Coal Production, and Publication of Inflation Adjustment Factor and Reference Prices for Calendar Year 2017, 82 Fed. Reg. 17,740, 17,740 (Apr. 12, 2017) ("Under the calculation required by [§] 45(b)(2), the credit for renewable electricity production for calendar year 2017 under [§] 45(a) is 2.4 cents per kilowatt hour on the sale of electricity produced from the qualified energy resources of wind, closed-loop biomass, [and] geothermal energy . . . .").

facility owner must sell the power produced that is eligible for the PTC to an unrelated person.[202]

The tax-reform act[203] does not change existing energy-tax credits.[204] The PTC remains at its inflation-adjusted 2018 value of $0.024/kWh for each unit of electricity that eligible renewable-energy projects generate;[205] however, during the Obama Administration, it began the phasing-out process.[206] The Act did not change the continuously constructed eligibility standard for beginning construction and the tax "safe harbor" for projects to look back to 2016 and continue construction by the existing deadlines.[207] Wind power projects typically use the PTC, although wind and solar projects have the alternative of utilizing the federal Investment Tax Credit (ITC), which solar power projects typically use.[208]

Most recently in 2015, there was a multi-year extension of the PTC.[209] This extended the year that a wind power project could qualify for the PTC through 2019.[210] However, the extension significantly phased-down the value and phased-out the tax credit for projects beginning in 2020 if project construction had not begun prior to January 1, 2020.[211] By contrast, the ITC 30% tax credit declines from 30% to 10% in 2021 and continues at the reduced rate.[212] Placing orders for wind turbines can count as beginning construction under the PTC, as long as completion of construction and commercial operation is achieved from 2021 to 2023, depending on the start date.[213] For the PTC, from 2017 until 2020, each year the credit value declines by 20% until there is a 60% reduction for projects begun in

202. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:58, at 3–236.10.

203. *Id.* § 3:59.10, at 3–259.

204. *Id.* The act did not extend any credits set to expire or which had previously expired. *Id.* Included in those energy credits not extended, the act did not extend electricity PTCs for biomass projects for which there was a "begin construction" requirement which expired at the end of 2016. *Id.*

205. *Id.*

206. *Id.* § 3:55, at 3–219.

207. *See infra* text accompanying notes 222–24, 229 (discussing the tax-reform act's effects on the Investment Tax Credit).

208. *See infra* Part III.C.2 (comparing and contrasting PTC and ITC).

209. John Larsen & Whitney Herndon, *Renewable Tax Extenders: The Bridge to the Clean Power Plan*, RHODIUM GROUP (Jan. 27, 2016), http://rhg.com/notes/renewable-tax-extenders-the-bridge-to-the-clean-power-plan/ [hereinafter *Renewable Tax Extenders*]. Before Congress extended these programs, the PTC had already expired at the end of 2014 and the ITC was set to drop from 30% to a credit of 10% of project costs at the end of 2016. *Id.*

210. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59, at 3–258.

211. *Id.*

212. *Id.* § 3:59:10, at 3–262, § 3:59:40, at 3–274.

213. *Id.* § 3:58:10, at 3–236.7. For detailed treatment of what constitutes beginning construction, see *id.* § 3:59:10, at 3–260.

2019.[214] Projects beginning in 2020 and after will be phased-out of PTC eligibility.[215]

- The PTC grants a credit based on actual generation after construction. In contrast, depreciation of the wind project capital cost is earned on the invested capital expenditure itself, regardless of whether operation occurs.[216] There are particular advantages and disadvantages for wind projects taking the PTC in lieu of the ITC: the PTC is refundable, unlike the ITC, whether or not the project has net-operating income in a given year, thus minimizing the need for third-party, tax-equity financing for the project.[217]
- PTC benefits are stretched out over ten years, which is more than the accelerated five-year full depreciation period for wind power.[218]
- After the PTC phases out or is not renewed, renewable energy developers have the option of taking the ITC instead,[219] which declines from 30% to 10% in 2021 and continues rather than phases out.[220]

2. Federal Investment Tax Credit Legal Changes

The federal ITC provides 30% of capital investment tax credit upon completion of the renewable energy project investment.[221] While the PTC pays for 10 years based on renewable energy production output, the ITC is realized in year one based on the capital investment in the renewable energy project.[222] The tax-reform act of 2017 did not further change or eliminate existing PTC and ITC energy tax credits.[223] The 2018 Act did not extend the ITCs for biogas fuel cells, micro-turbines, and combined heat and

---

214. *Id.* § 3:59, at 3–258.

215. *Id.*; I.R.C. § 45(b)(5) (Supp. V 2012).

216. *See* LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.10, at 3–259 (discussing PTC for renewable power); *id.* § 3:56, at 3–225 (discussing the corporate tax depreciation).

217. For more detailed treatment of tax equity financing, see *id.* § 3:59.40, at 3–274 (detailing treatment of tax equity financing).

218. *Id.* § 3:57, at 3–230.

219. *Id.* § 3:59.40, at 3–274; I.R.C. § 48(a)(6) (2012).

220. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.10, at 3–263.

221. I.R.C. § 48(a)(1)–(2) (2012).

222. *See* NAT'L RESEARCH COUNCIL ET AL., ELECTRICITY FROM RENEWABLE RESOURCES: STATUS, PROSPECTS, AND IMPEDIMENTS 147–49 (2010), https://doi.org/10.17226/12619 (explaining the applicability of PTC and the effectiveness of PTC and ITC).

223. Philip Tingle, *Renewable Energy Tax Bill Update: No Change to PTC and ITC and Some BEAT Changes*, NAT'L L. REV. (Dec. 21, 2017), https://www.natlawreview.com/article/renewable-energy-tax-bill-update-no-change-to-ptc-and-itc-and-some-beat-changes.

power projects.[224] It left unchanged all then currently available provisions of the PTC and ITC.[225]

However, the ITC was already in a process of legislatively changed decline. The traditional 30% ITC declines to 10% in 2021 and continues indefinitely thereafter, unlike the PTC that is eliminated for future constructed projects now.[226]

The tax-reform act of 2017, effective in 2018,[227] did not change the continuously constructed eligibility standard for beginning construction to qualify for the ITC, or the tax "safe harbor" for projects to look back to 2016 and continue construction by the existing deadlines.[228] The IRS in 2018 consolidated what were different tests on "beginning of construction" for the ITC to be essentially consistent with the similar test for the PTC.[229] From mid-2018 forward, for the ITC typically applied to solar projects, taxpayers may establish the "beginning of construction" either through a "Physical Work Test" by starting physical work of "a significant nature," or by meeting a "safe harbor" defined as spending at least 5% or more of the total cost of the solar energy property investment.[230] Developers may claim the full 30% ITC for solar projects by meeting either test by the end of 2019, and finishing the project by the end of 2023.[231]

224. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:58, at 3–236.15.

225. *Id.*

226. *Id.* § 3:59.10, at 3–262, § 3:59.40, at 3–274.

227. *Id.* § 3:58, at 3–236.15.

228. *See supra* note 213 and accompanying text (explaining the requirements for beginning construction).

229. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.40, at 3–274.

230. Notice 2018–59, IRS, Beginning of Construction for the Investment Tax Credit Under Section 48, https://www.irs.gov/pub/irs-drop/n-18-59.pdf (last visited Apr. 27, 2019).

231. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.40, at 3–274.

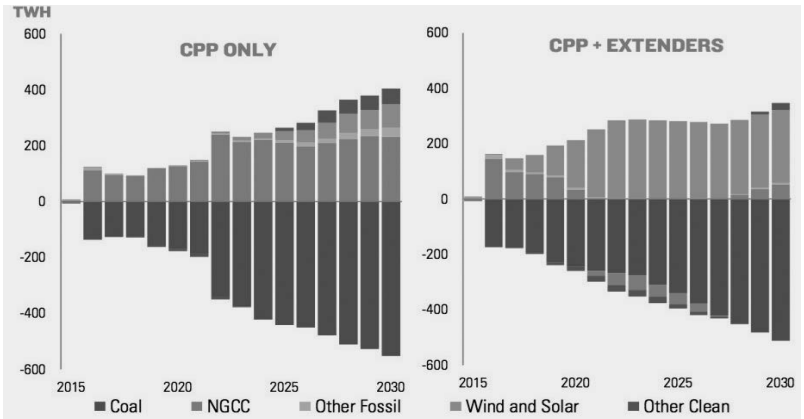


Figure 1. Change in 2015–2030 Power Generation Composition from Current Base Case with and without PTC and ITC[232]

By any measure, this is much less federal tax incentive available for a corporation's future renewable energy development.[233] As shown in Figure 1, coal use (shown below the "0" line in both images as the darkest color), declines dramatically with or without these federal tax credits. However, without these renewable energy tax credits extended (in the left image in Figure 1), declining coal below the "0" line is replaced primarily by natural gas combined cycle (NGCC) units (above the "0" line in the most significant amount) along with some modest amounts of wind, solar, and "other" clean and "other" fossil resources as the least-cost options that economic forces will dictate. Furthermore, with the PTC and ITC extended (in the right image in Figure 1), a similar amount of declining coal below the "0" line is replaced primarily by solar and wind power which replace NGCC as the dominant new energy generation source through 2021, adding almost 300 terrawatt hours of generation in lieu of NGCC generation, and continue to be the technology of choice. In the right image, "other" clean and NGCC technologies make only a modest new contribution at the margin in the later years.[234] This dominance of new renewable energy in lieu of natural gas- and coal-fired power reduces U.S. carbon emissions.[235]

232. David Roberts, *How Big a Deal Was Congress Extending the Renewable Energy Tax Credits? A Very, Very Big Deal*, VOX (Jan. 27, 2016), https://www.vox.com/2016/1/27/10849564/renewable-energy-tax-credits-big-deal.

233. LAW OF INDEPENDENT POWER, *supra* note 14, § 3:59.115, at 3–282.15.

234. Roberts, *supra* note 232.

235. *Id.*

In either scenario, without the CPP in place—either because of judicial or executive branch action—the major federal tax credit incentive for wind power development, the PTC, fades substantially for projects beginning construction after December 31, 2019.[236] Corporations will have less financial incentive to deploy wind power, unless the PTC is renewed or extended.[237] The ITC remains, but after 2019 decreases from a 30% tax credit to a 10% tax credit.[238] And the desirability and value of tax credits for a corporation is diminished by the dramatic decline in federal corporate income tax rates from 35% to 21%.[239] This will exert a suppressive impact on new wind projects.[240]

Nonetheless, a countervailing factor is that both wind and solar technologies are continuing to decline in their capital cost[241] and are becoming competitive with other power generation options for corporations.[242] Solar electric energy is now cost-competitive with traditional fossil fuels due to substantial subsidies[243] and will expand in use in the next decade.[244] Wind power is forecasted by the U.S. Department of Energy to be cheaper than electricity produced from natural gas by 2025, even without a continuing federal PTC incentive.[245] Wind projects in the U.S. cost, on average, $45 per megawatt hour for capacity and energy without other subsidies.[246] Comparatively, the average cost for solar is $58 per megawatt hour.[247] By 2040, as solar panels become more efficient and

---

236. I.R.C. § 45(b)(5) (Supp. V 2012).

237. *See* Larsen & Herndon, *supra* note 209 ("[PTC and ITC] are the flagship federal deployment incentives for wind and solar, respectively.").

238. *Id.*

239. *See supra* text accompanying note 151 (noting that the tax rate changed from 35% to 21%).

240. *See* Joshua Rhodes, *Final GOP Tax Bill More Confusing, but Not Terrible for Wind and Solar*, FORBES (Dec. 22, 2017), https://www.forbes.com/sites/joshuarhodes/2017/12/22/final-gop-tax-bill-more-confusing-but-not-terrible-for-wind-and-solar (suggesting that the decrease in the corporate tax rate might induce wind projects to increasingly rely on debt).

241. Megan Mahajan, *Plunging Prices Mean Building New Renewable Energy Is Cheaper Than Running Existing Coal*, FORBES (Dec. 3, 2018), https://www.forbes.com/sites/energyinnovation/2018/12/03/plunging-prices-mean-building-new-renewable-energy-is-cheaper-than-running-existing-coal.

242. *See* Martin, *supra* note 126 (stating that solar has become a common sense option for U.S. homeowners and businesses); *supra* Part IV.A (explaining how net metering is helping solar energy become a competitive power generation option for corporations).

243. Zachary Shahan, *Low Costs of Solar Power & Wind Power Crush Coal, Crush Nuclear, & Beat Natural Gas*, CLEAN TECHNICA (Dec. 25, 2016), https://cleantechnica.com/2016/12/25/cost-of-solar-power-vs-cost-of-wind-power-coal-nuclear-natural-gas.

244. *Solar Investment Tax Credit (ITC)*, SOLAR ENERGY INDUS. ASS'N, https://www.seia.org/initiatives/solar-investment-tax- credit-itc (last visited Apr. 27, 2019).

245. Christopher Martin & Justin Doom, *Wind Power Without U.S. Subsidy to Become Cheaper Than Gas*, BLOOMBERG (Mar. 12, 2015), https://www.bloomberg.com/news/articles/2015-03-12/wind-energy-without-subsidy-will-be-cheaper-than-gas-in-a-decade.

246. Efstathiou & Sullivan, *supra* note 127.

247. *Id.*

manufacturing costs continue to decline, solar could operate at the identical cost of wind.[248]

IV. HOW CORPORATIONS FILL THE LOOMING FEDERAL TAX INCENTIVE GAP AND ADDRESS CLIMATE

A. State Net Metering of Corporate Renewable Energy Use

Net metering is a policy that allows retail electricity customers, including corporations, to receive credits on their utility bills for on-site renewable-energy generation in excess of their electric load exported to the state's regulated electric grid.[249] And each state has different statutory requirements for net metering; no two programs are identical in terms of eligible technologies, types, and value of net-metering credits, or vintage of credits.[250] Some states that allow net metering put a limit on the percentage of total power that can be net metered to avoid the problem of net metering power back to the utility when the utility does not need the power.[251] Massachusetts has a "virtual net metering" that is an order of magnitude more far-reaching than the other states because Massachusetts's net-metering credits can be transferred to other customers in the utility service territory at approximately 300% of the wholesale price.[252] In each of the 38 states now, net metering allows solar power on eligible corporate buildings to be net metered.[253] In 2016, the number of net-metering states had decreased to 38 states when Nevada, Georgia, and Hawaii ended their net-metering programs.[254]

---

248. *Id.*

249. *Net Metering*, NAT'L GRID, https://www9.nationalgridus.com/masselectric/home/energyeff/4_net-mtr.asp (last visited Apr. 27, 2019).

250. *Id.*

251. Mary Powers, *Maryland Regulatory Staff Takes Side of Solar Producers on Net Metering Issues*, ELECTRIC UTIL. WK., Aug. 16, 2010, at 24.

252. Michael Puttre, *Massachusetts' Virtual Net-Metering Policy Seen as Key to Successful Community Solar Development*, SOLAR INDUSTRY (Sept. 1, 2015), https://solarindustrymag.com/massachusetts-virtual-net-metering-policy-seen-as-key-to-successful-community-solar-development/. Massachusetts net metering was originally created by order of the Massachusetts Department of Public Utilities in 1982. 220 MASS. CODE REGS. 8.04(8) (2009). In 1997, the Department of Telecommunications and Energy amended the net-metering program through 220 Code of Massachusetts Regulation, Section 11.04(7)(C) to increase the allowable capacity from 30 to 60 kilowatt for all renewable technologies, and larger for certain solar, wind, and agricultural renewable technologies. 220 MASS. CODE REGS. 18.03 (2017).

253. *See State Net Metering Policies*, NAT'L CONF. OF STATE LEGISLATURES (Nov. 20, 2017), www.ncsl.org/research/energy/net-metering-policy-overview-and-state-legislative-updates.aspx (providing an overview of state net-metering policy).

254. *See* Cleveland & Durkay, *supra* note 196 (explaining what policies the listed states have in place of net metering).

During times when energy is not being used by the customer, but a corporation's eligible renewable energy system is producing electricity, the meter spins in reverse direction.[255] The meter registers exported electricity to the utility as a reduction of the amount of power sold by the utility to the customer.[256] The utility gives credits to customers for every kWh of electricity not used by the customer but exported to the utility.[257] By turning the meter backwards, and because only a single rate applies to a single meter, net metering effectively compensates the generator/customer at, or near, the full retail rate for power. The full retail rate includes approximately half of the retail bill attributable to transmission, distribution, and taxes for transferring just the wholesale energy commodity—the power itself.[258] The value received for that net-metered power is an amount above the utility's avoided cost[259] or the wholesale rate set by either Federal Energy Regulatory Commission or independent system operators (ISOs) who manage the utility grids for more than half of U.S. consumers.[260]

The net-metered customer enjoys a free energy *banking* service and does not compensate the utility for using the grid to effectuate this energy banking or for the distribution services utilized.[261] The retail credit received in some high retail-rate states can be in the vicinity of $0.25/kWh, which corresponds to roughly 600% the wholesale $0.04/kWh value of this power in the U.S. during the prior decade.[262] For example, the author's current retail rate in Boston is an average cost of $0.25/kWh in a recent bill,[263] and a net-metered customer would be credited at near this retail rate; wholesale power in the New England region, and in most other areas of the country

---

255. *See* 220 MASS. CODE REGS. 18.03(3)–(4) (2017) (stating that distribution companies can only charge host customers for net excess consumption and must provide customers with a credit for the net kilowatt-hours generated in excess of their usage).

256. *Id.*

257. *Id.*

258. *See Glossary*, DATABASE ST. INCENTIVES FOR RENEWABLE ENERGY, http://www.dsireusa.org/support/glossary (last visited Apr. 27, 2019) ("In effect, the customer uses excess generation to offset electricity that the customer otherwise would have to purchase at the utility's full retail rate."). As to whether electricity is a "good" or a "service" and how it should be treated under the law, see STEVEN FERREY, THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION 211–31 (2000) ("The contract rules that govern the power sale market.").

259. *See Avoided Cost*, INDEP. ENERGY PRODUCERS ASS'N, http://www.iepa.com/avoid.asp (last visited Apr. 27, 2019) (providing an overview of avoided cost rates).

260. *See* LAW OF INDEPENDENT POWER, *supra* note 14, § 10.106, at 10–468.12 (discussing treatment of ISOs).

261. *Id.* § 4:28, at 4–1000 to 4–1001.

262. *See* Bill from Eversource, to author (Mar. 2019) (on file with author) (showing a recent, typical electricity bill in the Boston area).

263. *Id.*

for the past 5 years, has been selling for approximately $0.04 or less.[264] Wholesale power prices across the U.S. in April 2018 ranged from $0.07/kWh to $0.13/kWh and in March 2016 ranged from $0.00/kWh to $0.13/kWh at a given hour of the year, and with the average for the whole country, across all sectors, being $0.01/kWh from 2013 to 2017.[265]

The utility shifts the direct and indirect costs incurred to ratepayers who do not participate in the net-metering program in the form of higher fixed cost charges on monthly utility bills. The utility does this by crediting net-metering value at high retail rates to renewable net-metering customers in return for receiving instantaneous wholesale power that, to the utility, is worth only a small fraction of the retail rate.[266]

B. State Renewable Portfolio Standards for Developing Corporate Solar and Wind Power

Thirty states and the District of Columbia have enacted state renewable portfolio standards (RPS).[267] Unlike for net metering, the number of RPS states has remained reasonably constant over time in 30 states.[268] All were enacted independently in different states at different times between 1983 and 2015 and revised periodically.[269] For example, Massachusetts was an early state in 1997, with revisions made in 2008, 2010, 2011, 2012, 2014, 2016, and 2017.[270] More than half the states have raised the amount of RPS percentages that must be achieved,[271] and 18 have added carve-out categories for specific (often solar) technologies to earn additional credits.[272]

---

264. *Electricity Residential Price: New England*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/outlooks/steo/data/browser/?#/?v=21&f=M&s=&start=201901&end=201902&maptype=0&ctype=linechart&linechart=ESRCU_NEC&id= (last visited Apr. 27, 2019); INDEP. SYS. OPERATOR NEW ENGLAND, http://www.ISO-NE.com (last visited Apr. 27, 2019).

265. *Electric Power Monthly: Table 5.3, Average Price of Electricity to Ultimate Customers*, U.S. ENERGY INFO. ADMIN. (Jan. 25, 2019), https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_03.

266. *See* Cleveland & Durkay, *supra* note 196 (suggesting that those who participate in net metering avoid compensating utility companies for infrastructure maintenance, which is passed along to those who do not participate in net metering).

267. *See Most States Have Renewable Portfolio Standards*, U.S. ENERGY INFO. ADMIN. (Feb. 3, 2012), https://www.eia.gov/todayinenergy/detail.php?id=4850 (showing that 30 states have RPS policies).

268. *Id.*

269. GALEN BARBOSE, LAWRENCE BERKELEY NAT'L LAB., U.S. RENEWABLES PORTFOLIO STANDARDS: 2017 ANNUAL STATUS REPORT 8 (2017) [hereinafter 2017 ANNUAL STATUS REPORT], https://emp.lbl.gov/sites/default/files/2017-annual-rps-summary-report.pdf.

270. *Id.*

271. *Id.* at 9.

272. *Id.*

A resource portfolio standard requires certain retail-electricity sellers to maintain evidence of a predetermined percentage of designated clean resources in their wholesale electric-supply mixes.[273] RPS programs were denominated as one form of *backdoor* renewable energy subsidies for corporations and residences.[274] There is myriad variation on state RPS models.[275] These mandatory RPS programs cover 46% of nationwide retail-electricity sales.[276] In addition to a general RPS requirement for a range of renewable technologies, some states have a solar carve out for a different credit being generated for solar technologies.[277] The new 2018 Massachusetts Solar Massachusetts Renewable Target (SMART) program gives additional revenue premiums to corporations that deploy solar energy on roofs, parking canopies, or that add battery storage with their solar power.[278]

The value to a corporation with an eligible renewable energy technology of RPS Renewable Energy Credits (RECs) is determined by changing market prices. The market prices are influenced by the state-set demand requirements for RECs and the supply created by the qualifying project build-out and operation.[279] Over the last eight years, New England REC prices fluctuated up to $0.06/kWh and mid-Atlantic REC prices fluctuated up to $0.02/kWh.[280] Some states that allow net metering put a limit on the percentage of total power that can be net metered to avoid the problem of net metering power back to the utility when the utility does not need the power.[281] Massachusetts has a "virtual net metering" that is an order of magnitude more far-reaching than the other states[282] because net-

273. *Id.* The resources such as renewables, demand-side management, or high-efficiency-fossil combustion, as defined by a particular state, would be included in the company's overall resource portfolio. *Id.* Portfolio requirements can be applied to electricity sellers, such as generation companies and vertically integrated utilities, as a condition of continued market access. *Id.* The requirements could also be applied to wholesale electricity buyers, such as distribution companies and electricity brokers, but the states do not exercise authority over wholesale markets. *Id.* at 29.

274. Robert Glennon & Andrew M. Reeves, *Solar Energy's Cloudy Future*, 1 ARIZ. J. ENVTL. L. & POL'Y 91, 106 (2010).

275. RYAN WISER & GALEN BARBOSE, LAWRENCE BERKELEY NAT'L LAB., RENEWABLE PORTFOLIO STANDARDS IN THE UNITED STATES: A STATUS REPORT WITH DATA THROUGH 2007, at 1 (2008), https://escholarship.org/content/qt1r6047xb/qt1r6047xb.pdf.

276. *Id.*

277. *Id.*

278. 225 MASS. CODE REGS. 20.07(4) (2018) (setting the compensation rates for building-mounted-solar-generation units, canopy-mounted-generation units, and energy storage).

279. *Program Summaries*, COMMONWEALTH OF MASS., https://www.mass.gov/service-details/program-summaries (last visited Apr. 27, 2019).

280. *See Green Power Pricing*, EPA, https://www.epa.gov/greenpower/green-power-pricing (last visited Apr. 27, 2019) (documenting the fluctuating prices of RECs across varying regions).

281. Powers, *supra* note 251.

282. *See supra* note 252 (describing Massachusetts's "virtual net metering").

metering credits can be transferred to other customers in the utility service territory at approximately 300% of the wholesale price.[283]

Receiving up to $0.02/kWh or even $0.065/kWh, above and apart from the value of the power itself, which has been hovering in these regions at $0.04/kWh or less over these prior eight years, is a significant incentive for a corporate owner.[284] However, if instead a corporate owner receives a solar REC (SREC) in those states that offer them, this provides a subsidy of $0.25–0.60/kWh in a state such as Massachusetts.[285] Such a SREC subsidy is a 500–1300% bonus payment above and beyond the average $0.04/kWh sale value of the power itself.[286]

The amount of renewable energy rapidly increasing, four years ago the cost of these subsidies was already at $3 billion per year and climbing in each successive year, as there was more renewable energy.[287] These gross costs, in the billions of dollars per year, can be translated into the cost paid by individual retail-utility ratepayers for their states' policies.[288]

One other subsidy for corporations deploying renewable energy can be a system benefits charge (SBC), a per-kilowatt power charge imposed on all electricity consumers within a state.[289] Approximately one-third of U.S. states have enacted SBCs and "public benefit funds," as a direct subsidy mechanism to support the development of renewable energy resources.[290] Eighteen states, plus the District of Columbia, have established renewable trust funds in the U.S.[291] The money then can be given as grants or loans to companies that adopt renewable energy technology.[292] States raise revenues

---

283. *See* Puttre, *supra* note 252 ("[V]irtual net metering . . . permits the transfer of monetary credit from the off-taker to third parties.").

284. *See supra* note 265 and accompanying text (discussing the fluctuating prices over the last five years).

285. *See* 225 MASS. CODE REGS. §§ 1406, 1408 (discussing SRECs and their relation to alternative compliance payments; payments that drive the value of SRECs, which can range from $0.25 to $0.60 per kilowatt-hour).

286. *See generally SRECs: Understanding Solar Renewable Energy Credits*, ENERGYSAGE, https://www.energysage.com/solar/cost-benefit/srecs-solar-renewable-energy-certificates/ (last updated Feb. 25, 2019) (explaining SRECs).

287. 2017 ANNUAL STATUS REPORT, *supra* note 269, at 34.

288. *See id.* (explaining that general costs were calculated based on available data from some states and utilities).

289. *See* ELIZABETH DORIS ET AL., NAT'L RENEWABLE ENERGY LAB., STATE OF THE STATES 2009: RENEWABLE ENERGY DEVELOPMENT AND THE ROLE OF POLICY 65–66 (2009), http://www.nrel.gov/docs/fy10osti/46667.pdf (noting that 17 states and the District of Columbia had at that date implemented public benefit fund programs).

290. *Id.*

291. Richard L. Revesz & Burcin Unel, *Managing the Future of the Electricity Grid*, 41 HARV. ENVTL. L. REV. 43, 57 (2017).

292. *See Renewable Energy Trust Fund*, U.S. DEP'T OF ENERGY, https://www.energy.gov/savings/renewable-energy-trust-fund (last visited Apr. 27, 2019) (providing an

for these renewable trust funds through a small surcharge on electricity bills.[293]

C. State Property Tax Exemptions

Distributed renewable energy generation tends to be capital intensive. Its value can incur additional property tax assessments as costs for a corporation over its operating lifetime if corporate solar and wind installations are taxable as personal property by local governments.[294] It depends on state and local law.[295] To illustrate the confusion between corporate owners and state taxing authorities on this issue, in 1975, the Massachusetts legislature enacted this tax provision:

> Any solar or wind powered system or device which is being utilized as a primary or auxiliary power system for the purpose of heating or otherwise supplying the energy needs of property taxable under this chapter; provided, however, that the exemption under this clause shall be allowed only for a period of twenty years from the date of the installation of such system or device.[296]

The Massachusetts Department of Revenue issued an opinion in 2012 that would provide an exemption from state property tax only if a corporation had a high enough demand to use all of the renewable energy it produced, rather than sell the excess power or net meter it by transferring its net-metering credits to other entities.[297] Based on this advisory

---

example of a renewable trust fund that "may provide grants, contracts, loans, equity investments, energy production credits, bill credits, and rebates to customers").

293. Steven Ferrey, *Alternative Energy in a Spaghetti Western: Clint Eastwood Confronts State Renewable Energy Policy*, 32 UTAH ENVTL. L. REV. 279, 293 (2012).

294. *Renewable Energy Tax Assessment*, DATABASE OF ST. INCENTIVE FOR RENEWABLES & EFFICIENCY, http://programs.dsireusa.org/system/program/detail/2388 (last updated Oct. 7, 2015).

295. *Id.*

296. MASS. GEN. LAWS ch. 59, § 5 (2018).

297. *DLS Interpretation on Solar PV Property Tax Exemption*, CITY & TOWN, https://www.greenneedham.org/blog/documents/2012/10/dls-interpretation-on-solar-pv-property-tax-exemption.pdf (last visited Apr. 21, 2019) ("In our opinion, this means the exemption applies only to those systems or devices being used as the primary or backup heating or power system for the taxable real estate on which they are installed (or associated, e.g., a contiguous parcel owned and used by the same owner together with the other parcel). It is for property owners who install systems or devices for use on their own properties, not for solar or wind facilities or farms constructed and operated for purposes of generating energy for sale to the grid . . . . The exemption does not extend to the land and any other real or personal property . . . . [T]he assessor decides whether the assets are real estate or personal property based on the degree of attachment. *See Boston Edison Co. v. Board of Assessors of Boston*, 402 Mass. 1 (1988) (Taxable machinery of a utility used in the manufacture of electricity, and

interpretation of the state tax office, solar units, sized to supply only the power needs of the metes and bounds of the property on which it is placed, are not taxable for local property tax.[298] Corporations challenged this as too restrictive an interpretation of the above statutory provision, where a single taxpaying entity owned both an offsite-net-metered solar-photovoltaic system as well as separate properties to which 100% of the net-metering credits were allocated for payment of utility bills associated with electric service to those properties.[299]

The Appellate Tax Board, after hearing, disagreed with the Massachusetts Department of Revenue. The Board ruled and held that there was no statutory limitation on the location of the "property taxable under [this chapter]" and determined that, had the legislature wanted such a limitation, it would have drafted the statute to include one.[300] It rejected the reliance on the opinion letter by the Department of Revenue, which limited the application of the statute to solar property that is located on or "contiguous" to the property it is intended to power, holding that this limitation has no basis in the statute.[301] The Appellate Tax Board also noted that the Commonwealth received the same benefit from a solar energy system regardless of the physical location of the parcel to which it furnished its power.[302] The Massachusetts Appellate Tax Board held:

> The [Massachusetts] Department [of Revenue] . . . interpreted [the exemption] so as to limit its application only to solar property that is located either on the same parcel or a contiguous parcel to the property it is intended to power . . . and an *incorrect* interpretation of a statute by an administrative agency is entitled to no deference . . . . [T]he Department's limitation . . . [is found] to be an *illusory distinction*, which finds *no basis* in [the exemption].[303]

---

significantly attached to a parcel of real estate, but traditionally assessed as personal property, may be assessed as either real or personal property.)").

298. Forrestall Enters., Inc. v. Bd. of Assessors, No. F317708, 2014 WL 6863331, at *1, *4 (Mass. App. Tax Bd. Dec. 4, 2014).

299. *Id.* at 1029–30. Bruce Forrestall, the sole owner of appellant, Forrestall Enterprises, owned a 5-acre property, "the Milk Street Property," on which a 240 kW solar photovoltaic system containing approximately 856 panels was installed, which was to be used to power the Forestall Westborough Properties through a net-metering agreement with National Grid. *Id.* at 1026, 1029.

300. *Id.* at 1033–34.

301. *Id.* at 1033.

302. *See id.* at 1035 (implying that taxpayers benefit from solar energy systems regardless of solar panels' locations).

303. *Id.* at 1033 (emphasis added).

This is a favorable court determination for corporations with multiple locations or which want to sell surplus renewable power that they produce.[304] A corporation could sell its renewable power to other consumers, which is legal under state law in Massachusetts, and the personal renewable energy property remains un-taxable.[305] In a subsequent decision of the Massachusetts Appellate Tax Board, the net metered project earned state net metering credits, of which 2% were allocated to the residential bills of the taxpayer and 98% of which were credited to the electricity bills of 4 branches of an unrelated corporation's electricity bills, located in different towns in Massachusetts.[306] The recipient corporation agreed to pay the owners 95% of the "dollar value for the credited electricity appearing on [their] . . . electricity bill."[307] The renewable energy property remained un-taxable for a period of 20 years from the date of installation, so long as it is producing energy.[308]

In New Jersey, there is an exemption from local property tax for the value added to property from corporate renewable energy systems that are used to supply on-site electricity, heating, cooling, or general energy needs.[309] Arizona exempts from property taxes all renewable energy systems used to meet on-site needs.[310] Rhode Island exempts from property taxation a corporate manufacturer's inventory, machinery, and equipment.[311] A person is considered a manufacturer within the State if they use property for the purpose of transforming raw materials into a finished product for trade.[312] In Rhode Island, where renewable energy, such as from a wind turbine, is used exclusively for the production of natural resources

---

304. *See id.* (invalidating the Department of Revenue's interpretation that limited the application of tax exemptions for solar systems).

305. *Id.* at 1034 (implying that Clause Forty-Fifth applies broadly).

306. KTT, LLC v. Bd. of Assessors, No. F322736, 2016 A.T.B. 426, 429 (Mass. App. Tax Bd. Oct. 13, 2016).

307. *Id.* The appeal of the town was eventually dropped when a payment in lieu of taxes (PILOT) agreement was negotiated with the town. Michael Holtzman, *16-Year PILOT Agreement Signed for Swansea Solar Farm*, HERALD NEWS (Oct. 12, 2017), https://www.heraldnews.com/news/20171012/16-year-pilot- agreement-signed-for-swansea-solar-farm. The Cabrals were issued a tax abatement in the amount of $170,000 in February 2017, representing tax payments from 2014 through 2017. *Id*

308. Holtzman, *supra* note 307.

309. *Property Tax Exempt for Renewable Energy Systems*, DATABASE OF ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, http://programs.dsireusa.org/system/program/detail/3100 (last updated Oct. 1, 2014). In order to receive the exemption, taxpayers must apply for a certificate from their local assessor in order to reduce the assessed value of the property not to include the value added by the system. *Id.*

310. ARIZ. REV. STAT. ANN. § 42-11054 (2009).

311. 44 R.I. GEN. LAWS § 44-3-3 (2018).

312. *Id.*

into a finished product, the generation equipment qualifies as manufacturing equipment and therefore is exempt from property taxation.[313]

Unlike Rhode Island, the manufacturing exemption in Massachusetts's statute is limited to apply only to qualified manufacturing corporations and not to an organization or individual who engages in manufacturing,[314] and the equipment must be used in the corporation's basic manufacturing process to be exempt from property taxes.[315] Qualifying are increasingly used corporate cogeneration facilities with a total power production of 30 megawatts or less.[316] Each state tax law is distinct: A Colorado court held that the State's manufacturing exemption which encompasses machinery and tools used "directly and predominantly in manufacturing tangible personal property, for sale or profit," did not apply to the corporate taxpayer's machinery used for the generation of electricity.[317] In Arizona, third-party leased solar panels were not deemed as utility property to be taxed by the State. Although the court did not reach, and sent back to the state tax court, questions regarding whether municipalities could assess local property tax on leased solar panels on property.[318]

V. THE CORPORATION AS MACROECONOMIC ACTOR

A. Undoing the Law

What are the intermediate- and long-term effects of the Trump Administration step-back from the Obama Administration Clean CPP[319] and the Trump Administration stated withdrawal from the international Paris Agreement of 2015,[320] which took the next international step after the Kyoto Protocol which was in effect from 2005 to 2012,[321] to limit the

313. DePasquale v. Cwiek, 129 A.3d 72, 74 (R.I. 2016).

314. *See* LAW OF INDEPENDENT POWER, *supra* note 14, § 10.82, at 10–369.8 (discussing treatment of property taxes).

315. *Id.*

316. MASS. GEN. LAWS ch. 59, § 5 (2018).

317. *See* Dept. of Revenue v. Pub. Serv. Co. of Colo., 330 P.3d 385, 387 (Colo. 2014). The court reasoned that because the sales and use tax statutes treated electricity as a service, it was therefore not tangible personal property. *Id.*

318. SolarCity Corp. v. Ariz. Dep't of Revenue, 413 P.3d 678, 680, 683 (Ariz. 2018).

319. Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,095, 16,097 (Mar. 31, 2017).

320. Remarks Announcing United States Withdrawal from the United Nations Framework Convention on Climate Change Paris Agreement, 2017 DAILY COMP. PRES. DOC. 373 (June 1, 2017); *see List of Parties That Signed the Paris Agreement on 22 April*, U.N. SUSTAINABLE DEV. GOALS, (Apr. 20, 2016), https://www.un.org/sustainabledevelopment/blog/2016/04/parisagreementsingatures/ (recording that the U.S. signed the Paris Agreement).

321. Kyoto Protocol to the United Nations Framework Convention on Climate Change, art. 3, Dec. 11, 1997, 37 I.L.M 22.

international emission of GHGs? The Paris Agreement agreed to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and to "pursu[e] efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change."[322] The Trump Administration pull-back leaves the U.S. as the only major nation in the world not continuing with the Paris Agreement of international climate-control efforts.[323]

The CPP, during the Obama Administration, was designed to meet the Kyoto Protocol and subsequent Paris Agreement 2015 pledges for GHG reductions.[324] The change in presidential administrations caused the EPA—under new management—to promulgate regulations in 2017 to reduce dramatically the calculated value of saving emissions of CO_2.[325] Executive Order 13,783, issued in March 2017, ordered the EPA to eliminate the CPP itself.[326]

In December 2017, the administration announced repeal of the CPP[327] with an Advance Notice of Proposed Rulemaking to Replace the CPP.[328] The Trump Administration estimated that its repeal of the CPP will save $33 billion in avoided compliance costs in 2030.[329] A group of 12 states responded to the EPA's Adavance Notice of Proposed Rulemaking on the CPP in February 2018,[330] 13 states urged President Trump not to replace

322. Paris Agreement art. 2.1(a), Dec. 12, 2015, https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

323. Robinson Meyer, *Syria Is Joining the Paris Agreement. Now What?*, ATLANTIC (Nov. 8, 2017), https://www.theatlantic.com/science/archive/2017/11/syria-is-joining-the-paris-agreement-now-what/545261/.

324. *What is the Clean Power Plan, and How Can Trump Repeal It?*, N.Y. TIMES (Oct. 10, 2017), https://www.nytimes.com/2017/10/10/climate/epa-clean-power-plan.html.

325. Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035, 48,043 (proposed Oct. 16, 2017) (to be codified at 40 C.F.R. pt. 60) ("This approach shifts the focus to the domestic (rather than global) social cost of carbon, and employs both 3 percent and 7 percent discount rates.").

326. Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,095 (Mar. 31, 2017).

327. Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 51,787, 51,787 (Nov. 8, 2017) (to be codified at 40 C.F.R. pt. 60).

328. FACT SHEET: PROPOSED ACE RULE—LEGAL OVERVIEW, EPA, https://www.epa.gov/sites/production/files/2018-08/documents/ace_legal_bser.pdf (last visited Apr. 27, 2019).

329. Press Release, EPA, EPA Takes Another Step to Advance President Trump's America First Strategy, Proposes Repeal of "Clean Power Plan" (Oct. 10, 2017), https://www.epa.gov/newsreleases/epa-takes-another-step-advance-president-trumps-america-first- strategy-proposes-repeal.

330. *See 12 States Encourage EPA to Implement a Meaningful Federal Program to Reduce GHG Emissions*, GEO. CLIMATE CTR. (Feb. 27, 2018), http://www.georgetownclimate.org/reports/12-states-encourage-epa-to-implement-a-meaningful-federal-program-to-reduce-ghg-emissions.html?utm_source=Agency+Leaders+for+14+States+Oppose+CPP+Replacement&utm_campaign=COP+Roundup%3B+EV+Report&utm_medium=email.

the CPP,[331] and 14 states immediately sent a letter in opposition to the actual repeal and replacement when the EPA proposed it in August 2018.[332] This compares with twice that many states, 27, who at this time were still suing and enjoining the EPA for initially promulgating the CPP in 2015.[333] The Trump Administration's CPP replacement plan focuses on boosting efficiency at coal-fired power plants instead of shutting them.[334]

The Obama Administration CPP exclusively targeted fossil-fuel electricity production for reductions of carbon in its October 2015 460-page CPP rule.[335] This rule was designed to achieve a required 32% reduction of annual CO_2 emissions of carbon from new and existing power plants by 2030,[336] compared to the U.S. 2005 carbon emission power generation baseline.[337] Of note, in *West Virginia v. EPA*, the Supreme Court preliminarily enjoined the entire CPP during the Obama Administration pending a lower court decision on the matter, which had not yet, and still has not, been rendered.[338] No party in the matter was able to point to any

---

331. *See* Letter from 13 States, to E. Scott Pruitt, Adm'r, EPA (Apr. 17, 2018), https://www.georgetownclimate.org/files/report/State-Environmental-and-Energy-Regulators-CPP-Repeal-Comment-Letter-and-Appendix-041718.pdf (urging the EPA to continue the CPP).

332. *See Agency Leaders for 14 States Oppose Trump Administration's Clean Power Plan Replacement*, GEO. CLIMATE CTR. (Aug. 21, 2018), http://www.georgetownclimate.org/reports/agency-leaders-for-14-states-oppose-trump-administration-s-clean-power-plan-replacement.html?utm_source=Agency+Leaders+for+14+States+Oppose+CPP+Replacement&utm_campaign=COP+Roundup%3B+EV+Report&utm_medium=email.

333. *States Suing EPA*, CTR. FOR EARTH, ENERGY & DEMOCRACY, http://ceed.org/states-suing-epa/ (last visited Apr. 27, 2019).

334. Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,095 (Mar. 31, 2017).

335. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60).

336. EPA, FACT SHEET: THE CLEAN POWER PLAN BY THE NUMBERS 1 (2015), https://archive.epa.gov/epa/sites/production/files/2015-08/documents/fs-cpp-by-the-numbers.pdf. Between the rule's promulgation in 2014 and final rule issuance in 2015, the EPA delayed implementation. *See* 80 Fed. Reg. at 64,662, 64,736 (indicating a one-year gap between the comment period and the final rule issuance). This included more time for state compliance with a two-year delay for states filing required plans from 2016 to 2018, and a two-year delay in the first year of required CO_2 reductions, from 2020 to 2022. *Id.* at 64,669. The EPA's final regulation indicates that the goal of this rule is to substitute natural gas for coal in the generation of electricity. *Id.* at 64,667. The EPA increased how much CO_2 emissions will have to be brought down from the 2005 baseline by 2030 from the 30% proposed to 32% in the final rule. *Id.* at 64,736 n.384.

337. *Id.* at 64,679; *see also* Juliet Eilperin & Steven Mufson, *EPA Proposes Cutting Carbon Dioxide Emissions from Coal Plants 30% by 2030*, WASH. POST (June 2, 2014), https://www.washingtonpost.com/national/health-science/epa-to-propose-cutting-carbon-dioxide-emissions-from-coal-plants-30percent-by-2030/2014/06/01/f5055d94-e9a8-11e3-9f5c-9075d5508f0a_story.html.

338. West Virginia v. EPA, 136 S. Ct. 1000, 1000 (2016); *see* Jonathan H. Adler, Opinion, *Supreme Court Puts the Brakes on the EPA's Clean Power Plan*, WASH. POST: VOLOKH CONSPIRACY (Feb. 9, 2016), https://www.washingtonpost.com/news/volokh-conspiracy/wp/2016/02/09/supreme-

previous case in which the Supreme Court had stayed an agency rule in the entirety before any court had reviewed it on its merits or there was a substantive lower court decision on the merits appealed to the Supreme Court.[339]

B. Results in a New Era

Withdrawing from the international Paris Agreement and similarly pulling back from an already-stayed CPP—both of which were directed at significantly repressing power sector carbon emissions—would seem to foreshadow that the U.S. would not come close to the Paris Agreement carbon emission reductions pledged by it in conjunction with that of other major nations.[340] According to the most recent U.S. Department of Energy, Energy Information Administration (EIA) "International Energy Outlook": "Even with the CPP, the United States does not meet its NDC targets based on reductions projected from compliance with the CPP alone."[341] The EIA Annual Energy Outlook, released when the CPP was promulgated, projected then that U.S. CO_2 emissions would decrease by only 8% below 2005 levels by 2030.[342] What are the metrics? The U.S. submitted to the U.N. Framework Convention on Climate Change an intended U.S. nationally determined contribution (INDC) of 17% U.S. reductions below 2005 levels by 2020 and thereafter 26–28% reductions by 2025.[343]

However, under one estimate, significant power sector reductions are occurring without the CPP, now still three years before the CPP would have required any of its reductions to be implemented beginning in 2022.[344] The Rhodium Group estimated that U.S. electricity emissions are currently on

---

court-puts-the-brakes-on-the-epas-clean-power-plan/?utm_term=.f8f7469b8324 (discussing the unusual nature of the Supreme Court's stay of EPA's CPP).

339. Ann Carlson, *The Decision to Halt the Implementation of the Clean Power Plan is Outrageous and Inconsistent with the Law*, LEGAL PLANET (Feb. 9, 2016), http://legal-planet.org/2016/02/09/the-decision-to-halt-the-implementation-of-the-clean-power-plan-is-outrageous/.

340. Steve Baragona, *Report: US Unlikely to Meet Paris Climate Pledge*, VOA NEWS (Sept. 12, 2018), https://www.voanews.com/a/report-us-unlikely-to-meet-paris-climate-pledge/4569150.html.

341. U.S. ENERGY INFO. ADMIN., INTERNATIONAL ENERGY OUTLOOK: EXECUTIVE SUMMARY 11 (2017), https://www.eia.gov/outlooks/ieo/pdf/exec_summ.pdf; INT'L ENERGY AGENCY, *supra* note 16.

342. U.S. ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2015 WITH PROJECTIONS TO 2040, at E-12 n.31 (2015), https://www.eia.gov/outlooks/archive/aeo15/pdf/0383(2015).pdf. The CPP was projected to reduce power sector CO_2 emissions 32% below 2005 levels by 2030. JONATHAN L. RAMSEUR, CONG. RESEARCH SERV., R44451, U.S. CARBON DIOXIDE EMISSIONS TRENDS AND PROJECTIONS: ROLE OF THE CLEAN POWER PLAN AND OTHER FACTORS 11, 13 (2017).

343. RAMSEUR, *supra* note 342, at 1.

344. John Larsen & Whitney Herndon, *What the Clean Power Plan Would Have Done*, RHODIUM GROUP (Oct. 9, 2017), https://rhg.com/research/what-the-cpp-would-have-done/ [hereinafter Larsen & Herndon, *Clean Power Plan*].

track to fall 27–35% below baseline 2005 levels by 2030, even with the CPP regulation repealed by the Trump Administration or otherwise enjoined by the courts.[345] The midpoint of this range is approximately the 32% reduction that the CPP would have required by 2032.[346] And it also is in the general zone of the U.S. Paris Agreement INDC pledge of 26–28% carbon reductions below 2005 levels by 2025, if approximately 1% of this projected reduction is discounted from each year before the CPP 2032 deadline.[347] For timing context, even if not enjoined by the Supreme Court or repealed during the Trump Administration, the CPP would not cause any CO_2 reductions until its first state filing and compliance in 2022.[348] By comparison, the Rhodium analysis places the U.S. on track to achieve a 32% reduction from 2005 CO_2 levels without a federal CPP, in the range of 27–35% reductions below 2005 levels.[349]

The Rhodium analysis projects that the U.S. could achieve the 2032 CPP-required levels of CO_2 reduction from power plants a full decade in advance, without the CPP or any other regulations in place and continuing under business-as-usual.[350] The U.S. could achieve the CPP 2032 carbon reduction goal by 2020 and maintain this level to 2032.[351] Today, power-sector carbon emissions are 28% below 2005 levels.[352] This places the U.S. power sector in a position to satisfy its 2030 Paris Agreement commitment.[353] Moreover, the power sector must reduce emissions by only 4% more to achieve the CPP's 32% reduction required by 2030.[354]

VI. CORPORATE ACTION

The International Energy Agency estimates that approximately 1,000 gigawatts of additional renewable power, featuring wind power, will be

345. *Id.*

346. *Id.*

347. *See* United Nations Framework Convention on Climate Change, U.S. Cover Note, Intended Nationally Determined Contribution (INDC) and Accompanying Information, https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/United%20States%20of%20America/1/U.S.%20Cover%20Note%20INDC%20and%20Accompanying%20Information.pdf (last visited Apr. 27, 2019) (stating the target goal of the U.S.).

348. Larsen & Herndon, *Clean Power Plan*, *supra* note 344.

349. *Id.*

350. *Id.*

351. *Id.*

352. SUSTAINABLE ENERGY IN AMERICA, *supra* note 115, at 4.

353. Anna Hirtenstein, *Dawn of Solar Age Declared as Sun Power Beats All Others*, BLOOMBERG LAW: ENV'T & ENERGY (Oct. 4, 2017), https://www.bloomberglaw.com/document/XA1H1HIK000000?bna_news_filter=environment-and-energy&jcsearch=BNA%252000000015ee748d25fa95ef7dba67f0000#jcite.

354. *Id.*

installed world-wide in the next five years.[355] This amount of additional power is equivalent to the amount that coal electric power achieved in its first 80 years as the dominant power source and exceeds the amount of electric generation capacity that is currently consumed in three of the largest countries: China, India, and Germany combined.[356] Much of this new power installation will be done by corporations.[357]

In the transportation sector, corporations play a major role facilitating indirect GHG emissions when their employees commute to work each day. There is now legal uncertainty with the Trump Administration's freeze of the progressive Obama Administration vehicle CAFE mileage standards required of new vehicles[358] and policy change to no longer consider carbon emissions as part of federal EISs.[359] In August 2018, the Environmental Protection Agency and the National Highway Traffic Safety Administration simultaneously proposed to freeze U.S. vehicle fuel-economy and tailpipe-greenhouse-gas-emissions requirements at their scheduled 2020 levels of 37 miles per gallon equivalent.[360] This proposal would replace the Obama Administration standards that continue increasing to approximately 47 miles per gallon equivalent by 2025.[361] States are filling some of this gap. California just became the first state to overrule traditional local zoning to require allowing accessory residential units to promote infilling of more dense land-use to result in less transportation mileage.[362] Additionally, Massachusetts became the first state to attempt to impose transportation carbon pricing on corporations by 2020.[363]

Of note, corporations are becoming a more influential factor: corporate use of electricity in the U.S. is increasing, while residential use is

355. *Id.*

356. *Id.*

357. *Id.*

358. *See infra* note 361 and accompanying text; Order at 1–2, California v. EPA, No. 18-1114 (D.C. Cir. Nov. 21, 2018) (challenging EPA's roll back of vehicle standards).

359. Popovich et al., *supra* note 83.

360. Ari Natter & Jennifer A Dlouhy, *Big Oil Cheers Quietly as Trump Moves to Ease Auto Standards*, BLOOMBERG (Aug. 3, 2018), https://www.bloomberg.com/news/articles/2018-08-03/big-oil-cheers-quietly-as-trump-moves-to-ease-auto-standards.

361. *See id.* ("Its now less important to conserve energy and to curb oil demand given the dramatic rise in U.S. crude production, the Trump administration said in its proposal.").

362. Henry Garber, *California Bill Would Allow Unrestricted Housing by Transit, Solve State Housing Crisis*, SLATE (Jan. 5, 2018), https://slate.com/business/2018/01/california-bill-sb827-residential-zoning-transit-awesome.html.

363. Mary C. Serreze, *Massachusetts Senate Approves Revenue-Neutral Carbon Tax as Part of Energy Bill*, MASSLIVE (June 15, 2018), https://www.masslive.com/politics/index.ssf/2018/06/massachusetts_senate_passes_ca.html.

decreasing.[364] The price of electricity has moved counter to the increase in the price of other goods.[365] Federal corporate tax credits (the PTC and the ITC) that incentivize corporate investment in renewable wind and solar power, respectively, are now phasing-down, and in the PTC's case, entirely disappearing.[366] This gap is now filled in many states by incentives: 29 states have Renewable Portfolio Standard programs for corporate renewable-power development, and 38 states have net-metering regulations for renewable-power development, allowing corporations to take advantage.[367]

Corporations are motivated by both law and economics.[368] Counter-intuitively, the Trump administration's 2017 tax cuts and changes, effective in 2018, on the surface seem extremely beneficial for many corporations. But they can actually frustrate the existing incentives perceived by corporations for both solar- and wind-renewable-energy deployment by diminishing the cash value of the corporate solar-ITC tax credit, the wind-PTC tax credit, and the carry-back provisions of both. Furthermore, the tax cuts and changes may diminish the value of depreciation even though it can be realized more rapidly.[369] This changes the U.S. legal context for climate-sensitive investments.[370]

What could be a pessimistic legal assessment of repeal of U.S. law and regulation limiting future climate emissions in the U.S. is not evident in the scientific data.[371] Despite the ongoing current withdrawal of the U.S. from the CPP and the international Paris Agreement,[372] the U.S. has continued to accelerate substantial reduction in power-plant carbon emissions with

---

364. *Per Capita Residential Electricity Sales in the U.S. Have Fallen Since 2010*, U.S. ENERGY INFO. ADMIN. (July 26, 2017), https://www.eia.gov/todayinenergy/detail.php?id=32212.

365. U.S. Bureau of Labor Statistics, *Consumer Prices Up 2.9 Percent over 12 Months Ended June 2018*, ECON. DAILY (July 16, 2018), https://www.bls.gov/opub/ted/2018/consumer-prices-up-2-point-9-percent-over-12-months-ended-june-2018.htm. The federal government's Consumer Price Index report found the overall CPI rose 2.9% over the 12 months ending June 2018, during which time, the electricity CPI fell by 0.1%. *Id.*

366. Larsen & Herndon, *Clean Power Plan*, *supra* note 344.

367. *See supra* text accompanying notes 249–54, 267–72 (examining state RPS and net-metering regulations).

368. *See* David McBride, *General Corporation Laws: History and Economics*, 74 L. & CONTEMP. PROBS. 1, 1 (2011) (describing the relationship between law and economics to be symbiotic in corporations).

369. *See supra* Part III.B–C (reviewing the effects of the tax-reform act on the ITC and PTC).

370. *See supra* Part III.B–C (discussing the changes in the legal incentives for renewable energy investments).

371. *See, e.g.*, *supra* Part V.B (establishing that regardless of any Trump Administration changes to existing laws, electricity emissions are on track to decrease 27–35% by 2030).

372. Hai-Bin Zhang et al., *U.S. Withdrawal from the Paris Agreement: Reasons, Impacts, and China's Response*, ADVANCES CLIMATE CHANGE RES., Dec. 2017, at 220, 220–21.

corporate and utility substitution of lower-carbon technology notwithstanding withdrawal of federal legal mandates.[373] In fact, the actual real-time data suggests that the U.S. may achieve its Obama Administration carbon target and goals a decade earlier than required—by 2020, rather than 2030.[374] This "through the looking glass" outcome is facilitated by corporate adoption of less carbon-intensive production of electric power even in the absence of continuing regulations.[375]

373. *See supra* fig. 1 and text accompanying note 197 (explaining that renewable energy sources will outcompete fossil fuel energy sources in the future).

374. *See supra* notes 355–57 and accompanying text (detailing these projections).

375. *See supra* text accompanying notes 357, 364, 368, 371–74 (overviewing the corporate role in moving to renewable energy sources under both the market demands and the law).

NEW LEGAL STRUCTURES FOR SOCIAL ENTERPRISES: DESIGNED FOR ONE ROLE BUT PLAYING ANOTHER

Elizabeth Schmidt[*†]

---

* Professor of Practice, University of Massachusetts Amherst. Earlier versions of this Article were presented at ARNOVA Social Enterprise Section Workshop (June 2018); the Vermont Law Review Symposium: Corporations and Climate Change: How Businesses are Changing the Environmental Landscape (Sept. 2018); and the ARNOVA Annual Conference (Nov. 2018).

† Thanks to Tania Homonchuk Swain, Arthur Schmidt, John Tyler, Linda Smiddy, Jayne Barnard, Eleanor Brown, Tamaki Onishi, Yi Zhao, and other participants of the ARNOVA Social Enterprise workshop for comments on earlier versions of this Article.

INTRODUCTION

In 2008, as the Great Recession was unfolding,[1] state legislatures began to recognize that business entities need not focus entirely on profit-seeking. The tiny state of Vermont led this change, recognizing the low-profit limited liability company (L3C).[2] Two years later, Maryland passed benefit corporation legislation.[3] Although quite different in ways that this Article will explore later, both business entities stress the importance of pursuing social goals along with profit-making ones.[4]

By 2018, thirty-seven states and the District of Columbia had passed some form of dual-purpose (i.e., social and profit-making) business legislation,[5] and approximately 7,000 businesses were organized as either L3Cs or benefit corporations[6]—the two most prominent of these new

1. Justin Lahart, *The Great Recession: A Downturn Sized Up*, WALL ST. J. (July 28, 2009), https://www.wsj.com/articles/SB124874235091485463.

2. *See* VT. STAT. ANN. tit. 11, § 4162 (2019) (recognizing requirements for a low-profit limited liability company).

3. MD. CODE ANN., CORPS. & ASS'NS § 5-6C-01 (West 2019).

4. *See infra* Part II.A (outlining the purposes of the low-profit limited liability corporation); *see infra* Part III.A (outlining the purposes of the benefit corporation).

5. *Status Tool*, SOC. ENTERPRISE L. TRACKER, http://socentlawtracker.org/#/map (last visited Apr. 27, 2019). In addition to L3Cs and benefit corporations, four states have a social purpose corporation (Washington, California, Florida, and Texas) and three recognize the benefit limited liability company. *Id.* For other sites that track social enterprise legislation, see *State by State Status of Legislation*, BENEFIT CORP., http://benefitcorp.net/policymakers/state-by-state-status (last visited Apr. 27, 2019) [hereinafter *Status*, BENEFIT CORP.]; *Laws*, AM. FOR COMMUNITY. DEV., http://americansforcommunitydevelopment.org/laws/ (last visited Apr. 27, 2019) [hereinafter *L3C Laws*].

6. *Find a Benefit Corp*, BENEFIT CORP., https://benefitcorp.net/businesses/find-a-benefit-corp (last visited Apr. 27, 2019) [hereinafter *Find a Benefit Corp*, BENEFIT CORP.] (providing a list of nearly 5,400 benefit corporations as of Apr. 27, 2019); *What is an L3C?*, INTERSECTOR PARTNERS, L^3C, https://www.intersectorl3c.com/l3c (last visited April. 27, 2019) (tallying a total of 1,651 L3C's organized in Vermont, Michigan, Wyoming, Utah, Oglala Sioux Tribe, Illinois, North Carolina, Louisiana, Maine, Rhode Island, and Navajo Tribe as of April 27, 2019).

business forms. Some of these businesses, such as Patagonia, Plum Organics, and King Arthur's Flour are quite prominent,[7] and proponents of these forms can justifiably tout these successes.[8]

And yet, 7,000 businesses formed as L3Cs and benefit corporations is a drop in the bucket compared to the thirty million businesses currently operating in the U.S.[9] If widespread adoption is the definition of success, these new business forms have not yet lived up to their billing. One possible reason that so few businesses have organized as L3Cs and benefit corporations is that the legislation that created these new forms was not designed to effectively solve the problems they were meant to address.[10] Over the years, scholars and other legal experts have suggested changes to these statutes, but no major substantive changes have been enacted into law.[11] As a result, we are left with statutes that are little more than statements of intent.

---

7. *Find a Benefit Corp*, BENEFIT CORP., *supra* note 6.

8. *See, e.g.*, Kate Cooney et al., *Benefit Corporation and L3C Adoption: A Survey*, STAN. SOC. INNOVATION REV. (Dec. 5, 2014), https://ssir.org/articles/entry/benefit_corporation_and_l3c_adoption_a_survey# (explaining that "benefit corporation legislation is quickly spreading across the country," and "at least one study suggests a link" between benefit corporations and "the presence of a larger green economy"); Michael Vargas, *The Next Stage of Social Entrepreneurship: Benefit Corporations and the Companies Using This Innovative Corporate Form*, AM. B. ASS'N (Sept. 19, 2018), https://www.americanbar.org/groups/business_law/publications/blt/2016/07/01_vargas/ (highlighting the various impacts of benefit corporations).

9. *Quick Facts United States*, U.S. CENSUS BUREAU, https://www.census.gov/quickfacts/fact/table/US/PST045217 (last visited Apr. 27, 2019) (calculating that in 2016, the U.S. had 7,757,807 businesses with employees and 24,813,048 without employees).

10. *See infra* Parts II–III (outlining why the L3C and public benefit corporations have failed to achieve their goals).

11. For examples of these suggestions, see DANA BRAKMAN-REISER & STEVEN A. DEAN, SOCIAL ENTERPRISE LAW: TRUST, PUBLIC BENEFIT, AND CAPITAL MARKETS 68–69 (2017) (suggesting that the current L3C statutes would benefit from adding a prioritization mandate); John Tyler et al., *Producing Better Mileage: Advancing the Design and Usefulness of Hybrid Vehicles for Social Business Ventures*, 33 QUINN. L. REV. 235, 290 (2015) [hereinafter Tyler, *Producing Better Mileage*] (proposing a new entity called the Social Primacy Company, which "expressly embeds fiduciary duties consistent with the pursuit of the specified social purpose(s) adopted by the entity that can be neither contracted around nor waived"); Ofer Eldar, *The Role of Social Enterprise and Hybrid Organizations*, 2017 COLO. BUS. L. REV. 92, 190 ("The core of the following reform proposal is to shift the focus of legal hybrid forms from organizations with mixed missions to firms that commit to transacting with disadvantaged groups . . . ."); Cassady Brewer, *Seven Ways to Strengthen and Improve the L3C*, 25 REGENT U. L. REV. 329, 331–32 (2013) (proposing "seven relatively simple but impactful changes to the L3C" that "are designed to strengthen and improve the L3C with respect to its use by tax-exempt organizations"); J. William Callison, *Putting New Sheets on a Procrustean Bed, How Benefit Corporations Address Fiduciary Duties, the Dangers Created, and Suggestions for Change*, 2 AM. U. BUS. L. REV. 85, 111–13 (2012) (arguing that hybrid entities could be improved by either allowing them to "organize as limited liability companies, which permit contractually tailored for-profit and nonprofit purposes" or "allow[ing] shareholders to specify the general or specific public benefits they want their corporation to seek").

This Article suggests that the weaknesses in these statutes reflect an astute political compromise. Measures that could help fix the design flaws in these new business forms, and that would encourage quicker adoption of these businesses, would require governmental oversight and at least some governmental expenditure.[12] Such costs are not yet politically acceptable, even to legislatures that would readily encourage businesses to pursue social goals.[13] And so these new business forms have served a different role from the one they were originally designed to hold. Instead of providing new sources of finance and protecting board members from liability, they have played a large part in an important conversation on the role of business in our country—namely, shifting the focus from shareholder maximization toward a more holistic and community-minded view of the role of business in society.[14]

Part I of this Article provides the historical and cultural context in which the L3C and the benefit corporation arose.[15] Parts II and III describe the L3C and the benefit corporation, respectively, along with the specific reasons these new business entities were developed and the ways in which they fell short of reaching their goals.[16] Part IV then considers the political and cultural changes that have occurred since 2008, places them in the larger context of American business history, and reflects on the roles that these new entities have played in both making and reacting to these changes.[17] This Article concludes that, if one considers the larger goal of shifting business culture in the U.S., these business entities have been far more successful than their small numbers suggest.

I. A HISTORY OF AMERICAN BUSINESS ENTITIES

In 2007, the American economic system was neatly divided into three categories—the government, business, and nonprofit sectors.[18] Most private

12. *See infra* Part IV.B (overviewing the weaknesses of L3C statutes).

13. *See infra* notes 332–37, 348–55 and accompanying text (outlining the political limitations that have prevented legislators from amending hybrid business statutes).

14. *See infra* Part IV.C (providing examples of businesses that have devoted themesleves to social and environmental, as well as profit-making, goals).

15. *See infra* Part I (discussing the history of American business entities).

16. *See infra* Parts II–III (outlining the goals and purposes of the L3C and the benefit corporation).

17. *See infra* Part IV (discussing the role hybrid business statutes have had in shifting corporate decision making away from shareholder primacy).

18. Mark Kramer, *The Future of Philanthropy, Remarks for Panel*, *in* ELIZABETH SCHMIDT, NONPROFIT LAW: THE LIFE CYCLE OF A CHARITABLE ORGANIZATION 21 (2d ed. 2017). For a discussion of the way these sectors are blurring, see Donald Summers, *The For-Profit and Nonprofit Sectors are Converging: What Are the Implications for You?*, BOARDSOURCE BLOG (Mar. 14, 2018),

sector organizations were considered either profit-driven or charitable.[19] Profit-driven businesses—generally organized as C-corporations, S-corporations, or LLCs—had no obligation to consider anything other than enriching their owners.[20] Charitable organizations, on the other hand, agreed to pursue at least one of eight charitable purposes, and to refrain from distributing any net income to individuals, in return for significant tax breaks.[21] The idea of combining profit-seeking and charitable motives into a single business entity seemed radical.[22] Yet a history of American business entities shows that innovative business forms have often provided the impetus for new growth in the economy, popular opinion about business has ebbed and flowed over time, and businesses have not always focused solely on making profits. In many ways, the new business forms may simply be signaling a cultural return to some of the practices from the past.

A. Corporations[23] in the U.S. Before 1970

In the earliest years of the U.S., businesses were quite different than they are today. Business owners were personally responsible for all the

---

http://blog.boardsource.org/blog/the-for-profit-and-nonprofit-sectors-are-converging-what-are-the-implications-for-you; Peter Frumkin, *On Being Nonprofit: The Bigger Picture*, *in* SCHMIDT, *supra*, at 4–5.

19. *See* Kramer, *supra* note 18 (distinguishing between for-profit businesses, whose goals are to "make money and [who] don't really care about social issues," with "the nonprofit sector and civil society, whose job it is to solve social problems").

20. *Id.*

21. I.R.C. § 501(c)(3) (2012); *Exempt Purposes - Internal Revenue Code Section 501(c)(3)*, INTERNAL REVENUE SERV., https://www.irs.gov/charities-non-profits/charitable-organizations/exempt-purposes-internal-revenue-code-section-501c3 (last visited Apr. 27, 2019).

22. Kramer, *supra* note 18 (positing that the division between the for-profit and nonprofit sector is "very hard for us to let go of").

23. The term *corporation* in this Article generally refers to a C-corporation. If the Article is referring to a nonprofit corporation or a benefit corporation, it states so explicitly. The Article does not refer to S-corporations, which are legal entities available to entrepreneurs that could also be vehicles for enhancing social purposes. *See* Bruce P. Ely, *State Taxation of Subchapter C, Subchapter S, and Subchapter K Entities and Their Owners—An Overview*, *in* KEATINGE AND CONAWAY ON CHOICE OF BUSINESS ENTITY: SELECTING FORM AND STRUCTUE FOR A CLOSELY HELD BUSINESS 447, 450 (2003) (explaining the specifics of a Subchapter S Corporation); Ellen Aprill & Sanford Holo, *Choice of Entity: Considerations and Consequences* 2 (Loyola Law Sch., Legal Studies Paper No. 2009-15, 2009), https://ssrn.com/abstract=1368301 (highlighting the tax and non-tax considerations that impact a corporation's choice of entity). While S-corporations have significant tax differences from C-corporations, they have the same "shareholder primacy" considerations as C-corporations; therefore, they need not be distinguished from C-corporations for the purposes of this Article. *See, e.g.*, Daniel M. Schneider, *Closing the Circle: Taxing Business Transformations*, 58 LA. L. REV. 749, 760, 765 (1998) (distinguishing between S- and C-corporations because "a C corporation is a taxpayer and is taxable on its profits" while "an S corporation is not taxed on its profits"); *see also infra* notes 71–84 and accompanying text (describing the concept of shareholder primacy).

debts of their businesses.[24] Tax considerations were irrelevant because no federal income tax was in place.[25] And governmental entities, charities, and businesses were all chartered by state legislatures as "corporations."[26] The legislature decided which organizations could do business in the state and only granted corporate charters to those that served a public purpose.[27] A minority of those corporations were commercial enterprises,[28] but all of these businesses, whether commercial or not, risked losing their charters if they failed to follow their approved public purpose.[29] As a result, investors did not always expect to make a high rate of return on their investments.[30]

The act of creating corporations was not without controversy in the post-Revolutionary era. The "anticharter" movement, as it was called, claimed that business corporations were aristocratic and anti-republican

---

24. *See, e.g.*, Frederick G. Kempin, Jr., *Limited Liability in Historical Perspective*, 4 AM. BUS. L. ASS'N BULL. 11, 17–18 (1960) ("[P]rior to the late 1820's limited liability had not yet been held to be a necessary attribute of a corporation as a matter of law.").

25. *See* Ellen Terrell, *History of the US Income Tax*, BUS. REFERENCES SERVS., http://www.loc.gov/rr/business/hottopic/irs_history.html (last updated Feb. 27, 2018) (analyzing the history of federal income tax).

26. *See* Eric C. Chaffee, *Collaboration Theory: A Theory of the Charitable Tax-Exempt Nonprofit Corporation*, 49 U.C. DAVIS L. REV. 1719, 1731 (2016) (documenting how "[i]n the early days of the United States," "state legislatures commonly granted corporate charters to noncommercial associations, such as charities, churches, and universities"); Samuel Williston, *History of the Law of Business Corporations Before 1800*, 2 HARV. L. REV. 105, 105 (1888) ("The most striking peculiarity . . . of the history of the law of business corporations is the fact that different kinds of corporations are treated without distinction, and, with few exceptions, as if the same rules were applicable to all alike.").

27. Pauline Maier, *The Revolutionary Origins of the American Corporation*, 50 WM. & MARY Q. 51, 55 (1993). The conditions of the corporate charter also included protections for the corporations' stakeholders. P.M. Vasudev, *Corporate Law and Its Efficiency: A Review of History*, 50 AM. J. LEGAL HIST. 237, 249 (2008–2010). Charters often protected both creditors and employees by imposing personal liability on shareholders for the corporate debt, including, specifically, wages owed to the employees. *Id.* at 249–51. Further, charters for turnpikes often required that farmers, worshippers, and the poor could use the turnpike without charge. *Id.* at 247.

28. In late 18th century Massachusetts, for example, almost two-thirds of corporate charters were for governmental entities, such as towns or local governmental units. Maier, *supra* note 27, at 53. Most of the other charters at that time would today be categorized as religious, educational, or charitable institutions. *Id.*

29. *Id.* at 55. The act incorporating the Beverly Cotton Mill in 1789, for example, provided that "'the promotion of useful manufactures, and particularly [s]uch as are carried on with materials of American produce within this Commonwealth,' would advance 'the happine[s]s and welfare thereof, by increa[s]ing the agriculture and extending the commerce of the country.'" *Id.* (quoting 1789 Mass. Acts 224).

30. For example, those who purchased stock in the private corporation that built the New York Turnpike at the beginning of the 19th century considered this investment more like a charitable contribution to a community improvement project than a highly profitable investment. DAVID E. SPENARD, CRASHING THE PARTY: A STATE REGULATOR'S OBSERVATIONS AND SUGGESTIONS REGARDING THE NEAR-TERM SUPERVISION OF THE SIMULTANEOUS PURSUIT OF MARGIN AND MISSION THROUGH SOCIAL ENTERPRISE, PHILANTHROCAPITALISM, AND MIXED-PURPOSE ENTITIES OR HYBRIDS 3 & n.4 (2013) [hereinafter SPENARD, CRASHING THE PARTY].

because they privileged the few at the cost of the average citizen.[31] Many anticharterists believed that corporations—with their perpetual existence—interfered with the ability of the average person to obtain property, much like primogeniture had done.[32] Additionally, their accumulation of wealth would prevent the most industrious and entrepreneurial individuals in future generations from obtaining the capital needed for their endeavors.[33]

One of the critics' largest concerns, however, was that corporations were sources of corruption.[34] Corporations and their owners could—and evidently did—bestow favors on legislators to obtain and renew charters, thereby gaining significant power over the government.[35] The critics successfully pushed for reform that would turn incorporation into a bureaucratic process open to everyone instead of a privilege bestowed by the government.[36] They standardized the conditions for incorporation and took the decision away from the legislature.[37] Ultimately,[38] that change also eliminated the idea that businesses were chartered for a public purpose.[39]

Another corporate innovation of the early to mid-1880s was limited liability for owners.[40] Prior to this, investors had been responsible for all the

---

31. Maier, *supra* note 27, at 52, 61–62. These critics thought that chartering a corporation granted a sovereignty to individuals that should belong instead to the people and their elected government. *Id.* at 62. In fact, one of the earliest corporate law cases to reach the Supreme Court, *Trustees of Dartmouth College v. Woodward* (1819), reinforced this fear by holding that the state could not revoke a charter without the consent of the corporation. *Id.* at 65, 69, 79.

32. *Id.* at 61–63.

33. *Id.* at 70. Interestingly, some of these critics feared the perpetual existence of educational and charitable corporations more than they did business corporations:

> Their property remained "locked up from individual control, . . . subtracted from the mass of transmissible wealth, and . . . held in perpetuity, to be applied only to the purposes and objects, to which it was originally destined". . . . Business corporations might in fact be less dangerous, since the shares they issued were distributed among heirs or returned to the market on the death of their owners.

Id. at 70 (first and second alterations in original) (footnote omitted) (quoting GOVERNOR'S MESSAGE RELATIVE TO THE SALE MOZART ASSOCATION, H.R. NO. 151 (1825–1834)). Not all corporate charters were granted in perpetuity, however, and the requirement that the corporation renew its charter periodically helped encourage corporate responsibility. Ralph Gomory & Richard Sylla, *The American Corporation*, 142 DÆDALUS: J. AM. ACAD. ARTS & SCI. 102, 104 (2013).

34. Maier, *supra* note 27, at 71.

35. *See id.* at 72 (discussing speculation that Congress renewed the Second National Bank's charter in exchange for certain favors).

36. *Id.* at 76.

37. *Id.*

38. These laws first appeared in the 1840s, but it took until the end of the 19th century before every state had a widely accepted bureaucratic process, instead of a legislative one, for incorporating businesses. Vasudev, *supra* note 27, at 254. It took an additional half-century for the process of incorporating charitable entities to become purely bureaucratic. Norman Silber, A CORPORATE FORM OF FREEDOM: THE EMERGENCE OF THE MODERN NONPROFIT SECTOR 5–6 (Westview Press 2001).

39. That change was not instantaneous, however, and it was not until 1900 that the remnants of a public purpose for corporations had disappeared. Maier, *supra* note 27, at 79–82.

40. Vasudev, *supra* note 27, at 249–50; *see also* Henry Hansmann et al., *The New Business Entities in Evolutionary Perspective*, 2005 U. ILL. L. REV. 5, 7 (chronicling how the "statutory business

corporation's debts, and a modest investment in a business that failed could lead to financial ruin if the business's debts were large enough.[41] With the new rules in place, and the financial risks abated, investors were far more willing to provide capital to corporations.[42]

The simplified procedures for chartering corporations and the possibility of limited liability for owners, along with some relaxation of other corporate rules, led to a major growth in business at the end of the 19th and beginning of the 20th century.[43] Charles O'Kelley described the evolving corporate model in early America:

> America had developed a uniquely efficient new business form—the modern corporation. Sitting astride these powerful economic entities were America's great entrepreneurs and financiers. Nothing could stem the modern corporation's swift rise to dominance, and, for a time, no reward seemed too great for the modern corporation's rulers—the Princes of Industry.[44]

By the end of the 1920s, most of the nation's wealth was in the hands of large corporations.[45] In fact, the 200 largest non-bank corporations controlled almost half the corporate wealth[46] and roughly 22% of the total wealth in the United States.[47] The profits of these companies rose almost exponentially, and the CEOs and shareholders reaped great rewards.[48] In 1929, the President of Bethlehem Steel earned $1.6 million[49] or

---

corporation," which provided limited liability for shareholders, emerged "[b]y the latter half of the nineteenth century").

41. *See* Kempin, *supra* note 24, at 23 (explaining the precarious position of investors prior to limited liability).

42. *Cf.* Henry G. Manne, *Our Two Corporation Systems: Law and Economics*, 53 VA. L. REV. 259, 262 (1967) (explaining that if investors were "made equally liable for all the debts of the business operation, as in a partnership . . . . Wealthy individuals would never make small investments in a corporation").

43. Charles O'Kelley, *The Evolution of The Modern Corporation: Corporate Governance Reform in Context*, 2013 U. ILL. L. REV. 1001, 1009. Industrialization, the railroad, a growing immigrant population, and World War I also helped build the economy. *Id.* at 1009, 1011.

44. *Id.* at 1009.

45. *See* ADOLF A. BERLE & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 18 (1932) (describing how the corporate system "draws wealth together into aggregations of constantly increasing size").

46. *Id.* at 30. The remaining half was held by more than 300,000 smaller corporations. *Id.*

47. *Id.* at 33.

48. O'Kelley, *supra* note 43, at 1021–22.

49. *Id.* at 1022.

$23,552,000 in 2019 dollars.[50] And the share of total national income going to the top 1% rose from 14.5% to almost 20% between 1920 and 1929.[51]

The Great Depression put an end to this prosperity and made citizens rethink the relationship of the corporation to society. Without regulations, even in the Depression, corporations could remain profitable by laying people off, reducing wages, and lowering production.[52] But the average person could not put food on the table, which led even the staunchest of conservatives to recognize that the system was broken.[53]

With the advent of the Roosevelt administration, the U.S. government began to shift its relationship with modern corporations. The U.S. experimented with Keynesian economics and passed laws that curtailed corporate power.[54] This was the era in which antitrust laws, labor laws, and social security taxes came into being.[55] Corporate power was curtailed, and business and government now held a mutual understanding that they would work together to help grow the economy.[56] After World War II, which helped to stimulate the economy, the U.S. emerged as the dominant world power.[57]

Once the U.S. gained this economic preeminence, the golden era of the modern corporation began.[58] The entrepreneurial spirt of the early 20th century was replaced by an economy driven by large, bureaucratic corporations that produced useful products, gave people jobs, and played a role in their local communities.[59] Corporate CEOs of that era were not

---

50. *Inflation Calculator*, INFLATION CALCULATOR, https://www.usinflationcalculator.com/ (last visited Apr. 27, 2019).

51. O'Kelley, *supra* note 43, at 1021–22.

52. *Id.* at 1023.

53. *Id.* at 1024.

54. *Id.* at 1033.

55. *See id.* at 1035 (noting that Congress passed the National Labor Relations Act and the Social Security Act during this time).

56. *Id.* at 1033–35 (describing the metamorphosis of the corporation during the Roosevelt presidency).

57. *Id.* at 1035.

58. *Id.* at 1037. Corporations during this era were also referred to as the "managerial" corporation or the "Galbraithian corporation." *Id.* at 1008; Lynn A. Stout, *On the Rise of Shareholder Primacy, Signs of Its Fall, and the Return of Managerialism (in the Closet)*, 36 SEATTLE U. L. REV. 1169, 1171 (2013) [hereinafter Stout, *In the Closet*]; O'Kelley, *supra* note 43, at 1008; Ernie Englander & Allen Kaufman, *The End of Managerial Ideology: From Corporate Social Responsibility to Corporate Social Indifference*, 5 ENTERPRISE & SOC'Y 404, 405, 409 (referring to the "modern, large-scale corporation" from 1920 through 1970 as the "managerial corporation"). John Kenneth Galbraith was an important mid-20th century economist, who described this relationship between the government and the corporation. *See* JOHN KENNETH GALBRAITH, THE NEW INDUSTRIAL STATE 392 (Houghton Mifflin Co. 1967) ("Given the deep dependence of the industrial system on the state and the nature of its motivational relationship to the state . . . the industrial system will not long be regarded as *something apart from government*." (emphasis added)).

59. O'Kelley, *supra* note 43, at 1033–37.

motivated solely, or even primarily, by compensation.[60] Instead, they "viewed themselves as stewards or trustees charged with guiding a vital social and economic institution in the interests of a wide range of beneficiaries."[61] Powerful labor unions ensured the interests of the wage earners were recognized.[62] Arguably, the interests of the nation were aligned with those of major corporations. This was the era when the president of General Motors, in his confirmation hearing to become Secretary of Defense, famously said, "for years I thought what was good for our country was good for General Motors, and vice versa . . . . Our contribution to the Nation is quite considerable."[63]

This corporate transformation had a large impact. Compared to the *great tycoons* just before World War I or the wealthy today, corporate CEOs of the bureaucratic era were relative paupers.[64] Life also improved for average Americans, who were healthier and more financially secure than they were during the Depression.[65] The Civil Rights movement increased the number of people who could participate in American economic life, and income inequality diminished substantially.[66]

B. Corporations from 1970 to 2008: The Rise of Shareholder Value

In 1970, the pendulum began to swing in the other direction when the Nobel Laureate winning economist Milton Friedman wrote an influential essay in the New York Times. He explained that "there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud."[67] He argued that activities that we might characterize

60. *Id.* at 1042.

61. Stout, *In the Closet*, *supra* note 58.

62. Gomory & Sylla, *supra* note 33, at 106.

63. Geoffrey Norman, *What's Good for General Motors?*, AM. SPECTATOR (Nov. 28, 2018), https://spectator.org/whats-good-for-general-motors/.

64. O'Kelley, *supra* note 43, at 1043.

65. *Id.* at 1045.

66. *See id.* ("The future looked bright and the path clear. Few would have predicted that almost overnight the motivational ethos and underpinnings of the Galbraithian modern corporation would go gentle into the night, to be only dimly remembered a long generation later." (footnotes omitted)); *see generally* Stout, *In the Closet*, *supra* note 58, at 1171–72 (discussing how the model of "managerial capitalism" served consumers, employees, and shareholders while providing corporate tax revenues for the government).

67. Milton Friedman, *The Social Responsibility of Business is to Increase Its Profits*, N.Y. TIMES, Sept. 13, 1970, at 17 (quoting MILTON FRIEDMAN, CAPITALISM AND FREEDOM 133 (1962)). His article was followed by another influential piece. *See* Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. FIN. ECON. 305, 311 (1976) (arguing that the question of whether corporations have "'a social responsibility' is seriously misleading" because "*[t]he firm is not an individual*" but "a legal fiction which serves as a focus for a

as socially responsible—such as reducing pollution or hiring otherwise unemployable people at the expense of corporate profits—would constitute "spending someone else's money for a general social interest."[68] Friedman supported such actions if they furthered the long run interest of a corporation.[69] For example, a corporation that devoted resources to improving a community might be able to attract more desirable employees.[70] That decision would be furthering the interests of the owner, however, and therefore would not be considered one of social responsibility—a concept he believed could undermine the free market system.[71]

This doctrine of *shareholder primacy*[72] rapidly became predominant.[73] According to this doctrine, shareholders have top priority among all the

---

complex process in which the conflicting objectives of individuals . . . are brought into equilibrium within a framework of contractual relations").

68. Friedman, *supra* note 67.

69. *Id.*

70. *Id.*

71. *Id.*

72. It has also garnered much academic discussion, both in defense and in opposition to the theory. *See, e.g.*, Jensen & Meckling, *supra* note 67, at 312–13 (exploring the inherent conflict between a manager-owner and outside shareholders); Ronald M. Green, *Shareholders as Stakeholders: Changing Metaphors of Corporate Governance*, 50 WASH. & LEE L. REV. 1409, 1411 (1993) (explaining that some "Delaware [Supreme] [C]ourt decisions have . . . allow[ed] corporate directors to take into account the impact of their decisionmaking on other corporate 'stakeholder' groups" provided "that measures taken on behalf of other constituencies produce 'some rationally related benefit accruing to the shareholders'" (quoting Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 176 (Del. 1986))); Stephen M. Bainbridge, *In Defense of the Shareholder Wealth Maximization Norm: A Reply to Professor Green*, 50 WASH. & LEE L. REV. 1423, 1425 (1993) (defending the principle of shareholder wealth maximization); Grant Hayden & Matthew T. Bodie, *Shareholder Democracy and the Curious Turn Toward Board Primacy*, 51 WM. & MARY L. REV. 2071, 2078–79 (2010) (using political theory to analyze the corporate decision making process); Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 439 (2001) [hereinafter Hansmann & Kraakman, *The End*] (arguing that "[t]here is no longer any serious competitor to the view that corporate law should principally strive to increase long-term shareholder value"); Lynn Stout, *Bad and Not-So-Bad Arguments for Shareholder Primacy*, 75 S. CAL. L. REV. 1189, 1189–90 (2002) [hereinafter Stout, *Bad Arguments*] (conceding that "the debate over the social role of the corporation remains unresolved," but nevertheless arguing that "some of the most frequently raised arguments for shareholders primacy are . . . bad arguments"); Lynn A. Stout, *The Shareholder Value Myth*, EUR. FIN. REV. (Apr. 30, 2013), http://www.europeanfinancialreview.com/?p=883 [hereinafter Stout, *Shareholder Value Myth*] (arguing that "[s]hareholder primacy theory is suffering a crisis of confidence" because "*shareholder value thinking doesn't seem to work, even for most shareholders*"). The debate has been around since at least 1931, when Adolf Berle and Merrick Dodd debated the issue. *Compare* A.A. Berle, Jr., *Corporate Powers as Powers in Trust*, 44 HARV. L. REV. 1049, 1049 (1931) (arguing that the corporation exists for the benefit of the shareholders), *with* E. Merrick Dodd, Jr., *For Whom Are Corporate Managers Trustees?*, 45 HARV. L. REV. 1145, 1153–54 (1932) (arguing that corporations should also have a social purpose).

73. Hansmann & Kraakman, *The End*, *supra* note 72, at 441 ("[T]here is today a broad normative consensus that shareholders alone are the parties to whom corporate managers should be accountable, resulting from widespread disenchantment with a privileged role for managers, employees, or the state in corporate affairs.").

people affected by the actions of a corporation.[74] As its owners, the shareholders officially control the corporation; but, unless there are very few owners, they generally delegate most of the governance and management functions to the board of directors and executive managers, respectively.[75] The shareholders elect the board of directors and vote on major changes within the organization.[76] The board of directors then governs the corporation, but its members have fiduciary duties of care and loyalty to the corporation and its owners.[77] They have a legal obligation to pay attention to the affairs of the corporation (duty of care) and to consider the corporation's interests ahead of their own (duty of loyalty).[78] In most instances, this means they have a duty to maximize the value of the shareholders' stock.[79]

Even though managers, customers, creditors, and sometimes even the general public (other *stakeholders*) are affected by the actions of the corporation, the idea that the shareholder has the top priority is widely shared for several practical reasons. First, it provides a way to negotiate inevitable conflicts among stakeholders, which provides stability to the market.[80] Second, the choice of the shareholder as this top priority protects the stakeholder with the least involvement in daily operations from being exploited by those with more involvement (i.e., the board and management).[81] Further, unlike other stakeholders—such as customers, employees, suppliers, and creditors—who can protect their interests through contractual negotiations, shareholders have less negotiating power with the managers of the corporation.[82] In fact, they do not see any money until all legal obligations to others—such as payroll, taxes, and payment of interest

74. *Id.* at 440–41.

75. *Id.*; Grant M. Hayden & Matthew T. Bodie, *Shareholder Voting and the Symbolic Politics of Corporation As Contract*, 53 WAKE FOREST L. REV. 511, 516–17 (2018) [hereinafter Hayden & Bodie, *Shareholder Voting*].

76. Hayden & Bodie, *Shareholder Voting*, *supra* note 75, at 513, 516.

77. *Id.* at 516–17.

78. *Id.*

79. Hansmann & Kraakman, *The End*, *supra* note 72, at 441; Hayden & Bodie, *Shareholder Voting*, *supra* note 75, at 517.

80. *See* Ian B. Lee, *Efficiency & Ethics in the Debate About Shareholder Primacy*, 31 DEL. J. CORP. L. 533, 537 (2006) ("[A] venture is worth more if managers are tasked with a clear mission, such as the maximization of the stock price, than with a more amorphous mission involving the balancing of competing interests.").

81. D. Gordon Smith, *The Shareholder Primacy Norm*, 23 J. CORP. L. 277, 279 (1998) ("[T]he shareholder primacy norm was first used by courts to resolve disputes among majority and minority shareholders in closely held corporations.").

82. Stephen M. Bainbridge, *In Defense of the Shareholder Maximization Norm*, 50 WASH. & LEE L. REV. 1423, 1443 (1993) ("[N]onshareholders have a variety of other mechanisms available with which to influence management decisions that shareholders lack. One mechanism is contract negotiations." (footnote omitted)).

on loans, are fulfilled—and until the board decides, in its discretion, to use a company's profits to issue a dividend.[83] Finally, at least theoretically, all of society benefits from shareholder primacy because the company's success is measured by what the open market would pay for it.[84]

This idea has had unintended consequences. A concern that managers' interests should be aligned with shareholders led to the practice of tying top managers' compensation to the price of the stock.[85] As the stock market took off in the 1990s and beyond, even mediocre management saw large gains, and the wage earners' proportion of that wealth was dramatically reduced.[86] Increasingly, managers' incentives were geared toward short term gains, which could be detrimental to the environment and other longer term goals.[87] In addition, the income inequality gap that had narrowed in the middle of the 20th century began to widen considerably.[88] Further, even though the owners' pockets have been lined, some commentators believe the shareholder value theory may, in the long term, hurt the corporation itself, in part because the cost-cutting measures taken for short-term gain become very costly at a later date.[89]

---

83. Gregory Hamel, *How Does a Shareholder Make Money?* AZCENTRAL, https://yourbusiness.azcentral.com/shareholder-make-money-2948.html (last visited Apr. 27, 2019).

84. Gomory & Sylla, *supra* note 33, at 108.

85. *Id.* at 108–09.

86. *Id.*

87. Stout, *In the Closet*, *supra* note 58, at 1178–80. In a frightening experiment conducted in the early 2000s, 34 active directors in Fortune 200 companies were presented with two case studies that asked them to choose between their personal morals and the shareholder primacy doctrine. Jacob M. Rose, *Corporate Directors and Social Responsibility: Ethics Versus Shareholder Value*, 73 J. BUS. ETHICS 319, 323–24 (2007). Almost all of them said they would cut down a mature forest or release a dangerous toxin into the environment if a loophole in the law allowed them to do so. *Id.* at 324–25. They all saw the ethical dilemma but believed that their duty to maximize the shareholder return should override their personal ethics. *Id.* at 325, 327. If asked to make the same decision as the owner in a partnership, they were far more likely to make the ethical decision. *Id.* at 325; *see also* Loizos Heracleous & Luh Luh Lan, *The Myth of Shareholder Capitalism*, HARV. BUS. REV., Apr. 2010, at 24 (describing the experiment).

88. SUSAN HOLMBERG & MICHAEL UMBRECHT, ROOSEVELT INSTIT., UNDERSTANDING THE CEO PAY DEBATE: A PRIMER ON AMERICA'S ONGOING C-SUITE CONVERSATION 6, 10, 14 (2014), http://rooseveltinstitute.org/wp-content/uploads/2015/10/244163008-Understanding-the-CEO-Pay-Debate-A-Primer-on-America-s-Ongoing-C-Suite-Conversation.pdf.

89. Stout, *In the Closet*, *supra* note 58, at 1178–80 (chronicling how shareholder primacy has hurt shareholders and corporations); Lynn A. Stout, Response, *The Toxic Side Effects of Shareholder Primacy*, 161 U. PA. L. REV. 2003, 2020–22 (2013) [hereinafter Stout, *Side Effects*]; Leon Neyfakh, *Is 'Shareholder Value' Bad for Business?*, BOS. GLOBE (Aug. 3, 2014), https://www.bostonglobe.com/ideas/2014/08/02/shareholder-value-bad-for-business/3O4MYxjWgmJ2DOPwkeYxyN/story.html.

The shareholder primacy doctrine is a well-recognized social norm, but scholars disagree as to whether it is legally required.[90] The architects of the benefit corporation are convinced that it is legally required and that it prevents businesses from pursuing social goals.[91] They point to two cases, almost a century apart, that explicitly reinforce this doctrine.

In the first case, *Dodge v. Ford Motor Co*., Henry Ford planned to end special dividends so that he could reinvest in the Ford Motor company, lower prices to consumers, and raise wages for employees.[92] The Dodge brothers, who owned 10% of the stock, sued, arguing that Ford was not considering their interests, and they won.[93] The court said:

> A business corporation is organized and carried on primarily for the profit of the stockholders. The powers of the directors are to be employed for that end.
>
> . . .
>
> [I]t is not within the lawful powers of a board of directors to shape and conduct the affairs of a corporation for the merely

90. *See* Stout, *In the Closet*, *supra* note 58, at 1171 (arguing that neither state nor federal law requires shareholder primacy). For a discussion of this debate, dating back to the 1930s, see J. Haskell Murray, *Choose Your Own Master: Social Enterprise, Certifications, And Benefit Corporation Statutes*, 2 AM. U. BUS. L. REV. 1, 5–7 (2012) [hereinafter Murray, *Choose Your Own Master*] (discussing the historical academic debate as to whether directors should maximize shareholder wealth); William W. Bratton & Michael L. Wachter, *Shareholder Primacy's Corporatist Origins: Adolf Berle and* The Modern Corporation, 34 J. CORP. L. 99, 100 (2008) ("A continuing and longstanding debate has been waged in corporate law scholarship among those who favor shareholder primacy . . . and those who believe that corporations have a social responsibility to other constituencies . . . ."); Fenner Stewart, Jr., *Berle's Conception of Shareholder Primacy: A Forgotten Perspective for Reconsideration During the Rise of Finance*, 34 SEATTLE U. L. REV. 1457, 1459 (2011) (arguing that shareholder primacy has shifted from "promoting shareholder primacy in order to protect minority constituents to promoting shareholder primacy in order to protect majority rights and the right of exit for any disgruntled minority").

91. *See* WILLIAM H. CLARK, JR. ET AL., THE NEED AND RATIONALE FOR THE BENEFIT CORPORATION: WHY IT IS THE LEGAL FORM THAT BEST ADDRESSES THE NEEDS OF SOCIAL ENTREPRENEURS, INVESTORS, AND, ULTIMATELY, THE PUBLIC 6 (2013), http://benefitcorp.net/sites/default/files/Benefit_Corporation_White_Paper.pdf ("Whatever the letter of the law, . . . the risk of litigation if one fails to maximize shareholder value, ha[s] a chilling effect on corporate behavior as it relates to pursuit of a social mission.").

92. Dodge v. Ford Motor Co., 170 N.W. 668, 671 (Mich. 1919); Daniel P Hann, *Emerging Issues in U.S. Corporate Governance: Are the Recent Reforms Working*, 68 DEF. COUNS. J. 191, 193 (2001).

93. *Dodge*, 170 N.W. at 669, 685.

> incidental benefit of shareholders and for the primary purpose of benefiting others.[94]

The second case, *eBay Domestic Holdings, Inc. v. Newmark*, involved a dispute between the two individual founders and majority shareholders of craigslist and the minority shareholder, eBay.[95] Fearing that eBay would be able to control craigslist, the founders enacted several protective measures designed to keep the founders in control.[96] They maintained that their objective was to retain craigslist's "values, culture and business model" and to prevent a departure "from [craigslist's] public-service mission in favor of increased monetization."[97] The court rejected this reasoning:

> The corporate form in which craigslist operates, however, is not an appropriate vehicle for purely philanthropic ends, at least not when there are other stockholders interested in realizing a return on their investment . . . . Having chosen a for-profit corporate form, the craigslist directors are bound by the fiduciary duties and standards that accompany that form. Those standards include acting to promote the value of the corporation for the benefit of its stockholders. The "Inc." after the company name has to mean at least that.[98]

Those who disagree that shareholder primacy is legally required maintain that these two cases are outliers, with very few other cases ever even citing them.[99] They point to the business judgment rule, which protects boards that make well-reasoned decisions about the day-to-day operations of the corporation.[100] Courts do not second-guess decisions that are made in

---

94. *Id.* at 684.

95. eBay Domestic Holdings, Inc. v. Newmark, 16 A.3d 1, 6–7 (Del. Ch. 2010).

96. *Id.* at 6.

97. *Id.* at 32 (alteration in original).

98. *Id.* at 34.

99. *See, e.g.*, Lynn A. Stout, *Why We Should Stop Teaching* Dodge v. Ford, 3 VA. L. & BUS. REV. 164, 166–68 (2008) [hereinafter Stout, *Stop Teaching*] (calling into question the holding of *Dodge v. Ford*, due, in part, to its weak legal precedent); *see generally* Stout, *In the Closet*, *supra* note 58, at 1174 (disagreeing with the legal theory of shareholder primacy).

100. *See* Murray, *Choose Your Own Master*, *supra* note 90, at 11–12 (explaining the relationship between the business judgment rule and shareholder primacy). Even those who believe in the shareholder value doctrine admit that the business judgment rule allows great leeway, so long as there would be some way to tie a decision to the shareholder. Robert T. Miller, *Wrongful Omission by Corporate Directors:* Stone v. Ritter *and Adapting the Process Model of the Delaware Business Judgment Rule*, 10 U. PA. J. BUS. & EMP. L. 911, 923 (2008) (explaining that under the business judgment rule, the court's review is "limited to whether the decision serves any rational business purpose, i.e., is connected in any rational way with maximizing shareholder value—a test that is virtually always satisfied"). In both the *eBay* and *Dodge v. Ford* cases, it could have been argued that the board's actions would ultimately benefit the shareholders, but neither Mr. Ford nor craigslist's

good faith with the information at hand, even if they turn out to be mistakes.[101] This rule provides a strong presumption in favor of the board that is difficult to overcome, and many commentators argue that this rule allows boards the leeway to consider interests other than maximizing corporate profit when making decisions.[102]

Courts look more carefully at the board's decisions in situations in which there may be a conflict of interest on the board's part. This is particularly true when the majority shareholders could be taking advantage of minority shareholders.[103] This was the situation in *eBay*, but even there, the board had some discretion.[104] The only time the board must choose the highest possible price for the shareholder is in the situation of a takeover when a "sale" or "break-up" of the company is inevitable.[105] In that situation, according to *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc*., the board's role changes from that of "defenders of the corporate bastion to auctioneers charged with getting the best price for the stockholders at a sale of the company."[106]

Most states also have "constituency statutes" that protect directors if they make decisions that benefit other corporate constituents, such as employees, customers, suppliers, creditors, or the larger community.[107] These statutes explicitly protect directors from lawsuits for such decisions, even if the decisions seem to contradict the shareholder primacy doctrine.[108] The statutes vary from state to state, but, in general, they are designed to provide the directors with protection when they make decisions that run counter to the shareholder's interests.[109]

---

founders chose to make that argument. *See* eBay Domestic Holdings, Inc. v. Newmark, 16 A.3d 1, 33 (Del. Ch. 2010) (arguing instead that the corporation possessed a "palpable, distinctive, and advantageous culture that sufficiently promotes stockholder value").

101. *See eBay Domestic Holdings, Inc.*, 16 A.3d at 33 ("When director decisions are reviewed under the business judgment rule, this Court will not question rational judgments about how promoting non-stockholder interests . . . ultimately promote stockholder value.").

102. *See* Murray, *Choosing Your Own Master*, *supra* note 90, at 11–12 (highlighting the vast authority that the business judgment rule allocates to directors).

103. Hansmann & Kraakman, *The End*, *supra* note 72, at 442 ("[The shareholder-oriented model] asserts the interests of *all* shareholders, including minority shareholders. More particularly, it is a central tenet in the standard model that minority or noncontrolling shareholders should receive strong protection from exploitation at the hands of controlling shareholders.").

104. *See eBay Domestic Holdings, Inc.*, 16 A.3d at 33 (explaining that "[u]nder the *Unocal* standard, . . . the directors must act within the range of reasonableness").

105. Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 182 (Del. 1986).

106. *Id.*

107. CLARK, JR. ET AL., *supra* note 91, at 9. In 2013, 33 states had adopted such statutes. *Id.*

108. *See id.* ("The directors of companies incorporated in constituency statutes are expressly permitted by statute to consider persons other than shareholders . . . .").

109. For a discussion of constituency statutes, see generally Eric W. Orts, *Beyond Shareholders: Interpreting Corporate Constituency Statutes*, 61 GEO. WASH. L. REV. 16, 16 (1992) (discussing the

Those who believe that the shareholder primacy theory prevents modern corporations from pursuing social purposes point out that there is enough precedent for corporations to know whether the statutes would truly protect the board in a takeover situation.[110] Ben & Jerry's ice cream was an early adopter of social causes.[111] Its dairy products are organic; it paid farmers more than market price; it considered the environment in its packaging; and it even provided benefits to same-sex partners long before other companies did.[112] Ben & Jerry's was, and continues to be, a supporter of the Greyston Bakery (motto: "We don't hire people to bake brownies, we bake brownies to hire people"), which supplies the brownies for the Ben & Jerry's brownie flavored ice cream.[113]

In 2000, Unilever bought Ben & Jerry's.[114] There were other bids—including one from Ben Cohen and Jerry Greenfield, which would probably have ensured that social interests remained paramount—but the board chose

---

"debate over the proper interpretation of corporate constituency statutes"); Lawrence E. Mitchell, *A Theoretical and Practical Framework for Enforcing Corporate Constituency Statutes*, 70 TEX. L. REV. 579, 585 (1992) (developing "a theoretical justification for the new constituency statutes" and "offer[ing] a two-part model for [their] enforcement"); Jonathan D. Springer, *Corporate Constituency Statutes: Hollow Hopes and False Fears*, 1999 ANN. SURV. AM. L. 85, 85 (providing an overview of case law interpreting constituency statutes and concluding that they "have realized neither the hopes they initially inspired nor the fears they initially instilled"); Antony Page, *Has Corporate Law Failed? Addressing Proposals for Reform*, 107 MICH. L. REV. 979, 980 (2009) (reviewing *The Failure of Corporate Law: Fundamental Flaws and Progressive Possibilities*, an article that advocates "for a broader stakeholder approach"); Stephen M. Bainbridge, *Interpreting Nonshareholder Constituency Statutes*, 19 PEPP. L. REV. 971, 973 (1992) (describing nonshareholder constituency statutes as "potentially revolutionary"); *see also* Kathleen Hale, *Corporate Law and Stakeholders: Moving Beyond Stakeholder Statutes*, 45 ARIZ. L. REV. 823, 827–28 (2003) (arguing that "in addition to stakeholder statutes, states should adopt innovative stakeholder meeting statutes"); Edward S. Adams & John H. Matheson, *A Statutory Model for Corporate Constituency Concerns*, 49 EMORY L.J. 1085 app. D at 1124–35 (2000) (summarizing various states' constituency statutes).

110. *See* Adams & Matheson, *supra* note 109, at 1086 (noting that "constituency statutes are relatively new and corporate law has historically been based on the shareholder primacy model"). Critics of constituency statutes also complain that they are permissive not mandatory. John Tyler, *Negating the Legal Problem of Having "Two Masters": A Framework for L3C Fiduciary Duties and Accountability*, 35 VT. L. REV. 117, 134 (2010) [hereinafter Tyler, *Negating Legal Problems*]. Except in Connecticut, these constituency statutes are permissive, not mandatory. *Id.* at 133–34. In other words, the board has the authority to consider other stakeholders' interests, but it is not required to do so. *Id.* at 134. Even in Connecticut, only shareholders can sue the board for failure to consider these interests. *Id.* at 135.

111. Brad Edmondson, *How Ben & Jerry's Brought Maverick Ideas to Mainstream Business*, GUARDIAN (Mar. 18, 2014), https://www.theguardian.com/sustainable-business/ben-jerrys-maverick-ideas-mainstream-business-values.

112. *Id.*; *Ben & Jerry's Homemade, Inc.*, ENCYCLOPEDIA.COM, https://www.encyclopedia.com/social-sciences-and-law/economics-business-and-labor/businesses-and-occupations/ben-jerrys-homemade-inc (last visited Apr. 27, 2019); Antony Page & Robert A. Katz, *Freezing Out Ben & Jerry: Corporate Law and The Sale of a Social Enterprise Icon*, 35 VT. L. REV. 211, 223 & n.90 (2010) [hereinafter Page & Katz, *Freezing Out*].

113. *Greyston Bakery: The People Behind Those Amazing Fudgy Brownies*, BEN & JERRY'S (Dec. 27, 2015), https://www.benjerry.com/whats-new/2015/brownie-partnership.

114. Constance L. Hayes, *Ben & Jerry's to Unilever, With Attitude*, N.Y. TIMES (Apr. 13, 2000), https://www.nytimes.com/2000/04/13/business/ben-jerry-s-to-unilever-with-attitude.html.

the highest bidder on advice from their attorneys.[115] Vermont had a strong constituency statute on its books at the time, which was nicknamed the "Ben and Jerry's amendment," because the state did not want to lose the company.[116] But the board did not want to test the statute in court.[117] Fortunately, the sales agreement required Unilever to maintain most of the company's social practices,[118] and Ben & Jerry's is now a certified B-corporation,[119] which means it meets sufficient social and environmental standards to gain B Lab's seal of approval.[120] Not everyone believes that Ben & Jerry's needed to sell to the highest bidder given Vermont's constituency statute.[121] At the very least, the perception of the shareholder primacy doctrine—even in a state with a strong constituency statute—was very real.[122]

---

115. Page & Katz, *Freezing Out*, *supra* note 112, at 212–13, 228–29; John Dillon, *Ben & Jerry's Sought Help to Stay in Vermont*, TIMES ARGUS (Dec. 12, 1999), https://www.timesargus.com/news/ben-jerry-s-sought-help-to-stay-in-vermont/article_c71bea26-9b39-58b6-b5f4-2ccfe580a647.html.

116. Dillon, *supra* note 115.

117. Page & Katz, *Freezing Out*, *supra* note 112, at 236–37.

118. Edmondson, *supra* note 111. The agreement is available on the Security and Exchange Comissions's EDGAR database because Ben & Jerry's was a public company at the time of the sale. *EDGAR Search Results*, U.S. SEC. & EXCHANGE COMMISSION, https://www.sec.gov/cgi-bin/browse-edgar?company=Ben+%26+Jerry&owner=exclude&action=getcompany (last visited Apr. 27, 2019).

119. *See B Impact Report: Ben & Jerry's*, CERTIFIED BCORPORATION, https://bcorporation.net/directory/ben-and-jerrys (last visited Apr. 27, 2019) (identifying Ben & Jerry's as a certified B-Corporation since September 2012).

120. *See infra* Part III.A for a discussion of certified B-Corporations. As mentioned there, the B-Corporation is often confused with the benefit corporation. A B-Corporation has achieved a seal of approval by B Lab and is a branding mechanism. *Certification*, CERTIFIED BCORPORATION, https://bcorporation.net/certification (last visited Apr. 27, 2019). A benefit corporation, on the other hand, is legally incorporated as a benefit corporation. MODEL BENEFIT CORP. LEGISLATION § 102 (2017). It need not have achieved the B-Corporation seal of approval. This Article concentrates on the legal entity, the benefit corporation.

121. *See* Page & Katz, *Freezing Out*, *supra* note 112, at 231 (arguing that corporate law almost certainly did not require Ben & Jerry's board of directors to sell the company to Unilever); Antony Page & Robert A. Katz, *The Truth About Ben & Jerry's*, STAN. SOC. INNOVATION REV., Fall 2012, at 39, 41 (arguing that Ben & Jerry's had no obligation to sell to Unilever). Despite the criticism Ben & Jerry's received for selling out, the company appears to have influenced Unilever to become more socially responsible. *See* Edmondson, *supra* note 111 (explaining that because Unilever "needed Ben and Jerry's [so] badly," it agreed to let Ben & Jerry's "retain an independent board of directors" that "has the primary responsibility for 'preserving and enhancing the objectives of the historical social mission of the company'").

122. *See* Jay Coen Gilbert et al., *The Real Truth About Ben & Jerry's and the Benefit Corporation: Part 1*, CORP. SOC. RESP. WIRE (Oct. 1, 2012), http://www.csrwire.com/blog/posts/559-the-real-truth-about-ben-jerrys-and-the-benefit-corporation-part-1 ("While . . . directors of mission-driven corporations incorporated in constituency statute jurisdictions may take into consideration the interests of various constituencies when exercising their business judgment, the lack of case law . . . makes it difficult for directors to know exactly how, when and to what extent they can consider those interests . . . ." (third alteration in original) (quoting CLARK, JR. ET AL., *supra* note 91, at 10)).

C. The Limited Liability Company

The limited liability company was introduced in 1977,[123] just as the corporation was shifting from a bureaucratic entity to a shareholder primacy one.[124] Despite the many benefits of the corporate form, it has some disadvantages compared to general partnerships with regard to taxation and flexibility. Corporate earnings are taxed twice: First at the corporate level when the corporation pays taxes on its net income, and then again at the individual level when shareholders who have received dividends add that income to their personal income tax statements.[125] Partnerships, on the other hand, are only taxed at the individual level.[126] They are called "pass-through" entities because the organization pays no taxes.[127] Almost always, the partnership pays fewer total taxes compared to the corporation.[128]

The corporation's lack of flexibility gives stability to long-term investors, but it can be a double-edged sword if the owners disagree. In a small, closely held corporation, unhappy shareholders may be unable to find a buyer for their shares and may be unable to exit without convincing a majority of the shareholders to dissolve the corporation.[129] In such a situation, the flexibility of the partnership form could be helpful.[130] Partners

---

123. Susan Pace Hamill, *The Origins Behind the Limited Liability Company*, 59 OHIO ST. L.J. 1459, 1460 (1998) ("The Wyoming Limited Liability Company (LLC), created in 1977, represents the first domestic unincorporated business entity combining statutory limited liability protection with the ability to be taxed as a partnership for federal income tax purposes." (footnote omitted)); *see also* William J. Carney, *Limited Liability Companies: Origins and Antecedents*, 66 U. COLO. L. REV. 855, 858 (1995) (calling the Wyoming LLC Act, the "original LLC statute"); Robert L. Keatinge et al., *The Limited Liability Company: A Study of the Emerging Entity*, 47 BUS. L. 375, 381–84 (1992) [hereinafter Keatinge, *Study of the Emerging Entity*] (detailing the history of the LLC business entity).

124. Stout, *Side Effects*, *supra* note 89, at 2005–07.

125. Keatinge, *Study of the Emerging Entity*, *supra* note 123, at 407, 423, 424 & n.344.

126. *Id.* at 407.

127. *Id.* at 381.

128. For example, assume a corporation has net taxable earnings of $100,000 and that both the corporation and its owners are in the 20% tax bracket. If the corporation retains its earnings, it will pay $20,000 in taxes and have $80,000 to spend on building the business the next year. *Id.* at 424 n.344 ("The Internal Revenue Code generally taxes corporate income at both the entity and shareholder level."). If it also decides to pay out $20,000 in dividends to its ten owners, however, it will have $60,000 to work with the following year. Each of the owners will also pay a $500 tax on their dividends. *Id.* When all the taxes are paid, $25,000 will have been paid on $100,000 of earnings. If this business had been organized as a general partnership with ten owners, each owner would have paid $2,000 (20% of $10,000) for a total of $20,000 paid out in taxes. *Id.* ("Partnerships are not subject to an entity level tax; the partners take into account their respective shares of the partnership's income, gain, loss and deduction items."). The business would still have $80,000 to re-invest; $5,000 more than the corporation would have had.

129. Edward M. Ford, Jr., Comment, *Rights of the Minority Shareholders to Dissolve the Closely Held Corporation*, 43 CAL. L. REV. 514, 514–16 (1955).

130. STEPHEN BAINBRIDGE, LIMITED LIABILITY COMPANIES: A PRIMER ON VALUE CREATION THROUGH CHOICE OF FORM 7 (2001) [hereinafter BAINBRIDGE, A PRIMER], https://papers.ssrn.com/sol3/papers.cfm?abstract_id=250164.

could contract for solutions to disagreements, and, if all else failed, the disgruntled partner could force the dissolution of the partnership.[131] Because of these problems, an opportunity arose for a new type of business—one with the limited liability of a corporation and the flexibility and tax treatment of the partnership.

In 1977, Wyoming passed the first limited liability company (LLC) statute, which was designed to meet this need.[132] The IRS had not yet blessed this tax treatment, however, and the LLC was slow to take off.[133] In addition, attorneys cautioned their clients that courts had not yet provided guidance on other issues.[134] As Larry Ribstein pointed out: "Clarification would come as more LLCs were formed, but who would form LLCs until important issues were clarified? For want of an egg the chicken was lost."[135]

By 1991 only eight states had passed LLC statutes.[136] That was about to change, however. The IRS had issued its first favorable tax statement in 1988,[137] and by 1996 every state had passed an LLC statute.[138] The IRS gave its final approval to the LLC in a 1997 regulation, which allowed LLCs to decide for themselves whether to be taxed as partnerships or corporations.[139]

LLCs are the most popular entity for new businesses in the U.S. today.[140] In fact, entrepreneurs are now twice as likely to set up new businesses as LLCs than they are to use a corporate form.[141] LLCs are simple to set up; they provide tax advantages and limited liability; and they allow their owners—called members—to define their duties through

---

131. Ford, *supra* note 129, at 20.

132. Hamill, *supra* note 123.

133. Larry E. Ribstein, *LLCs: Is the Future Here?: A History and Prognosis*, BUS. L. TODAY, Nov./Dec. 2003, at 11.

134. *See id.* at 12 ("LLCs also posed uncertainties that tax rules could not solve.").

135. *Id.*

136. Wyoming, Florida, Alaska, Colorado, Kansas, Nevada, Texas, Utah, and Virginia were the early adopters. Carney, *supra* note 123, at 858 & n.15, 859 & n. 20; Ribstein, *supra* note 133; Hamill, *supra* note 123.

137. Rev. Rul. 88-76, 1988-2 C.B. 360, 360–61 ("An unincorporated organization operating under the Wyoming Limited Liability Company Act is classified as a partnership for federal tax purposes . . . .").

138. Ribstein, *supra* note 133 ("By 1996, every U.S. jurisdiction had an LLC statute."); Carney, *supra* note 123.

139. Ribstein, *supra* note 133; Treas. Reg. § 301.7701-1 to -3 (as amended in 2014).

140. Rodney D. Chrisman, *LLCs Are the New King of the Hill: An Empirical Study of the Number of New LLCs, Corporations, and LPs Formed in the United States Between 2004-2007 and How LLCs Were Taxed for Tax Years 2002-2006*, 15 FORDHAM J. CORP. & FIN. L. 459, 459–60 (2009); *see also* Daniel S. Kleinberger, *A Myth Deconstructed: The "Emperor's New Clothes" on the Low-Profit Limited Liability Company*, 35 DEL. J. CORP. L. 879, 886 (2010) ("[T]he LLC has become the 'vehicle of choice' for new business formation.").

141. Chrisman, *supra* note 140, at 460.

membership agreements.[142] All the members' decisions and relationships are negotiated among themselves, and they only adopt the formal requirements that they think are necessary.[143]

D. Section 501(c)(3) Charitable Organizations

For socially minded entrepreneurs, the alternative to the for-profit corporation has traditionally been the § 501(c)(3) charitable organization.[144] In order to receive recognition as a § 501(c)(3), the organization must show that it is pursuing at least one of eight charitable purposes, the three most prominent of which are "religious," "charitable," and "educational."[145] Social entrepreneurs seeking to further one or more of these purposes may choose to organize the business as a § 501(c)(3) because these entities are exempt from federal income tax and eligible to receive tax-deductible donations.[146]

American charitable law is based on the British system,[147] which, as early as 1601, exempted from taxes organizations that helped the "aged, impotent and poor people, . . . sick and maimed soldiers and mariners,

---

142. BAINBRIDGE, A PRIMER, *supra* note 130, at 2–3, 7–8.

143. *See id.* at 7 ("The LLC thus provides substantial flexibility in structuring the firm's decisionmaking processes.").

144. *Exemption Requirements - 501(c)(3) Organizations*, IRS, https://www.irs.gov/charities-non-profits/charitable-organizations/exemption-requirements-section-501c3-organizations (last updated Nov. 28, 2018) [hereinafter *Exemption Requirements*].

145. I.R.C. § 501(c)(3) (2017). Specifically, the statute exempts organizations with the following purposes: "religious, charitable, scientific, testing for public safety, literary, or educational purposes, or to foster national or international amateur sports competition (but only if no part of its activities involve the provision of athletic facilities or equipment), or for the prevention of cruelty to children or animals." *Id.*

146. *Id.* (providing tax-exempt status for corporations, trusts, and community chests organized and operated to further one of eight enumerated purposes); *id.* § 170(c)(2)(B) (allowing tax deductions for charitable contributions made to organizations with one or more of the purposes enumerated in § 501(c)(3)).

147. For articles discussing the history of philanthropy, see James J. Fishman, *The Development of Nonprofit Corporation Law and an Agenda for Reform*, 34 EMORY L.J. 617, 618 (1985) (examining "the development of the law of 'charitable corporations'"); Henry Hansmann, *The Evolving Law of Nonprofit Organizations: Do Current Trends Make Good Policy?*, 39 CASE W. RES. L. REV. 807, 807 (1988) (describing the "considerabl[e]" changes that have occurred in nonprofit law over the last "several decades" and "evaluating the wisdom of continuing to follow the particular paths along which the law has been evolving"); Thomas Kelley, *Rediscovering Vulgar Charity: A Historical Analysis of America's Tangled Nonprofit Law*, 73 FORDHAM L. REV. 2437, 2451 (2005) ("[I]t was clear from the start that the colonists would carry their charitable traditions along with them from England to the New World . . . ."); MAMOUN ABUARQUB & ISABEL PHILLIPS, ISLAMIC RELIEF WORLDWIDE, A BRIEF HISTORY OF HUMANITARIANISM IN THE MUSLIM WORLD 3 (2009), http://waqfacademy.org/wp-content/uploads/2013/02/Mamoun-AbuarqubIsabel-Phillips-MA-IP.-07_2009.-A-Brief-History-of-Humanitarianism-in-the-Muslim-World.-Birmingham-UK.-Islamic-Relief-Worldwide.pdf (outlining the history and "centrality of humanitarian principles in Islam"); Roger Colinvaux, *Charity in the 21st Century: Trending Toward Decay*, 11 FLA. TAX REV. 3, 7 (2011) (arguing "for a reexamination of how charity is governed for federal tax purposes").

schools of learning, . . . churches, . . . orphans, . . . and others for relief or redemption of prisoners or captives, and for aid or ease of any poor inhabitants."[148] But, as mentioned above, the concept of tax exemption was unnecessary in the first 130 years of the U.S. because no federal income tax existed.[149] Nor was it necessary to establish a special kind of corporation that was devoted to the common good because all corporations agreed to further a public purpose as a condition of doing business.[150]

And yet, the concept of tax-exempt charitable organizations, as set forth in the 1601 Charitable Uses proclamation, was so imbued in Anglo-American property and tax thinking that charitable organizations were exempted once the federal income tax was enacted in 1913.[151] The charitable deduction benefit was added for individuals in 1917 and for corporations in 1936.[152]

Since that time, charitable organizations' fortunes have risen and fallen, largely in conjunction with those of for-profit corporations. During the Gilded Age and the first few decades of the 20th century, when corporations and their owners grew increasingly rich, philanthropy blossomed.[153] The tycoons of this era created large grant-making foundations, many of which continue to this day.[154]

When the Depression hit a few years later, the government began working with charities to solve social problems, another practice that exists to this day.[155] And during the managerial, bureaucratic heyday of the

148. *See* RESTATEMENT (FIRST) OF TRUSTS § 368 (AM. LAW INST. 1935) (quoting Statute of Charitable Uses 1601, 43 Eliz. I c. 4 (Eng.)).

149. *See supra* notes 24–25 and accompanying text (describing American corporations before federal income tax).

150. *See supra* notes 26–30 and accompanying text (explaining how corporations agreed to perform public purposes in exchange for corporate charters).

151. Paul Arnsberger et al., *A History of the Tax-Exempt Sector: An SOI Perspective*, STAT. INCOME BULL., Winter 2008, at 105, 106–07, https://www.irs.gov/pub/irs-soi/tehistory.pdf.

152. *Id.*

153. *See id.* at 105 (discussing how American industrialists used "their newly acquired wealth toward a broad range of altruistic endeavors").

154. *See, e.g.*, *Our History*, ROCKEFELLER FOUND., https://www.rockefellerfoundation.org/about-us/our-history/ (last visited Apr. 27, 2019) ("From our very first grant—to the American Red Cross—through to our present-day initiatives, The Rockefeller Foundation has legacy of trailblazing new fields, convening unlikely partners, and sparking new innovations that lead to transformative change."); *Our History*, CARNEGIE CORP. N.Y., http://www.carnegie.org/about/our-history/ (last visited Apr. 27, 2019) ("[E]stablished in 1911 'to promote the advancement and diffusion of knowledge and understanding,' [the Carnegie Foundation] is one of the oldest and most influential of American grantmaking foundations."); *History*, FORD FOUND., https://www.fordfoundation.org/regions/united-states/history/ (last visited Apr. 27, 2019) ("Since the foundation was established in 1936, we have been working to improve people's lives and address social justice issue across the United States.").

155. Alice M. Thomas, *Re-Envisioning the Charitable Deduction to Legislative Compassion and Civility: Reclaiming Our Collective and Individual Humanity Through Sustained Volunteerism*, 19 KAN. J.L. PUB. POL'Y 269, 295–96 (2010); *see also* SAUNJI D. FYFFE, URBAN INST., NONPROFIT-GOVERNMENT CONTRACTS AND GRANTS: THE STATE AGENCY PERSPECTIVE, at VI (2015) ("Nonprofit

American corporation, nonprofits fared well because they received the largesse of civic-minded corporations.[156]

In the shareholder primacy era of the last 30 years, the nonprofit sector has continued to grow exponentially.[157] But today's tycoons do not always use the nonprofit sector for their charitable endeavors.[158] Furthermore, government largesse has shrunk, and the gap between donations and operating expenses has grown for many organizations.[159] As a result, charitable organizations increasingly look to commercial endeavors to help bridge the gap.

Commercial activity is certainly compatible with § 501(c)(3) law, but nonprofits that engage in such activity must follow certain rules. First, the inurement provisions of § 501(c)(3) ensure that net profits will not be distributed to shareholders or even to managers, whose salaries must be set at fair market value.[160] Second, while a § 501(c)(3) can engage in unlimited commercial activity—as long as that activity furthers its charitable purpose[161]—it can only engage in a limited amount of activity that is

---

and government organizations have a long history of working together to address social issues and deliver publicly funded programs and services.").

156. Arnsberger et al., *supra* note 151, at 105. Milton Friedman's attack on corporate social responsibility was in direct response to this largesse. *See supra* notes 67–71 and accompanying text (discussing Friedman's critique of corporate social responsibility).

157. The number of nationally recognized § 501(c)(3)s doubled between 1995 and 2015, even though the rules changed during that time, which eliminated at least 300,000 from the list. SCHMIDT, *supra* note 18, at 16.

158. Mark Zuckerberg, the founder of Facebook, and Pierre Omidyar, the founder of eBay, both use LLCs as their charitable vehicles. *See* Mark Zuckerberg, *A Letter to Our Daughter*, FACEBOOK (Dec. 1, 2015), https://www.facebook.com/notes/mark-zuckerberg/a-letter-to-our-daughter/10153375081581634 (introducing the Chan Zuckerberg Initiative which focuses on "personalized learning, curing disease, connecting people and building strong communities"); Seung Lee, *Zuckerberg Clarifies Why His $45 Billion Charity is an LLC*, NEWSWEEK (Dec. 3, 2015), https://www.newsweek.com/chan-zuckerberg-llc-charity-kind-not-really-charity-400964 (explaining that the Chan Zuckerberg initiative is "structured as an LLC rather than a traditional charity foundation"); *Financials*, OMIDYAR NETWORK, https://www.omidyar.com/financials (last visited Apr. 27, 2019) ("We invest in for-profit entities through our LLC. Inspired by the social impact of eBay, we believe that business can create extraordinary opportunity and value, and that market-based solutions can generate significant social returns.").

159. *See, e.g.*, FYFFE, *supra* note 155, at 2 ("[N]ational surveys uncovered widespread problems experienced by nonprofit organizations that have contracts or grants with governments throughout the country.").

160. I.R.C. § 501(c)(3) (2017) ("[N]o part of the net earnings [may] inure[] to the benefit of any private shareholder or individual"). Section 501(c)(3)s are also subject to § 4958, which establishes an excise tax for excess benefit transactions, which occur "if the value of the economic benefit provided [to an insider of the organization] exceeds the value of the consideration (including the performance of services) received for providing such benefit." *Id.* § 4958(c)(1)(A).

161. Treas. Reg. § 1.501(c)(3)-1(e) (as amended in 2014). This provision provides that:

> An organization may meet the requirements of section 501(c)(3) although it operates a trade or business as a substantial part of its activities, if the operation of such trade or business is in furtherance of the organization's exempt purpose or

unrelated to this purpose.[162] It must pay unrelated business income taxes on the net income generated from that unrelated activity,[163] and it must be careful not to engage in too much unrelated activity because it may lose its exemption.[164] Unfortunately, the line between related and unrelated activity is determined with a facts and circumstances test,[165] and the IRS has not provided guidance as to how much unrelated activity is too much.[166]

E. Melding of the Business Entity Forms in the 21st Century

By the early part of the 21st century, entrepreneurs were beginning to combine for-profit and nonprofit purposes with more regularity. In 1980, Bill Drayton had founded Ashoka, an organization that supported social entrepreneurs financially,[167] and Professor Gregory Dees published his classic definition of "social entrepreneurship" in 1998.[168]

Increasingly, those working at the intersection of the for-profit and nonprofit worlds expressed frustration with such rigid categorizations.[169]

> purposes and if the organization is not organized or operated for the primary purpose of carrying on an unrelated trade or business.

Id.

162. I.R.C. § 512(a)(1).

163. *Id.* § 511(b)(1).

164. *See* SCHMIDT, *supra* note 18, at 386 ("While the term 'exclusively' need not be interpreted literally, commercial activity can be substantial enough that the organization is not being operated for charitable purposes. In such instances, the organization will lose its §501(c)(3) tax-exempt status.").

165. Treas. Reg. § 1.501(c)(3)-1(e) ("In determining the existence or nonexistence of such primary purpose, all the circumstances must be considered, including the size and extent of the trade or business and the size and extent of the activities which are in furtherance of one or more exempt purposes.").

166. *See* Allen Bromberger, *Tandem Nonprofit & For-Profit Companies Must Walk Fine Line*, PERLMAN & PERLMAN (May 18, 2018), https://www.perlmanandperlman.com/private-benefit-tandem-structures/ ("In the world of nonprofit/for-profit tandem structures, this juggling of public interest and private interest can be a challenge. Every arrangement and transaction between the two entities has to satisfy competing and somewhat inconsistent requirements.").

167. *Ashoka's History*, ASHOKA, https://www.ashoka.org/en-US/ashoka%27s-history (last visited Apr. 27, 2019).

168. *See* J. Gregory Dees, *The Meaning of "Social Entrepreneurship,"* DUKE INNOVATION & ENTREPRENEURSHIP, https://entrepreneurship.duke.edu/news-item/the-meaning-of-social-entrepreneurship (last updated May 30, 2001) (providing a definition of "social entrepreneurship," which includes, among other things, "[a]dopting a mission to crease and sustain social value" and "[r]ecognizing and relentlessly pursuing new opportunities to serve that mission").

169. *See, e.g.*, THOMAS J. BILLITTERI, ASPEN INST., MIXING MISSION AND BUSINESS: DOES SOCIAL ENTERPRISE NEED A NEW LEGAL APPROACH? 2 (2007) (recognizing the emergence of a "'Fourth Sector' of social enterprise organizations that combine charitable missions, corporate methods, and social and environmental consciousness in ways that transcend traditional business and philanthropy"); ALLEN R. BROMBERGER, SOCIAL ENTERPRISE: A LAWYER'S PERSPECTIVE 2 (2007) (unpublished manuscript) [hereinafter BROMBERGER, SOCIAL ENTERPRISE], https://community-wealth.org/content/social-enterprise-lawyers-perspective ("Ironically, American law does not provide a legal form that is designed to accommodate the particular needs of social enterprise."); Nicole Wallace, *New Business-Charity Hybrid Sought*, CHRON. PHILANTHROPY (Mar. 12, 2008), https://www.philanthropy.com/article/New-Business-Charity-Hybrid/163197 ("As the lines between the

They noted that such business entity forms had limitations for those seeking to make a profit while serving a social purpose.[170] As mentioned above, § 501(c)(3)s cannot offer financial incentives to employees or investors because such incentives would constitute private inurement.[171] Nor can they engage in too much unrelated commercial activity, an amount that has never been defined.[172] Thus, using this entity form for a social venture, while possible, is laced with uncertainty.

Yet for-profit corporations and even LLCs are not necessarily the answer either because most investors and the general public will expect them to serve the owners' interests.[173] This expectation is higher for corporations than LLCs because LLC members can use the membership agreement to craft their relationships.[174] But, whatever the owners decide, the general public will expect profit-seeking behavior.[175] Further, even if the owners of an LLC or for-profit corporation decide among themselves to focus on more than profits, these forms do not provide a way to protect the social mission should future owners—or even the initial ones—change their minds.[176]

It is possible, of course, to combine a for-profit and nonprofit in a joint venture or in a parent-subsidiary relationship, but such structures are complex and expensive to set up.[177] Further, the board and management

---

nonprofit and for-profit worlds blur, social-enterprise leaders continue to look for new legal structures that are better suited to such blended activities than current designations."); Robert A. Wexler, *Social Enterprise: A Legal Context*, 54 EXEMPT ORG. TAX REV. 233, 233 (2006) (expressing a desire for the legal community "to help change the law to accommodate new approaches to philanthropy").

170. *See, e.g.*, BILLITTERI, *supra* note 169, at 10 ("A number of participants at the Aspen meeting spoke of the difficulty under present laws [for nonprofits to] attract[] investment capital, whether from bank loans, venture capital, or some other form.").

171. *See* I.R.C. § 501(c)(3) (2017) ("[N]o part of the net earnings [may] inure[] to the benefit of any private shareholder or individual.").

172. Wexler, *supra* note 169, at 242; *see also supra* notes 160–66 and accompanying text (outlining the uncertainties and limitations of the unrelated commercial activity rule).

173. Hansmann & Kraakman, *The End*, *supra* note 72, at 441; *see also supra* Part I.B (describing the rise of the shareholder primacy doctrine).

174. Thomas Kelley, *Law and Choice of Entity on the Social Enterprise Frontier*, 84 TUL. L. REV. 337, 370 (2009) [hereinafter Kelley, *Law and Choice*].

175. *Id.* at 354; Hansmann & Kraakman, *The End*, *supra* note 72, at 447–48.

176. BROMBERGER, SOCIAL ENTERPRISE, *supra* note 169, at 3.

177. *See* DARREN B. MOORE & JOHN F. CRAWFORD, PUTTING THINGS TOGETHER: SUBSIDIARIES, COMPLEX ORGANIZATIONAL STRUCTURES, JOINT VENTURES, AND JOINT FUNDING VEHICLES 2 (2018) (explaining that "charities often find themselves looking to structure their operations through subsidiaries, affiliates, and other joint ventures vehicles" and deciding the appropriate vehicle "involves consideration of factors ranging from choice of form, tax status of the vehicle, and ultimately the impact on the exempt organization").

must remain vigilant to ensure that this arrangement does not jeopardize the § 501(c)(3) partner's exempt status.[178]

In 2006, a group of thought leaders attended an Aspen Institute meeting and began to question this traditional categorization and explore alternative ideas.[179] Present at that meeting were three men who presented early versions of their ideas about hybrid organizations.[180] They were Robert Lang and Marcus Owens, two of the architects of the L3C—and Jay Coen Gilbert, the founder of B Lab, and a proponent of the benefit corporation.[181]

II. THE LOW-PROFIT LIMITED LIABILITY COMPANY (L3C)

A. Description and Purpose

"On April 30, 2008, Vermont recognized a new business entity, the low-profit limited liability company, also known as the L3C. An L3C is a for-profit organization, designed to retain the flexibility of a limited liability company (LLC), but with a primary motivation to achieve a charitable goal."[182] Its measures were carefully crafted to attract investment from private foundations and other investors.[183] In the 11 years since Vermont adopted the L3C, eight other states, three tribal nations,[184] and one U.S.

178. *See* Kelley, *Law and Choice*, *supra* note 174, at 341 ("But those complex structures, which involve corporations with multiple classes of stock and detailed shareholder agreements, or the creation of multiple interlocking entities, or the use of delicately drafted joint venture agreements, tend to be expensive to create, burdensome to maintain, and . . . legally insecure."); Allen Bromberger, *IRS Declares War on Commercial Charities*, PERLMAN & PERLMAN (Dec. 14, 2017), https://www.perlmanandperlman.com/irs-declares-war-on-commercial-charities/ (documenting cases in which the IRS revoked tax-exempt status because organizations were engaged in substantial "non-exempt (i.e., commercial)" activity).

179. BILLITTERI, *supra* note 169.

180. *Id.* at 10, 12–13.

181. *Id.*

182. Elizabeth Schmidt, *Vermont's Social Hybrid Pioneers: Early Observations and Questions to Ponder*, 35 VT. L. REV. 163, 163 (2010) [hereinafter Schmidt, *Hybrid Pioneers*] (footnote omitted). Much of the material in this section is derived from this article. *Id.*; *see also* VT. STAT. ANN. tit. 11, § 4162 (2019) (outlining Vermont's requirements for benefit corporations). Much has been written on the L3C. Americans for Community Development maintains the most comprehensive website about the L3C. *L3C Laws*, *supra* note 5; *see also* Schmidt, *Hybrid Pioneers*, *supra* (examining "the experiences of the early adopters of the L3C business form").

183. *See* Schmidt, *Hybrid Pioneers*, *supra* note 182 (explaining that L3Cs are "expected to facilitate social investing from private foundations").

184. The tribal nations are the Oglala Sioux Tribe, the Navajo Indian Nation, and the Crow Indian Nation of Montana. *L3C Laws*, *supra* note 5; A. Nicole Campbell, *The Possibilities of the L3C*, PROSKAUER (Nov. 10, 2009), https://nonprofitlaw.proskauer.com/2009/11/10/the-possibilities-of-the-l3c/.

Territory[185] have recognized this new social hybrid.[186] Approximately 1,600 organizations are now organized as L3Cs in the U.S.[187] The following description explains the problem L3Cs are designed to fix and the two parts to the solution that the architects mistakenly thought would solve that problem.

1. The Problem L3Cs are Designed to Fix—Difficulty Attracting Capital

The creators of the L3C were keenly aware of the difficulty social enterprises can have in attracting capital.[188] If organized as nonprofits, they are forbidden from seeking investors with promises of a financial return.[189] Loans can be difficult to obtain because lenders fear that nonprofits' lack of access to other forms of capital will decrease their ability to repay the loan.[190] Foundations and the government will fund nonprofits in the form of grants, but their time frame is slow,[191] their funds are dwarfed by the capital available in the private sector, and they rarely provide long-term funding.[192]

Social enterprises organized as either LLCs or corporations face similar obstacles in obtaining funding. Foundations and governments do not

185. The U.S. Territory is Puerto Rico. 2015 P.R. Laws 233.

186. The states that have passed L3C legislation are Illinois, Louisiana, Maine, Michigan, Rhode Island, Utah, Vermont, and Wyoming. 805 ILL. COMP. STAT. 180/1–26 (2010); LA. STAT. ANN § 12:1302(C) (2010); ME. REV. STAT. ANN. tit. 31, § 1611 (2011); MICH. COMP. LAWS ANN. § 450.4102(2)(m) (West 2016); UTAH CODE ANN. § 48-3a-1302 (West 2014); WYO. STAT. ANN. § 17-29-101 (West 2017). North Carolina passed and then later rescinded an L3C statute, ostensibly because it was unnecessary. Anne Field, *North Carolina Officially Abolishes the L3C*, FORBES (Jan. 11, 2014), https://www.forbes.com/sites/annefield/2014/01/11/north-carolina-officially-abolishes-the-l3c/#4dbed67e3d7f.

187. *What Is An L3C?*, *supra* note 6.

188. BILLITTERI, *supra* note 169, at 10. Robert Lang, then the CEO of the Mary Elizabeth & Gordon B. Mannweiler Foundation, presented his idea about the L3C at the Aspen Institute meeting described above. Robert Lang & Elizabeth Carrott Minnigh, *The L3C, History, Basic Construct, and Legal Framework*, 35 VT. L. REV. 17, 29 (2010). After that meeting, Lang teamed up with three of the other participants—Marcus Owens, then Partner at Caplin & Drysdale and a former Director of the IRS Exempt Organizations Division; Arthur Wood, then Director of Social Financial Services at Ashoka; and John Tyler, the Secretary and General Counsel of the Ewing Marion Kauffman Foundation—to develop the idea further. *Id.*

189. *See* I.R.C. § 501(c)(3) (2017) (prohibiting private inurement); *see also* Frumkin, *supra* note 18, at 4–5 (explaining that the nondistribution constraint is a characteristic of a nonprofit organization).

190. *See* Frederick D. Hyman & Christine Walsh, *Considerations when Lending to a Not-For-Profit Entity*, N.Y. L.J. (Jun. 22, 2015), https://www.law.com/newyorklawjournal/almID/1202729819714/?slreturn=20190330163701 (explaining that lenders should be wary of lending to non-profit entities because "[i]n times of distress, not-for-profit entities, often layered with debt and other obligations, are more likely to seek bankruptcy in order to wind up and/or transition their operations").

191. FYFFE, *supra* note 155, at 2.

192. *See, e.g.*, Randy Hawthorne, *The Pros and Cons of Nonprofit Grants*, NONPROFIT HUB (Oct. 23, 2018), https://nonprofithub.org/grant-writing/pros-and-cons-of-relying-on-grants/ [https://webcache.googleusercontent.com/search?q=cache:https://nonprofithub.org/grant-writing/pros-and-cons-of-relying-on-grants/] ("Grants are almost always meant to be a supplemental funding source.").

generally provide grants to for-profit entities;[193] traditional investors look askance at organizations that do not seek to maximize profits;[194] and lenders are concerned about the viability of loans to such organizations.[195] Socially minded investors do exist, but it has been difficult for social enterprises to signal their purposes to these investors.[196]

The L3C creators saw an opportunity to solve this financing problem by creating a new business entity that could convince private foundations to invest in charitably minded for-profit businesses.[197] They also hoped this new form could entice other investors through a tranche funding mechanism.[198]

2. Solution 1: Unleashing Foundations' Program Related Investment Funds

Their strategy to convince foundations to fund L3Cs involved a little used tool in the private foundation toolbox, the program related investment (PRI).[199] A PRI is an investment that is made to further a foundation's exempt purpose.[200] Unlike grants, PRIs can provide foundations with a return on their investment.[201] The investment can take the form of a loan, an equity position, a loan guarantee, or any other transaction in which the foundation has an economic interest, so long as the PRI has the following

---

193. *Where Can I Find Funding For My Business?*, GRANTSPACE, https://grantspace.org/resources/knowledge-base/business-funding/ (last visited Apr. 27, 2019). Foundations can exercise "[e]xpenditure responsibility" to determine whether an organization that is not a § 501(c)(3) could be eligible for tax-exempt grants. I.R.C. § 4945(a)(1), (d), (h); *Grants by Private Foundations: Expenditure Responsibility*, IRS, https://www.irs.gov/charities-non-profits/private-foundations/grants-by-private-foundations-expenditure-responsibility (last updated Apr. 16, 2019) (outlining how private foundations can practice expenditure responsibility).

194. *See* Hyman & Walsh, *supra* note 190 (explaining the various reasons that entities which do not have the goal of maximizing profit are viewed skeptically as candidates for private funding); *see also supra* Part I.B (describing the rise of the shareholder value doctrine).

195. *See, e.g.*, Shiva Mirzanian, *Washington's Social Purpose Corporation: Creating Accountability for Corporations or Simply Providing a Halo to Undeserving Corporations*, 5 SEATTLE J. ENVTL. L. 265, 269 (2015) ("Investors seeking market-rate returns do not typically invest in companies that might only incidentally provide them with such a return.").

196. *Id.* at 268–69; *see infra* Part II.A.2 (discussing how foundations can invest in L3Cs).

197. BILLITERI, *supra* note 169, at 2.

198. *See infra* notes 227–35 and accompanying text (discussing the concept of tranche investing).

199. BILLITTERI, *supra* note 169, at 10, 13 (describing Robert Lang's and Marcus Owen's discussions about PRI at the Aspen Institute meeting that led to the development of the L3C); Robert R. Keatinge, *LLCs and Nonprofit Organizations – For-Profits, Nonprofits and Hybrids*, 42 SUFFOLK U. L. REV. 553, 581–82 (2009) [hereinafter Keatinge, *LLCs and Nonprofit Organizations*].

200. Keatinge, *LLCs and Nonprofit Organizations*, *supra* note 199, at 581 ("A program related investment is one in which the primary purpose is to accomplish one or more of the private foundation's charitable purposes, 'and no significant purpose of which is the production of income or the appreciation of property.'" (quoting Treas. Reg. § 53.4944-3 (as amended in 2018))).

201. Lang & Minnigh, *supra* note 188, at 25.

characteristics: (1) its primary purpose is the accomplishment of a charitable purpose that is enumerated in § 170(c)(2)(B) of the Internal Revenue Code; (2) neither the production of income nor the appreciation of property is a significant purpose of the investment; and (3) it does not have any prohibited purpose such as lobbying or political campaigning.[202]

"Charitable" is defined as being organized and operated for one or more of the same eight enumerated purposes in § 501(c)(3) described above, the most important of which are "religious," "charitable," and "educational."[203] An organization will ordinarily satisfy this charitable purpose test with regard to PRIs if: (1) the organization significantly furthers the accomplishment of the private foundation's exempt activities and (2) the grant was only made because of the relationship between the investment and the foundation's exempt activities.[204] In other words, the foundation must determine that its exempt purposes match the activities of the organization in which it invests so that the investment qualifies as a PRI.[205]

The second requirement, the income-production test, requires that "[n]o significant purpose of the investment" may be the "production of income or the appreciation of property."[206] In other words, the foundation must be looking for investments that would not ordinarily attract market-rate investment because of their charitable purposes.[207] It is possible that, even though the investment would not attract most investors, it could eventually produce significant income or asset appreciation. That occurrence would not necessarily mean that the foundation has failed this second requirement.[208]

The third requirement posits that no purpose can be for the furtherance of lobbying or political campaign activity.[209] This requirement helps to

---

202. I.R.C. § 4944(c) (2017); Treas. Reg. § 53.4944-3(a)(1)(i)–(iii). This exception to the jeopardizing investment rule has been in effect since 1969. Tax Reform Act of 1969, Pub. L. No. 91-172, 83 Stat. 487, 505.

203. I.R.C. § 170(c)(2)(B). This language tracks closely the purposes set forth in § 501(c)(3). *Id.* § 501(c)(3) (exempting organizations with "religious, charitable, scientific, testing for public safety, literary [and] educational purposes"). In this Article, the terms *charitable* and *educational* or *socially beneficial* mean the purposes listed in § 170(c)(2)(B). *Id.* § 170(c)(2)(B).

204. Treas. Reg. § 53.4944-3(a)(2)(i).

205. *Id.*

206. *Id.* § 53.4944-3(a)(1)(ii).

207. *Id.* § 53.4944-3(a)(2)(iii).

208. *Id.*; *see also id.* § 53.4944-3(b) (providing that a below-market rate loan to a small business owned by members of an economically disadvantaged minority group in a deteriorated urban area qualifies as a PRI "even though [a private foundation] may earn income from the investment in an amount comparable to or higher than earnings from conventional portfolio investments").

209. *Id.* § 53.4944-3(a)(1)(iii).

ensure that the charitable funds used in a PRI are used for charitable, rather than political, purposes.[210]

PRIs are exceptions to the jeopardizing-investment rule. That rule imposes a substantial excise tax on the organization and the managers who knowingly authorize those investments, as well as the possibility of the loss of exemption on foundations that make risky investments.[211] PRIs also count toward the 5% qualifying distribution requirement—the rule that requires private non-operating foundations to spend at least 5% of an average market value of their previous year's assets on charitable purposes.[212] Foundations traditionally meet this qualifying distribution requirement through grants, for which they receive no return on investment.[213] Because PRIs have the potential to make a return on their investment, they also have the potential to increase the amount of money foundations can eventually distribute for charitable purposes.[214]

PRIs have been permitted investment vehicles for foundations since 1969.[215] But when the Foundation Center tracked 173 grantmaking foundations that had made PRIs of $10,000 or more in 2006 and 2007, it found that those foundations' PRI investments totaled $742 million.[216] That amounted to less than 1% of the total qualifying distributions they made during these years.[217]

Several reasons existed for the relative dearth of PRIs. Foundations typically give grants instead of making loans or investments, and they may not have had the expertise or interest in managing PRIs.[218] Foundations also

---

210. *Id.* § 53.4944-3(a)(1)(iii), (a)(2)(iv).

211. I.R.C. § 4944(a)–(c) (2017) (imposing an excise tax on private foundations that engage in high-risk investments that do not quality as PRIs).

212. *Id.* § 4942(a), (d)(1), (e)(1)(A); *see also* Marco Navarro & Peter Goodwin, *Program-Related Investments*, *in* 5 TO IMPROVE HEALTH AND HEALTH CARE 2 (Stephen L. Isaacs & James R. Knickman eds., 2002), https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/chapter-navarro-goodwin.pdf ("As long as a PRI meets these requirements, it can be counted, as grants are, toward meeting the 5 percent payout required by law.").

213. Steven Lawrence, *Doing Good with Foundation Assets: An Updated Look at Program Related Investments*, *in* THE PRI DIRECTORY: PROGRAM-RELATED INVESTMENTS AND LOANS BY FOUNDATIONS xiii, xiv (3d ed. 2010).

214. *Id.* at xiii.

215. Navarro & Goodwin, *supra* note 212.

216. Lawrence, *supra* note 213, at xiii.

217. *Id.* For a description of some of the PRIs that had been made before the advent of the L3C, see Georgia Levenson Keohane, *Foundation Philanthropy and the Power of PRIs*, CTR. FOR EFFECTIVE PHILANTHROPY (Feb. 3, 2010), https://cep.org/foundation-philanthropy-and-the-power-of-pris/ (detailing PRI investments made by "small- and middle-sized philanthropies," such as the Heron, MacArthur, and Ford Foundations); Luther M. Ragin, Jr., *Program-Related Investments in Practice*, 35 VT. L. REV. 53, 54 (2010) ("At the end of 2009, [the F.B. Heron Foundation] had just under $21 million in outstanding PRIs in 38 separate transactions").

218. Lawrence, *supra* note 213, at xiii.

typically seek reassurance that such investments actually qualify as PRIs, given the excise taxes and possible loss of exemption they face if they make an incorrect determination.[219] Thus, foundations tend to forego the process entirely, seek a private letter ruling from the IRS or an opinion letter from an attorney, or engage in an expensive and time-consuming internal due diligence process.[220]

The architects of the L3C reasoned that private foundations would be more likely to use the PRI tool if a legally recognized entity could signal to the foundations that PRI requirements were met.[221] Presumably, this designation would give private foundations the same confidence the § 501(c)(3) designation gives to grantmaking foundations.[222] As a result, lawmakers inserted these three requirements into the L3C legislation.

3. Solution 2: Build on the Inherent Flexibility of the LLC to Create Multi-tiered Financing Strategies

In reality, the L3C legislation is an amendment to the LLC statute in each state.[223] The drafters of this legislation assumed that basing the L3C on

---

219. Carter G. Bishop, *The Low-Profit LLC (L3C): Program-Related Investment by Proxy or Perversion*?, 63 ARK. L. REV. 243, 244 (2010).

220. *Id.* at 258–59; *see also* Ragin, *supra* note 217, at 56–57 (arguing that foundations do not make PRIs because they "have a profound discomfort with the underwriting credit risk associated with PRIs"). For an argument that foundations are unnecessarily afraid of PRIs, see Nicole Motter, *Why Program-Related Investments are Not Risky Business*, FORBES (Feb. 21, 2013), https://www.forbes.com/sites/ashoka/2013/02/21/why-program-related-investments-are-not-risky-business/ (suggesting that "PRIs have been underutilized" partly because "they have been dubbed by many in the legal community as too risky for the average foundation, largely due to lack of IRS guidance").

221. *See* BILLITTERI, *supra* note 169, at 10–11 ("[T]he federal government could allow the development of specially designated 'social benefit organizations'—nonprofit or for-profit groups that are IRS-certified . . . . Such a designation . . . *would encourage more foundations to provide financial support* . . . ." (emphasis added)); Bishop, *supra* note 219, at 248 ("By design, the statutory L3C operating restrictions precisely mirror the PRI exception to the toxic federal excise tax imposed on investments that jeopardize charitable purpose." (footnote omitted)).

222. A determination letter from the IRS—in response to an application—recognizes that an organization is a § 501(c)(3) tax-exempt organization. It provides foundations and other donors advance assurance of deductibility of contributions. They can rely on this determination unless and until the IRS revokes the determination letter. *See* Rev. Proc. 82-39, 1982-1 I.R.B. 759 (discussing how once the IRS has recognized an organization as a § 501(c)(3), the IRS will not revoke its benefits until they notify the public of the change in status).

223. The Vermont L3C statute, for example, amended the existing limited liability statute by adding the definition of "L3C" or "low-profit limited liability company" to the definitions section of Vermont's limited liability statute. VT. STAT. ANN. tit. 11, § 4001(14) (2019). The L3C provision, § 4162, tracks the language in the Internal Revenue Code and the Treasury Regulations that relate to PRIs. *Id.* § 4162(1)–(3) (listing the three requirements of a Vermont L3C); *see also supra* notes 201–05 and accompanying text (outlining the requirements of PRIs under the IRS code and Treasury Regulations). The remaining LLC provisions in the Vermont statute then apply to L3Cs because they are simply a sub-set of the LLC. *See* VT. STAT. ANN. tit. 11, § 4001(13) (defining "[l]imited liability company" as "an organization formed under this chapter"). The Vermont L3C statute also provides that,

a familiar legal entity would provide three benefits, the third of which would encourage further investments.

The first benefit would be to provide members of L3Cs with the same limited liability protection, pass-through taxation, and flexibility to structure relationships through membership agreements as other LLCs.[224] The only difference was that L3Cs would also respect the three requirements that parallel PRI requirements.[225] The second benefit would be that the existing body of law governing LLCs would also govern L3Cs, which would provide some certainty to investors who may be wary of a new business entity.[226] Finally, L3C members could use the membership agreement to develop a multi-tiered financing strategy that could bring much needed capital to these new entities.[227]

This investment strategy, often called a "tranche" mechanism,[228] allows for several membership classes that expect different rates of financial return.[229] For example, a private foundation could make the initial investment in an L3C through a PRI.[230] That investment would have the highest risk and the lowest rate of return.[231] The investment would also provide the initial equity capital to the L3C, which would then give the L3C sufficient capital to attract investors who would otherwise have found the investment too prone to risk.[232] Such investors would then become a part of a separate membership class (or tranche) in the L3C: a class that could expect a higher rate of return than the foundation.[233] This class might become a middle tranche of investors—those who still accept a below-

---

if any of these requirements are no longer met, the organization will cease being an L3C, but will remain an LLC as long as it meets the LLC requirements. *Id.* § 4163(a).

224. *See* BAINBRIDGE, A PRIMER, *supra* note 130, at 7–8.

225. *Compare* VT. STAT. ANN. tit. 11, § 4162(1)–(3) (enumerating Vermont's L3C requirements), *with* Treas. Reg. § 53.4944-3(a)(1)(i)–(iii) (as amended in 2018) (outlining the federal PRI requirements).

226. *See LLC, S Corporation, L3C, Benefit Corporation?*, IMPACT FOUND., https://impactfoundation.org/blog/llc-or-benefit-corporation (last visited Apr. 27, 2019) (explaining that "the L3C is treated as an LLC for all legal and tax purposes").

227. Lang & Minnigh, *supra* note 188, at 17–18.

228. David Spenard defines "tranche" as a "[f]ancy French word for slice." SPENARD, CRASHING THE PARTY, *supra* note 30, at 9 & n.9.

229. *See* Lang & Minnigh, *supra* note 188, at 17 ("[T]ranching refers to layering. Normally each tranche represents a class of members and each class has a different level of risk and receives different returns on their investment in addition to other rights and privileges of the class.").

230. *See, e.g.*, *id.* at 18 (illustrating an L3C financing structure in which "the foundation is the investor in the equity tranche").

231. *See id.* at 17 ("The terms equity tranche for the highest or first risk tranche, mezzanine for the middle tranche, and senior for the most secure tranche are often used.").

232. *Id.*

233. *See id.* at 18 (illustrating how an initial equity tranche investment by a foundation can "produce[] significant returns to commercial investors").

market rate of return in order to encourage a social return.[234] Ultimately, a class of investors who expect a market rate of return could emerge.[235] Thus, this tranche mechanism allows the PRI to provide much needed capital at the same time it leverages additional investment.

B. Why the L3C Falls Short of Accomplishing These Goals

1. Low PRI Support

Despite initial optimism,[236] L3Cs have not been able to garner significant PRI support.[237] A 2010 survey of the first adopters in Vermont found that no businesses had attracted PRI funding after two years.[238] Even Americans for Community Development, which promotes L3Cs, acknowledges that foundations have not responded positively to this new entity.[239]

This is not a surprising result. The creators of the L3C concept recognized that foundations were leery of making PRI investments and hoped that the L3C would encourage them to do so.[240] But, despite the language in the statute that parallels the PRI,[241] the L3C does not actually

---

234. *See id.* ("It is our hope that in many L^{3}Cs investors willing to sacrifice a portion of the return in exchange for knowing that the L^{3}C is performing a socially-beneficial mission will populate a mezzanine tranche.").

235. *Id.*

236. *See, e.g.*, Cassady V. Brewer & Michael J. Rhim, *Using the 'L3C' for Program-Related Investments*, 21 TAX'N EXEMPTS 11, 18 (2009) ("The arrival of the L3C potentially is a watershed moment for individuals and organizations that are dedicated to achieving social change."); Kelley, *Law and Choice*, *supra* note 174, at 377 ("[T]he . . . L3C . . . appears to be the tool best adapted to give legal standing and structure to its hybrid social enterprises."); Sue Woodrow & Steve Davis, *The L3C: A New Business Model for Socially Responsible Investing*, FED. RES. BANK ST. LOUIS, https://www.stlouisfed.org/publications/bridges/winter-20092010/the-l3c-a-new-business-model-for-socially-responsible-investing (last visited Apr. 27, 2019) ("The trio of Lang, Owens, and Wood developed the L3C as a self-sustaining means to achieve a social mission at the lowest possible cost and with the greatest efficiency."); Marc J. Lane, *L3Cs Hold Key to Solving State's Social Woes*, CRAIN'S CHI. BUS. (Aug. 9, 2008), https://www.chicagobusiness.com/article/20080809/ISSUE07/100030399/l3cs-hold-key-to-solving-state-s-social-woes ("[An] L3C, is a new, hybrid business form that can leverage foundations' program-related investments to access trillions of dollars of market-driven capital for ventures with modest financial prospects but the possibility of major social impact.").

237. *See* Schmidt, *Hybrid Pioneers*, *supra* note 182, at 188 (discussing a survey of early adopters of the L3C form that found none had attracted PRI investments).

238. *Id.*

239. MICHAEL MARTIN, AMS. FOR COMMUNITY DEV., SHALL WE DANCE?: DONOR ADVISED FUNDS, PRIS AND THE L^{3}C, at 2 (2012), https://americansforcommunitydevelopment.org/wp-content/uploads/2016/03/Shall-We-Dance_-Donor-Advised-Funds-PRIs-and-The-L3.pdf.

240. ROBERT LANG, AMS. FOR COMMUNITY DEV., THE L^{3}C - BACKGROUND & LEGISLATIVE ISSUES: A NEW WAY TO ORGANIZE SOCIAL ENTERPRISES 1 (2013), https://www.americansforcommunitydevelopment.org/downloads/The%20L3C%20Law%20-%20Background%20&%20Legislative%20Issuesrev01-13.pdf.

241. *Id.* at 3–4.

make life easier for foundations. The foundation must still determine whether the organization meets the three criteria listed in the statute.[242] This is exactly the same due diligence required since 1969 whenever corporations, LLCs, nonprofits, and other business entities sought PRIs.[243] With their own § 501(c)(3) exemption at stake, foundations would be remiss if they blindly took the word of an organization that has checked a box on a state form claiming that the organization has a charitable purpose, which it prioritizes over profit-making, and refrains from lobbying and political activity.[244]

The L3C statutes do not include enforcement language[245]—such as a penalty for failure to follow the pledge that parallels the PRI requirements—which would help foundations feel more comfortable with such investments.[246] The L3C legislation simply provides that, if an L3C

---

242. *See, e.g.*, J. Haskell Murray & Edward I. Hwang, *Purpose with Profit: Governance, Enforcement, Capital-Raising and Capital-Locking in Low-Profit Limited Liability Companies*, 66 U. MIAMI L. REV. 1, 31 (2011) ("[F]oundations must conduct a fact-intensive analysis of whether to make a PRI and must exercise expenditure responsibility to monitor their investment.").

243. Bishop, *supra* note 219, at 258–59; David Edward Spenard, *Panacea or Problem: A State Regulator's Perspective on the L3C Model*, 65 EXEMPT ORG. TAX REV. 36, 40 (2010) ("Because private foundations that exercise reasonable diligence will continue to do so even within a fully implemented L3C model, there is good reason to be skeptical about whether the L3C model will result in a meaningful reduction in overall transactional costs for the diligent private foundation.").

244. *See, e.g.*, *Limited Liability Company Articles of Incorporation*, WYO. SECRETARY STATE, http://soswy.state.wy.us/Forms/Business/LLC/LLC-ArticlesOrganization.pdf (last visited Apr. 27, 2019) (providing Wyoming's L3C application, which only requires an organization to check a single box to certify its existence as a limited liability company). Some PRIs have been made to L3Cs, but they tended to be from smaller foundations. *See, e.g.*, Anne Field, *Another Reason to Become an L3C*, FORBES (Aug. 22, 2014), https://www.forbes.com/sites/annefield/2014/08/22/another-reason-to-become-an-l3c/#2e896963785a ("Foundations have dragged their feet in trying PRIs . . . . But over the last few years, more of them have been getting their feet wet."). Several scholars had predicted that L3Cs would be unable to garner foundation support. *See, e.g.*, J. William Callison & Allan W. Vestal, *The L3C Illusion: Why Low-Profit Limited Liability Companies Will Not Stimulate Socially Optimal Private Foundation Investment in Entrepreneurial Ventures*, 35 VT . L. REV. 273, 274 (2010) ("[T]he L3C experiment is flawed and should be abandoned unless and until the federal PRI rules change in a way that gives meaning to L3Cs."); Allison Evans et al., *L3C: Will New Business Entity Attract Foundation Investment?*, 63 EXEMPT ORG. TAX REV. 1, 2 (2009) ("A foundation weighing those costs against the benefits of the investment ultimately may conclude that a grant makes more sense than a potential PRI or that no PRI is worthwhile.").

245. *See* BRAKMAN-REISER & DEAN, *supra* note 11, at 62, 64 ("If an L3C 'at any time ceases to satisfy any one of the [statute's purpose] requirements, it shall immediately cease to be a low-profit limited liability company' . . . . Exactly how anyone will know when such a transformation has occurred remains a bit mysterious." (alteration in original) (foonote omitted) (quoting VT. STAT. ANN. tit. 11, § 3001 (repealed July 1, 2016)). *But see* Tyler, *Negating Legal Problems*, *supra* note 110, at 131 (maintaining that the priorities in the L3C statute create fiduciary duties that provide accountability).

246. Enforcement mechanisms, such as the Philanthropic Facilitation Act, would provide reassurance to foundations. Philanthropic Facilitation Act of 2015, S. 2313, 114th Cong. § 2 (2015). Had this legislation passed, it would have provided a streamlined application process by which the IRS would determine if an organization seeking a PRI investment from a foundation actually met the

stops fulfilling these criteria, it becomes an LLC.[247] The L3C statutes do not include a mechanism for determining when and how this change of form happens.[248] Therefore, the L3C members themselves will make the decision that the organization is no longer pursuing the three L3C criteria.[249] The members can bring suit to enforce these criteria.[250] However, foundations are unlikely to feel comfortable with the members being the only enforcers because the members could violate their fiduciary duties and pursue financial goals at the expense of the charitable ones.[251]

Nor is there any federal monitoring of the L3C.[252] The L3C proponents have attempted to pass such legislation, but they have not yet succeeded.[253] Thus, potential investors must either take the L3C's word that they meet these three requirements or undertake their own due diligence.

2. Tranche Investments

The original idea that multi-tiered financing could bring additional financing to L3Cs assumed that foundations would take on the highest risk investment and accept the lowest return in the form of PRIs.[254] Despite the

---

requirements of a PRI. *Id.* Such a mechanism would provide a safe harbor for foundations investing in PRIs because they could rely on the IRS determination. *See generally Proposed Legislation*, AMS. FOR COMMUNITY DEV., http://americansforcommunitydevelopment.org/proposed-federal-legislation/ (last visited Apr. 27, 2019) [hereinafter *L3C Proposed Legislation*] (outlining the proposed 2016 legislation).

247. For a description of the specific termination provisions in all nine states, see CHRISTOPHER REINHART, OFFICE OF LEGISLATIVE RESEARCH, 2011-R-0344, LOW-PROFIT LIMITED LIABILITY COMPANIES OR L3CS (Conn. 2011).

248. *Id.*

249. *See* LANG, *supra* note 240, at 5 (outlining how L3C law "places a fiduciary responsibility on the owners and managers to operate in a manner consistent with the law").

250. *See* Tyler, *Producing Better Mileage*, *supra* note 11, at 267 ("Any given owner or manager should be able to hold others accountable for deviations based both on breach of contract and breach of fiduciary duty.").

251. Dana Brakman Reiser, *Regulating Social Enterprises*, 14 U.C. DAVIS BUS. L.J. 232, 234 (2014) (noting that L3C statutes do not empower any regulating body to play an enforcement role and wondering what would prevent investors from erring on the profit-seeking side and pocketing the gains); Tyler, *Negating Legal Problems*, *supra* note 110, at 131–34. *But see* Tyler, *Producing Better Mileage*, *supra* note 11, at 267 ("[T]he L3C standards seem to inject opportunity for legal actions to enforce duties by establishing priorities and weightings with regard to charitable purposes and investor profits.").

252. *See infra* notes 345–54 and accompanying text for a discussion of the failure to pass the Philanthropic Facilitation Act; *see also* John A. Pearce II & Jamie Patrick Hopkins, *Regulation of L3Cs for Social Entrepreneurship: A Prerequisite to Increase Utilization*, 92 NEB. L. REV. 259, 262 (2013) ("[N]either the IRS nor the federal government has provided formal notification that L^3Cs will receive preferential consideration . . . ."); Tanya M. Marcum & Eden S. Blair, *In Search of a Unique Identity: The L3C as a Socially Recognized Brand*, 14 TRANSACTIONS: TENN. J. BUS. L. 79, 93 (2012) ("At the federal level, time will reveal whether Congress supports the L3C . . . .").

253. *See L3C Proposed Legislation*, *supra* note 246 (highlighting proposed federal legislation).

254. LANG, *supra* note 240, at 4.

predicted increase in PRIs for L3Cs, there has been little increase,[255] and one can safely assume that this tranche investment idea has not brought in significant funding either.

In any case, critics of the L3C have argued that this idea should never gain traction because it could jeopardize the foundation's tax-exempt status.[256] If a foundation accepts a lower rate of return than other investors, the foundation could be allowing the other investors—who do not share its charitable purpose—to profit from its tax-exempt status.[257] Of course, the initial high risk, low return investment need not come from foundations.[258] If this return came from an individual or a for-profit entity, the inurement issue would disappear—as would the PRI rationale for the L3C.

Even assuming the inurement issue can be resolved, a second difficulty with both the PRI and the tranche investment strategy is that neither strategy is unique to the L3C.[259] LLCs and corporations can also receive PRIs and structure multi-tiered financial membership agreements.[260] Thus, neither *solution* is actually a solution to the financing issue because both were already available to traditional for-profit entities.[261] Unsurprisingly, the L3C has failed to attract substantial new funding because the L3C does not differ enough from the LLC to offer something new and compelling to investors.[262]

---

255. *See supra* Part II.B.1 (explaining why it is "not a surprising result" that L3Cs have not been able to increase foundations' use of PRIs).

256. Evans et al., *supra* note 244.

257. Benjamin Leff, *Preventing Private Inurement in Tranched Social Enterprises*, 45 SETON HALL L. REV. 1, 22 (2015) ("A tranched investment strategy appears to potentially create a situation in which the charity is subsidizing the profits earned by the private investors, and that seems deeply troubling."); *see also* Kleinberger, *supra* note 140, at 893 ("Depending on how much an L3C is tilted toward the market-rate investors, the investing foundation risks being seen as benefitting . . . substantial number of individuals distinct from the foundation's purpose."); Bishop, *supra* note 219, at 263–65 (concluding that tranche investment may create a situation where foundations allow their "assets to be used to inure private benefit to the commercial or market tranche").

258. *See What is the L3C?*, AMS. FOR COMMUNITY DEV., http://americansforcommunitydevelopment.org/ (last visited Apr. 27, 2019) (enumerating the mix of entities L3Cs "bring together" to achieve social objectives).

259. *See Tranche Investment: Everything You Need To Know*, UP COUNS., https://www.upcounsel.com/tranche-investment (last visited Apr. 27, 2019) (discussing tranche investments and their ability to give money to businesses over a period of time).

260. I.R.C. § 4844(c) (2017). In fact, I.R.S. Priv. Ltr. Rul. 200610020, at 2–3, 14 (Mar. 10, 2006), which proponents of the L3C used to show that L3Cs can accept PRIs with tranche investment strategies, actually dealt with an LLC.

261. *See* Rick Cohen, *Put Your Money Where Your Mission is: Mission-Related Investments and You*, NONPROFIT Q. (Feb. 14, 2013), https://nonprofitquarterly.org/2013/02/14/put-your-money-where-your-mission-is-mission-related-investments-and-you/ (noting the availability of PRIs for for-profit entities as well as nonprofit ones); *see also Tranche Investment*, *supra* note 259 ("Tranche investment lets *venture capital and other investors* split investments into parts." (emphasis added)).

262. *See* Kleinberger, *supra* note 140, at 897 ("In sum, from the perspective of state entity law, there is nothing an L3C can do that cannot already be done through an ordinary LLC.").

III. THE BENEFIT CORPORATION

A. Description and Purpose

As with the L3C, the benefit corporation pursues social as well as profit-making goals.[263] But this business entity is based on the corporation, not the LLC, and the benefit corporation's designers were mainly concerned with officer and director liability instead of financing difficulties.[264] As a result, this legislation is quite different from L3C legislation. Ironically, the benefit corporation is no better suited to reaching its goals than the L3C. The benefit corporation does not make a significant change to existing officer and director liability.[265] It fails to provide enough impetus to protect a social mission.[266] And the benefit corporation's structure does not appeal to the one type of business that truly needs this protection—the publicly traded business that could face a hostile takeover.[267]

The benefit corporation is the brainchild of the founders of B Lab, a nonprofit organization dedicated to helping businesses become a force for good.[268] B Lab's vision is that "one day all companies will compete to be not just best in the world but also best for the world."[269] Its first project created a certification system that requires businesses to meet high standards for social and environmental performance, public transparency,

---

263. *What is a Benefit Corporation?*, BENEFIT CORP., https://benefitcorp.net/what-is-a-benefit-corporation (last visited Apr. 27, 2019).

264. *See, e.g.*, CLARK, JR. ET AL., *supra* note 91, at 20 (detailing that courts give deference to directors' decisions even if they do not obviously promote shareholder interests). To be fair, most proponents of the benefit corporation mention the possibility of access to financing, but it is almost an afterthought. *See, e.g.*, *id.* at 28–29 (mentioning, after thoroughly discussing director liability, that "[b]enefit corporations are able to attract the same types of capital as regular corporations").

265. *See infra* notes 286–305 and accompanying text (noting the uncertainty surrounding directors' duties and obligations).

266. *See infra* Part III.B.1 (arguing that the benefit corporation legislation does not provide a board of directors with enough guidance as to how to choose social and environmental goals over profit-making ones).

267. *See supra* notes 103–06 and accompanying text (outlining the board of directors' duties during a forced sale or hostile takeover); *see also infra* Part III.B.1 (arguing that benefit corporations are unlikely to face a hostile takeover, especially because there is only one publicly traded benefit corporation).

268. Kyle Westaway & Dirk Sampselle, *The Benefit Corporation: An Economic Analysis with Recommendations to Courts, Boards, and Legislatures*, 62 EMORY L.J. 999, 1010 (2013) ("Benefit corporations are the brainchild of the nonprofit B Lab."); *see About B Lab*, CERTIFIED B CORP., https://www.bcorporation.net/what-are-b-corps/about-b-lab (last visited Apr. 27, 2019) (noting that B Lab advocates for benefit corporations).

269. *About B Lab*, *supra* note 268.

and legal accountability.[270] Once they meet this standard, these businesses are called "Certified B Corporations," which is somewhat of a misnomer because their underlying legal form can be any for-profit form.[271] As of early 2019, more than 2,600 businesses have earned the B Lab certification.[272]

In addition to running the B Lab certification system, B Lab has promoted the benefit corporation, which is currently recognized in 34 states and is under consideration in six others.[273] In general, businesses organized as benefit corporations agree to create a general public benefit, which is defined as "[a] material positive impact on society and the environment, taken as a whole, from the business and operations of a benefit corporation assessed taking into account the impacts of the benefit corporation as reported against a third-party standard."[274] They also have the option of adding one or more specific public benefits in their articles of incorporation, so long as the general public benefit remains.[275]

Benefit corporations also create a new fiduciary duty for officers and directors, requiring them to consider the interests of all stakeholders when they make a decision—not simply the interests of the shareholders.[276] And they further transparency by requiring an annual report that compares the company's overall social and environmental performance against a third-party standard.[277]

---

270. *Certification*, CERTIFIED B CORP., https://bcorporation.net/certification (last visited Apr. 27, 2019); *Certification Requirements*, CERTIFIED B CORP., https://bcorporation.net/certification/meet-the-requirements (last visited Apr. 27, 2019).

271. *See Certification Requirements*, *supra* note 270 ("The legal requirement can be fulfilled through a variety of structures, from LLCs and traditional corporations to benefit corporations and cooperatives.").

272. *Certified B Corporation: A Global Community of Leaders*, B CORP., https://bcorporation.net/ (last visited Apr. 27, 2019). To avoid confusing *B-Corporations*—which are certified by B Lab—and *benefit corporations*—which are legal forms within which a business is organized—this Article uses the phrase "B Lab certified" when discussing the certification process.

273. *Status*, BENEFIT CORP., *supra* note 5. Each state statute is somewhat different, and some states, like Delaware, call their statute the "public benefit corporation." *See, e.g.*, DEL. CODE ANN. tit. 8, § 362(a) (2019) ("A 'public benefit corporation' is a for-profit corporation organized under and subject to the requirements of this chapter that is intended to produce a public benefit . . . ."). It is similar enough to the benefit corporation that it is included in the list. *Status*, BENEFIT CORP., *supra* note 5.

274. MODEL BENEFIT CORP. LEGISLATION § 102 (2017).

275. *Id.* § 201(b).

276. *Id.* §§ 301(a), 303(a).

277. *Id.* § 401(a). Note that under Delaware law, certification by a third-party standard is optional. *See* DEL. CODE ANN. tit. 8, § 366(c) ("The certificate of incorporation or bylaws . . . may require that the corporation: . . . . (3) Use a third-party standard in connection with and/or attain a periodic third-party certification addressing the corporation's promotion of the public benefit . . . .").

The benefit corporation is a direct response to the shareholder primacy doctrine.[278] In 2013, the author of the benefit corporation legislation, William Clark, wrote a white paper with Larry Vranka explaining why such legislation was necessary.[279] They emphasized the dangers of committing to a mission-driven business in the current legal environment.[280] The authors of the white paper recognized the arguments that the shareholder primacy doctrine may not be as strong in every situation, given the business judgment rule and the constituency statutes in 33 states.[281] But they also emphasized that the legal uncertainty and the need for clarity were making it difficult for mission-driven businesses, even those in states with constituency statutes.[282]

B. Why the Benefit Corporation Cannot Accomplish its Goals

The issues with the benefit statute are somewhat paradoxical. On the one hand, there is not enough guidance to protect directors,[283] and on the other, there is so much protection of the directors that the mission is not protected.[284] To add to the complexity, the only situation in which the directors truly need this protection would be during a forced sale of a publicly owned company.[285] But as of January 2019, there was only one publicly-traded benefit corporation based in the U.S.[286] Certainly, it was not necessary to pass legislation in 34 states to protect a single corporation.

---

278. *See, e.g.*, B LAB, SHAREHOLDER PRIMACY: MYTHS AND TRUTHS 1 (n.d.), https://bcorporation.net/sites/default/files/documents/missionalignment/Myths%20and%20Truths.pdf ("B Lab has promoted the adoption of 'benefit corporation' law, which provides an option that allows corporations to reject shareholder primacy . . . .").

279. CLARK, JR. ET AL., *supra* note 91, at 1.

280. *Id.*

281. *Id.* at 9, 12.

282. *Id.* at 14.

283. *See infra* notes 288–94 and accompanying text (noting the uncertainty surrounding director's duties and liabilities).

284. *See, e.g.*, MODEL BENEFIT CORP. LEGISLATION § 301(c) (2017) (providing that, unless otherwise specified, directors are "not personally liable for monetary damages").

285. *See* Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 182 (Del. 1986) (describing how in the face of a forced sale of a corporation, directors are required to drive shareholder value); *see also* Stout, *Shareholder Value Myth*, *supra* note 72 ("The only context in which courts require directors to maximize shareholder value is when the directors of a public company determine to sell the company to a private owner . . . . In other words, as long as a public company wants to stay public, directors have no legal obligation to maximize either profits or share value.").

286. *See FAQ*, BENEFIT CORP., http://benefitcorp.net/faq (last visited Apr. 27, 2019) ("[I]n October 2015 Laureate Education, the largest degree-granting higher education institution in the world, announced that it was filing an S-1, and that it would do so as a benefit corporation.").

1. The Benefit Corporation Does Not Provide Enough Guidance to Remove Uncertainty

The authors of the benefit corporation legislation claim that the uncertainty surrounding existing law requires a new statute that will provide more certainty.[287] At one level, the purpose statement does provide directors with some certainty because the articles of incorporation, which provide the authority to do business in the state, requires the enterprise to have a "material positive impact on society."[288] That provides the state's imprimatur on the stakeholder value doctrine, which is a major shift.

But it is largely a symbolic shift because the statute does not provide any other guidance to the board members.[289] We do not know what a "material positive impact" is or how to measure it.[290] The board is told to consider the seven enumerated groups of stakeholders listed in the statute when it makes decisions,[291] but there is no guidance as to how to prioritize these stakeholders, if at all.[292] And it is unclear what it means to "consider" the stakeholders.[293] Is it enough to consider worker safety long enough to decide that safety measures will be too expensive and then to choose profits over safety? How different is that decision—except perhaps for a statement in the minutes—from a traditional shareholder primacy decision? And what role does the benefit director play?

Some of the answers to these questions will be ironed out over time. A difficulty inherent in any new business entity is that issues will arise that courts have not yet answered.[294] Unfortunately, that situation creates the

---

287. CLARK, JR. ET AL., *supra* note 91.

288. *See* MODEL BENEFIT CORP. LEGISLATION § 201(a) ("A benefit corporation shall have a purpose of creating general public benefit."); *see also id.* § 102 (defining "[g]eneral public benefit" as "[a] material positive impact on society and the environment").

289. Other commentators have noted this uncertainty with regard to directors' duties. *See, e.g.*, Murray, *Choose Your Own Master*, *supra* note 90, at 27 ("One of the primary problems with the current benefit corporation statutes is the lack of guidance the statutes provide for boards of directors."); *see also* Mark J. Loewenstein, *Benefit Corporations: A Challenge in Corporate Governance*, 68 BUS. L. 1007, 1027–31 (2013) (outlining the potential conflicting duties directors of benefit corporations face).

290. MODEL BENEFIT CORP. LEGISLATION § 102.

291. *See id.* § 301(a)(1)(i)–(vii) (requiring the board to consider shareholders, employees, "the interests of customers," "community and societal factors," "the local and global environment," "the short-term and long-term interests of the benefit corporation," and "the ability of the benefit corporation to accomplish its general public benefit purpose").

292. *See id.* § 301(a)(3) (providing that the board "need not give priority to a particular interest or factor . . . unless the benefit corporation has stated in its articles of incorporation its intention to give priority to certain interests").

293. *Id.* § 301(a)(1) (requiring the board to "consider the effects of any action or inaction upon" seven enumerated stakeholders).

294. *See supra* notes 132–39 and accompanying text (discussing the uncertainty surrounding the LLC statute when it was first introduced).

uncertainty that the white paper sought to eliminate.[295] Ironically, the benefit corporation's designers believed a new entity could solve uncertainty by creating something new,[296] which, by default, also leaves many questions unanswered. The benefit corporation designers based this statute on corporate law,[297] and so some issues already have answers. But the questions surrounding the tensions between shareholder and stakeholder remain undecided. If Ben & Jerry's decided not to fight a shareholder lawsuit because Vermont's constituency statute had not been tested,[298] why would Ben & Jerry's feel more confident with Vermont's untested benefit corporation statute?

One of the ways to answer these questions is to let the stakeholders make their own decisions. Most benefit corporation statutes require that benefit corporations prepare annual benefit reports that they make public.[299] The statutes also require that benefit corporations use a third-party standard to measure their success.[300] That third party could be B Lab, but other standards, such as Fair Trade, would also be suitable.[301] The third party does not certify the business.[302] Instead, the business simply needs to use someone else's objective standard to report to the public how that business is handling the tensions between profits and other issues.[303]

In an ideal world, if a benefit corporation chose to forego worker safety measures to increase profits, that corporation would report that decision in

---

295. *See* CLARK, JR. ET AL., *supra* note 91, at 1 (arguing that the public benefit corporation "addresses the needs of social entrepreneurs" in ways that the "current legal framework[]" does not).

296. *See id.* at 14 (arguing that the benefit corporation is the best business entity to address "legal uncertainties" and "the unique needs of for-profit mission-driven businesses").

297. *Id.* at 15 ("The Model Legislation has been drafted so that the existing corporation code applies to benefit corporations in every respect except those explicitly stipulated in the Model Legislation.").

298. *See infra* Part IV.C.3 (outlining how Ben & Jerry's was an early supporter of social causes).

299. *See, e.g.*, MODEL BENEFIT CORP. LEGISLATION § 401(a) (2017) ("A benefit corporation shall prepare an annual benefit report . . . .").

300. *Id.* § 401(a)(2). These provisions cover the preparation and dissemination of the annual benefit report. *Id.* § 401.

301. *See How Do I Pick a Third Party Standard?*, BENEFIT CORP., https://benefitcorp.net/how-do-i-pick-third-party-standard (last visited Apr. 27, 2019) (providing a list of "acceptable third party standards"); *see, e.g.*, *Our Global Model*, FAIR TRADE CERTIFIED, https://www.fairtradecertified.org/why-fair-trade/our-global-model (last visited Apr. 27, 2019) (explaining that Fair Trade "certif[ies] transactions between companies and their suppliers to ensure that the people making Fair Trade Certified goods work in safe conditions, protect the environment, build sustainable livelihoods, and earn additional money").

302. *How Do I Pick a Third Party Standard?*, *supra* note 301.

303. *Id.*

its benefit report.[304] Then, the corporation's stakeholders could decide whether they agreed with that decision. If they did, they would continue to support the business, but if they did not, they could withhold their support by selling their stock or moving their business elsewhere. In other words, the market would enforce the statutory provisions. But that market is not available because, as discussed below, without an enforcement mechanism, too few benefit corporations are releasing benefit reports to make it possible for consumers and investors to make these decisions. [305]

2. The Statute Provides Too Much Protection to the Board and Leaves the Mission and the Stakeholders Unprotected

Unfortunately, despite leaving board members confused as to the meaning of their duties, the law provides so much procedural protection to them that no practical enforcement mechanism exists.[306] If the board fails to consider all the stakeholders or neglects to provide a benefit report, a board member or shareholder with at least 2% of the outstanding shares can bring a suit to force them to do so.[307] But the plaintiff cannot win any monetary awards because the statute explicitly protects the board from financial liability.[308] Although board members will appreciate protection from monetary liability, the upshot is that no one will spend the time or money to force these issues.

Unsurprisingly, a recent study found that only 8% of benefit corporations produced benefit reports.[309] The businesses that do not produce these reports not only deprive the public of essential information but also undercut the entire purpose of the report as described above—to

---

304. Such a decision is defensible within the language of the statute, which requires only that the board of directors "consider the effects of any action or inaction upon" various stakeholders. MODEL BENEFIT CORP. LEGISLATION § 301(a). It does not say that the stakeholders' interests are paramount. *See id.* § 301(a)(3) (emphasizing that directors "need not give priority to a particular interest or factor").

305. *See infra* Part III.B.2 (explaining how public benefit corporations provide too much protection to directors).

306. *See, e.g.*, Tyler, *Producing Better Mileage*, *supra* note 11, at 264 (reasoning that "[t]he 'duty of care' is diluted to the point of not being legally actionable" because "[t]here is no obligation to prioritize or give more or less weight to any one or more purposes over others").

307. MODEL BENEFIT CORP. LEGISLATION § 305(a), (c)(2)(i).

308. *Id.* § 301(c). The model statute states that "[e]xcept as provided in the [*articles of incorporation*] [*bylaws*], a director is not personally liable for monetary damages" either for performing her traditional corporate duties or for "failure of the benefit corporation to pursue or create general public benefit or specific public benefit." *Id.* (second and third alterations in original). Delaware's Public Benefit Corporation statute provides that directors will not be liable if a "decision is both informed and disinterested and not such that no person of ordinary, sound judgment would approve." DEL. CODE ANN. tit. 8, § 365(b) (2019).

309. J. Haskell Murray, *An Early Report on Benefit Reports*, 118 W. VA. L. REV. 25, 34 (2015).

slowly devise an answer to the substantive questions about the board's fiduciary duties.

3. The One Situation the Benefit Corporation Could Help the Most is the One That is Least Likely to Have Benefit Corporations Involved

Finally, a careful reading of the law regarding the shareholder primacy theory makes clear that, before the benefit corporation was created, the only time the board of directors actually needed to prioritize shareholder's interests over others was during a sale or hostile takeover of a publicly traded for-profit company.[310] But almost all benefit corporations are very small, and those that are larger, such as Patagonia, are almost invariably privately owned.[311]

To date, only one publicly traded company is a benefit corporation: Laureate Education.[312] At one point, it looked as if Etsy might join Laureate as a publicly traded benefit corporation.[313] Etsy became B Lab certified in 2012, and it went public in 2015.[314] B Lab requires B Lab certified companies to become a benefit corporation within four years if they are located in a state that recognizes the benefit corporation.[315] In late 2017, Etsy decided to give up its B Lab certification rather than change from a C-

---

310. *See supra* notes 105–06 and accompanying text (discussing *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, which set forth the duty to maximize shareholder value in the sale of a publicly traded company).

311. For example, Patagonia sole shareholders are Yvon Chouinard and his wife. Amanda Little, *An Interview with Patagonia Founder Yvon Chouinard*, GRIST (Oct. 23, 2004), https://grist.org/article/little-chouinard/. And Kickstarter's two co-founders still hold a majority of the shares in that company. Adele Peters, *Why Kickstarter is Now a Public Benefit Corporation (and What That Means*), FAST COMPANY (Sept. 22, 2015), https://www.fastcompany.com/3051362/why-kickstarter-is-now-a-public-benefit-corporation-and-what-that-means.

312. Kyle Westaway, *The First Public Benefit Corporation Is . . . a For Profit College?*, FAST COMPANY (Feb. 10, 2017), https://www.fastcompany.com/3068059/the-first-public-benefit-corporation-is-a-for-profit-college; Beckie Smith, *Laureate Education IPO to Raise $490m*, PIE NEWS (Feb. 1, 2017), https://thepienews.com/news/laureate-education-ipo-to-raise-490m/.

313. Ina Steiner, *Etsy Gives Up B Corp Status to Maintain Corporate Structure*, ECOMMERCE BYTES (Nov. 30, 2017), https://www.ecommercebytes.com/2017/11/30/etsy-gives-b-corp-status-maintain-corporate-structure/.

314. David Gelles, *Inside the Revolution at Etsy*, N.Y. TIMES (Nov. 25, 2017), https://www.nytimes.com/2017/11/25/business/etsy-josh-silverman.html [hereinafter Gelles, *Inside the Revolution*]; Steiner, *supra* note 313.

315. Steiner, *supra* note 313; *see also* Maria Stracqualursi, *The Rise of the Public Benefit Corporation: Considerations for Start-Ups*, B.C. LEGAL SERVS. LAB, http://bclawlab.org/eicblog/2017/3/21/the-rise-of-the-public-benefit-corporation-considerations-for-start-ups (last visited Apr. 27, 2019) ("According to B-Lab rules, businesses that are incorporated in states that have public benefit corporation laws are required, within four years from the date such legislation was passed or two years after B-Corp certification, to elect [public benefit corporation] status in their state of incorporation in order to retain B-Corp certification."). To determine the legal requirements in a particular state, see *Legal Requirements*, CERTIFIED B CORP., https://bcorporation.net/certification/legal-requirements (last visited Apr. 27, 2019).

corporation to a benefit corporation.[316] Etsy's stated reason was that "*converting [to a benefit corporation] is a complicated, and untested process for existing public companies*."[317] In other words, the same type of uncertainty that the benefit corporation was designed to eliminate actually prevented Etsy from becoming a benefit corporation.

Equally compelling was the reality that both C-corporation and benefit corporation statutes require supermajorities to authorize a decision to convert.[318] Etsy, as a publicly traded Delaware corporation, would initially have been required to convince 90% of its shareholders to convert to a benefit corporation.[319] But, before Etsy converted its business structure, Delaware changed its public benefit corporation statute to require only a 2/3 supermajority.[320] For Etsy, however, the reformed Delaware statute was not enough to compel it to convert to a benefit corporation.

In fact, the difficulty for publicly traded businesses to change business forms is so great that publicly traded benefit corporations will ordinarily have organized themselves as benefit corporations at the time of the initial public offering (IPO).[321] Even this scenario is difficult, however. IPOs are expensive and possibly dangerous to the social mission.[322] The U.S. Department of the Treasury has estimated that an average business spends $2.5 million to go public and an additional $1.5 million per year to remain public.[323] Once a business is publicly traded, the only common language that investors are likely to speak is financial, which could put great pressure on the business to emphasize finances at the expense of the social mission.[324] Etsy, for example, has lost much of its values-based culture.[325] It

316. *See* Steiner, *supra* note 313 ("Etsy will not seek conversion to a benefit corporation by the December 2017 deadline . . . .").

317. *Id.*

318. Haskell Murray, *Amendments to Delaware's PBC Law ("The Etsy Amendments")*, BUS. L. PROF. BLOG (July 3, 2015), https://lawprofessors.typepad.com/business_law/2015/07/amendments-to-delaware-pbc-law-the-etsy-amendments.html.

319. *Id.*

320. *Id.*

321. Westaway, *supra* note 312. Laureate Education was "the first public benefit corporation to ever be publicly traded," and it was a public benefit corporation prior to the IPO. *Id.*

322. *See* Barry McCarthy, *IPOs are Too Expensive and Cumbersome*, FIN. TIMES (Aug. 7, 2018), https://www.ft.com/content/60cd1bb8-9970-11e8-88de-49c908b1f264 (noting that IPOs are too expensive and that the American system is "broken").

323. IPO TASK FORCE, REBUILDING THE IPO ON-RAMP: PUTTING EMERGING COMPANIES AND THE JOB MARKET BACK ON THE ROAD TO GROWTH 9 (2011), https://www.sec.gov/info/smallbus/acsec/rebuilding_the_ipo_on-ramp.pdf; *see also* Chad Brooks, *Cost of Going Public Often Underestimated*, BUS. NEWS DAILY (Sept. 11, 2011), https://www.businessnewsdaily.com/3112-going-public-cost-underestimated.html ("While the allure of going public may be appealing to a business, new research shows many don't fully understand the costs, time and complexity that come with it.").

324. For a discussion of these difficulties, see Lois Yurow, *Benefit Corporations and the Public Markets—Will We Ever See a Public Benefit Corporation?*, GOVERNANCE & ACCOUNTABILITY INST.: SUSTAINABILITY UPDATE (Nov. 24, 2014), http://ga-institute.com/Sustainability-Update/benefit-

has laid off employees and eliminated its Values Based Alignment team.[326] Etsy's current CEO has said that its social purpose is to increase sales for its sellers, adding "[b]eing good doesn't cut the mustard."[327]

IV. WHY AND WHAT NEXT?

A. Why Did Legislators Pass Bills That Could Not Accomplish Their Purpose?

Why would sophisticated lawyers and business leaders draft and promote legislation that could not, in its initial form, meet its goals? The drafters designed the L3C to free up foundation funds, but it did not change the status quo enough to make this result happen.[328] The drafters designed the benefit corporation to protect officers and directors from liability if they chose to pursue social and environmental missions in addition to profit-making ones.[329] But this legislation suffers from the same defects as the statutes it was designed to replace.[330] This paradox seems inexplicable, unless these business entities are actually serving a different purpose.

Although I have not had the opportunity to speak directly to the architects of these new business entities, I would posit that it was a wise political decision. In 2008 and 2010, state legislatures first passed L3C and benefit corporations statutes.[331] The political climate then was such that legislators, reflecting the will of the public, wanted to support the idea of socially responsible business without expending any resources to enforce those provisions.[332] The nation was in the midst of the Great Recession, and irresponsible, greedy businesses were in part to blame for the nation's

---

corporations-and-the-public-markets-will-we-ever-see-a-public-benefit-corporation/ (arguing that public benefit corporations "are unlikely to generate enough new capital in the public market to justify the expense of being there" and that "offering stock to the general public . . . can jeopardize a benefit corporation's mission").

325. Gelles, *Inside the Revolution*, *supra* note 314.

326. *Id.*

327. *Id.*

328. *See supra* Part II.B.1–2 (highlighting how L3C statutes failed to achieve their primary goals of increasing PRI funding through tranche investing).

329. *See supra* Part III.A (outlining the goals of public benefit corporation statutes).

330. *See supra* Part III.B.1 (discussing why the benefit corporation fails to provide directors with enough guidance on how to consider various stakeholders).

331. *See* Cooney et al., *supra* note 8 (noting that Vermont and Maryland passed L3C statutes in 2008 and 2010, respectively).

332. James Epstein-Reeves, *Consumers Overwhelmingly Want CSR*, FORBES: CSR BLOG (Dec. 15, 2010, 9:58 AM), https://www.forbes.com/sites/csr/2010/12/15/new-study-consumers-demand-companies-implement-csr-programs/#1512b7c365c7 (highlighting survey results, which indicated that "[m]ore than 88% of consumers think companies should try to achieve their business goals while improving society and the environment").

financial state.[333] Although society still widely accepted the idea that business could be better,[334] voters were also unhappy that the government had intervened to prop up the *too big to fail* businesses.[335] The appetite for government spending, particularly on business, was waning.[336] Thus, the drafters of this legislation could not have successfully passed more stringent legislation—at least not without significant delays. Their strategy appears to have been to get as many laws on the books as possible and amend them later, if necessary.

There are hints of this strategy with both measures. As early as 2006, when the future authors of both types of legislation met at the Aspen Institute, Marcus Owens suggested that one way to encourage PRI spending would be to add new regulatory standards to existing law on program-related investments rather than try to create a new entity.[337] And the founders of the L3C have always claimed that the Philanthropic Facilitation Act is an important part of their strategy, which they planned to accomplish once the state legislation was in place.[338]

The L3C proponents introduced the state legislation before they had any buy-in from the IRS or Congress—a move that bothered some of the L3C critics.[339] Yet in this respect, their strategy mirrored that of the LLC,

---

333. Steve Suranovic, *Greed, Capitalism, and the Financial Crisis* 1 (Inst. for Int'l Econ. Policy, Working Paper No. 2010-22). Steve Suranovic summarizes some of the statements—from, among others, the Dalai Lama and Ralph Nader—claiming that the Financial Crisis was caused by greed. *Id.*

334. John Quelch, *How Corporate Responsibility Can Survive the Recession*, HARV. BUS. REV. (Sept. 22, 2009), https://hbr.org/2009/09/how-corporate-responsibility-c.

335. *See, e.g.*, *Poll: U.S. Concerned But Split On Bailout*, CBS NEWS (Oct. 1, 2008), https://www.cbsnews.com/news/poll-us-concerned-but-split-on-bailout/ ("Just 39 percent . . . say the bailout would help everyone, while more than half of those surveyed think it would help only Wall Street."); Brian Montopoli, *Poll Finds Americans Pessimistic*, *Dissatisfied With Washington*, CBS NEWS (May 25, 2010), https://www.cbsnews.com/news/poll-finds-americans-pessimistic-dissatisfied-with-washington/ ("Fifty-nine percent say Wall Street has undue influence in Washington, and a majority says the stock market unfairly benefits the rich; most oppose the government bailouts for banks and automakers, though they back support for struggling homeowners. Eight in ten say the economy is in bad shape.").

336. Montopoli, *supra* note 335.

337. BILLITTERI, *supra* note 169, at 10.

338. *See* Lang & Minnigh, *supra* note 188, at 23.

339. *See, e.g.*, Carol Liao, *Early Lessons in Social Enterprise Law*, *in* THE CAMBRIDGE HANDBOOK FOR SOCIAL ENTERPRISE LAW 109–11 (B. Means & J. Yockey eds., 2018) ("Critics of the L3C model argued that the L3C had little to no value without accompanying federal legislation or an IRS ruling."). For criticism of the L3C more generally, see Kleinberger, *supra* note 140, at 896 ("L3Cs have no special ability to promote PRIs, and the L3C construct is unnecessary, unwise, and inherently misleading."); Bishop, *supra* note 219, at 250 ("At this point, there is no federal tax authority indicating that PRI determination will be satisfied merely by the L3C operating restrictions."); Callison & Vestal, *supra* note 244, at 293 ("Until these problems and issues have been resolved, it is appropriate that the lawyers (regulatory genes) have called out the L3C as an illusion and put an end to the mischief."); Spenard, *supra* note 243, at 36 (cautioning that the L3C model "raises issues regarding . . . state supervision").

which Wyoming introduced in 1977 and which made almost no headway until it received tax blessing in 1988.[340] Even then, although the number of states adopting LLC statutes increased after 1988,[341] the largest growth in organizations choosing this business form took place when the IRS introduced the "check the box" provision in 1997.[342] The LLC is now the most widely used business form in the U.S.[343] Taking a play from the LLC playbook should be an acceptable strategy for a new business form. As one article on the history of the LLC has noted:

> LLCs' growth and spread demonstrates both the folly of trying to predict the future and the need to preserve flexibility. Changing business conditions might cause the LLC to be replaced by some new or hybrid form, just as the LLC seems to be taking over from the close corporation and limited partnership forms.[344]

Had they waited to get federal blessing, there would be no L3C today. However compelling the public policy is behind the Philanthropic Facilitation Act, the political environment has not been amenable to such a solution. L3C proponents have introduced such legislation four times to no avail.[345] The L3C creators conceived the L3C in 2006, which was before the Financial Crisis of 2008–2009; at that time, it seemed plausible that a nonpartisan approach to help social enterprises get additional funding could succeed.[346]

Events in the past ten years have made such passage almost impossible. The Financial Crisis dramatically reduced foundations' ability to pursue their missions, and it undoubtedly reduced their ability to support the Philanthropic Facilitation Act. Meanwhile, the federal government became increasingly polarized. Congress was unable to pass a budget, much less a bill that would affect a small portion of society.[347] Further, the appetite for

---

340. Ribstein, *supra* note 133, at 12.

341. *Id.* (explaining that once the IRS held "that a Wyoming LLC could be taxed as a partnership" the number of states with LLC statutes increased).

342. Treas. Reg. § 301.7701-1 to -3 (as amended in 2014); *see also* Ribstein, *supra* note 133, at 13 ("Under Treasury Regulation 301.7701-1-3, effective Jan. 1, 1997, firms could decide for themselves — that is, 'check the box'— whether they wanted to be taxed as partnerships and corporations. The check-the-box rule took the lid off of the growth of LLCs.").

343. Kleinberger, *supra* note 140.

344. Ribstein, *supra* note 133, at 13.

345. *L3C Proposed Legislation*, *supra* note 246.

346. *See* BILLITTERI, *supra* note 169, at 10–12 (reporting on the ongoing developments and funding opportunities for social enterprises, and in particular PRIs).

347. *See* Pete V. Domenici & Alice M. Rivlin, Opinion, *Congressional Budget Process is Broken, Drastic Makeover Needed*, BROOKINGS INSTITUTION (July 27, 2015), https://www.brookings.edu/ opinions/congressional-budget-process-is-broken-drastic-makeover-needed/ ("In nearly half of the past two decades, a staggering nine years, Congress failed to pass a budget

governmental solutions, even ones that would support private answers to social questions, continued to dampen.[348]

Additionally, the Philanthropic Facilitation Act depends on the IRS to make determinations about the validity of PRIs and to devise and monitor the reporting of these investments.[349] From 2012 to 2013, however, the IRS faced a huge backlog in its ability to recognize tax-exempt organizations.[350] Organizations were waiting years to learn whether they had received tax exemption.[351] The time did not seem ripe to add to the IRS's burdens.

Then, in 2013, the IRS was accused of political bias in favor of the Democrats, and months of paralysis and congressional hearings ensued.[352]

---

agreement . . . . The disarray of the budget process, of course, is a symptom of the gridlock-producing polarization of our politics . . . ."); *see also Political Polarization in the American Public*, PEW RES. CTR.: U.S. POL. & POL'Y (June 12, 2014), http://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/ (observing that "[p]artisan animosity has increased substantially" since 1994).

348. *Political Polarization in the American Public*, *supra* note 347; Paul Steinhauser, *CNN Poll: Trust in the Government at an All Time Low*, CNN (Aug. 8, 2014), http://politicalticker.blogs.cnn.com/2014/08/08/cnn-poll-trust-in-government-at-all-time-low-2/.

349. *See* Philanthropic Facilitation Act of 2015, S. 2313, 114th Cong. § 2 (2015) (requiring the Secretary of Treasury to establish procedures by which private foundations may qualify for program-related investments).

350. *See* TAXPAYER ADVOCATE SERV., 2013 ANNUAL REPORT TO CONGRESS: VOL. ONE 166 (2013) ("Since 2004, the National Taxpayer Advocate has reported on the increased number of applications for exempt status and the decrease in the number of . . . employees who handle them.").

351. *Id.* at 165–66; *see also* Wyden, *Floor Statement on Finance Committee Investigation of IRS Handling of Applications for Tax-Exempt Status*, U.S. SENATE COMMITTEE ON FIN. (Aug. 5, 2015), https://www.finance.senate.gov/wyden-floor-statement-on-finance-committee-investigation-of-irs-handling-of-applications-for-tax-exempt-status ("By my count, there were seven different efforts, over more than two years, to figure out how to handle these applications, and the first six all failed. By December 2011, a total of 290 applications for 501c4 status had been set aside for further review. Two of these applications had been successfully resolved. Not two hundred. Two.").

352. *See* TREASURY INSPECTOR GEN. FOR TAX ADMIN., U.S. DEP'T OF TREASURY, INAPPROPRIATE CRITERIA WERE USED TO IDENTIFY TAX-EXEMPT APPLICATIONS FOR REVIEW, REFERENCE NO. 2013-10-053, at 5, 11–12 (2013) ("The [IRS] developed and began using criteria to identify potential political cases for review that inappropriately identified specific groups applying for tax-exempt status based on their names or policy positions instead of developing criteria based on tax-exempt laws and Treasury Regulations."); NAT'L TAXPAYER ADVOCATE, INTERNAL REVENUE SERV., SPECIAL REPORT TO CONGRESS: POLITICAL ACTIVITY AND THE RIGHTS OF APPLICANTS FOR TAX EXEMPT STATUS 36 (2013) ("Since the release of the [Inspector General] report . . ., [the Taxpayer Advocate Service] has examined the problems identified. [The Taxpayer Advocate Service] found that inadequate guidance, inadequate training, inadequate systems, inadequate metrics, insufficient transparency, and management failures all contributed to the problems . . . ."); COMM. ON OVERSIGHT & GOV'T REFORM, RESOLUTION RECOMMENDING THAT THE HOUE OF REPRESENTATIVES FIND LOIS G. LERNER, FORMER DIRECTOR, EXEMPT ORGANIZATIONS, INTERNAL REVENUE SERVICE, IN CONTEMPT OF CONGRESS FOR REFUSAL TO COMPLY WITH A SUBPEONA DULY ISSUED BY THE COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM, H.R. REP. NO. 113–415, at 3 (2014) ("Documents and testimony reveal that the IRS targeted conservate-aligned applications for tax-exempt status by scrutinizing them in a manner distinct—and more intrusive—than other applicants."); COMM. ON FIN., U.S. SENATE, BIPARTISAN INVESTIGATIVE REPORT AS SUBMITTED BY CHAIRMAN HATCH AND RANKING MEMBER WYDEN, S. REP. NO. 114–119, at 5 (2015) ("Our investigation found that from 2010

The Republican-led Congress distrusted the IRS so intensely that it cut the IRS budget by roughly $526 million.[353] Congress also forbade the IRS from developing rules that would help the IRS determine whether a tax-exempt organization was engaging in political activity.[354] Although it has been six years since that scandal, the wounds remain. Any attempt to ask Congress to accord more power to the IRS—much less provide it with the resources to handle the new duties outlined in the Philanthropic Facilitation Act—would be fruitless in today's political environment.

The benefit corporation does not have the IRS drama to influence its story, but it also exists in the same political environment. Proposals that ask states or the federal government to provide enforcement mechanisms or tax benefits are equally likely to fall on deaf ears.

A second possibility is that these business entities were, in many ways, always more aspirational than they were actual answers to specific problems.[355] The proponents of the benefit corporation have been frank in their goal to create a new kind of capitalism.[356] The benefit corporation is

---

to 2013, IRS management was delinquent in its responsibility to provide effective control, guidance, and direction over the processing of applications for tax-exempt status filed by Tea Party and other political advocacy organizations."); *see also* Joe Davidson, *IRS Chief Departs, Blasting Congress for Budget Cuts Threatening Tax Agency*, WASH. POST (Nov. 7, 2017), https://www.washingtonpost.com/news/powerpost/wp/2017/11/07/irs-chief-departs-blasting-congress-for-budget-cuts-threatening-tax-agency/?utm_term=.1020f759c76e ("The Republican impeachment frenzy grew from the belief that the IRS was targeting right-leaning groups for additional scrutiny. But an agency inspector general report issued last month indicated that left-leaning groups were targeted, too.").

353. Howard Gleckman, *IRS Gets Hammered in the 2014 Budget Agreement*, FORBES (Jan. 14, 2014), https://www.forbes.com/sites/beltway/2014/01/14/irs-gets-hammered-in-the-2014-budget-agreement/#19cf6e9357bf.

354. *Id.*

355. A third possibility is that they were actually trying to encourage the formation of these businesses. If so, they have failed because so few businesses have been formed. *What is an L3C?*, INTERSECTOR PARTNERS, L3C, *supra* note 6; *Find a Benefit Corp*, BENEFIT CORP., *supra* note 6; James Woulfe, *How Many Benefit Corporations Are There in the U.S.?*, SOCENTPOLICY (June 19, 2018), http://www.socentpolicy.com/how-many-benefit-corporations-are-there-in-the-u-s. I would speculate, however, that there would be even fewer than 7,000 businesses formed as L3Cs and benefit corporations if stronger enforcement measures, which would include additional regulation and red tape, had been enacted. The founders of the first L3Cs in Vermont made clear that if the L3C had not been an option, they would have used a for-profit legal entity, rather than a § 501(c)(3), because the for-profit forms had less regulation. Schmidt, *Hybrid Pioneers*, *supra* note 182, at 183–84.

356. *See, e.g.*, *Why Pass Benefit Corporation Legislation*, BENEFIT CORP., https://benefitcorp.net/policymakers/why-pass-benefit-corporation-legislation (last visited Apr. 27, 2019) ("Passing benefit corporation legislation helps facilitate a new market so that current shareholders, consumers and potential investors can make informed decisions based on companies' missions and performance."); Jon Mertz & J. Coen Gilbert, *Revitalizing Capitalism: B Corps and Accountability*, ACTIVEWORLD (Oct. 4, 2018), https://activateworld.com/revitalizing-capitalism-b-corps-accountability/ (featuring podcast discussing the benefit corporation); *see also* Jay Coen Gilbert, *Sen. Elizabeth Warren, Republicans, CEOs, and Blackrock's Fink Unite Around 'Accountable Capitalism*,' FORBES (Aug. 15, 2018), https://www.forbes.com/sites/jaycoengilbert/2018/08/15/sen-

simply one of the tools in their tool box. The fact that the benefit corporation was not necessary does not actually matter because the publicity surrounding it, and the experiments that innovative businesses will do with it, will help move toward this new kind of capitalism.

The proponents of the L3C have not talked about revamping the entire economic system, but they did want to see foundations spend more money on PRIs.[357] Curiously, they chose to create an entirely new legal form when the way to convince foundations to make PRIs would be to educate them about PRIs or to make it easier for them to do their due diligence. But perhaps their larger goal was to facilitate more investments by foundations in social enterprises, whatever their form.

B. Then What Was the Reason?

Some would see this scenario as a failure of the L3C and the benefit corporation. The legislation authorizing these business forms does not match their intended goals, and suggested amendments to fix these weaknesses are not politically feasible.[358] After ten years, only 7,000 businesses are organized as L3Cs and benefit corporations.[359] If we judge these new entities by whether they have accomplished their stated goals, we cannot call them successful.

Yet they have performed another, possibly more important, role in the past ten years because they have played a major part in the conversation that is taking place about the role of business in society.[360] If nothing else, these statutes signal a legislative intent that new business values should be encouraged. Perhaps their lack of prescriptive provisions recognizes that the social enterprise field is so new that they need to work out many details. Both types of legislation entrust the definition of concepts and the enforcement of provisions to the individuals who own and work with these

---

elizabeth-warren-republicans-ceos-blackrocks-fink-unite-around-accountable-capitalism/#3227ccbb51d9 (discussing "legislation called the Accountable Capitalism Act," which would create "a new model of corporate governance based on the benefit corporation").

357. *See, e.g.*, LANG, *supra* note 240, at 3 ("The legislation establishing the L^3C was specifically written to dovetail with IRS regulations relevant to Program Related Investments (PRIs) by foundations to promote increased use of these investment forms.").

358. *See supra* notes 347–54 and accompanying text (describing the political climate that made it impossible for benefit corporation and L3C legislation to include more accountability measures); *see also infra* Part IV.C.4 (describing why Senator Warren's legislative proposal is "unlikely to pass in today's climate").

359. *What is an L3C?*, INTERSECTOR PARTNERS, L3C, *supra* note 6; *Find a Benefit Corp*, BENEFIT CORP, *supra* note 6.

360. *See infra* Part IV.C (detailing the role L3Cs and benefit corporations have played in changing the conversation about the role of business in society).

new business entities.[361] Although this flexibility leaves room for abuse, it also encourages innovation and experimentation while the entrepreneurs in the trenches work out the details. When those details emerge, the legislature can amend the statutes.

C. How Are These Business Entities Playing a Part in the Conversation About the Role of Business in Society?

In the meantime, significant social and economic changes are taking place. Many businesses appear to be moving away from a system that focuses only on the shareholder and toward one that recognizes the interests of the stakeholders. This social and economic change may be a sign that the more aspirational goals of the proponents of these two forms are actually succeeding.

1. Changes in Business Behavior

Those advocating for the L3C always had a more narrow vision—to encourage foundations to increase their investments in social enterprises.[362] Ten years after the first L3C statute, there appears to be a greater interest in PRIs. Foundations are beginning to see that they have a larger capacity for investing in social enterprises than they initially understood.[363] Not only are they investing the non-programmatic parts of their endowment more often in mission-related investments,[364] they are using PRIs more often.[365] The IRS provided additional guidance on PRIs in 2016[366]—a move that made

361. *See supra* Part III.B.1 (explaining that the benefit corporation legislation lacks enforcement mechanisms and gives boards wide discretion to define key terms).

362. *See* LANG, *supra* note 240, at 3 (explaining that one goal of the L3C was to increase foundations' use of PRIs).

363. *See infra* notes 365–71 and accompanying text (detailing certain initiatives to encourage foundations to use PRIs); *see, e.g.*, Nicole Wallace, *Mission Critical: Nonprofits and Foundations Making Impact Investments Believe Their Dollars are Vital to Solving Tough Problems*, CHRON. PHILANTHROPY, May 31, 2017, at 2 [hereinafter Wallace, *Mission Critical*] ("Pioneering nonprofits and foundations have experimented with harnessing markets and investments to catalyze social change for more than a decade, and the Ford Foundation's embrace of impact investing . . . pushes the idea further into the mainstream.").

364. *See* Wallace, *Mission Critical*, *supra* note 363, at 2–3 (noting that "impact investing," which generally refers to investments with social and environmental purposes, "appear[s] to be gaining momentum"); Mark Gunther, *Doing Good and Doing Well*, CHRON. PHILANTHROPY, Jan. 2019, at 8–9 (pointing out that the total amount of mission-based investments is still very small).

365. LILLY FAMILY SCH. OF PHILANTHROPY, LEVERAGING THE POWER OF FOUNDATIONS: AN ANALYSIS OF PROGRAM RELATED INVESTING 2 (2013) ("There generally has been an increase in the total PRI dollar amount, the total number of PRIs granted, and the total number of PRI providers since the late 1990s. The average PRI dollar amount has increased steadily since 2005.").

366. T.D. 9762, 2016-19 I.R.B. 718.

foundations more comfortable with the idea. Important funders, such as the Bill & Melinda Gates Foundation and the MacArthur Foundation, have announced their intention to use PRIs as part of their investment strategy.[367] Several large foundations have started training other foundations to use PRIs.[368] Intermediaries are also being created to further the use of PRIs.[369] Although this change cannot definitively be attributed to the L3C, it likely played a part, if only because the publicity about the PRI generated in the L3C discussions reached the ears of nonprofit and foundation leaders.[370]

The proponents of the benefit corporation, however, had a larger vision—to change the way business is conducted in the U.S.[371] It may be even more difficult to determine how and if the benefit corporation has had this effect. But there is no denying that business behavior has changed in the last ten years, and some of the rhetoric from the large companies echoes that of the benefit corporation.[372]

Perhaps the biggest change has been in the behavior of traditional large C-corporations—those that are publicly traded and would probably never convert to benefit corporations. In 2017, 85% of the S&P 500 Index companies published sustainability reports.[373] This was up from slightly less than 20% in 2011.[374] This issue resonates with many large companies.

---

367. *See, e.g.*, *What We Do*, BILL & MELINDA GATES FOUND., https://sif.gatesfoundation.org/what-we-do/ (last visited Apr. 27, 2019) (describing the the role PRIs play in changing investment strategies); *Impact Investments*, MACARTHUR FOUND., https://www.macfound.org/programs/program-related-investments/strategy/ (last visited Apr. 27, 2019) (explaining the beneficial impact of various investment strategies).

368. *See Foundations Launch Program Related Investments Resource*, PHILANTHROPY NEWS DIG. (Feb. 13, 2015), http://philanthropynewsdigest.org/news/foundations-launch-program-related-investments-resource?_ga=2.61239082.760486217.1527083551-557770194.1527083551 (noting that four of the nation's most prominent foundations—including the Bill & Melinda Gates Foundation—have launched an online program to help other foundations utilize PRIs).

369. *See, e.g.*, *The Venn Model*, VENN FOUND., https://www.vennfoundation.org/ (last visited Apr. 27, 2019) ("Using specialized donor-advised funds called [Venn Accounts], any individual or entity can recommend that Venn make PRIs with their charitable donations.").

370. *See* Schmidt, *Hybrid Pioneers*, *supra* note 182, at 192 ("[T]he publicity alone can help raise foundations' consciousness about and comfort level with the PRI tool, which could in turn lead to a greater use of PRIs. Such a result would thus accomplish a major goal of the L3C legislation, even if the L3C never gains widespread acceptance.").

371. *See supra* Part III.A (discussing the purposes of benefit corporations).

372. *See infra* notes 373–81 and accompanying text (noting how business behavior has changed over the last decade); *see also* Wallace, *Mission Critical*, *supra* note 363 ("[P]owerful players in the finance industry are also getting behind investments that aim to tackle social and environmental challenges *and* generate a monetary return.").

373. *Flash Report: 85% of S&P 500 Index Companies Publish Sustainability Reports in 2017*, GOVERNANCE & ACCOUNTABILITY INST. (Mar. 20, 2018), https://www.ga-institute.com/press-releases/article/flash-report-85-of-sp-500-indexR-companies-publish-sustainability-reports-in-2017.html.

374. *Id.*

Shortly after the U.S. pulled out of the Paris Climate Accord in 2017, over 100 corporations joined local government officials and college presidents to pledge their commitment to help the U.S. reach its goals under the climate accords.[375] And in other cases, where the corporations have not instituted these changes themselves, the investors have played a role in leading corporations to change. Both Exxon Mobil[376] and Occidental Petroleum[377] faced shareholder resolutions forcing them to report climate change risks in 2017.

Among the large companies, Walmart has had one of the most striking changes in language and goals. In 2016, the company pledged to achieve zero waste to landfills in four countries, to power 50% of the company's energy from renewable sources, to double the sales of locally grown produce in the U.S., to expand sustainable sourcing to cover 20 key commodities, and to use 100% recyclable packaging for all private-label brands by 2025.[378] It also pledged to improve training and workplace conditions for its employees.[379] In announcing these goals, Dan Bartlett—Walmart's Executive Vice President for Corporate Affairs—stressed that "we'll be seeing more efforts by Walmart to give its stakeholders a clearer view of the company's intentions, and how those intentions align with the company's objectives for both stockholders and stakeholders."[380]

2. Changes in Investor Behavior

Investors are also making a difference in moving social issues forward. Perhaps the most notable recent development was a letter Laurence Fink wrote in January 2018 to corporate CEOs. Fink is the founder, chairman, and CEO of BlackRock, an investment firm with $1.7 trillion in assets

375. Hiroko Tabuchi & Henry Fountain, *Bucking Trump, These Cities, States and Companies Commit to Paris Accord*, N.Y. TIMES (June 1, 2017), https://www.nytimes.com/2017/06/01/climate/american-cities-climate-standards.html. The number of business leaders has undoubtedly increased. The *We Are Still In* website now has over 3,665 signatures on the letter that was initially signed on June 5, 2017. *About*, WE ARE STILL IN, http://www.wearestillin.com (last visited Apr. 27, 2019).

376. Exxon's shareholders passed their resolution by 62%, which was up from 38% in 2016. Marianne Lavelle, *Exxon Shareholders Approve Climate Resolution: 62% Vote for Disclosure,* INSIDE CLIMATE NEWS (May 31, 2017), https://insideclimatenews.org/news/31052017/exxon-shareholder-climate-change-disclosure-resolution-approved.

377. Emily Chason, *Occidental Shareholders Override Board in Approving Climate Proposal*, WORLDOIL (May 12, 2017), https://www.worldoil.com/news/2017/5/12/occidental-shareholders-override-board-in-approving-climate-proposal.

378. *Walmart Offers New Vision for the Company's Role in Society*, WALMART (Nov. 4, 2016), https://news.walmart.com/2016/11/04/walmart-offers-new-vision-for-the-companys-role-in-society.

379. John Makower, *Inside Walmart's 2025 Sustainability Goals*, GREENBIZ (Nov. 4, 2016), https://www.greenbiz.com/article/inside-walmarts-2025-sustainability-goals.

380. *Id.*

invested.[381] The letter's language sounded as if it had been crafted by B Lab. Among its statements are:

> Society is demanding that companies, both public and private, serve a social purpose. To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society. Companies must benefit all of their stakeholders, including shareholders, employees, customers, and the communities in which they operate.
>
> Without a sense of purpose, no company, either public or private, can achieve its full potential. It will ultimately lose the license to operate from key stakeholders.
>
> . . .
>
> Companies must ask themselves: What role do we play in the community? How are we managing our impact on the environment? Are we working to create a diverse workforce? Are we adapting to technological change? Are we providing the retraining and opportunities that our employees and our business will need to adjust to an increasingly automated world? Are we using behavioral finance and other tools to prepare workers for retirement, so that they invest in a way that will help them achieve their goals?[382]

Other examples abound, especially in the *green* sector.[383] Large American banks JP Morgan Chase, Bank of America, and Citigroup have agreed to facilitate at least $425 billion in green finance through 2025.[384]

---

381. *Larry Fink's 2018 Letter to CEOs: A Sense of Purpose*, BLACKROCK, https://www.blackrock.com/corporate/investor-relations/2018-larry-fink-ceo-letter (last visited Apr. 27, 2019).

382. *Id.* For more information on the context of this letter and other investor-led actions toward social causes, see Andrew Ross Sorkin, *Blackrock's Message: Contribute to Society or Risk Losing Our Support*, N.Y. TIMES (Jan. 15, 2018), https://www.nytimes.com/2018/01/15/business/dealbook/blackrock-laurence-fink-letter.html.

383. For example, Climate Action 100+ is an investor-led initiative to encourage the world's largest corporate greenhouse gas emitters to improve governance on climate change, curb emissions, and strengthen climate-related financial disclosures. *Global Investors Driving Business Transition*, CLIMATE ACTION 100+, http://www.climateaction100.org (last visited Apr. 27, 2019). After the Parkland High School shootings in 2018, several companies cut their ties to the NRA. Jacey Fortin, *A List of the Companies Cutting Ties With the NRA*, N.Y. TIMES (Feb. 24, 2018), http://www.nytimes.com/2018/02/24/business/nra-companies-boycott.html.

384. John Makower, *GreenFin Funds the Sustainability Transition*, GREENBIZ (Feb. 5, 2018), https://www.greenbiz.com/article/greenfin-funds-sustainability-transition.

And some investors outside the U.S. have begun shifting their entire portfolios to environmental, social, and governance indices.[385] The investors see a market opportunity in furthering environmental and sustainable goals—a belief borne out by a report from the Business and Sustainable Development Commission, which envisions $12 trillion worth of new market opportunities in the green economy.[386]

3. Evidence That Socially Conscious Business Behavior Pays Off Financially

Increasingly, businesses are more likely to make money if they take social considerations into account. Unilever—the company that bought Ben & Jerry's and was initially skeptical of Ben & Jerry's social purposes[387]—has found that its "brands with purpose" are growing at twice the rate of its traditional brands.[388] Unilever's former CEO Paul Polman has recognized this change: "This calls for a transformational approach across the whole value chain if we are to continue to grow. Consumers are . . . increasingly demanding responsible business and responsible brands."[389] But growth is not Unilever's entire purpose: Polman has also said that "[t]he role of business has to be firmly understood by the CEO down, that it is there to serve the broader society, the common good and only by doing that very well you will be rewarded, but it has to start there and end there."[390]

---

385. *See, e.g.*, Susanna Rust, *SwissRe's $130bn Benchmark Change 'Most Meaningful' Step in ESG Shift*, INV. & PENSIONS EUR. (July 7, 2017), https://www.ipe.com/news/esg/swissres-130bn-benchmark-change-most-meaningful-step-in-esg-shift/10019808.fullarticle ("SwissRe is implementing environmental, social, and governance (ESG) benchmarks across its entire $130bn investment portfolio . . . .").

386. *See* Homi Kharas, *U.S. Global Leadership Through an SDG Lens*, BROOKINGS INSTITUTION (July 31, 2018), https://www.brookings.edu/research/us-global-leadership-through-an-sdg-lens/ ("The Business and Sustainable Development Commission (2017) identified $12 trillion in new market opportunities in just four economic systems—food and agricultural, cities, energy and materials, and health and well-being.").

387. *See* Edmondson, *supra* note 111 (reporting that "Unilever tried to avoid its commitments" to Ben & Jerry's social causes after they acquired the company); David Gelles, *How the Social Mission of Ben & Jerry's Survived Being Gobbled Up*, N.Y. TIMES (Aug. 21, 2015), https://www.nytimes.com/2015/08/23/business/how-ben-jerrys-social-mission-survived-being-gobbled-up.html (detailing some of the early clashes between the disparate corporate cultures of Unilever and Ben & Jerry's).

388. Leonie Roderick, *Unilever's Sustainable Brands Grow 50% Faster than the Rest of the Business*, MARKETING WK. (May 18, 2017), https://www.marketingweek.com/2017/05/18/unilever-sustainable-brands-growth/.

389. Sara Spary, *Unilever Says 'Brands with Purpose' are Growing at Twice the Speed of Others in Portfolio*, CAMPAIGN (May 5, 2015), https://www.campaignlive.co.uk/article/unilever-says-brands-purpose-growing-twice-speed-others-portfolio/1345772.

390. Jo Confino, *Interview: Unilever's Paul Polman on Diversity, Purpose and Profits*, GUARDIAN (Oct. 2, 2013), https://www.theguardian.com/sustainable-business/unilver-ceo-paul-polman-purpose-profits.

Unilever now sources 55% of its agricultural raw materials sustainably and has drastically reduced waste from its factories to landfills.[391] It has "trained 800,000 smallholder farmers since 2010 and provided 238,000 women with access to training, support and skills."[392] Unilever also credits its sustainability focus with helping it hire and maintain talent.[393]

Unilever is one of at least nine companies with "products or services that have sustainability or social good at their core" that generate at least $1 billion dollars in annual revenue.[394] These businesses also include "Tesla, Chipotle, Ikea, Unilever, Nike, Toyota, Brazilian beauty company Natura, Whole Foods and GE's Ecomagination."[395] Target was expected to join the list in 2016.[396]

Even smaller companies find social responsibility profitable. According to the Centre for Sustainability and Excellence (CSE), two-thirds of the companies with the highest scores on their sustainability reports had better financial performance than those with lower scores.[397] And a March 2017 report found that B Lab certified companies in the U.K. were growing 28 times faster than the national economic growth.[398] In addition, 35% of British B-corps reported attracting new audiences after gaining certification; 48% percent found that prospective employees were attracted to the business because of their B-Corp status; and almost half reported that they have begun benefiting from developing partnerships with like-minded businesses that they met through the B Lab process.[399]

---

391. *Unilever Sees Sustainability Supporting Growth*, UNILEVER (May 5, 2015), https://www.unilever.com/news/press-releases/2015/Unilever-sees-sustainability-supporting-growth.html.

392. *Id.*

393. Jessica Lyons Hardcastle, *How Unilever, GE, Ikea Turn a Profit from Sustainability*, ENVTL. LEADER (Jan. 7, 2016), https://www.environmentalleader.com/2016/01/how-unilever-ge-ikea-turn-a-profit-from-sustainability/.

394. Freya Williams, *Meet the Nine Billion-Dollar Companies Turning a Profit from Sustainability*, GUARDIAN (Jan. 2, 2016), https://www.theguardian.com/sustainable-business/2016/jan/02/billion-dollar-companies-sustainability-green-giants-tesla-chipotle-ikea-nike-toyota-whole-foods.

395. *Id.*

396. *Id.*

397. Terry Waghorn, *Sustainable Reporting: Lessons from the Fortune 500*, FORBES (Dec. 4, 2017), https://www.forbes.com/sites/terrywaghorn/2017/12/04/sustainable-reporting-lessons-from-the-fortune-500/#7fbd12c86564.

398. Megan Tatum, *B Corps Businesses 'Grow 28 Times Faster than UK GDP,'* GROCER (Feb. 21, 2018), https://www.thegrocer.co.uk/people/diversity-and-inclusion/b-corps-businesses-grow-28-times-faster-than-uk-gdp/563584.article.

399. *B Corp Analysis Reveals Purpose-Led Businesses Grow 28 Times Faster Than National Average*, SUSTAINABLE BRANDS (Mar. 1, 2018), https://sustainablebrands.com/read/business-case-1/b-corp-analysis-reveals-purpose-led-businesses-grow-28-times-faster-than-national-average.

4. New Legislative Proposal

Finally, Senator Elizabeth Warren has introduced the Accountable Capitalism Act,[400] which is based, in part, on the benefit corporation model.[401] If passed, this bill would require companies with annual revenue above $1 billion to obtain a federal corporate charter that requires the corporation to consider all stakeholders, not simply the shareholders.[402] The Accountable Capitalism Act would also allow the employees to elect 40% of the directors, restrict officers and directors' ability to sell their shares in the stock to encourage a more long-term view for the corporation, and require shareholder and board approval for political expenditures.[403] The office of the U.S. Corporations could revoke the federal charter if the corporation engaged in egregious or illegal behavior.[404] While still unlikely to pass in today's climate, Senator Warren's ability to introduce, and to obtain a national platform for, such a bill shows how much the national conversation has changed over the past decade and how influential the benefit corporation has been.

CONCLUSION

We will never know exactly how much new hybrid business forms have contributed to the societal changes that have occurred over the last ten years, but we can see the changes, and we know these forms have been part of the mix. Social scientists posit that when 10% of the population holds a belief, that belief will become widespread.[405] It is possible the U.S. is on the road to another era in which businesses recognize their obligations to society.[406] At that point, the political climate should be such that legislators will either revise these statutes or reinforce the community obligations of traditional businesses.

In many ways, the proponents of the L3C and the benefit corporation have gambled that no large scandals will occur before the time is right to

---

400. Accountable Capitalism Act of 2018, S. 3348, 115th Cong. § 1 (2018).

401. Lenore Palladino, *It's Time for Accountable Capitalism*, AM. PROSPECT (Oct. 4, 2018), https://prospect.org/article/its-time-accountable-capitalism.

402. S. 3348 §§ 2, 4–5.

403. *Id.* §§ 6–8.

404. *Id.* § 9. For an explanation of this Act, see Press Release, Elizabeth Warren, U.S. Senator, Warren Introduces Accountable Capitalism Act (Aug. 15, 2018).

405. *See* J. Xie et al., *Social Consensus Through the Influence of Committed Minorities*, PHYS. REV. E, 2011, at 5–6 (exploring how the women's suffrage and civil rights movements both saw a tipping point once 10% of the population believed these rights were warranted).

406. *See supra* Part IV.C.1–3 (describing some of the recent examples of businesses promoting social and environmental goals).

make such changes. Certainly, the B Lab and sustainability reports mentioned in the last few paragraphs point to the importance of a mechanism that allows investors, customers, and employees to learn whether the claims of social benefit are accurate or are merely "greenwashing."[407] To date, however, their gamble has paid off.

As we saw in Part I, much of the history of American business is the history of innovation. Early organizations were not classified into for-profit, nonprofit, and government sectors.[408] They all served a public purpose and could lose their charter to do business if they did not do so.[409] There was no federal income tax and no limited liability.[410] Through much innovation and change, we have built a significantly larger economy than was possible in those early years. But in the last 30 or so years, that growth may have been at the expense of the common good. The L3C and the benefit corporation remind us that business can be a force for good.[411] They provide a legal framework, which legislators can modify when the political climate changes, that gives voice to the important value changes that are taking place in society today.

---

407. *See* Alicia E. Plerhoples, *Nonprofit Displacement and the Pursuit of Charity Through Public Benefit Corporations*, 21 LEWIS & CLARK L. REV. 525, 558 (2017) ("[F]raud is often called 'greenwashing,' i.e., deceiving unwitting stockholders, customers, or other stakeholders to invest or spend their time and money in an enterprise that negligently or fraudulently claims to pursue social, environmental, or charitable benefits."). *See generally supra* notes 268–72, 373–74, 397–99, 406 and accompanying text (discussing corporate sustainability reports and B-Corp certification).

408. *See supra* Part I (explaining the history of American business organizations).

409. Maier, *supra* note 27.

410. *See supra* notes 25, 40–42 (explaining the lack of a federal income tax at the dawn of the American corporation and the invention of the limited liability concept in the mid-1880s).

411. *See supra* Part IV.C.3 (providing evidence that corporations can have beneficial social and environmental impacts).

CLIMATE-RELATED DISCLOSURE AND LITIGATION RISK IN THE OIL & GAS INDUSTRY: WILL STATE ATTORNEYS GENERAL INVESTIGATIONS IMPEDE THE DRIVE FOR MORE EXPANSIVE DISCLOSURES?

Hana V. Vizcarra[*†]

INTRODUCTION

The financial community's engagement on corporate governance and responsibility has grown to include a focus on how companies respond to climate change. Investors increasingly recognize climate-related risks and

---

* Hana Veselka Vizcarra is a Staff Attorney at Harvard Law School's Environmental and Energy Law Program (EELP), eelp.law.harvard.edu, where she leads EELP's portfolio on private sector approaches to climate and environmental issues. Before joining EELP in June 2018, Hana practiced environmental law in Washington, D.C. for over seven years. Hana received her J.D. from Georgetown University Law Center and B.A. from Pomona College in California.

† Ms. Vizcarra would like to thank the *Vermont Law Review* for their thoughtful and thorough review of her manuscript and the Harvard Law students who have contributed to EELP's Corporations and Climate work in various capacities as Research Assistants during the 2018–2019 school year, including: Harry Graver (J.D. '19), Molly Babad (J.D. '20), Tanmay Shukla (J.D. '20), Ari Sillman (J.D. '21), and Qingyang Song (J.D. '21).

opportunities as relevant to the financial health of a company and to their own investment decisions. Investors are demanding more information from energy companies on expected climate-induced physical impacts and their plans for a future with a different energy mix. This growth in interest in climate-related disclosures initially coincided with regulatory and policy efforts in the U.S. and abroad to address climate change. These policy efforts were expected to impose substantial burdens on the energy industry.

The election of President Trump marked a sharp turn away from this expected trajectory. His Administration has instead worked to relieve industry of environmental regulations, particularly the energy industry, and stall efforts to address climate change.[1] Trump's announced plan to exit the 2015 Paris Agreement shook the foundation for progress the landmark agreement had laid. As the federal government retreats on climate policy, U.S. political leaders at other levels have vowed to pick up the slack. Among them, state attorneys general (AGs) have significant powers to influence federal and corporate actors and have aimed their powers at energy industry targets, including a focus on the adequacy of oil and gas company climate disclosures.

Despite shifts in U.S. climate policy, investor interest in climate planning remains high. Large institutional and mainstream investors concerned about long-term economic return now raise the profile of calls for more detailed disclosure on the physical and transitional risks of climate change. The creation of the Task Force on Climate-Related Financial Disclosures (TCFD) by the G-20's Financial Stability Board (FSB) in 2015 likewise elevated efforts to improve the quality of corporate climate-related disclosures.

Yet uncertainties about regulatory efforts, in addition to legal and technical concerns, have hindered widespread adoption of consistent climate-related disclosure practices. Questions of when climate risks become legally material and how to treat scenario analysis in disclosures remain significant topics of conversation among corporate and financial actors. Meanwhile, state investigations of corporate climate disclosures illuminate a new challenge for companies. Relying on different legal principles, the parallel efforts of investors and the AGs could work at cross-purposes, potentially impeding improved disclosure of climate risks.

---

1. For more information on the myriad deregulatory efforts under this Administration, see *Regulatory Rollback Tracker*, HARV. L. SCH. ENVTL. & ENERGY L. PROGRAM, https://eelp.law.harvard.edu/regulatory-rollback-tracker/ (last visited Apr. 27, 2019), as well as *EPA Mission Tracker*, HARV. L. SCH. ENVTL. & ENERGY L. PROGRAM, https://eelp.law.harvard.edu/epa-mission-tracker/ (last visited Apr. 27, 2019).

This Article explores the parallel legal regimes and actors pressuring energy companies for expanded climate disclosure and whether delicately balanced efforts to increase meaningful climate-risk disclosure are at risk. The Article starts by describing the evolution in investor focus on climate and provides background on the federal securities law that governs disclosures. This Article then discusses failed federal efforts to encourage meaningful disclosures of climate risks and explains the rise of state investigations in this area. Finally, the Article concludes by considering the tensions these parallel efforts create.

I. INVESTOR ENGAGEMENT ON CLIMATE-RELATED CORPORATE DISCLOSURES

Today's corporate responsibility regimes evolved out of the response to human rights abuses in supply chains in the 1990s.[2] Environmental, sustainability, and governance (ESG) concerns have grown to support a considerable community of corporate sustainability and ESG professionals.[3] In the environmental space, recent ESG efforts have shifted from addressing regulatory compliance and sustainability within the communities in which a company operates to include the more expansive challenge of responding to climate change.[4] The question of how the changing climate impacts business increased in importance as political leaders sought to take serious measures to avoid the worst climate outcomes—prompting companies and their stakeholders to look beyond the question of how to lessen a business's impact on its immediate environment to consider its impact on the climate as a whole and the climate's impact on the business.[5]

A. The Call for More Expansive Disclosures

One result of this shift in focus is that investors increasingly pressure companies to disclose climate-related risk information, hoping for insight

---

2. Students Against Sweatshops, originating in the 1990s, initially targeted Nike for practices in overseas factories but expanded to many different companies. *See About*, UNITED STUDENTS AGAINST SWEATSHOPS, http://usas.org/about/ (last visited Apr. 27, 2019) (detailing the history of United Students Against Sweatshops).

3. *See* Georg Kell, *The Remarkable Rise of ESG*, FORBES (July 11, 2018), https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/#f22eaf16951f (chronicling the rise of ESG and noting that "thousands of professionals from around the world hold the job title 'ESG Analyst'").

4. *See id.* (explaining that climate change has financial relevance for ESG as a current threat with "multi-billion-dollar economic consequences").

5. *Id.* ("The rise of ESG investing can also be understood as a proxy for how markets and societies are changing and how concepts of valuation are adapting to these changes.").

into corporate planning for the physical and transitional risks of climate change.[6] Concerned about the impact of climate-sensitive business operations on their investments and interested in exploring opportunities that could arise, the financial community recognizes that climate change impacts corporate planning, long-term operations, price and demand, and resilience of facilities and supply chains.[7]

Evidence of this interest abounds. The United Nation's (UN) Principles of Responsible Investment organization, started in 2006 to aid in incorporating ESG factors into investment and ownership decisions,[8] has grown from 63 signatories to over 1,900, covering $80 trillion in assets under management.[9] 2015 marked a turning point in the ESG and climate disclosure discussion. That year the G-20's FSB established the TCFD[10] and Mark Carney, Governor of the Bank of England, spoke of "Breaking the tragedy of the horizon" to Lloyd's of London.[11] At that time, the U.S. was already enacting climate policy designed to make significant strides towards achieving its commitments.[12] In June 2016, BlackRock published a document calling for "a consistent global framework that enables stakeholders and market participants to develop detailed ESG standards and best practice guidelines."[13] Despite the shifts in U.S. climate policy following the change in administration in January 2017, investor interest in

---

6. *See, e.g.*, David S. Rauf, *Powerful Investors Push Big Companies to Plan for Climate Change*, SCI. AM. (May 3, 2018), https://www.scientificamerican.com/article/powerful-investors-push-big-companies-to-plan-for-climate-change/ (explaining that shareholders are successfully pushing businesses to address climate change and that "[n]early a dozen companies, Dominion Energy and Devon Energy among them, have agreed to produce reports on climate-related financial risks").

7. *See id.* (noting that Wall Street now recognizes the risk of climate change).

8. *About the PRI*, PRINCIPLES OF RESPONSIBLE INV., https://www.unpri.org/about-the-pri (last visited Apr. 27, 2019).

9. Barbara Novick, Vice Chairman, BlackRock, Remarks at the World Economic Forum, Building Sustainable Markets: What Is Needed For A Transformation To A Sustainable Market Place? 1–2 (Sept. 24, 2018), https://www.blackrock.com/corporate/literature/publication/remarks-barbara-novick-building-sustainable-markets-092418.pdf.

10. *About the Task Force*, TASK FORCE ON CLIMATE-RELATED FIN. DISCLOSURES, https://www.fsb-tcfd.org/about/ (last visited Apr. 27, 2019).

11. Mark Carney, Gov. of the Bank of England and Chairman of the Financial Stability Board, Speech at Lloyd's of London: Breaking the Tragedy of the Horizon – Climate Change and Financial Stability (Sept. 29, 2015), https://www.bis.org/review/r151009a.pdf.

12. *See* Robinson Meyer, *How Obama Could Lose His Big Climate Case*, ATLANTIC (Sept. 29, 2016), https://www.theatlantic.com/science/archive/2016/09/obama-clean-power-plan-dc-circuit-legal/502115/ (noting that the Obama Administration promulgated the Clean Power Plan to implement the goals set at the Paris Agreement); Regulatory Rollback Tracker, *supra* note 1 (describing on separate pages examples such as the Bureau of Land Management Methane Waste Prevention Rule, the EPA VOC and Methane Standards, the Clean Power Plan, and regulation of Hydroflourocarbons).

13. Barbara Novick, *supra* note 9, at 6 (referring to BlackRock's ViewPoint document, *Exploring ESG: A Practitioner's Perspective*).

corporate planning related to climate change—both its potential impacts and the prospect of longer-term climate mitigation policies—persists.[14]

Climate concerns no longer emanate exclusively from values investors seeking to further environmental agendas. The investment community has used a number of tools to encourage expanded disclosure of climate-related risks by energy companies, including: direct engagement by long-term institutional investors, voting in support of shareholder resolutions that require management to improve disclosure in some specified way, and shareholder suits alleging misleading disclosure after a potentially avoidable loss. BlackRock points to its investment stewardship activities as one way in which it engages companies on these issues.[15] All of these tools are geared towards influencing management to undertake actions that the proponents believe will result in long-term success and competitiveness of the business.

The investment community has exhibited a willingness to use these tools to address climate governance and disclosure in recent years. Large institutional investors acknowledge climate change as relevant to financial outcomes.[16] Major asset managers have voted in support of efforts to improve corporate governance on climate.[17] No longer appeased by general sustainability reports, investors seek detailed and expansive information backed up by data. In December 2017, BlackRock sent letters to corporate-governance teams urging them to report in accordance with the TCFD

---

14. *See* Chris Taylor, *The Trump White House Gave These Mutual Funds a Big Boost*, FORTUNE (Sept. 7, 2017), http://fortune.com/2017/09/07/trump-esg-mutual-funds-investing/ (explaining that ESG investing remains active during the Trump Administration).

15. Novick, *supra* note 9, at 4;

> As stewards acting on behalf of clients, we encourage the adoption of sound business practices that are consistent with delivering sustainable long-term financial results for our clients through both constructive and continuous engagement with investee companies and proxy voting. Our approach to stewardship as a long-term investor is to be patient with companies to ultimately develop the mutual understanding that supports continued, effective dialogue paving the way for durable positive change over time.

Id.

16. CalPERS and CalSTRS will begin reporting publicly on climate-related financial risk in their portfolios in 2020. Jennifer Thompson, *California Turns Up the Heat on Climate Change Disclosures*, FIN. TIMES (Sept. 29, 2018), https://www.ft.com/content/a4c8fffa-869a-3e76-8e05-e8acc572d293. New York City's pension funds are considering climate risks and opportunities in their portfolios and also committing to investing 2% of the funds (or $4 billion) in climate change solutions over three years. Press Release, Office of New York City Comptroller, Mayor and Comptroller Announce Pension Fund Goal to Invest $4 Billion in Climate Change Solutions by 2021 (Sept. 13, 2018) [hereinafter Press Release, New York City Comptroller], https://comptroller.nyc.gov/newsroom/mayor-and-comptroller-announce-pension-fund-goal-to-invest-4-billion-in-climate-change-solutions-by-2021/.

17. Rauf, *supra* note 6.

recommendations and arguing that it will help achieve "the comparability and consistency of reporting" important to investors.[18] BlackRock voted in support of shareholder proposals asking companies to disclose more on climate in 2017 and released a document outlining how it engages on climate risk.[19] BlackRock's Investment Stewardship Engagement Priorities for 2018 highlighted climate risk disclosure as one of its five priorities, specifically pointing to the TCFD recommendations as the "relevant roadmap" for corporate disclosure.[20] In January 2017, State Street's letter to company boards noted it would be "increasingly focused on board oversight of environmental and social sustainability in areas such as climate change" and highlighted its votes in 2016 in support of shareholder resolutions on climate change initiatives.[21] The letter included an attached document describing its framework for evaluating how companies incorporate sustainability into long-term strategy.[22] Vanguard also announced in September 2017 its willingness to take public positions on topics such as climate disclosures even if it requires voting against management.[23] Over 2018, "six in 10 institutional investors have changed their approach to voting or have incorporated environmental, social and governance criteria."[24] California pension funds will begin reporting publicly on

---

18. Emily Chasan, *BlackRock Wields its $6 Trillion Club to Combat Climate Risks*, BLOOMBERG (Dec. 8, 2017), https://www.bloomberg.com/news/articles/2017-12-08/blackrock-wields-its-6-trillion-club-to-combat-climate-risks.

19. *How BlackRock Investment Stewardship Engages on Climate Risk*, BLACKROCK (Mar. 2017), https://www.eenews.net/assets/2017/03/13/document_gw_05.pdf.

20. *BlackRock Investment Stewardship Engagement Priorities*, BLACKROCK (Mar. 2018), https://www.blackrock.com/corporate/literature/publication/blk-stewardship-2017-2018-priorities-final.pdf [https://web.archive.org/web/20190409153656/https://www.blackrock.com/corporate/literature/publication/blk-stewardship-2018-priorities-final.pdf]. BlackRock has also published two documents on climate issues in investing. BLACKROCK INV. INST., THE PRICE OF CLIMATE CHANGE: GLOBAL WARMING'S IMPACT ON PORTFOLIOS (Oct. 2015), https://www.blackrock.com/corporate/literature/whitepaper/bii-pricing-climate-risk-us.pdf; BLACKROCK INV. INST., ADAPTING PORTFOLIOS TO CLIMATE CHANGE (Sept. 2016), https://www.blackrock.com/corporate/literature/whitepaper/bii-climate-change-2016-us.pdf.

21. Letter from Ronald O'Hanley, State Street Global Investors, to Board Members (Jan. 26, 2017), https://www.ssga.com/investment-topics/environmental-social-governance/2017/Letter-and-ESG-Guidelines.pdf.

22. *Id.*

23. Madeleine Cuff, *Vanguard Names Climate Risk as Defining Investment Theme*, GREENBIZ (Sept. 7, 2017), https://www.greenbiz.com/article/vanguard-names-climate-risk-defining-investment-theme.

24. Huw van Steenis, Opinion, *Defective Data is a Big Problem for Sustainable Investing*, FIN. TIMES (Jan. 21, 2019), https://www.ft.com/content/c742edfa-30be-328e-8bd2-a7f8870171e4 (explaining that sustainable investment is now a vital part of successful investment, and that most institutional investors have altered their method of voting or have included ESG standards in the last 12 months, according to the marketing company Edelman).

climate-related financial risk in their portfolios in 2020,[25] and New York City's pension funds plan to direct $4 billion in fund investments to climate change solutions over the next three years.[26]

B. Emerging Challenges from Calls for Expanded Disclosures

In the midst of this swirl of public acknowledgment of the importance of climate in corporate governance, risk management, and disclosure practices, companies continue to find it challenging to grasp the range of needs and interests of a diverse financial community. Asset owners, asset managers, and the standards and ratings organizations that inform them have not converged on a unified concept of what climate-related disclosure for oil and gas companies means in practice.[27] Numerous organizations and efforts to inform the process have developed, along with separate voluntary reporting mechanisms and competing efforts to develop standards for reporting.[28] The Global Reporting Initiative developed a framework for reporting.[29] The CDP (formerly Carbon Disclosure Project) asks companies to provide disclosures through its form and then reports publicly on entities' emissions and other climate and environmental indicators.[30] The Sustainable Accounting Standards Board (SASB) is developing sets of industry-specific technical standards for disclosure of financially material climate and environmental information,[31] and the Climate Disclosure Standards Board (CDSB) is developing standards for disclosure internationally,[32] among numerous others weighing in on reporting and disclosure practices and asking companies to fill out questionnaires. "A proliferation in surveys and standards is an issue for companies, and it risks confusing investors, too . . . . The International Trade Centre identifies at

---

25. Jennifer Thompson, *supra* note 16.

26. Press Release, New York City Comptroller, *supra* note 16.

27. *See* Nina Chestney, *Climate-Related Financial Disclosure Becoming More Mainstream: G20 Task Force*, REUTERS (Sept. 26, 2018), https://www.reuters.com/article/us-climatechange-financial-disclosure/climate-related-financial-disclosure-becoming-more-mainstream-g20-task-force-idUSKCN1M61OM (finding that climate-related disclosures vary by industry).

28. *See, e.g.*, *About the Task Force*, *supra* note 10 (discussing the Task Force's mission to develop "voluntary, consistent climate-related financial risk disclosures for use by companies").

29. *See About GRI*, GLOB. REPORTING INITIATIVE, https://www.globalreporting.org/information/about-gri/Pages/default.aspx (last visited Apr. 27, 2019) (describing the GRI Sustainability Reporting Standards as the first standards used for reports on sustainability).

30. *About Us: Our Mission and Vision*, CDP, https://www.cdp.net/en/info/about-us (last visited Apr. 27, 2019).

31. *Standards Overview*, SUSTAINABLE ACCT. STANDARDS BD., https://www.sasb.org/standards-overview/ (last visited Apr. 27, 2019).

32. *About the Climate Disclosure Standards Board*, CLIMATE DISCLOSURE STANDARDS BD., https://www.cdsb.net/our-story (last visited Apr. 27, 2019).

least 230 corporate sustainability standards initiatives in more than 80 sectors."[33]

The investment stewardship engagement efforts of large asset managers also involve specific requests regarding corporate disclosure practices.[34] Differing ideas within the investment and non-governmental organizations (NGOs) community persist about how to disclose. Some argue for incorporating most information directly into annual reports filed with the Securities and Exchange Commission (SEC) while others find standalone reporting adequate.[35] Some investors seek robust incorporation of climate issues into long-term risk management reflected in company reports, while other funds may simply desire comparable metrics within an industry that fulfill a checklist of ESG issues. This lack of alignment hinders understanding of what is decision-useful information for the investment community and how it will inform their decision making.

The investment community has also exhibited frustration with the lack of consistency and detail in corporate disclosures on ESG issues.[36] The numerous voluntary disclosure, ratings, and standards organizations and their varying quality and heterogeneity can be as challenging for investors to interpret and use as for companies to navigate.[37] Along the way, ratings tools such as Sustainalytics (which has now partnered with Glass Lewis on corporate governance data) that attempt to provide snapshots of how companies compare across an industry raise the stakes by providing an easy mechanism for investors to establish a threshold for investment though their

---

33. van Steenis, *supra* note 24.

34. *See id.* (explaining that managers controlling more than a quarter of the global assets under management seek to integrate sustainable investment principles into their practices).

35. *Id.* (explaining that while sustainable investment measures provide investors with quality insight on the risks of investing, a popular new standard of voluntary ESG disclosure may build upon already established investment schemes and better inform markets).

36. For example, BlackRock called on policy makers to establish a "consistent global framework" and also commented that:

> [W]e encourage policymakers to provide guidance that recognizes the need to tailor reporting across diverse industries, because relevant ESG factors can vary primarily by industry, and also by geography, and even by specific company. While each framework has its own merits and some industry bodies are trying to address the lack of consistency, policy makers could encourage companies to provide clear and consistent data on material sustainability issues and contribute to greater standardization of reporting frameworks. I emphasize the importance of 'materiality' here, which means to focus the reporting on what is relevant for the particular business and its long-term commercial prospects, both in terms of risks and opportunities, and what is relevant for investors to make better investment decisions.

See Novick, *supra* note 9, at 6–7.

37. *Id.* at 6.

efficacy and quality are questionable given the uneven state of disclosure practices.[38]

The TCFD is an attempt to address the alignment dilemma.[39] The FSB charged the TCFD with investigating the state of disclosures and recommending improvements, with the goal of aligning current practices and improving the quality of corporate climate-related disclosures.[40] In June 2017, the TCFD released a framework for improving climate-related financial reporting.[41] The framework encouraged companies to incorporate as much information as possible into mandatory financial reporting, but acknowledged companies must consider the materiality thresholds applied to such reporting in their home jurisdictions.[42] TCFD's efforts have focused recent discussions of these issues among investors and companies.[43] Mainstream investors and voluntary reporting and rating organizations have signaled their support for the TCFD recommendations and companies have begun to incorporate the recommendations into their reporting and disclosure practices.[44] The TCFD's September 2018 Status Report assessed progress to date implementing its 2017 recommendations, and announced at the time that over 500 firms had committed to supporting them.[45]

---

38. *Sustainalytics and Glass Lewis Team Up on Corporate Governance Data Services Offering*, SUSTAINALYTICS (Oct. 22, 2018), https://www.sustainalytics.com/press-release/sustainalytics-glass-lewis-corporate-governance-data-services-offering/; *Data Services: Corporate Governance Data*, SUSTAINALYTICS, https://www.sustainalytics.com/esg-data/#cgrawdata (last visited Apr. 27, 2019).

39. *See About the Task Force*, *supra* note 10 (establishing good alignment between firms and their investors as part of their mission).

40. *Id.*

41. TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, FINAL REPORT: RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (June 2017) [hereinafter *TCFD Recommendations*], https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf.

42. *Id.* at 17.

43. *See, e.g.*, *infra* note 60 (describing recent sustainability reports by U.S. oil companies addressing TCFD disclosure recommendations).

44. *See infra* note 60 and accompanying text (noting the support for TCFD Recommendations among rating agencies and corporations); *See, e.g.*, James Murray, *Investors Urged to Flex Muscle in Support of a Just Transition*, BUSINESSGREEN (Feb. 4, 2019), https://www.businessgreen.com/bg/news-analysis/3070412/investors-urged-to-flex-muscle-in-support-of-just-transition (finding a trend of energy companies beginning to support climate-related resolutions); Hana Vizcarra, *Shifting Perspectives: E&P Companies Talk Climate and the Energy Transition*, HARV. L. SCH. ENVTL. & ENERGY L. PROGRAM (Mar. 26, 2019), https://eelp.law.harvard.edu/2019/03/shifting-perspectives-ep-companies-talking-climate-and-the-energy-transition-trends-in-disclosure-and-climate-strategy/ (noting a significant shift towards reporting and acknowledging climate change associated risks).

45. TASK FORCE ON CLIMATE-RELATED DISCLOSURES, 2018 STATUS REPORT (Sept. 2018) [hereinafter *TCFD 2018 Status Report*], https://www.fsb-tcfd.org/wp-content/uploads/2018/08/FINAL-2018-TCFD-Status-Report-092518.pdf.

BlackRock's Barbara Novick noted in January 2019 that companies are also working to align with UN Sustainable Development Goals.[46]

Energy companies have adjusted disclosure practices in response to investor pressures even though the lack of alignment within the financial community has left them guessing about how best to do so. Assessments conducted before TCFD released its recommendations found meager disclosures on climate issues.[47] Ceres reviewed SEC filings of S&P 500 companies following the 2010 SEC interpretive guidance on climate disclosure (discussed in detail in below).[48] Their analysis found companies did not discuss "company specific material information" nor "quantify[] risks or past impacts."[49] Instead they used "boilerplate language of minimal utility to investors" to "briefly discuss[]" climate change.[50] Specifically looking at the oil and gas industry, Ceres noted that these companies "typically devoted a few paragraphs" to discussing climate change issues in their 2012 10-Ks and that there was a "high degree of variability" in their quality.[51] A 2016 analysis of the SEC filings and sustainability reports of fifteen oil and gas companies (both domestic and international) found the disclosures in SEC filings "generally weak" but noted they "demonstrate[d] progress . . . even before the final [TCFD] report was issued" and that "some foundation is in place for companies to implement the TCFD's recommendations."[52] In its 2018 status report, the TCFD conducted a cursory review of disclosures across various industries since the release of its recommendations.[53] It reported wide variety in disclosure across industries.[54] It also found minimal disclosure of forward-looking climate

---

46. *See* Novick, *supra* note 9, at 2.

> We are also seeing a trend where companies and asset owners are aligning their business and investments with the UN Sustainable Development Goals (SDGs). According to the KPMG Survey of Corporate Responsibility Reporting (2017), 40% of the world's 250 largest corporations discuss the SDGs in their corporate reporting. In particular, European-based companies and consumer facing sectors (i.e., utilities, automotive, retail) are reporting on the SDGs.

Id.

47. *See infra* notes 48–55 and accompanying text.

48. JIM COBURN & JACKIE COOK, CERES, COOL RESPONSE: THE SEC & CORPORATE CLIMATE CHANGE REPORTING 4 (2014), https://www.ceres.org/sites/default/files/reports/2017-03/Ceres_SECguidance-append_020414_web.pdf.

49. *Id.* at 5.

50. *Id.*

51. *Id.* at 16, 18.

52. Robert G. Eccles & Michael P. Krzus, An Analysis of Oil & Gas Company Disclosures from the Perspective of the Task Force on Climate-Related Financial Disclosures 19–20 (Dec. 14, 2017) (unpublished manuscript), https://ssrn.com/abstract=3091232.

53. *TCFD 2018 Status Report*, *supra* note 45, at 6.

54. *Id.* at 14.

targets, resilience strategies, and financial impacts of climate change.[55] However, the energy industry seemed to be further along than others as an automated analysis of 270 energy companies (international in scope) found they "had the highest percentage of disclosures that appeared to align with five of the [TCFD's] recommended disclosures."[56] TCFD's manual review of 25 energy companies' disclosures found the companies primarily disclosed climate-related information through sustainability or other voluntary reports rather than mandatory financial filings.[57]

TCFD established an Oil and Gas Preparer Forum composed of four European oil and gas companies (Eni, Equinor, Shell, and Total), coordinated by the World Business Council for Sustainable Development (WBCSD) that released a report in 2018 providing high-level description of how those companies implement the TCFD recommendations.[58] The report presents their collective view of effective, TCFD-consistent disclosure, pointing to excerpts of their annual reports.[59] U.S.-based oil and gas companies have focused less on incorporating additional information and data into annual reports and more on preparing tailored sustainability or climate-specific reports in response to the TCFD recommendations and investor interest.[60]

---

55. *Id.* at 13–14 (noting that the many companies who disclose climate-related information do not necessarily disclose the financial implications of climate change on the company).

56. *Id.* at 30.

57. *Id.*

58. WORLD BUS. COUNCIL SUSTAINABLE DEVELOPMENT, CLIMATE-RELATED FINANCIAL DISCLOSURE ACROSS FOUR MAJOR OIL AND GAS COMPANIES: IMPLEMENTING THE TCFD RECOMMENDATIONS (2018), https://www.wbcsd.org/Programs/Redefining-Value/External-Disclosure/TCFD/News/In-depth-look-at-climate-related-financial-disclosure-across-four-major-oil-and-gas-companies.

59. *Id.*

60. Chevron released a report in 2018 addressing decision making in light of TCFD's disclosure recommendations. CHEVRON, CLIMATE CHANGE RESILIENCE: A FRAMEWORK FOR DECISION MAKING 43 (Mar. 2018), https://www.chevron.com/-/media/shared-media/documents/climate-change-resilience.pdf. It followed this with a 2019 updated report as well. CHEVRON, UPDATE TO CLIMATE CHANGE RESILIENCE: A FRAMEWORK FOR DECISION MAKING (Feb. 2019), https://www.chevron.com/-/media/shared-media/documents/update-to-climate-change-resilience.pdf. ExxonMobil also released a 2018 report in which it describes its approach to long-term planning with regards to climate. EXXONMOBIL, 2018 OUTLOOK FOR ENERGY: A VIEW TO 2040, at 2 (2018), https://corporate.exxonmobil.com/en/~/media/Global/Files/outlook-for-energy/2018-Outlook-for-Energy.pdf. Similarly, Occidental Petroleum has released a 2018 sustainability report, discussing TCFD's recommendations. OCCIDENTAL PETROLEUM CORP., CLIMATE-RELATED RISKS AND OPPORTUNITIES: POSITIONING FOR A LOWER-CARBON ECONOMY 2 (2018), https://www.oxy.com/SocialResponsibility/overview/SiteAssets/Pages/Social-Responsibility-at-Oxy/Assets/Occidental_Climate%20Report_2018.pdf. Hess primarily provides its climate-related disclosures in its sustainability report, with its most recent report being a report released in 2018. HESS CORP., HESS CORPORATION 2017 SUSTAINABILITY REPORT 37 (2018), http://www.hess.com/docs/default-source/sustainability/hess-2017-sustainability-report.pdf?sfvrsn=2. ConocoPhillips has a "TCFD Table" available on its website

U.S. energy companies do discuss climate in their FY 2017 and 2018 10-Ks, but, with some exceptions, this discussion is largely limited to risk factors such as potential regulation and active litigation involving the company. They remain under pressure to release more detailed information into their mainstream financial filings.[61] They have taken other climate-

---

that lists each TCFD recommendation with a link to what report, filing, or portion of its public-facing documents fulfill that specific disclosure recommendation. CONOCOPHILLIPS, *TCFD Table*, http://www.conocophillips.com/about-us/sustainability-approach/tcfd-table/ (last visited Apr. 27, 2019). ConocoPhillips also released its first climate-specific report in early 2019. CONOCOPHILLIPS, MANAGING CLIMATE-RELATED RISKS: BUILDING A RESILIENT STRATEGY FOR THE ENERGY TRANSITION (Feb. 2019), http://www.conocophillips.com/company-reports-resources/managing-climate-related-risks/. Many of these companies also include reports made to CDP or GRI on their websites. *See* Hana Vizcarra, *supra* note 44 (discussing trends in disclosure among oil and gas companies).

61. Chevron, ExxonMobil, Occidental Petroleum, Hess, and ConocoPhillips all include some discussion of climate-related issues in their financial filings to varying degrees. *See* ConocoPhillips, Annual Report (Form 10-K) (Feb. 20, 2018) (providing Conoco Phillips's annual report pursuant to the Securities Exchange Act, and detailing its financial impacts of climate issues, specifically that it has implemented a "corporate Climate Change Action Plan" that includes an emissions reduction target); ConocoPhillips, Annual Report (Form 10-K) (Feb. 19, 2019) (ConocoPhillips' filing includes the most detailed information in SEC reporting of the non-European companies reviewed. Their 10-K mentions climate change in multiple sections of the report and details its process for managing climate concerns. In addition to discussing potential GHG regulation and severe weather impacts as risk factors, the report notes climate change lawsuits involving the company, includes GHG emissions prices, legislation and regulation, sea level rise and other physical impacts of climate change as factors that could impact financial performance. It also outlines the Sustainable Development Risk Management Practice and Climate Change Action Plan developed to assess climate-related risks and track mitigation activities and describes internal carbon pricing and emissions reduction targets.); Exxon Mobil Corp., Annual Report (Form 10-K) (Feb. 28, 2018) (explaining that the risk of climate change resulted in numerous countries adopting regulatory frameworks to lessen GHG emissions, and that new regulations of such will increase costs and implement other hurdles for Exxon Mobil, however, the company states that its *Outlook* is consistent with the 2015 Paris Agreement); Chevron Corp., Annual Report (Form 10-K) (Feb. 22, 2018) (explaining that GHG regulations could result in negative economic impacts for Chevron, however, the company is committed to advancing energy efficiency in its daily operations, as well as complying with related GHG laws and regulations); Chevron Corp., Annual Report (Form 10-K) (Feb. 22, 2019) (noting Chevron joined OGCI and launched the Chevron Future Energy Fund to invest in technology to lower emissions in 2018, acknowledging the potential for physical risks such as sea level rise and severe storms to impact their operations, but also pointing to risk management systems designed to assess these risk and plan for resiliency, and explaining that GHG regulations could result in increased operational costs and reduced demand for Chevron's products); Occidental Petroleum Corp., Annual Report (Form 10-K) (Feb. 22, 2018) (detailing concerns about climate change and consequential regulations that may adversely alter Occidental's operations or results); Occidental Petroleum Corp., Annual Report (Form 10-K) (Feb. 21, 2019) (detailing concerns about climate change and further GHG emissions regulation that may adversely affect operations or results, including acknowledging increased interest by the investment community as well as the potential for catastrophic events such as extreme weather events); Hess Corp., Annual Report (Form 10-K) (Feb. 7, 2018) (addressing that new climate change agreements, regulations, and laws may result in future changes for Hess that are likely to increase costs for many operational aspects); Hess Corp., Annual Report (Form 10-K) (Feb. 21, 2019) (recognizing climate change initiatives as potentially resulting in significant operational changes and expenditures and reduced demand and noting lawsuits targeting fossil fuel producers for damage

focused steps as well. For example, ExxonMobil, Chevron, and Occidental Petroleum have joined the Oil and Gas Climate Initiative, an industry effort to address climate change by setting methane reduction targets and funding research designed to: (1) reduce methane leakage; (2) develop efficiency solutions that lower the carbon footprint of the energy, industrial, and transport sectors; and (3) develop carbon capture and recycling technologies.[62] Other companies have also made individual research and development or investment commitments, and have set targets for reduction of methane emissions in operations or greenhouse gas (GHG) emissions across the company more broadly.[63]

Even with their changes in disclosure practices thus far, companies remain under pressure to release more detailed metrics, data, and analysis, and incorporate more information into their mainstream financial filings. The TCFD itself acknowledged in its 2017 report that further work is necessary to align existing reporting frameworks, develop methodologies and available tools for scenario analysis, improve data availability and quality, and standardize metrics.[64] Discussions among the investment community, companies, standards organizations, and the legal and academic communities continue to progress on aligning investor interests in disclosure with corporate outputs and standardizing expectations and best practices.[65] As described in the next Part, securities law around disclosure is steeped in the loosely defined concept of materiality—a concept highly dependent on the views of investors.

II. CORPORATE DISCLOSURE REQUIREMENTS UNDER FEDERAL SECURITIES LAW

The legal framework around financial disclosure in U.S. securities law heightens the importance of understanding what institutional and other

---

allegedly caused by climate change; noting the company's commitment to complying with all GHG emissions mandates and responsible management of GHGs at its facilities).

62. *See* OIL AND GAS CLIMATE INITIATIVE, AT WORK COMMITTED TO CLIMATE ACTION: A REPORT FROM THE OIL AND GAS CLIMATE INITIATIVE 27 (2018) (explaining that the Oil and Gas Climate Initiative intends to comply with the 2°C goal of the Paris Agreement by focusing on reducing both carbon and methane emissions, and initiating a carbon capture, use, and storage practice).

63. *See* Hana Vizcarra, *supra* note 44 (listing examples of emissions reductions targets made by top oil and gas companies in the last year).

64. *TCFD Recommendations*, *supra* note 41, at 32.

65. *See TCFD 2018 Status Report*, *supra* note 45, at 3, 25 (providing a review of hundreds of companies' implementation of TCFD's suggested disclosure framework, explaining that in some jurisdictions, the legal framework has evolved to require companies with public debt or equity to disclose this information, and giving an example of a financial filing that recognizes academic research in favor of ESG integration in investment decisions in order to understand risks).

investors really want from climate-related disclosures. U.S. securities law requires certain disclosures from public companies and imposes liability for untrue statements, misleading investors, and omitting financially material information. The crux of the decision a company must make about what and when to disclose information in its annual reports is whether or not it is *material*—a definition highly dependent on determining what a reasonable investor would find useful.

A. The Securities Act and SEC Rules

U.S. securities law requires public companies to share certain information with investors and the public, and imposes liability for misleading investors in these disclosures.[66] The Securities Act of 1933 (The Securities Act) and the Securities Exchange Act of 1934 (The Exchange Act) are the statutory backbone of the U.S. securities law regime.[67] Later reforms have left their mark on corporate governance and disclosure requirements, including the Sarbanes–Oxley Act of 2002 and the Dodd–Frank Act of 2010, amending the original acts.[68] Companies offering securities for sale must disclose financial and other significant information as part of the offering and are prohibited from engaging in misrepresentation and fraud in the sale of securities.[69] These acts created the SEC and conferred it regulatory, oversight, and enforcement powers over public companies.[70] Under this legislative framework, the SEC requires that companies file, among other requirements: (1) registration statements and prospectuses for all securities sold in the U.S. (with some exemptions); (2) annual and other periodic reports (for companies with more than $10 million in assets and with more than 500 owners); and (3)

66. Securities Act of 1933, 15 U.S.C. §§ 77a–77mm; The Securities Exchange Act of 1934, 15 U.S.C. §§ 78a–78kk; *The Laws That Govern the Securities Industry*, SEC. EXCH. COMM'N, https://www.sec.gov/answers/about-lawsshtml.html (last visited Apr. 27, 2019).

67. *See The Laws That Govern the Securities Industry*, *supra* note 66 (stating that the Securities Act is frequently known as the "truth in securities" law, and that the Securities Exchange Act prohibits particular trading activities and empowers the SEC to enact certain disciplinary measures).

68. *Id.* (providing that President Bush signed the Sarbanes–Oxley Act in 2002, which mandated reforms to strengthen corporate duties and financial disclosures; and that President Obama signed the Dodd–Frank Wall Street Reform and Consumer Protection Act in 2010, which reworked the U.S. regulatory system in areas such as consumer protection, trading, financial products, and corporate disclosure).

69. *Id.*

70. *Id.* (explaining that the Securities Exchange Act created the Securities Exchange Commission, as well as authorized this Commission with extensive authority over the securities industry to register, regulate, and supervise brokerage firms, transfer representatives, and clearing organizations).

materials provided to shareholders ahead of votes.[71] False or misleading statements or omissions can lead to enforcement by the SEC or private actions by shareholders.

The concept of materiality is scattered throughout the acts. Individuals can sue if they purchased or sold a security in reliance on a misrepresentation or omission—that was material and made with the intent to deceive and caused an economic loss—and the SEC has enforcement powers for violations of securities law obligations.[72] The Securities Act prohibits material misstatements and omissions in various sections and allows the SEC to take action to prevent its dissemination while also providing for private rights of action.[73] The Exchange Act prohibits false or misleading statements of material fact and creates private rights of action for those who relied on such statements in the purchase or sale of a security, provides authority for the SEC to assess civil penalties, and authorizes fraud actions.[74] Willful violations of these provisions can result in criminal

---

71. *Id.* (stating that sold securities must be registered to provide crucial details such as descriptions of the company's properties, business, offered security, and management of the company, and that the Securities and Exchange Acts requires that companies file materials used to generate shareholders' votes with the Commission before solicitation).

72. Nicholas G. Terris, *Some Liability Considerations Relating to ESG Disclosures*, K&L GATES (May 2017) (citing to *Lee v. Ernst & Young, LLP*, 294 F.3d 969, 976 (8th Cir. 2002) as an example) (on file with *Vermont Law Review*).

73. Section 77d-1(c) authorizes a purchaser of securities to bring an action against the issuer for "material misstatements and omissions." 15 U.S.C. § 77d–1(c) (2012). Section 77h allows the SEC to take action when it finds a statement is incomplete or inaccurate "in any material respect" or suspend the registration if it "includes any untrue statement of a material fact or omits to state any material fact required to be stated." *Id.* § 77h(b), (d). Section 77j prohibits the untrue statement or omission of a material fact in connection with the purchase or sale of securities and allows the SEC to issue an order to prevent or suspend its use. *Id.* § 77j(b). Section 77k provides a private right of action for materially false or misleading statements or omissions in registration statements and Section 77l provides for a private right of action for such statements or omissions in a prospectus or other communication associated with the sale of securities. *Id.* §§ 77k, 77l. Section 77m limits the private actions under Sections 77k and 77l to one year from the discovery of an untrue statement or omission and within three years of the sale. *Id.* § 77m. Section 77x provides for fines or prison for any person who willfully makes an untrue statement of a material fact or misleading omission. *Id.* § 77x. However, the Act does include a safe harbor provision for forward-looking statements if they have meaningful cautionary statements or are immaterial. *Id.* § 77z–2(c).

74. Section 78n(e) makes it:

> [U]nlawful for any person to make any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, or to engage in any fraudulent, deceptive, or manipulative acts or practices" in tender offers or solicitation of security holders.

Id. § 78n(e). Section 78o provides for punishment of brokers or dealers who willfully cause an application or registration to be filed with false or misleading statements of material facts or omissions of material facts. *Id.* § 78o(b). Section 78r creates liability for false or misleading statements of material fact and a cause of action for anyone who relied on such statements in the purchase or sale of a security.

penalties and prison.[75] Safe harbors exist for forward-looking statements that either include meaningful cautionary statements or are immaterial.[76]

Not all the information companies must disclose is limited by materiality thresholds.[77] SEC regulations and disclosure forms also outline the statutes' disclosure requirements.[78] Some of the disclosure requirements most relevant to environmental disclosures include:

- Item 101 (Business Description—complying with environmental regulation): requiring a description of the business, including capital expenditures and "the material effects" of complying with provisions regulating "the discharge of materials into the environment, or otherwise relating to the protection of the environment."[79] Filers must disclose "material estimated capital expenditures for environmental control facilities for the remainder of its current fiscal year and its succeeding fiscal year and for such further periods as the registrant may deem material[]."[80]

- Item 103 (Disclosure of Legal Proceedings): requiring disclosure of "material pending legal proceedings, other than ordinary routine litigation incidental to the business."[81] Instructions note this requirement generally excludes claims whose alleged damages will not exceed 10% of current assets but that environmental proceedings are not generally considered routine litigation incidental to the business and must be described if they are material; involve damages, potential monetary sanctions, capital expenditures, etc. that

---

Id. § 78r(a). Section 78u–2 gives the SEC authority to assess civil penalties for false or misleading statements or omission of material fact in any application for registration or required filing. *Id.* § 78u–2(a)(1). Section 78u–4 authorizes securities fraud actions for untrue statement of material fact or omission of material fact necessary to make the statement not misleading. *Id.* § 78u–4(a)(1). Section 78u–5 provides a safe harbor for forward-looking statements accompanied by meaningful cautionary statements. *Id.* § 78u–5(c). Section 78ff outlines penalties and prison for willful violation of these provisions. *Id.* § 78ff(a).

75. *See id.* §§ 77x, 78ff (outlining criminal penalties for willful violations).

76. *See id.* §§ 77z–2(c), 78u–5(c) (outlining safe harbor provisions).

77. Business and Financial Disclosure Required by Regulation S–K, 81 Fed. Reg. 23,916, 23,925 (Apr. 22, 2016) (explaining that prescriptive disclosure requirements demand disclosure based on quantitative thresholds regardless of materiality). Of course, as has previously been discussed, information that does not meet a prescriptive disclosure threshold may still have to be disclosed if omitting it would make other disclosed information misleading.

78. *See* 17 C.F.R. §§ 201, 229 (2018) (laying out instructions for filing required forms under the Securities Act and the Exchange Act).

79. *Id.* § 229.101(c)(xii).

80. *Id.*

81. *Id.* § 229.103.

would exceed 10% of current assets, or a government authority is a party and it could result in sanctions of $100,000 or more.[82]

- Item 303 (Management Discussion and Analysis (MD&A)): requiring filers to describe "known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations" and "events that will cause a material change in the relationship between costs and revenues."[83] Companies are to focus on "material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition," such as matters that would impact future operations but have not impacted past or that have impacted the past but are not expected to impact future operations.[84]

- Item 503 (Risk Factors): requires companies to discuss "the most significant factors that make the offering speculative or risky."[85]

SEC Rule 408 compels companies to provide additional material information not specifically requested in these line-items if it is "necessary to make the required statements, in the light of the circumstances . . . not misleading."[86] Rule 12b-20 has an essentially identical requirement.[87] Rule 10b-5 extends liability for misstatements made outside of SEC filings such as in voluntary sustainability or climate reports.[88]

---

82. *Id.*
83. *Id.* § 229.303(a)(2)(ii).
84. *Id.* § 229.303(a).
85. *Id.* § 229.503(a).
86. *Id.* § 230.408(a).
87. *Id.* § 240.12b–20.
88. *Id.* § 240.10b–5.

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails or of any facility of any national securities exchange, (a) To employ any device, scheme, or artifice to defraud, (b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.

Id.

How and to what extent these disclosure requirements reach the type of climate-related information that investors and NGOs seek remains an active topic of discussion within the ESG community and between investors and companies.[89] It is difficult to determine when climate-related risks cross the materiality threshold for required disclosure. For example, Item 303 requires disclosure of information "presently known to management and reasonably likely to have material effects on the registrant's financial conditions or results of operations"[90] but "[i]t is not enough that it *should* have known of the existing trend"[91] and it "ordinarily does not require companies to disclose projections or other forward-looking information."[92] It remains difficult to distill a general understanding of climate impacts on an industry as a whole down to impacts on a particular company in a way in which their financial materiality can be measured.

B. The Meaning of Materiality

Despite being used throughout the acts, the securities statutes do not define the term "materiality." The SEC, however, has defined the term and adjusted it to align with the definition devised by the Supreme Court.[93] The Supreme Court expressed the standard for materiality in the 1976 case *TSC Industries v. Northway*, finding omitted information material when there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[94] Over a decade later, the Court affirmed and clarified this concept, noting "materiality depends on the

89. *See, e.g.*, Mark Latham, *Environmental Liabilities and the Federal Securities Laws: A Proposal for Improved Disclosure of Climate Change-Related Risks*, 39 ENVTL. L. 647, 679, 702–03 (2009) (concluding that SEC environmental disclosure requirement framework is insufficient to cause meaningful climate change disclosures).

90. Stratte-McClure v. Morgan Stanley, 776 F.3d 94, 101 (2d Cir. 2015) (quoting Management's Discussion and Analysis of Financial Condition and Results of Operations, Exchange Act Release No. 6835, 43 S.E.C. Docket 1330, 1989 WL 1092885, at *4 (May 19, 1989)).

91. Indiana Pub. Retirement Sys. v. SAIC, Inc., 818 F.3d 85, 95 (2d Cir. 2016) (emphasis added).

92. Terris, *supra* note 72; *see also* 17 C.F.R. § 229.303(a) ("Any forward-looking information supplied is expressly covered by the safe harbor rule for projections.").

93. Rule 12b-2 defines "material" as limiting the disclosure required to "those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to buy or sell the securities registered." 17 C.F.R. § 240.12b–2. *See also* Business and Financial Disclosure Required by Regulation S–K, Concept Release, 81 Fed. Reg. 23,916, 23,925 (Apr. 22, 2016) (explaining that the Commission changed the definition of materiality used in Rule 12b-2 in 1982 to that adopted by the by the Supreme Court in *TSC Industries, Inc. v. Northway, Inc.*, 426 U.S. 438, 449 (1976)).

94. TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976).

significance the reasonable investor would place on the withheld or misrepresented information."[95] The SEC's definition simply restates the Court's standard without providing additional insight into its interpretation, thus, the "inattention of Congress, the SEC, and the FASB has left elaboration of materiality to the judiciary."[96]

Determining whether information is material requires a case-specific approach with no bright-line rule to apply.[97] SEC guidance emphasizes the holistic nature of a materiality inquiry that must account for both quantitative and qualitative considerations.[98] Companies do not have a duty to disclose information not specifically requested, even if material, unless it is necessary to avoid misleading investors.[99] However, omissions of material information can be actionable, as can material misrepresentation in voluntary reports.[100] The financial impact of information does not determine materiality. SEC guidance has noted that the accounting practice of considering anything above 5% of the balance sheet total material can be instructive but not determinative.[101] The potential for a misstatement to result in a significant market reaction can also overcome a presumption of immateriality.[102]

Courts are wary of setting the threshold for materiality too low; not everything considered important by a reasonable investor reaches the level

---

95. Basic, Inc. v. Levinson, 485 U.S. 224, 240 (1988).

96. Kurt S. Schulzke & Gerlinde Berger-Walliser, *Toward a Unified Theory of Materiality in Securities Law*, 56 COLUM. J. TRANSNAT'L L. 6, 16 (2017).

97. *See Basic*, 485 U.S. at 236 ("Any approach that designates a single fact or occurrence as always determinative of an inherently fact-specific finding such as materiality, must necessarily be over inclusive or underinclusive."). *See also* Matrixxx Initiatives, Inc. v. Siracusano, 563 U.S. 27, 30 (2011) ("We conclude that the materiality of adverse event reports cannot be reduced to a bright-line rule."); Litwin v. Blackstone Grp., 634 F.3d 706, 717 (2d Cir. 2011) (stating that the court has "consistently rejected a formulaic approach to assessing the materiality of an alleged misrepresentation" (quoting Ganino v. Citizens Utils. Co., 228 F.3d 154, 162 (2d Cir. 2000)); Schulzke & Berger-Walliser, *supra* note 96.

98. *See* SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,151 (Aug. 19, 1999) (recommending consideration of qualitative factors and analysis of all relevant considerations when determining materiality).

99. *See Basic*, 485 U.S. at 239 n.17 ("Silence, absent a duty to disclose, is not misleading under Rule 10b–5"); Terris, *supra* note 72 (describing the use of silence as a method to avoid disclosing information).

100. *See* TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1978) (considering whether omitted information from a proxy statement was materially misleading and defining a material fact as a fact that a reasonable shareholder is substantially likely to consider important in deciding how to vote).

101. SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. at 45,152 ("Evaluation of materiality requires a registrant and its auditor to consider *all* the relevant circumstances, and the staff believes that there are numerous circumstances in which misstatements below 5% could well be material. Qualitative factors may cause misstatements of quantitatively small amounts to be material . . . .").

102. Terris, *supra* note 72.

of materiality necessary to mandate inclusion in financial filings.[103] This is particularly true when considering contingent events where companies must balance "the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity."[104] Cases where courts have found materially misleading statements or omissions often involve significant acute events, such as spills or accidents that provide strong evidence of the gap between the statement or omission and the reality.[105] Although not the perfect parallel for inadequate disclosure of a company's planning or consideration of climate-related risks, such cases can provide insight into how the courts may perceive physical risks of climate change in this context. Claims that directly reference statements about climate-related decision making have already made it to the courtroom, but have not yet resulted in substantive application of the law regarding materiality to climate risks.[106]

The concept of the "reasonable investor" is key to determining materiality. Courts have said materiality is a term "within the jury's ordinary experience and understanding" and thus without need for further definition.[107] Yet it remains a relatively fluid concept when viewed in relation to specific information. How the definition interacts with an emerging issue of interest in disclosure is key to determining when that issue crosses the materiality threshold.

Courts contend the reasonable investor standard is objective; a standard measured by the views of the mainstream market as a whole in which the

---

103. *Basic*, 485 U.S. at 231 ("[A] minimal standard might bring an overabundance of information within its reach, and lead management simply to bury the shareholders in an avalanche of trivial information—a result that is hardly conducive to informed decisionmaking." (quoting *TSC Indus.*, 426 U.S. at 448).

104. *Id.* at 238 (quoting SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 849 (2d Cir. 1968)).

105. *See, e.g.*, *In re* Plains All Am. Pipeline, 307 F. Supp. 3d 583, 593 (S.D. Tex. 2018) (addressing the plaintiff's complaint of an oil spill off the California coast when the defendants respond with numerous statements of misrepresentations about scope of the oil spill and the economic effects on the oil and gas pipeline owner and operator); Reese v. Malone, 747 F.3d 557, 569–70 (9th Cir. 2014) (finding that plaintiffs sufficiently pled that defendants made material misstatements in alleging securities fraud); *In re* BP P.L.C. Sec. Litig., 922 F. Supp. 2d 600, 609, 640–41 (S.D. Tex. 2013) (discussing several misstatements regarding key safety measures in corporate sustainability reports, and elsewhere, found to be material).

106. *See* Ramirez v. Exxon Mobil Corp., 334 F. Supp. 3d 832, 845–52, 857–59 (N.D. Tex. 2018) (holding that the plaintiffs sufficiently alleged material misstatements and loss causation, in claiming that oil company, ExxonMobil, committed securities fraud, allowing the plaintiffs to partly survive Exxon's motion to dismiss).

107. United States v. Sayre, 434 Fed. App'x 622, 624 (9th Cir. 2011) (reasoning "the term 'reasonable investor' is a concept within the jury's ordinary experience and understanding," that does not need to be defined).

reasonable investor sits not as the "worst informed" nor the best.[108] A reasonable investor is one of "ordinary intelligence," not a "scientific expert," who reads prospectuses, reports, and other information relevant to their investments.[109] She should exercise due care in considering information,[110] "is presumed to have information available in the public domain,"[111] and "takes into account the customs and practices of the relevant industry."[112] But objective does not mean invariable. In fact the reasonable investor's relationship to the whole of investors engaged in the market guarantees variability over time as "[t]he standard may vary . . . with the nature of the traders involved in the particular market."[113]

Investors' increasing and persistent focus on climate concerns may represent a shift in what a reasonable investor considers important to the total mix of information. Presumptively reasonable investors considering climate-related information important to their voting decisions could indicate that such information has become more financially *material*. The

---

108. United States v. Litvak, 889 F.3d 56, 65 (2d Cir. 2018) ("The reasonable investor in a market in which many individual investors trade will be deemed to be somewhat less schooled and sophisticated than a reasonable investor in a market . . . in which only institutions trade with the help of complex computer programs and professional traders . . . . [T]here must be evidence of a nexus between a particular trader's viewpoint and that of the mainstream thinking of investors in that market. Materiality cannot be proven by the mistaken beliefs of the worst informed trader in a market.").

109. Alaska Elec. Pension Fund v. Pharmacia Corp., 554 F.3d 342, 347 (3d Cir. 2009).

110. *See* FindWhat Inv'r Grp. v. FindWhat.com, 658 F.3d 1282, 1305 (11th Cir. 2011) ("A statement is misleading if 'in the light of the facts existing at the time of the [statement] . . . [a] reasonable investor, in the exercise of due care, would have been misled by it.' Thus, the 'appropriate primary inquiry' is 'into the meaning of the statement to the reasonable investor and its relationship to truth.'" (alterations in original) (quoting Sec. & Exch. Comm'n v. Tex. Gulf Sulphur Co., 401 F.2d 833, 862–63 (2d Cir. 1968))).

111. Whirlpool Fin. Corp. v. GN Holdings, Inc., 67 F.3d 605, 610 (7th Cir. 1995).

112. Omnicare, Inc. v. Laborers Dist. Council Const. Indus. Pension Fund, 135 S.Ct. 1318, 1330 (2015).

> [W]hether an omission makes an expression of opinion misleading always depends on context. Registration statements as a class are formal documents, filed with the SEC as a legal prerequisite for selling securities to the public. Investors do not, and are right not to, expect opinions contained in those statements to reflect baseless, off-the-cuff judgments, of the kind that an individual might communicate in daily life. At the same time, an investor reads each statement within such a document, whether of fact or of opinion, in light of all its surrounding text, including hedges, disclaimers, and apparently conflicting information. And the investor takes into account the customs and practices of the relevant industry. So an omission that renders misleading a statement of opinion when viewed in a vacuum may not do so once that statement is considered, as is appropriate, in a broader frame.

Id.

113. *Litvak*, 889 F.3d at 64.

SEC has recognized that such a shift could lead to additional social and environmental performance disclosure requirements.[114]

Individual companies must navigate the somewhat subjective interpretation of materiality in our case law to avoid disclosure liability. While courts find substantial non-compliance with regulation material to reasonable investors,[115] it is not so clear when information on a company's approach to managing climate risks (beyond basic compliance with environmental regulation) is material.[116] Whether the spike in investor focus on climate concerns will impact courts' understanding of the expectations of the reasonable investor remains to be seen. The investment community's internal divergence regarding what disclosure mechanisms and frameworks to use could cut against determinations that certain omissions are material even if the issues are considered generally important by investors. However, this discussion illustrates that it is no simple task to determine what specific information in a particular issue area a company should deem material for the purposes of SEC filings. Without consistent enforcement and guidance from the regulatory agency, courts' fact-based determinations of specific instances are the only guideposts a company has to rely on in making such determinations.

III. UNTAPPED SEC ENFORCEMENT POTENTIAL, CAN SHAREHOLDERS FILL IT?

The SEC has not effectively used its enforcement powers to foster meaningful disclosure in annual reports. In 2010, it issued guidance on disclosure of climate-related issues that discussed to what extent existing reporting requirements reach climate concerns.[117] In it, the SEC distinguished between what must be disclosed—that is, items that are

---

114. Business and Financial Disclosure Required by Regulation S–K, Concept Release, 81 Fed. Reg. 23,916, 23,971 (Apr. 22, 2016) ("The role of sustainability and public policy information in investors' voting and investment decisions may be evolving as some investors are increasingly engaging on certain ESG matters . . . .").

115. Meyer v. Jinkosolar Holdings Co., Ltd., 761 F.3d 245, 252 (2d Cir. 2014) (holding "a trier of fact could find that the existence of ongoing and substantial pollution problems—here the omitted facts—was of substantial importance to investors" as "a reasonable investor could conclude that a substantial non-compliance would constitute a substantial threat to earnings").

116. Leah A. Dundon, *Climate Change Risks and Disclosure Obligations in an Age of Uncertainty*, 14 ENVTL. DISCLOSURE COMMITTEE NEWSL., no. 3, Aug. 2017, at 3 ("The reality is that companies now make statements regarding climate risk across many channels, through both voluntary and mandatory reporting, making it more challenging to assess the consistency of such disclosures and avoid legal risk.").

117. Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6290, 6295 (Feb. 8, 2010).

considered financially material to the company—and what should be considered when making that materiality determination.[118] For example, in disclosing "known trends, events . . . [or] uncertainties" in Item 303 (MD&A disclosure), companies should remember that "[w]hile these materiality determinations may limit what is actually disclosed, they should not limit the information that management considers in making its determinations."[119] The SEC emphasized that "registrants are expected to consider all relevant information even if that information is not required to be disclosed."[120]

The guidance points to four types of information likely to trigger disclosure: the impacts of legislation and regulation, international accords, indirect consequences of regulation or business trends, and the physical impacts of climate change.[121] The SEC provides some detail on legislation-related disclosure and focuses on changes in demand for goods in relation to a company's carbon footprint, increased competition, and changes in energy demand in describing disclosure of indirect consequences of regulation or business trends.[122] Reputational risk is also mentioned as a potential indirect risk.[123] In discussing physical risk of climate change, the SEC focuses on the impacts of severe weather on facilities, distribution systems, and supply chains as well as the potential for increased insurance claims and the impact of increased premiums and deductibles.[124]

The SEC's 2010 guidance listed ways that climate change can impact businesses.[125] It did not provide any additional guidance on how to determine materiality in the context of climate-related information, instead it simply restated the materiality standard that *TSC Industries* defined and the SEC adopted in its regulations. Although the release indicated the Commission would consider additional guidance or rulemaking,[126] no such additional guidance resulted. A promised roundtable on the subject never materialized and the Investor Advisory Committee charged with considering the need for additional action was temporarily disbanded in

---

118. *Id.* at 6295–97.

119. *Id.* at 6294–95.

120. *Id.* at 6295.

121. *Id.* at 6295–97; A Government Accountability Office report includes a good chart of the risks and examples provided in the SEC guidance. U.S. GOV'T ACCOUNTABILITY OFF., GAO-13-188, CLIMATE-RELATED RISKS: SEC HAS TAKEN STEPS TO CLARIFY DISCLOSURE REQUIREMENTS 9 (Feb. 2018), https://www.gao.gov/ assets/700/690197.pdf.

122. Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. at 6296.

123. *Id.*

124. *Id.* at 6297.

125. *Id.* at 6290.

126. *Id.* at 6297.

October 2010 as a result of the Dodd–Frank Act (and subsequently reformed).[127] During this timeframe, the cap and trade legislation that had seemed so close to passing in 2009 and early 2010 fell apart, never reaching the President's desk.[128]

After the 2010 guidance, the Commission engaged with some registrants on the quality of their climate-related disclosures, but it did so gingerly. The small amount of prodding of a handful of individual companies did not produce substantial improvement in corporate climate disclosures. As previously discussed, a 2014 Ceres review of disclosures found little discussion of specific material information or quantification of impacts after the 2010 guidance was released.[129] SEC staff sent a handful of comment letters to companies about their climate-related disclosures (25 letters to 23 companies from 2010 to 2013 out of more than 45,000 comment letters and 14 letters to 14 companies out of over 41,000 letters issued from 2014 to 2017).[130] SEC staff has noticed little change in climate-related disclosures as a result of the 2010 guidance.[131]

In 2016, the Commission issued a 341-page concept release for public comment seeking to "moderniz[e]" the Regulation S-K disclosure

---

127. *Id.* (explaining that the IAC was "considering climate change disclosure issues as part of its overall mandate to provide advice and recommendations to the Commission"). *See* Melissa Klein Aguilar, *SEC Committee to Get a Makeover Due to Dodd-Frank*, COMPLIANCE WK. (Sept. 3, 2010), https://www.complianceweek.com/sec-committee-to-get-a-makeover-due-to-dodd-frank/18569.article (explaining that the June 2009 IAC disassembled for reason of differences in that committee and what Section 911 of the Dodd–Frank Act required for a committee); Press Release, SEC, SEC Announces Creation of Investor Advisory Committee (June 3, 2009), http://www.sec.gov/news/press/2009/2009-126.htm (discussing how the IAC was formed on June 3, 2009 to "[a]dvis[e] the Commission on matters of concern to investors in the securities markets; [p]rovid[e] the Commission with investors' perspectives on current, non-enforcement, regulatory issues; and [s]erv[e] as a source of information and recommendations to the Commission regarding the Commission's regulatory programs from the point of view of investors"). The IAC was reconstituted in 2012 according to the requirements of the Dodd–Frank Act. Dodd-Frank Wall Street Reform and Consumer Protection Act, 12 U.S.C. §§ 5301–5641 (2006).

128. Amanda Reilly & Kevin Bogardus, *7 Years Later, Failed Waxman-Markey Bill Still Makes Waves*, E&E DAILY (June 27, 2016), https://www.eenews.net/stories/1060039422 (explaining that, in 2016, the House had not passed legislation addressing a cap-and-trade system for GHG emissions in the passing seven years, and that the Senate refused to approve the Waxman–Markey bill, but it nevertheless brought important repercussions). *See* Bryan Walsh, *Why the Climate Bill Died*, TIME (July 26, 2010), http://science.time.com/2010/07/26/why-the-climate-bill-died/ (stating that Senate Majority Leader Harry Reid chose not to include a carbon cap on an ambitious climate bill).

129. *See supra* text accompanying notes 47–51 (discussing review of S&P 500 companies' SEC filings following 2010 SEC interpretive guidance).

130. U.S. GOV'T ACCOUNTABILITY OFF., GAO-18-188, CLIMATE-RELATED RISKS: SEC HAS TAKEN STEPS TO CLARIFY DISCLOSURE REQUIREMENTS 14 (2018).

131. *Id.* at 15 (explaining that in the 2012 report to the Senate Committee on Appropriations examining climate-related disclosures after the 2010 guidance, the SEC found no notable changes).

requirements.[132] The Concept Release included a section on "Public Policy and Sustainability Matters."[133] The Commission requested feedback on "the importance of sustainability and public policy matters to informed investment and voting decisions," asking what disclosures are needed to understand a business and its financial condition and to inform investment and voting decisions.[134] The release acknowledged the Commission had received comments urging increased ESG disclosure requirements, including several specifically mentioning climate change, as well as a few opposing direct requirements in this area.[135] It included prompts for comment on whether to include ESG and climate in line-item requests, whether the SEC should adopt existing frameworks for disclosure, challenges registrants have in reporting, how disclosure outside of SEC filings impacts comparability, etc.[136]

The 2016 concept release emphasized the role materiality plays in limiting disclosure. It pointed to an SEC conclusion in 1975 that it would only require social and environmental performance disclosure "if such information . . . is important to the reasonable investor—material information"[137] and that not all registrants should have to report on such matters "unless appropriate to further a specific congressional mandate or unless, under the particular facts and circumstances, such matters are material."[138] The SEC acknowledged "[t]he role of sustainability and public policy information in investors' voting and investment decisions may be evolving as some investors are increasingly engaging on certain ESG matters,"[139] but made no assertions about whether this evolution may now warrant required disclosure. The Commission has not developed any

132. *See generally* Business and Financial Disclosure Required by Regulation S–K, Concept Release, 81 Fed. Reg. 23,916 (Apr. 22, 2016) (providing a concept release as part of an initiative, by the Division of Corporation Finance, to facilitate public comment on modernizing business and financial disclosure requirements in Regulation S–K, and to initiate improvement requirement options for investor and registrant benefits).

133. *See id.* at 23,969–70 (explaining that Congress recently mandated disclosure requirements to address certain public policy concerns such as conflict minerals, and that investors and interest groups want more disclosure of public policy and sustainability issues, however, in past years, the Commission concluded that registrants are not required to disclose matters relating to the environment unless material or required by a Congressional mandate).

134. *Id.* at 23,970.

135. *Id.*

136. *Id.* at 23,972–73.

137. *Id.* at 23,971 n.687.

138. *Id.* at 23,970.

139. *Id.* at 23,971.

proposals that address disclosures of climate information as a result of the concept release.[140]

SEC's enforcement role with regard to disclosures is limited by the information it can review.[141] The division of the agency that reviews disclosures for compliance with SEC rules does not have subpoena power, does not have access to the underlying information that companies consider in making their materiality determinations, and has little training in climate-related disclosure.[142] They can review public information outside of the filings but have to refer potential violations of disclosure requirements to the Division of Enforcement for a formal order of investigation in order for the SEC to subpoena information from the company.[143] Illustrating the unlikelihood that this process will result in a challenge to corporate statements on climate is the fact that the SEC reviewed Peabody Energy's filings after the New York Attorney General initiated an investigation into misleading climate disclosures (discussed in more detail below) but did not issue a comment letter or refer it for further action.[144]

Shareholders themselves can act on misleading disclosures if it rises to the level of fraud.[145] Section 10(b) of the Exchange Act of 1934 and SEC Rule 10b-5 allow shareholders to pursue securities fraud claims.[146] Under

---

140. In 2017, the SEC released proposed amendments to Regulation S–K, primarily as a response to a mandate Fixing America's Surface Transportation Act but also reflecting "amendments developed as part of a broader review of the Commission's disclosure system." These amendments focused on "reduc[ing] costs and burdens" to companies, implementing staff recommendations included in a November 2016 report of recommendations, but did not address any of potential issues raised regarding ESG reporting in the concept release. Press Release, SEC, SEC Proposes Rules to Implement FAST Act Mandate to Modernize and Simplify Disclosure (Oct. 11, 2017), https://www.sec.gov/news/press-release/2017-192; *see also* FAST Act Modernization and Simplification of Reg. S–K, 82 Fed. Reg. 50,988 (proposed Nov. 2, 2017) (to be codified at 17 C.F.R. pts. 229, 230, 232, 239, 240, 249, 270, 274, 275) (suggesting amendments to modernize and simplify particular disclosure requirements of Regulation S–K to execute the FAST Act); U.S. SEC. & EXCH. COMM'N, REPORT ON MODERNIZATION AND SIMPLIFICATION OF REGULATION S-K (Nov. 23, 2016) (reporting the findings and determinations of the S–K study and suggesting recommendations).

141. *See* U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 130, at 17 (explaining that the SEC faces restrictions when evaluating disclosures because it depends on the companies' issuance of information).

142. *Id.* at 17, 23.

143. *Id.* at 17.

144. *Id.*

145. *See* The Securities Exchange Act of 1934, 15 U.S.C. § 78j(a)(1)–(c)(2) (providing the Act's primary anti-fraud provision). *See also* 17 C.F.R. § 240.10b (2018) (prohibiting the use of any "device, scheme, or artifice to defraud," and also imposing liability for any misstatement or omission of material fact).

146. 17 CFR § 240.10b-5 (2018).

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails or of any facility of any national securities exchange, (a) To employ any device, scheme, or artifice to

10b-5, the shareholder must show the company made a material misrepresentation or omission known to the company in connection with the purchase or sale of a stock and that the shareholder, relying on it, suffered an economic loss that can be tied to the representation or omission—a steep hill to climb.[147] Fraud actions related to environmental concerns have generally arisen after serious environmental incidents, such as BP after the Macondo oil spill.[148] These actions cannot take the place of regular compliance reviews and enforcement by the Commission, instead providing a backstop after the fact.

Lax enforcement by the SEC has allowed for significant variability and lack of precision on climate and environmental concerns in financial filings and the barriers to shareholder enforcement are steep. Lax enforcement and minimal guidance by the SEC has allowed for significant variability and a lack of precision in disclosure. There is also a dearth of case law clearly establishing where the *reasonable investor* sits on the spectrum of concern for climate information. Companies are left without much guidance as to how new demands for more detailed climate-related disclosure fit into the materiality determination.The SEC and shareholders, however, are not the only actors that can challenge corporate disclosures. The next Part discusses the significant role that state AGs can play in this space.

IV. ATTORNEY GENERAL ENGAGEMENT WITH CORPORATE CLIMATE DISCLOSURE

Although federal securities law is the most direct avenue down which to pursue concerns regarding disclosure of climate-related risks, states also share in this responsibility. States have the power to pursue securities fraud actions via enforcement powers granted state AGs or a corporation commissioner in some states (or shared between the two) by state blue sky or consumer protection laws.[149] AGs have increasingly coordinated on

---

> defraud, (b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.

Id.

147. *Id.*; *See* BG Litig. Recovery I, LLC v. Barrick Gold Corp., 180 F. Supp. 3d 316, 322 (S.D.N.Y. 2016).

148. *See In re* BP P.L.C. Sec. Litig., 922 F. Supp. 2d 600, 609 (S.D. Tex. 2013) (discussing the impact of misrepresentations on BP investors in the wake of the oil spill).

149. Joanne Spalding & Alejandra Núñez, *Statutory Framework Underlying Exxon Investigations by the Attorneys General of New York and Massachussetts*, 14 ENVTL. DISCLOSURE COMMITTEE NEWSL., no. 3, Aug. 2017, at 12, https://www.americanbar.org/content/dam/aba/

multi-state litigation and inserted themselves into national environmental law policy discussions in the last few decades.

In recent years, AGs have relied on their enforcement and investigatory powers to fill the gap left by lackluster SEC enforcement by investigating nondisclosure of climate-related risks by energy companies. Although still the purview of a small number of AGs, these investigations could have lasting impacts. AG interest in disclosure is now merging with the increasing tendency to coordinate multi-state litigation campaigns designed to influence federal policy on the environment and climate. Along the way, the purpose and approach to state securities investigations have shifted over time, raising new questions about how they will influence policymaking. The most recent efforts by AGs on climate-related disclosures are coinciding with increasing allegations of climate liability brought by individuals, cities, and at least one state.[150] As will be discussed in the Conclusion, this trend could hinder the ongoing efforts by the financial community to encourage more expansive disclosure of climate risks.

A. The Role of State Attorneys General in Environmental Law

State AGs' relationship with federal environmental policy has evolved over time as their involvement in national policymaking has increased.[151] Paul Nolette of Marquette University has tracked the rise of multi-state, coordinated litigation efforts by AGs and found it falls into three categories: "(1) *policy-creating litigation* that seeks settlements with national corporations establishing new regulatory responsibilities not otherwise required by law, (2) *policy-forcing litigation* that challenges regulatory inaction by federal agencies, and (3) *policy-blocking litigation* that attempts to thwart regulatory actions by federal policymakers."[152] He observes that political polarization among AGs has increased in recent years, paralleling trends in Congress, and that their involvement in national policymaking via litigation has reflected this trend. AGs now use all three types of litigation

---

publications/nr_newsletters/ed/201708-ed_joint.pdf (listing state consumer protection statutes authorizing state AGs to investigate unfair or deceptive acts or practices in the conduct of business).

150. *See* David Hasemyer, *Fossil Fuels on Trial: Where the Major Climate Change Lawsuits Stand Today*, INSIDECLIMATE NEWS (Jan 6, 2019), https://insideclimatenews.org/news/04042018/climate-change-fossil-fuel-company-lawsuits-timeline-exxon-children-california-cities-attorney-general (explaining that there is a "wave of legal challenges that is washing over the oil and gas industry, demanding accountability for climate change").

151. *Cf.* PAUL NOLETTE, FEDERALISM ON TRIAL: STATE ATTORNEYS GENERAL AND NATIONAL POLICYMAKING IN CONTEMPORARY AMERICA 3 (2015) (tracing the rise of AG involvement in national policymaking through multi-state litigation and its impact on a number of significant policy areas, including environmental law).

152. *Id.* at 13–14.

(policy-creating, policy-forcing, and policy-blocking) to insert themselves in environmental policymaking with national impacts.

Modern environmental law, birthed in the late 1960s and early 1970s, expressly authorizes state involvement. Federal and state authorities share enforcement powers and program design responsibilities in a cooperative federalism model.[153] But this modern environmental law is not without "historical legal roots."[154] Prior to the burst of lawmaking in the 1970s, "environmental enforcement had been the nearly exclusive domain of state and local governments,"[155] who made efforts to control pollution through zoning and other local regulatory efforts[156] as well as "enforcement based on nuisance and other common law theories."[157]

The environmental statutes of the 1970s were "markedly different" from "earlier natural resources laws."[158] The Clean Air Act, Clean Water Act, and other environmental statutes that still govern our environmental law regime were partially a response to the slow pace of state action.[159] They established a primary role for the federal government but also invited states to actively participate in the management of environmental law.[160]

---

153. *See* RICHARD LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 91–94 (Univ. of Chi. Press 2004) (discussing the beginnings of the federalism debate in environmental law).

154. *Id.* at 44, 50 (noting the "oft-repeated fiction that environmental law spontaneously began in the late 1960s and early 1970s" and that the roots of these laws were "at least as likely to be found in the widespread social, urban justice movements concerned with public health in the United States, which led to the enactment of state and local legislation throughout the nineteenth and twentieth centuries" as to be found in natural resources law that developed over the eighteenth and nineteenth centuries).

155. Hubert Humphrey III & LeRoy C. Paddock, *The Federal and State Roles in Environmental Enforcement: A Proposal for a More Effective and More Efficient Relationship*, 14 HARV. ENVTL. L. REV. 7, 7 (1990).

156. *See* LAZARUS, *supra* note 153, at 51 (describing early 19th and early 20th century local efforts to control pollution and improve sanitation).

157. Humphrey & Paddock, *supra* note 155, at 11.

158. LAZARUS, *supra* note 153, at 50 (explaining these prior laws were based in property law principles).

159. *Id.* (explaining these statutes relied on the "sovereign's police power to regulate private activities that adversely affect public health and welfare because of the impact of those activities on the natural environment notwithstanding property claims"); Humphrey & Paddock, *supra* note 155, at 11–12 (describing the states' difficulty in making progress on environmental concerns due to the limitations of their authorities under common law and state and local regulation).

160. Humphrey & Paddock, *supra* note 155, at 12–14. By 1990, some AGs felt the 1970s legislation "lack[ed] any principled determination of the appropriate roles of the federal and the state governments" and that such allocation was "based largely on factors such as the lack of federal resources and the expanding number of regulated entities." *Id.* at 8.

States began to coordinate on multi-state environmental litigation in the 1980s to address concerns over acid rain.[161] These efforts largely broke down on regional lines with downwind, Northeastern states asking the federal government to enforce stricter emissions controls on upwind, Midwestern states whose pollution made it difficult for Northeastern states to comply with air quality standards.[162] New York AG Robert Abrams led the way with policy-forcing litigation.[163] By the mid- to late-1980s, new environmental laws that developed in the wake of President Reagan's failed deregulatory agenda[164] more strongly emphasized state enforcement roles.[165] This reflected a general professionalization of state enforcement programs at the time that provided both state agencies as well as state AGs with more manpower to pursue enforcement agendas.[166]

AG involvement in environmental law has shifted in a partisan direction—pursuing policy-forcing and policy-creating litigation during the George W. Bush Administration and policy-blocking litigation during the Obama Administration.[167] The National Association of Attorneys General, founded in 1907 in part to improve the quality of AG litigating,[168] has since been joined by partisan associations. The Republican Attorneys General

---

161. NOLETTE, *supra* note 151, at 111 (describing, in Chapter 6, the multistate air pollution control cases of the 1980s and how with President Reagan's deregulatory agenda and regional interests in Congress split there was little hope for a legislative fix to the problem).

162. *Id.* at 111.

163. *Id.* at 110–11.

164. *See* LAZARUS, *supra* note 153, at 98–113 (describing the impact of President Reagan's deregulations on environmental law).

165. *See* Humphrey & Paddock, *supra* note 155, at 25, 31 (noting "a dramatic federalization of enforcement in the 1970's and early 1980's and an apparent reversal of this trend in the last half of the 1980's"). In 1990, at least one AG lamented the lack of principles in the allocation of enforcement responsibilities between federal and state governments, calling it "haphazard" and "erratic" and called for explicit principles for divvying up enforcement responsibilities that carved out substantial state enforcement roles. *Id.* at 31, 36–44.

166. *Id.* at 36 ("[I]n the twenty years since the federal government began assuming a heightened role in environmental enforcement, many state programs have been significantly strengthened. State budgets for environmental programs have increased substantially since 1982, even in the face of declining levels of federal grant assistance."); LAZARUS, *supra* note 153, at 115 (By the end of the 1980s, "[m]ost large municipalities also began to hire in-house environmental law experts, as did state agencies and federal agencies.").

167. NOLETTE, *supra* note 151, at 117 ("During both the more pro-regulatory Clinton administration and the return of a deregulatory approach during the George W. Bush era, AGs created new avenues for pursuing stricter air pollution requirements on American industry. This included new policy-creating strategies building on the approach that had proved so successful in the tobacco litigation of the late 1990s."); *id.* at 31 (noting policy-blocking litigation became "particularly prominent during the Obama administration, with examples including the challenges to the Affordable Care Act and greenhouse gas regulations described in chapter 9 as well as a variety of challenges to federal financial policies and other environmental regulations").

168. *Id.* at 33–34.

Association (RAGA) was formed in 1999 as GOP AGs soured on working with their Democratic colleagues due to their differences in opinion over the tobacco lawsuits of the late 1990s.[169] The creation of RAGA was a natural outgrowth of the aggressively partisan approach to politics ushered in by Newt Gingrich's 1994 "Republican Revolution" and "Contract With America," and the "trickle-down polarization" that emerged from it to infect state politics and policy-making.[170] Democrats eventually responded in kind, forming their own Democratic Attorneys General Association in 2002.[171]

States whose interests align (generally on partisan lines) relative to a federal rulemaking now often team up to challenge actions to regulate or deregulate on environmental issues at the federal level.[172] Groupings of conservative and liberal states have continued to self-organize to further broaden environmental regulatory or deregulatory agendas, increasingly so during the Obama Administration.[173] Such political divides are

---

169. *Id.* at 34, 191.

170. *Cf.* McKay Coppins, *The Man Who Broke Politics*, ATLANTIC (Oct. 17, 2018), https://www.theatlantic.com/magazine/archive/2018/11/newt-gingrich-says-youre-welcome/570832/ ("During his two decades in Congress, he pioneered a style of partisan combat—replete with name-calling, conspiracy theories, and strategic obstructionism—that poisoned America's political culture and plunged Washington into permanent dysfunction."); NOLETTE, *supra* note 151, at 190 ("AG activism has reflected intensifying polarization apparent elsewhere in the political system. Although polarization increased after Republicans captured control of Congress in 1994, there has been a considerable surge in polarization throughout the political system since 2000. State governments have been no exception, as state-level political conflicts increasingly mirror national-level partisan splits. As late as George W. Bush's second term, one could speak of a distinction between the polarized national environment and a less polarized state-level politics. Reflecting a similar development among governors and other state-level institutions, however, the polarization on the national level has trickled down to the AGs. This trickle-down polarization is apparent in the way the national electoral patterns have become more apparent in the results of state level elections.").

171. NOLETTE, *supra* note 151, at 34, 191.

172. *Id.* at 160, 168–69 (discussing the various partisan AG collaborations under both the Reagan and the Obama Administrations).

173. *See* Eric Lipton, *Energy Firms in Secretive Alliance with Attorneys General*, N.Y. TIMES (Dec. 6, 2014), https://www.nytimes.com/2014/12/07/us/politics/energy-firms-in-secretive-alliance-with-attorneys-general.html. Conservative AGs aggressively organized to push back against President Obama's environmental regulatory effects, often in tandem with the regulated industries. *Id.* One of the most prominent leaders of this effort was Oklahoma AG Scott Pruitt, who begame President Trump's first EPA Administrator. *Id. See also* NOLETTE, *supra* note 151, at 188, 202 ("[L]itigation during the Obama administration . . . was both broader and more partisan."). AGs have also increasingly teamed up with like-minded interests such as environmental groups and corporate interests. *See id.* at 202 ("With AGs pursuing policy goals increasingly divorced from state prerogatives, they have increasingly coordinated their efforts with other actors seeking similar policy goals."); *See also* Michelle Cottle, *Golden State Warrior: California's New Attorney General, Xavier Becerra, Prepares to Battle Trump*, ATLANTIC (May 2017), https://www.theatlantic.com/magazine/archive/2017/05/golden-state-warrior/521457/ ("During the Obama presidency, Texas Attorney General (now Governor) Greg Abbott and his successor, Ken Paxton, sued the federal government over everything from the Affordable Care Act to

understandably present when dealing with inherently political positions whose officials are subject to elections, particularly as partisan polarization moved into state governance. As Nolette noted: "By widening the entrepreneurial space available for AGs, federal institutions have encouraged the growth of national policymaking rivals whose actions frequently complicate the operation of national policy."[174] AGs have filled this entrepreneurial space with policy-creating, policing-forcing, and policy-blocking litigation, all of which are active tools in the contemporary AG's toolbox.

Partisan organization among AGs has intensified in the wake of Trump's election,[175] as have efforts to address climate change through litigation. A coalition of states announced the formation of "AGs United for Clean Power" in 2016, committing to "aggressively protecting the recent progress the US has made in combatting climate change."[176] The group of 25 jurisdictions announced it would pursue investigations into whether energy companies mislead the public about the dangers of climate change as well as efforts to encourage the EPA to limit carbon emissions.[177] In August 2017, New York University (NYU) School of Law launched the State Energy & Environmental Impact Center "dedicated to helping state attorneys general fight against regulatory roll-backs and other actions that undermine key clean energy, climate change, and environmental values and protections."[178] The State Energy & Environmental Impact Center appears to have built upon, and perhaps largely absorbed, the coordinating duties for the 2016 coalition, providing additional support for states attempting to coordinate on environmental matters against the Trump Administration's

---

the president's transgender-bathroom directive to environmental regulations. Abbott once quipped that his job entailed going into the office, suing the federal government, and going back home. All told, Texas sued the Obama administration nearly 50 times—including a farewell filing on the president's second-to-last day in office."); *See also* Paul Nolette & Colin Provost, *Change and Continuity in the Role of State Attorneys General in the Obama and Trump Administrations*, 39 PUBLIUS: J. OF FEDERALISM, no. 3, 2018, at 469 (discussing how partisan groups have only increased under the Trump Administration, as compared to the Obama Administration).

174. NOLETTE, *supra* note 151, at 203.

175. Nolette & Provost, *supra* note 173.

176. Press Release, Climate Reality Project, Al Gore and New York Attorney General Eric Schneiderman Launch AGs United for Clean Power Coalition (Mar. 30, 2016), https://www.climaterealityproject.org/blog/al-gore-and-new-york-attorney-general-eric-schneiderman-launch-ags-united-clean-power-coalition.

177. *Id.*

178. Press Release, New York University, NYU Law Launches New Center to Support State Attorneys General in Environmental Litigation (Aug. 17, 2017), https://www.nyu.edu/about/news-publications/news/2017/august/nyu-law-launches-new-center-to-support-state-attorneys-general-i.html [hereinafter Press Release, N.Y.U.].

policies.[179] As we see below, these larger trends of increasingly partisan approaches to multi-state litigation and efforts to impact national policy can be seen in AG involvement with climate-related disclosure litigation as well.

B. AGs Now Targeting Environmental Outcomes with Non-Environmental Law

The ascension of Trump to the White House and the expectation of climate policy shifts prompted state actors of a certain political stripe to publicly commit to taking up the mantle of combating climate change and pursuing environmental enforcement after the 2016 elections. State and local leaders promised to make progress on environmental policymaking, combating climate change, and engaging with world leaders in the absence of federal leadership and have actively pursued such efforts.[180] State AGs prominently participated in these public commitments, vowing not to shy away from challenging administration actions and have aggressively pursued environmental and climate action in addition to myriad other responses to the Trump Administration.[181]

---

179. *See id.* (explaining how the center funds environmental law fellowship positions in individual state AG offices, provides "legal, analytic, and communications support," and "facilitat[es] coordination across multiple offices of state attorneys general" on environmental law matters).

180. *See, e.g.*, *"We Are Still In" Declaration* (June 5, 2017), https://www.wearestillin.com/we-are-still-declaration (showing a declaration made by multiple parties to support the Paris Agreement); Press Release, Global Climate Action Summit, Governor Brown Closes Global Climate Action Summit: "We're Launching Our Own Damn Satellite" (Sep. 14, 2018), https://www.globalclimateactionsummit.org/governor-brown-closes-global-climate-action-summit-were-launching-our-own-damn-satellite/ (announcing that California is planning on using satellite technology to "track climate change-causing pollutants with unprecedented precision and help the world dramatically reduce these destructive emissions"); Leslie Hook, *Bloomberg Flies US Flag for Climate Change Action*, FIN. TIMES (Dec. 3, 2018), https://www.ft.com/content/fcc16d5a-f49f-11e8-938a-543765795f99 (discussing Michael Bloomberg's role in starting We Are Still In); Rebecca Hersher, *Mayors and Governors Rebut Trump Administration Position at Climate Summit*, NPR (Dec. 12, 2018), https://www.npr.org/2018/12/12/676001283/mayors-and-governors-rebut-trump-administration-position-at-climate-summit (describing how multiple leaders from the U.S. have decided to coordinate with other countries to work on efforts of the Paris Agreement).

181. *See, e.g.*, Cottle, *supra* note 173 ("Democratic attorneys general across the country are stepping up—and joining forces with one another—to act as a legal barricade against Trump's policies. Immediately upon being appointed, Becerra was welcomed to the fight by a number of his new colleagues, most notably New York Attorney General Eric Schneiderman, who is said to be picking apart Trump's business dealings. An effort of this magnitude requires 'teamwork,' Becerra says, with different states taking the lead on different issues."); Patrick McGreevy, *California Has Sued the Trump Administration 38 Times. Here's a Look at the Legal Challenges*, L.A. TIMES (July 22, 2018), https://www.latimes.com/politics/la-pol-ca-california-sues-trump-20180722-story.html ("With California leading the move from coal and oil to cleaner energy sources, it is no surprise that the most lawsuits filed by the attorney general — 21 so far — have challenged Trump administration proposals to

In addition to litigating the current Administration's deregulatory agenda, AGs are reaching for legal tools outside of the environmental statutes—such as state fraud, consumer protection, and "blue sky"[182] laws—to investigate energy company nondisclosures of climate risks and pursue corporate liability for climate change.[183] By turning up the pressure on companies, particularly energy companies, they hope to influence private sector actors' environmental stewardship and contribute to efforts to combat climate change.

New York has largely led state efforts to pursue energy companies for their climate risk disclosures, or lack thereof, due to the strength of its Martin Act.[184] In place for nearly a century (it is a 1921 law, predating The Securities and Exchange Acts and creation of the SEC), the Martin Act grants broad authority to the New York AG to investigate and prosecute securities fraud.[185] The Martin Act is the strongest of the country's "blue sky" laws—lacking an intent to deceive requirement, allowing for both civil and criminal charges, using an expansive definition of "fraud," and granting the AG broad investigatory and subpoena powers.[186] The strength of the law combined with the presence of the stock exchange in New York City places the New York AG in perhaps the strongest position to enforce U.S. securities law outside of the SEC.[187] New York's Martin Act provides the most expansive role for state enforcement, but New York is not alone in its ability to investigate. Other states' consumer protection and securities and

---

roll back environmental protections."); Annie Karni & Jennifer Medina, *Trump Administration Wants California to Pay Back $2.5 Billion for High-Speed Rail*, N.Y. TIMES (Feb. 19, 2019), https://www.nytimes.com/2019/02/19/us/trump-cancels-california-high-speed-rail-grant.html ("Xavier Becerra, the California attorney general, has been a vociferous critic of the administration and has filed 46 lawsuits against it so far.").

182. Jonathan Macey & Geoffrey Miller, *Origin of the Blue Sky Laws*, 70 TEX. L. REV. 347, 348–49 (1991) (explaining that "blue sky" laws refer to state statutes passed to deter and prosecute securities fraud, responding to early sales of worthless shares in non-existent or valueless entities).

183. *See, e.g.*, Press Release, N.Y. Att'y Gen., A.G. Schneiderman Secures Unprecedented Agreement with Peabody Energy to End Misleading Statements and Disclose Risks Arising from Climate Change (Nov. 9, 2015) [hereinafter Press Release, Agreement with Peabody], https://ag.ny.gov/press-release/ag-schneiderman-secures-unprecedented-agreement-peabody-energy-end-misleading (publicizing investigation of energy corporation for violation of New York's blue sky and anti-fraud laws).

184. N.Y. GEN. BUS. §§ 352–359-H.

185. Frank Razzano, *The Martin Act: An Overview*, 1 J. BUS. & TECH. L. 125, 125 (2006).

186. *See* Nina Hart, *Moving at a Glacial Pace: What Can State Attorneys General Do About SEC Inattention to Nondisclosure of Financially Material Risks Arising from Climate Change?*, 40 COLUM. J. ENVTL. L. 99, 127–30 (2015) (explaining the New York AG's powers under the Martin Act, that the author states is known as "the most powerful [blue sky law] in the nation").

187. *Id.*

financial fraud laws provide varying degrees of investigatory and prosecutorial powers.[188]

Currently, the highest profile energy company climate investigations target ExxonMobil.[189] New York filed suit against ExxonMobil on October 24, 2018, after three years of investigation, alleging a scheme to defraud investors.[190] In the same month that the AGs United for Clean Power coalition emerged, Massachusetts invoked its consumer protection statute, Massachusetts General Laws Chapter 93A, to launch an investigation of ExxonMobil, and the U.S. Virgin Islands initiated an investigation as well.[191] California AG Kamala Harris was reportedly investigating Exxon in 2016 and unconfirmed rumors continued of an investigation under AG Xavier Becerra.[192]

ExxonMobil is not the only company whose environmental disclosures have become the target of state AGs. Martin Act investigations into disclosures have been en vogue across multiple New York AG terms and well before the 2016 elections. Former AG Andrew Cuomo initiated investigations in 2007 into the disclosures of four power producers and a coal producer as part of an effort to pressure the SEC into updating its guidance on environmental disclosures in mandatory financial filings.[193] The AG who proceeded Cuomo, Eliot Spitzer, aggressively pursued

---

188. *See supra* note 149 (citing an article that lists state consumer protection statutes authorizing state AGs to investigate unfair or deceptive acts or practices in the conduct of business).

189. *See infra* text accompanying notes 190–92 (describing state investigations into ExxonMobil's climate disclosures).

190. Press Release, N.Y. Att'y Gen., A.G. Underwood Files Lawsuit Against Exxonmobil for Defrauding Investors Regarding Financial Risk the Company Faces from Climate Change Regulations (Oct. 24, 2018), https://ag.ny.gov/press-release/ag-underwood-files-lawsuit-against-exxonmobil-defrauding-investors-regarding-financial.

191. *See* Press Release, Mass. Att'y Gen., Attorney General's Office Exxon Investigation (Apr. 19, 2016), https://www.mass.gov/lists/attorney-generals-office-exxon-investigation (announcing the creation of a website with related documents to the court fights involved). Phil McKenna, *Virgin Islands and Exxon Agree to Uneasy Truce Over Climate Probe*, INSIDECLIMATE NEWS (July 7, 2016), https://insideclimatenews.org/news/06072016/virgin-islands-exxon-agree-climate-probe-subpoena-claude-walker-schneiderman-healey (explaining the U.S. Virgin Islands announced an investigation but ultimately withdrew a subpoena of ExxonMobil records); *see* Hasemyer, *supra* note 150 (providing more information on state probes into energy company climate disclosures).

192. Ivan Penn, *California to Investigate Whether Exxon Mobil Lied About Climate-Change Risks*, L.A. TIMES (Jan. 20, 2016), https://www.latimes.com/business/la-fi-exxon-global-warming-20160120-story.html; Jennifer Dorroh, *Becerra Will Not Confirm Climate Probe, Is 'Fully Aware of the Exxon Matter,'* CLIMATE LIABILITY NEWS (Feb. 28, 2018), https://www.climateliabilitynews.org/2018/02/28/xavier-becerra-exxon-climate-investigation/.

193. *See* Hart, *supra* note 186, at 104–06 (explaining the Cuomo investigation and his unprecedented use of the state Martin Act to investigate nondisclosures related to climate change).

financial firms for financial fraud via the Martin Act but it was Cuomo who made the leap to energy company climate disclosures.[194]

Cuomo settled with Xcel in August and Dynegy in October of 2008, discontinuing his investigations in exchange for additional disclosure of material financial risks of climate change in the companies' 10-K filings, including information about regulation and legislation, litigation, and the physical impacts of climate change as well as committing to disclosures of carbon emissions and projected increases, climate strategies, and corporate governance.[195] Cuomo reached a similar agreement with AES Corporation in November of 2009.[196]

The investigations into Peabody Coal and Dominion Resources, the last two of the five companies Cuomo targeted in 2007, did not result in swift conclusions. In 2013, then-New York AG Eric Schneiderman revived Cuomo's investigation into Peabody Coal with a new round of document requests, not agreeing to discontinue his investigation until 2015.[197] Distinct from the prior agreements, the Peabody deal required the company to file revised disclosures with the SEC to correct those Schneiderman thought misled investors regarding the impact of climate change on its business.[198] Peabody had previously stated it could not predict the impact on its business, despite contracting consultants to make such internal predictions.[199] Schneiderman also argued Peabody presented an overly rosy

194. *See id.* at 106–07 (explaining that Spitzer aggressively used the Martin Act to investigate corporations, obtaining large settlements against institutions like Merrill Lynch amongst other large financial organizations, and that before Spitzer's energetic use, the Martin Act was largely unutilized).

195. *See id.* at 108–09 (explaining Cuomo's initial settlement with energy companies including settlement with Xcel Energy, which was among five other energy companies subpoenaed for allegedly failing to disclose climate change risks, and settlement with Dynegy, Inc., a producer and seller of electric energy). *See also* Press Release, N.Y. Att'y Gen., Cuomo Reaches Landmark Agreement with Major Energy Company, Xcel Energy, to Require Disclosure of Financial Risks of Climate Change to Investors (Aug. 27, 2008), https://ag.ny.gov/press-release/cuomo-reaches-landmark-agreement-major-energy-company-xcel-energy-require-disclosure (discussing the August 2008 settlement between Cuomo and Xcel); Press Release, N.Y. Att'y Gen., Attorney General Cuomo, Joined by Vice President Gore, Announces Agreement with Major Energy Company, Dynegy Inc. (Oct. 23, 2008), https://ag.ny.gov/press-release/attorney-general-cuomo-joined-vice-president-gore-announces-agreement-major-energy (discussing the October 2008 settlement between Cuomo and Dynegy).

196. Press Release, N.Y. Att'y Gen, Attorney General Cuomo Announces Agreement with AES to Disclose Climate Change Risk to Investors (Nov. 19, 2009) [hereinafter Press Release, Agreement with AES], https://ag.ny.gov/press-release/attorney-general-cuomo-announces-agreement-aes-disclose-climate-change-risks-investors.

197. *See* Press Release, Agreement with Peabody, *supra* note 183 (outlining the history and settlement between Schneiderman and Peabody).

198. Assurance of Discontinuance, *In re* Peabody Energy Co., No. 15-242 (N.Y. 2015) [hereinafter Peabody Investigation 15-242], http://ag.ny.gov/pdfs/Peabody-Energy-Assurance-signed.pdf.

199. *Id.*

view of the future for coal by only referring to a single IEA scenario in its disclosures. Schneiderman announced the settlement a few days after issuing a subpoena to ExxonMobil.[200] The state has yet to announce an agreement with Dominion Resources, the last of the five companies.[201] In addition to the climate disclosure cases, Schneiderman pursued oil and gas producers for their failure to disclose financial risks related to environmental impacts of hydraulic fracturing.[202]

New York's Martin Act investigations of energy companies have evolved over time. AG Cuomo's disclosure investigations served as a lever to pressure the SEC to encourage more robust disclosures of climate-related information. He joined investor and environmental groups in petitioning the SEC to provide guidance on disclosing climate change risks under existing 2007 requirements while simultaneously flexing his enforcement muscle by opening investigations into corporate nondisclosure of such risks.[203] Cuomo's petition also urged the SEC to make clear registrants needed to base their materiality assessments on data and calculations.[204] Cuomo's 2008 and 2009 power company settlements attempted to establish a baseline for disclosures in the companies' 10-Ks on climate risks.[205] These agreements were substantially the same, although the AES agreement, completed a year after the others, does offer additional materiality references and a clarification that physical impacts are those identified by the Intergovernmental Panel on Climate Change.

Schneiderman's later agreements have notable distinguishing features from Cuomo's earlier efforts. Schneiderman entered into agreements in October 2014 with Anadarko and EOG, both of which use hydraulic

---

200. Bob Simison, *New York Attorney General Subpoenas Exxon on Climate Research*, INSIDECLIMATE NEWS (Nov. 5, 2015), https://insideclimatenews.org/news/05112015/new-york-attorney-general-eric-schneiderman-subpoena-Exxon-climate-documents.

201. Dan Zegart, *Peabody Settles with NY Attorney General, Will Disclose More on Climate – But Not Much*, CLIMATE INVESTIGATIONS CTR. (Nov. 9, 2015), https://climateinvestigations.org/peabody_energy_investigtion_in_late_stages_new_york_attorney_general_probe/.

202. *See* Ashley Poon, *An Examination of New York's Martin Act as a Tool to Combat Climate Change*, 44 B.C. ENVTL. AFF. L. REV. 115, 125–26 (2017) (explaining that New York AG Eric Schneiderman utilized the Martin Act for financial matters including settlements with Bank of New York Mellon, JPMorgan Chase, and BlackRock, as well as environmental issues that include investigations into natural gas firms like Anadarko Petroleum Corp., EOG Resources, and ExxonMobil); Press Release, N.Y. Att'y Gen., A.G. Schneiderman Reaches Agreement with Natural Gas Developers to Increase Disclosure of Fracking Risks to Investors (Oct. 3, 2014) [hereinafter Press Release, Agreement with Anadarko & EOG], https://ag.ny.gov/press-release/ag-schneiderman-reaches-agreement-natural-gas-developers-increase-disclosure-fracking.

203. Hart, *supra* note 186, at 104–09 (noting Cuomo followed up with additional petitions in 2008 and 2009).

204. *Id.* at 104.

205. *See supra* note 195 and accompanying text.

fracturing in the process of developing unconventional natural gas fields.[206] These agreements required more detailed disclosure than Cuomo's agreements. Cuomo's agreements limited the required disclosure of climate change impacts to that which the company found resulted in material financial risks, including a handful of examples such as sea level rise and changes in weather conditions that could lead to such material impact.[207] Schneiderman's unconventional gas agreements outlined much more detailed environmental impacts companies must consider in their materiality determination, listing four specific areas: aquifer protection (risks associated with well construction of hydraulically fractured wells and efforts to reduce such risks through well integrity practices); chemical use, handling, and disclosure; water use and wastewater handling and disposal; and air emissions.[208] They also mandated disclosure of information whether or not it represented a material financial risk, that is, information outside the SEC disclosure requirements.[209] This was a significant change from Cuomo's earlier agreements focused on encouraging disclosure within the limits of SEC requirements.

Cuomo's efforts could be considered policy-forcing—pursuing more stringent enforcement than the federal enforcement agency in an effort to encourage stricter federal enforcement and guidelines. Schneiderman's efforts, however, are more akin to policy-creating litigation like the tobacco and pharmaceutical lawsuits described in Nolette's book because they potentially require companies to disclose more than required under current law.

The differences likely owe to the distinct goals of the two AGs and differences in federal administrations at the time. In 2008–2009, Cuomo's effort on disclosures fit into a multi-pronged approach intended to pressure the SEC into providing guidance on disclosure of climate risks and more

206. Press Release, Agreement with Anadarko & EOG, *supra* note 202.

207. Assurance of Discontinuance at 3, *In re* Xcel Energy, No. 08-012 (N.Y. 2008), https://ag.ny.gov/sites/default/files/press-releases/archived/xcel_aod.pdf; Assurance of Discontinuance at 2, *In re* Dynegy, Inc., No. 08-132 (N.Y. 2009), https://ag.ny.gov/sites/default/files/press-releases/archived/dynegy_aod.pdf; Assurance of Discontinuance, *In re* AES Corp., No. 09-159, https://ag.ny.gov/sites/default/files/press-releases/archived/AES%20AOD%20Final%20fully%20 executed.pdf.

208. Assurance of Discontinuance at 3–4, *In re* EOG Resources, Inc., No. 14-182 (N.Y. 2014), http://www.ag.ny.gov/pdfs/EOG%20AOD%20Final%2010-1-14%20Signed.pdf; Assurance of Discontinuance at 3–4, *In re* Anadarko Petroleum Corp., No. 14-183 (N.Y. 2014) [hereinafter Anadarko Investigation 14-183], http://www.ag.ny.gov/pdfs/Anadarko%20AOD%20signed.pdf.

209. Anadarko Investigation 14-183, *supra* note 208 (requiring disclosure outside of SEC filings of aquifer protection efforts, information on chemical use and handling, information on water use and wastewater disposal, and efforts to minimize air emissions even if not financially material).

effectively enforce their disclosure requirements.[210] Schneiderman addressed disclosures four years after the SEC issued its guidance on climate risk disclosures, a period in which the SEC showed minimal interest in encouraging more expansive disclosure through enforcement.[211]

The Peabody agreement a year later went even further than Schneiderman's fracking agreements. In the Peabody agreement, the AG included findings (not admitted to by Peabody) of Peabody's alleged wrongdoing.[212] Schneiderman found the company made market predictions for various legislative scenarios that predicted serious negative impacts on coal and the company, while it stated in its 10-Ks that it could not predict the impact of potential GHG regulation on its business.[213] The AG also found Peabody misrepresented IEA projections on the future demand for coal by referencing only IEA's Current Policy Scenario, which noted a potential worldwide increase in coal demand, but not discussing the drop in coal demand reflected in IEA's other scenarios.[214] These statements not only occurred in the company's filings with the SEC but also in statements in earnings calls, public statements, and statements to investors.[215] In the earnings call, Peabody further misrepresented the meaning of IEA's scenario by stating "IEA and other observers project that coal will surpass oil as the world's largest energy source in the coming years"—fundamentally misunderstanding, or misrepresenting, scenario analysis as a tool (what a single scenario represents).[216] The litigation against ExxonMobil initiated by New York AG Barbara Underwood (based on the investigation conducted by Schneiderman) is the first such climate disclosure case to reach the litigation stage. It includes detailed allegations of securities fraud and misleading investors regarding its management of climate change risks.[217]

The more aggressive stance AG Schneiderman took with Peabody reflects the company's cavalier attitude towards climate-related disclosures in presenting information devoid of context in the most favorable light

---

210. *See supra* notes 184–88, 195–96, 203–05 and accompanying text (discussing the impact of New York's Martin Act and Cuomo's pressure on the SEC to give guidance on environmental disclosures).

211. *See supra* notes 117–27 and accompanying text (overviewing the SEC guidance from 2010).

212. Peabody Investigation 15-242, *supra* note 198, at 2–3.

213. Press Release, Agreement with Peabody, *supra* note 183.

214. Peabody Investigation 15-242, *supra* note 198, at 3–7.

215. *Id.* at 7.

216. *Id.*

217. Complaint at 22–80, New York v. Exxon Mobil Corp., No. 452044/2018 (N.Y. Sup. Ct. Oct. 24, 2018), https://iapps.courts.state.ny.us/nyscef/ViewDocument?docIndex=j8vnhlprwzUg9Gnh5wTIIw==.

possible. However, the trend reflected in the changes in approach from the Cuomo disclosure investigations to those under Schneiderman and Underwood is one of increasingly aggressive approaches and a shift towards policy-creation. The Schneiderman and Underwood efforts aim to change the industry's response to climate change, not just improve its disclosures. The choice to move to litigation with Exxon is likely influenced by the current Administration as well as the company's defensive stance in reaction to climate-related lawsuits and investigations.

These myriad state efforts do not operate in silos. AGs often work together to share legal approaches and efforts like NYU's State Energy & Environmental Impact Center foster increased cooperation among AGs.[218] The suit against Exxon could lead to additional publicly disclosed materials, which may encourage the spread of litigation. Massachusetts's investigation may yet lead to an agreement or litigation. As past experience shows, one AG's successful settlement or decision in court can cause a cascade of multi-state litigation.

The threat of litigation with civil and criminal liability potentially complicates companies' decision making process about what, where, and how to disclose climate-related information.[219] It also emphasizes the importance of consistency across public communication platforms; information included in 10-K filings with the SEC should not contradict information included in separate sustainability or climate reports or any other public communications. AG's efforts to hook discrepancies between public disclosure and internal deliberations to corporate liability could create a perverse incentive for minimal disclosure, running counter to the investment community who is urging a *the more the better* approach to climate-related disclosures.

CONCLUSIONS: CONFLICT POTENTIAL IN PARALLEL INVESTOR AND ATTORNEY GENERAL EFFORTS

The two tracks pursued by the investment community and state AGs represent distinct approaches to improving the breadth and detail of information disclosed by oil and gas companies regarding the changing climate. In concert with external players, the investment community has pursued a policy of direct engagement, public pressure, and the occasional

218. *Health and Environmental Settlements Project*, N.Y.U. SCH. L.: ST. ENERGY & ENVTL. IMPACT CTR., https://www.law.nyu.edu/centers/state-impact/settlements-project (last visited Apr. 27, 2019).

219. *See supra* text accompanying notes 195–202 (discussing various settlements companies entered with the threat of litigation looming).

shareholder initiative to encourage and sometimes demand more extensive information.[220] Although this process can at times be tense, the dialogue between shareholders and asset managers and corporate management ostensibly serves the purpose of improving corporate decision making and governance to the benefit of all involved.[221] In contrast, state AGs are not constrained by concern for a company's financial health or a fiduciary duty to its shareholders.[222] Rather, they are motivated by their duty to protect their citizens from fraud and savings lost to imprudent investments.

Beyond protective motivations, AGs also seek to further broader policy goals.[223] But litigation as policymaking is a blunt instrument that often has unintended consequences as it skips the deliberative, collaborative information-gathering process of regulatory or legislative efforts.[224] Investors have had success in influencing energy company disclosure practices.[225] Aggressive litigation could undermine the ongoing, collaborative process that has evinced progress.[226] But targeted AG efforts can also support successful shareholder engagement on climate disclosure.

As we have seen, a significant amount of ambiguity and uncertainty exists in how federal securities law applies to the type of disclosures sought by the investment community. Complicating the matter, the investment community itself has not coalesced around a firm set of guidelines for what oil and gas companies should disclose.[227] Given the current lack of alignment, companies independently consider approaches and engage in ongoing dialogue with investor representatives, responding to their evolving expressions of need by adjusting disclosure practices year to

---

220. *See supra* Part I (discussing the disclosure techniques the investment community uses).

221. *See supra* Part II (discussing the benefit of improving the disclosure requirements and processes).

222. *See supra* text accompanying notes 184–88 (discussing state anti-fraud laws impact on disclosure requirements).

223. *See supra* Part IV.A (discussing the increasing involvement of AGs in national policy and, in particular, environmental policy).

224. *See supra* note 151 at 104 ("[A] fundamental difficulty with the AG's policy-creating litigation. By seeking to reshape the existing national regulatory regime, AGs recalibrated the balance of concerns that propelled the creation of the original federal regulatory regime without consideration of how to deal with uninteded consequences."); *see also supra* Part IV.B (describing different legal tools used by AGs for disclosure requirements against fossil fuel companies).

225. *See supra* Part I.B (describing changes in climate disclosure practices by oil and gas companies).

226. *See supra* Part IV (describing effects of state investigation and litigation on companies' inclination to disclose information).

227. *See supra* text accompanying notes 27–38 (explaining that the investment community has not unified on disclosure requirements and what they mean in practice).

year.[228] This iterative process, coupled with increasing efforts to align disclosure and investor needs through efforts like the TCFD, can move the industry towards a cohesive set of best practices that provide the depth and comparability of information sought by investors and flexibility necessary for companies to disclose in accordance with the law.

Investigations that pressure companies to engage in fulsome disclosure practices, account for known trends, and plan for potential impacts are capable of kick-starting regulatory developments or establishing industry baselines, such as Cuomo's efforts in 2007–2009. This type of action could complement investor and NGO assertions that existing SEC rules require more detailed and substantive disclosure from investors, peeling back the materiality analysis curtain just enough to establish a baseline for corporate climate-related disclosure. Such efforts may also clarify how companies can disclose non-material information without conflicting with SEC requirements or risking an accusation of misleading investors.

But the current investigation and litigation trend also may threaten the investor-led iterative process. Not every potential concern or impact on a business that could result from climate change warrants disclosure as a financially material risk. Internal strategic planning should involve consideration of a wide array of potential outcomes, both physical and transitional. This is exactly the purpose of scenario analysis exercises. Those disclosed publicly should be both reasonably plausible and potentially material now or within a relevant timeframe. Otherwise, disclosure could be misleading. State investigations that are not guided by these principles run the risk of distorting the concept of materiality in shareholder communications in a game of gotcha and hindering investor efforts to encourage the next generation of corporate leaders to proactively incorporate climate into their governance.

State investigations that delve into robust internal processes for analyzing climate threats and impacts in order to identify internal documents and data points to compare with public and shareholder statements can be problematic. State Investigators may cherry-pick information on which to rely, and such investigations risk thwarting investor efforts to elicit more substantive details from companies on these issues and to encourage them to think more broadly about climate

228. *See supra* text accompanying notes 47–57 (providing examples of companies that are independently responding to investor demands for more expansive disclosure and adjusting their disclosure practices in an adaptive manner).

consequences.[229] Avoiding deceptive concealment of information and business health serves a noble purpose that benefits consumers and shareholders alike. New York's Peabody investigation certainly shows that current enforcement remains lacking. Yet open-ended inquiries into disconnects between external statements and expansive internal discussions also run the risk of chilling internal consideration of future climate scenarios and undermining the materiality threshold for financial disclosures.[230]

AG forays into climate-related disclosures are more likely to have a positive impact on the investor-led efforts to expand disclosures if they limit their efforts in targeted ways. A best-practice model for AG action would be to: (1) highlight inadequate disclosure and establish new baselines for disclosure; (2) engage with companies and acknowledge their disclosure challenges in the process; (3) pair investigatory efforts with a campaign to pressure the SEC to better enforce compliant climate disclosures, issue guidance that encourages more expansive disclosure, and consider additional prescriptive disclosure requirements; and (4) seek opportunities to create helpful case law on what a *reasonable investor* would deem important to know on climate-risks (and avoid pursuing cases that could create unhelpful case law). In order to avoid corporate backsliding, AGs should carefully consider whether particular claims are likely to encourage more open disclosure or discourage full internal consideration of climate risks and an adequate public description of them by companies. For example, pairing disclosure investigations with litigation assigning liability to companies for the effects of climate change on society risks shutting down productive avenues for disclosure improvements.

The current efforts in Massachusetts and New York remain in early stages. The long term impact on climate change discourse and corporate disclosure are as yet unclear. The enthusiastic concern state AGs demonstrate for climate change and corporate disclosure may yet produce progress, but it may also stunt nascent efforts to improve corporate practices. As states embark on these efforts they would do well to keep the delicate nature of the shareholder–manager relationship and the nature of the securities disclosure requirements in mind and think broadly about instituting a forward minded best practices policy for investigations into climate-related disclosures.

---

229. *See supra* text accompanying notes 47–57, 184–88 (providing examples of responses to investor pressure and state investigations into whether companies mislead the public on climate change issues by way of differing statements between internal assessments and public disclosure).

230. *See supra* text accompanying notes 218–19.

IS COMMUNITY SOLAR REALLY A SECURITY?

Richard J. Wallsgrove[*†]

---

* Assistant Professor of Law, William S. Richardson School of Law, University of Hawaiʻi at Mānoa; J.D. 2008, William S. Richardson School of Law, University of Hawaiʻi at Mānoa; M.S. 2008, School of Ocean and Earth Science and Technology, University of Hawaiʻi at Mānoa; B.S. 1997, College of Chemistry, University of California at Berkeley.

† The author would like to extend special thanks to William S. Richardson School of Law student Chase Livingston for providing research assistance on several of the concepts in this Article, and to the entire *Vermont Law Review* for their diligent work.

INTRODUCTION

Solar power is a leading element in the transition to low-carbon power.[1] In the U.S., booming solar development has focused on two primary markets: larger utility-scale solar farms, and smaller residential-scale rooftop installations.[2] Community-scale solar is a largely untapped market in the middle of this spectrum.[3] One emerging mechanism to procure community-scale solar is the concept of shared solar, or community solar. Broadly, this concept involves a group of grid-connected electricity consumers, each with an interest in a solar facility or the power it produces. That interest is typically realized in the form of electricity bill credits tied to the output of the solar facility.[4]

However, this broad definition of community solar omits an important distinction. For many policymakers and advocates, community solar is more specifically motivated by energy justice—a potential to serve low-income communities and other vulnerable groups who bear the brunt of environmental damage associated with energy development, face a higher energy cost burden, and simultaneously have been locked out of many energy benefits.[5] In the U.S., solar power provides a particularly recent and prominent example of this type of energy injustice. Distributed rooftop

---

1. *See, e.g.*, *Renewables 2018*, INT'L ENERGY AGENCY, https://www.iea.org/renewables2018/power/ (last visited Apr. 27, 2019) (noting that in 2017 renewable power capacity additions "accounted for more than two-thirds of global net electricity capacity growth," with solar photovoltaic capacity outstripping other renewable technologies, and forecasting that under prevailing market and policy conditions solar power will continue to lead other technologies from 2018 to 2023).

2. ROCKY MOUNTAIN INST., COMMUNITY-SCALE SOLAR: WHY DEVELOPERS AND BUYERS SHOULD FOCUS ON THIS HIGH-POTENTIAL MARKET SEGMENT 2 (2016), https://rmi.org/wp-content/uploads/2017/03/Shine-Report-CommunityScaleSolarMarketPotential-2016.pdf [hereinafter Community-Scale Solar].

3. *See id.* at 6 (identifying approximately 750 gigawatts of long-term potential community-scale solar capacity across five customers types, including low- and moderate-income households, renters, and residential and commercial buildings with unsuitable roof space for rooftop solar).

4. *See infra* note 273 (describing the bill credit mechanism for community solar in Hawai'i).

5. *See infra* Part I.C (discussing community solar's potential as a tool for energy justice); Alice Kaswan, *Greening the Grid and Climate Justice*, 39 ENVTL. L. 1143, 1146 (2009) ("Emissions are disproportionately concentrated in disadvantaged areas since many of the most significant emissions sources, like refineries, power plants, transportation corridors, ports, and other industrial land uses, are located in poor and minority neighborhoods."); Melissa Powers, *An Inclusive Energy Transition: Expanding Low-Income Access to Clean Energy Programs*, 18 N.C. J.L. & TECH. 540, 556–57 (2017) (discussing evidence showing that "[l]ow-income communities and households in the United States face a higher energy and transportation burden than their middle- and upper-income counterparts"); Shelley Welton, *Grid Modernization and Energy Poverty*, 18 N.C. J.L. & TECH. 565, 585–96 (2017) (describing various definitions and lines of evidence for energy poverty in the U.S.).

solar, for all its benefits, has been largely accessible only to single-family homeowners.[6]

The promise of community solar is rooted in its potential to expand solar access to other groups via innovative and flexible models that are designed to respond to community needs.[7] But to realize that potential, a variety of implementation barriers and shortcomings must be addressed. In this context and others, the challenge of energy justice is the challenge of injecting justice principles into an energy realm typically dominated by technology and business considerations.

Securities laws aptly illustrate this challenge. A century after the operative definition of a security was born, the law continues to heft considerable uncertainty upon the scope of what constitutes a security.[8] Applied to community solar, the complexity involved in managing that uncertainty tilts the field in favor of electric utilities and a century-old business model, over more modern community-focused energy initiatives.[9]

This Article deploys two tools to evaluate this securities uncertainty more closely. First, it moves the question of whether community solar is a security away from hypothetical scenarios and individualized project-by-project analyses. Instead, the question is evaluated in the context of Hawai‘i’s community solar program and tariff, recently approved by utility regulators.[10] In renewable energy circles, Hawai‘i’s policy has earned the moniker a “postcard from the future.”[11] In hope that Hawai‘i’s story can provide useful lessons for other jurisdictions, Parts I and II provide details on how and why the State’s community solar program evolved, and how the securities issues arose in a way that threatened to limit the ability of community solar to innovate around energy justice principles.

In the Article’s second half, it reviews how the definition of a security has developed under federal and state securities laws (Part III). To add context, Part III also takes a new look at how energy development—in the form of “visionary oil wells” in Minnesota—may have injected uncertainty into the definition of a security at its inception.

---

6. *See infra* Part I.B (describing inequitable access to solar power).
7. *See infra* Part I.C.
8. *See infra* Part III (discussing the evolution of uncertainty in the definition of a security).
9. *See infra* notes 124–31 and accompanying text.
10. *See infra* Part I.D (describing the development of Hawai‘i’s community solar policy).
11. *See, e.g.*, Herman K. Trabish, *What Comes After Net Metering: Hawai‘i’s Latest Postcard from the Future*, UTILITY DIVE (Oct. 22, 2015), https://www.utilitydive.com/news/what-comes-after-net-metering-hawaiis-latest-postcard-from-the-future/407753/ (“Renewables policy issues in [Hawai‘i] are commonly referred to as postcards from the future because the high penetration of solar on the isolated island’s grid has forced the power sector into changes that many observers expect to hit the mainland in the coming years.”).

Through the lens of economic reality mandated by that definition, Part IV analyzes whether community solar is a security under Hawai‘i’s program framework. Hawai‘i again provides a suitable context for this question, because the State is home to a leading formulation of the risk capital test for determining whether a transaction involves a security.[12] Other jurisdictions use the federal test enunciated in *SEC v. W. J. Howey Co*.[13] Community solar projects in Hawai‘i may be subject to both tests.[14] Part IV focuses on applying the risk capital test, in part because prior analyses have not, in part because it overlaps substantially with the *Howey* test, and in part because some commenters assert that it is the broader test and thus more likely to ensnare community solar.

Unlike most prior analyses, this Article concludes that community solar interests are *unlikely* to be securities if they are part of a regulated utility tariff like Hawai‘i’s, and if one properly utilizes the concept of economic reality. Alas, that conclusion cannot resolve the uncertainty that appears to be embedded in the definition of a security. Moreover, this phenomenon may echo deeper into the transition to a low-carbon electricity grid, as access to other innovations becomes similarly mired in securities uncertainty.[15]

Ahead of those impacts, community solar presents an opportunity to use the securities definition to re-envision the boundary between electricity regulators and securities regulators, in a way that accounts for 21st century electricity innovations. That re-envisioning also presents an opportunity, in an admittedly incremental way, to operationalize energy justice principles in a manner that is replicable, long-lived, and responsive to the climate crisis.[16]

---

12. *See generally* Haw. Comm’r of Sec. v. Haw. Mkt. Ctr. Inc., 485 P.2d 105 (Haw. 1971) (adopting the risk capital test in Hawai‘i) [hereinafter *Hawaii Market Center*].

13. SEC v. W. J. Howey Co., 328 U.S. 293, 301 (1946).

14. *See infra* notes 335–36 and accompanying text (describing the interplay between federal and state laws).

15. *See infra* notes 344–46 and accompanying text (describing the potential role of securities issues in a transactional electric grid).

16. The ties between community solar and energy justice are not the focus of this Article. Professor Shalanda Baker has eloquently discussed those ties—and gaps—elsewhere. Shalanda H. Baker, *Unlocking the Energy Commons: Expanding Community Energy Generation*, *in* LAW AND POLICY FOR A NEW ECONOMY 211, 223–27 (Melissa K. Scanlan ed., 2017) [hereinafter Baker, *Unlocking the Energy Commons*].

I. THE STORY OF COMMUNITY SOLAR IN HAWAI‘I

A. The Rise of Rooftop Solar

In the rooftop solar realm, Hawai‘i’s “postcard from the future” reputation is well-deserved. The State’s net energy metering tariff was launched by legislation in 2001.[17] This sparked a run of exponential growth that lasted more than a decade, with a doubling or near-doubling of total installed rooftop solar capacity in nine of ten years following 2004.[18] It is estimated that more than 30% of single-family homes in Hawai‘i generate rooftop solar power.[19] Overall, rooftops and other distributed sites supply more than 80% of the State’s solar power.[20]

The effects of this booming market rippled throughout the State’s energy sector and, indeed, its entire economy.[21] At the height of the boom, solar installations reportedly accounted for more than a quarter of construction expenditures in the State.[22] On O‘ahu, the State’s most

17. H.B. 173, 2001 Leg., 21st Sess. (Haw. 2001).

18. Data on installed capacity were obtained from HAWAIIAN ELEC. CO., INC., HAW. ELEC. LIGHT CO., INC. & MAUI ELEC. CO., LTD., HAWAIIAN ELECTRIC COMPANIES 2017 NET ENERGY METERING STATUS REPORT 1 (2018), https://puc.hawaii.gov/wp-content/uploads/2018/03/NEM-HECO-2017.pdf; *see also* Mark James et. al., *Planning for the Sun to Come Up: How Nevada and California Explain the Future of Net Metering*, 8 SAN DIEGO J. CLIMATE & ENERGY L. 1, 42 (2017) (“As of 2016, only [Hawai‘i] has reached the point where net metering displaces more than 2% of total generation.”).

19. *See* DAVID FELDMAN ET AL., NAT’L RENEWABLE ENERGY LAB., Q4 2017/Q1 2018 SOLAR INDUSTRY UPDATE 36 (2018), https://www.nrel.gov/docs/fy18osti/71493.pdf (“[Hawai‘i], California, and Arizona have residential systems on an estimated 31%, 11%, and 9% of households living in single-family detached structures.”).

20. *See* 2017 Renewable Portfolio Standard Status Report Hawaiian Electric Co., Inc. et al. at 3, *In re* Haw. Renewable Portfolio Standards Law, No. 2007-008 (Haw. Pub. Util. Comm’n Feb. 8, 2018) [hereinafter Renewable Portfolio Report], https://puc.hawaii.gov/wp-content/uploads/2018/02/RPS-HECO-2017.pdf (reporting 142,868 megawatt hours of photovoltaic and thermal solar generation, and 862,638 megawatt hours of customer-sited grid-connected generation); Kauai Island Utility Cooperative Renewable Portfolio Standards (RPS) Status Report at Exhibit A, No. 2007-008 (Haw. Pub. Util. Comm’n Mar. 3, 2018), https://puc.hawaii.gov/wp-content/uploads/2018/04/RPS-KIUC-2017.pdf (reporting 69,502 megawatt hours of generation from various utility-scale solar projects and 50,994 megawatt hours of generation under various distributed solar tariffs).

21. *See generally* HAW. STATE ENERGY OFFICE, HAW. DEP’T OF BUS., ECON. DEV. & TOURISM, HAWAII ENERGY FACTS & FIGURES 20 (2013), http://energy.hawaii.gov/wp-content/uploads/2011/10/EnergyFactFigures_Nov2013.pdf (describing a variety of metrics and impacts related to renewable energy development in Hawai‘i).

22. *See id.* at 13 (“Rooftop distributed solar has become one of the state’s leading industries, accounting for almost 26% of all construction expenditures in 2012.”). This estimate is apparently derived from reported solar building permit values, as a percentage of total building permit values. Since reaching a high of 29% in 2012, this value fell to 14.4%, 10.2%, and 5.6% in 2015, 2016, and 2017, respectively. *Solar-Related Construction Expenditures*, DATA.HAWAII.GOV, https://data.hawaii.gov/dataset/Solar-Related-Construction-Expenditures-value-of-s/ja28-jmt2 (last visited Apr. 27, 2019).

populous island and home to the primary metropolitan center, distributed solar provides more grid electricity than any other source of renewable power.[23] Meanwhile, the State's oil imports for electricity generation are falling, down nearly 30% since 2006.[24]

Framed another way, rooftop solar has become a driving force in a rapidly evolving renewable energy revolution.[25] Most states have adopted renewable portfolio standards, mandating that electric utilities shift toward renewable energy.[26] In Hawai'i, the first U.S. state to adopt a 100% renewable portfolio standard, private installations of rooftop solar are a key source of energy enabling the public utility to satisfy this obligation.[27] In this light, the rooftop solar boom reveals a remarkable, and remarkably unplanned,[28] evolution in the role electricity consumers play in driving the transition to low-carbon power.

Moreover, rooftop solar has helped to push forward a new paradigm for ensuring that electric utilities heed the public interest. In the short term, rooftop solar injects an aspect of competition that can help to address fundamental asymmetries between the interests of investor-owned utilities

---

23. *See* Renewable Portfolio Report, *supra* note 20 (showing that in 2017 Hawaiian Electric's customer-sited, grid-connected renewable generation accounted for 605,502 megawatt hours, compared to the next highest source, biomass, at 381,138 megawatt hours).

24. *See* HAW. DEP'T OF BUS., ECON. DEV. & TOURISM, MONTHLY ENERGY TRENDS, http://files.hawaii.gov/dbedt/economic/data_reports/energy-trends/Monthly_Energy_Data.xlsx (last visited Apr. 27, 2019) (reporting 12,237,023 barrels of oil consumed for electricity in 2006, compared to 8,880,040 in 2017).

25. *See, e.g.*, Joel B. Eisen & Felix Mormann, *Free Trade in Electric Power*, 2018 UTAH L. REV. 49, 53, 70 (2018) (illustrating some of the ways that the proliferation of rooftop solar can transform the electrical market).

26. *See* GALEN BARBOSE, LAWRENCE BERKELEY NAT'L LAB., U.S. RENEWABLE PORTFOLIO STANDARDS 2018 ANNUAL STATUS REPORT 6 (2018), http://eta-publications.lbl.gov/sites/default/files/2018_annual_rps_summary_report.pdf (summarizing mandatory renewable portfolio standards in 29 states, covering more than half of U.S. electricity sales).

27. *See* HAW. REV. STAT. § 269-92 (Supp. 2017) (mandating a 100% renewable portfolio standard by December 2045); Press Release from the Governor of Hawai'i, Governor Ige Signs Bill Setting 100 Percent Renewable Energy Goal in Power Sector (Jun. 8, 2015), https://governor.hawaii.gov/newsroom/press-release-governor-ige-signs-bill-setting-100-percent-renewable-energy-goal-in-power-sector/ (announcing the adoption of the State's 100% renewable portfolio standard).

28. In a 2008 agreement intended to help move the State "move decisively and irreversibly away from imported fossil fuel for electricity and transportation and towards indigenously produced renewable energy and an ethic of energy efficiency," the utilities and state agencies targeted 23 megawatts of net metering rooftop solar capacity for the island of Oah'u by 2015. ENERGY AGREEMENT AMONG THE STATE OF HAWAI'I, DIVISION OF CONSUMER ADVOCACY OF THE DEPARTMENT OF COMMERCE & CONSUMER AFFAIRS, AND HAWAIIAN ELECTRIC COMPANIES 1, 45 (Oct. 2008) (on file with author). This target under-predicted the actual capacity by an order of magnitude. *See* HAWAIIAN ELECTRIC COMPANIES 2015 NET ENERGY METERING STATUS REPORT (2016), https://puc.hawaii.gov/wp-content/uploads/2013/07/NEM-HECO-2015.pdf (reporting 258 megawatts installed through 2015).

and the interests of the public.[29] In the long term, the rise of the utility "prosumer" may radically re-shape the energy system, moving from a unidirectional hierarchy molded by top-down decisions from utilities and regulators, toward a more distributed and democratic model in which consumers (who are also producers) are more deeply involved in energy decisions.[30]

B. The Stark Reality of Inequitable Access to Solar Power

Hawai'i's rooftop solar boom was fueled by a variety of factors. Federal and state tax benefits,[31] a *plug-and-play* net metering policy that made it easier to understand the implications of installing residential rooftop solar,[32] and strong public sentiment in favor of solar power[33] all undoubtedly played a role. In 2015, Hawai'i became the first state to shutter its net metering program,[34] partly in response to concerns voiced over the

---

29. *See generally* Order 32052 at Exhibit A: Commission's Inclinations on the Future of Hawai'i's Electric Utilities, *In re* Integrated Resource Planning, No. 2012-0036 (Haw. Pub. Util. Comm'n Apr. 28, 2014). The Commission noted that "[w]ith the growth of utility-scale and distributed renewable resources, [Hawai'i's] electricity system is changing at an unprecedented pace and scale." *Id.* at 6. The Commission identified the role of distributed solar generation in challenging "fundamental tenets of the long-standing regulatory compact," and discussed technical, market, and public policy changes related to "better align[ing] the [utility companies'] business model with customers' interests and public policy goals." *Id.* at 27, 29.

30. *See id.* at 16–17 (describing the utilities' role in the evolving landscape of renewable energy); *see also* Eisen & Mormann, *supra* note 25, at 53 (describing an energy market model in which distributed resources are transformed "from a marginalized locus to the center stage on which the future of the electricity sector will be decided"); Shelley Welton, *Clean Electrification*, 88 U. COLO. L. REV. 571, 584–85 (2017) [hereinafter Welton, *Clean Electrification*] (describing a "vision that regulators have for transforming passive 'ratepayers' into active 'participants' in the fight against climate change").

31. *See* 26 U.S.C. § 48(a)(2)(A)(i)(II) (Supp. 2018) (providing a 30% federal investment tax credit for solar photovoltaic installations); HAW. REV. STAT. § 235-12.5 (2018) (providing a 35% state investment tax credit for solar photovoltaic installations). In 2015, Congress extended the residential solar investment tax credit beyond 2017, while establishing a phase out of the credit to occur in 2022. *See* Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, § 303, 129 Stat. 2242, 3039 (2016).

32. HAW. REV. STAT. § 269-102 (2018). *But see* Heather Payne, *A Tale of Two Solar Installations: How Electricity Regulations Impact Distributed Generation*, 38 U. HAW. L. REV. 131, 160–61 (2016) (illustrating that while net energy metering is perceived as simple from the consumer standpoint, and that this simplicity is a critical component of consumer uptake, a number of policy choices embedded within net energy metering regulations actually make it much more complex than often perceived).

33. *See* UNIV. OF HAW. CTR. ON THE FAMILY, PUBLIC ATTITUDES ABOUT RENEWABLE ENERGY IN HAWAI'I 4 (2014), http://uhfamily.hawaii.edu/publications/brochures/9314e_14101012_COF_RenewableEnergy_Report-FINAL.pdf (reporting that 92% of poll respondents responded that solar power is "a good idea for Hawai'i," a higher percentage than any of the other polled energy sources).

34. *See* Decision and Order No. 33,258, Instituting a Proceeding to Investigate Distributed Energy Resource Policies at 163 (No. 2014-0192) (Haw. Pub. Util. Comm'n Oct. 12, 2015) ("[T]he [net

potential for unfair cost-shifting in favor of utility customers with residential rooftop solar, to the detriment of non-participating utility ratepayers.[35] Perhaps even more than other solar-intensive jurisdictions, this solar fairness debate in Hawai'i lacked a quantitative evaluation of the full range of benefits and costs associated with rooftop solar.[36] Moreover, Hawai'i's debate suffered by conflating a "cost-shifting" rhetoric with the more pertinent concept of paying one's fair share.[37] As a result, Hawai'i's net metering debate and the ongoing evolution of the residential rooftop

---

metering] program for the HECO Companies' service territories is fully subscribed. Therefore, applications submitted after the date of this Order shall not be eligible for the [net metering] program.").

35. *See, e.g.*, *id.* at 42 (recounting the Consumer Advocate's position that net metering and similar tariffs result in a cost-shift to non-participants because fixed costs are not fully recovered from participants). It appears that the Commission did not adopt a position on this cost-shift assertion, finding only that "to the extent there is a negative impact to non-participating customers from current DER policy design, the interim options approved and ordered herein will alleviate that impact." *Id.* at 166.

36. *See, e.g.*, ROCKY MOUNTAIN INST. ELECTRICITY INNOVATION LAB, A REVIEW OF SOLAR PV BENEFIT & COST STUDIES 22 (2d ed. 2013), https://rmi.org/wp-content/uploads/2017/05/RMI_Document_Repository_Public-Reprts_eLab-DER-Benefit-Cost-Deck_2nd_Edition131015.pdf (summarizing 16 cost-benefit factors from various jurisdictions in the U.S., each utilizing a different mix of assumptions and considerations, and thus reaching a range of differing results; some studies found a net benefit to distributed generation tariffs and some found a net cost); *see also* VT. PUB. SERV. DEP'T, EVALUATION OF NET METERING IN VERMONT CONDUCTED PURSUANT TO ACT 99 OF 2014 at 17, Exhibit 10 (Nov. 7, 2014) (finding a net benefit associated with a typical residential net metering installation).

37. *See* Jon Wellinghoff & James Tong, *Wellinghoff and Tong: A Common Confusion Over Net Metering is Undermining Utilities and the Grid*, UTILITY DIVE (Jan. 22, 2015), https://www.utilitydive.com/news/wellinghoff-and-tong-a-common-confusion-over-net-metering-is-undermining-u/355388/. Former Chair of the Federal Energy Regulatory Commission Jon Wellinghoff and his co-author James Tong have eloquently warned against conflating these two concepts:

> Critics assert [net metering] customers use the grid but do not pay their fair share of the costs. They say that [net metering] shifts grid costs to non-solar ratepayers, especially lower-income households and minorities. . . . "Nonsense," reply [net metering] advocates. "[Net metering] critics don't care about ratepayer fairness – they care about protecting profits and monopolies for utilities that have never faced competition." They contend that, far from shifting costs, [net metering] customers create net value to the grid and all grid users. One only need look to a study commissioned by the neutral Nevada Public Utility Commission that shows [net metering] customers provide a net present value benefit of $36M to non-[net metering] customers in Nevada. However, both arguments miss the point. That is because both use "cost-shifting" and "not paying the fair share" interchangeably. This understanding is wrong – critically wrong. And it is resulting in needlessly fractious debates and bad policies, including arbitrary fixed fees on solar customers.

Id. Wellinghoff and Tong used a net metering benefit-cost study commissioned by the California Public Utilities Commission to illustrate their point, noting that the report found a net cost-shift in favor of net metering customers, while simultaneously finding that, on average, solar customers paid 103% of their cost-of-service (averaged between residential and non-residential customers). *Id.* (discussing ENERGY + ENVIRONMENTAL ECONOMICS, INC., CALIFORNIA NET ENERGY METERING RATEPAYER IMPACTS EVALUATION 10, tbl. 5 (2013), http://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Utilities_and_Industries/Energy/Reports_and_White_Papers/NEMReportwithAppendices.pdf).

solar market have fewer lessons for other jurisdictions than the "postcard from the future" label might suggest.

However, in at least one respect, the rooftop solar boom in Hawai'i and elsewhere was indisputably inequitable. More than a third of occupied housing units in Hawai'i are located in multi-unit dwellings such as condominiums, rather than single-family homes.[38] Without a roof of one's own it is difficult, and often impossible, for residents of multi-unit dwellings to install solar panels. Nationally, it is estimated that "[h]alf of America's population cannot participate in the solar revolution because they either live in a home that cannot support a solar array or rent an apartment."[39]

To illustrate the starkness of this differential access, consider Honolulu, Hawai'i's most populous county (which similarly has about half of its population living in multi-unit buildings).[40] Approximately *97%* of Honolulu's residential solar building permits issued through June 2017 were for single-family homes.[41] This cries out for a policy response.[42]

C. The Potential of Community Solar as a Tool for Energy Justice

Distributed solar's imbalance toward single-family homes reflects an array of broader social disparities such as income, home ownership, and other factors that solar power cannot address in isolation.[43] But the concept

---

38. U.S. CENSUS BUREAU, 2013-2017 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, HAWAI'I, https://factfinder.census.gov/bkmk/cf/1.0/en/county/Honolulu County, Hawaii/HOUSING (follow "Physical Housing Characteristics for Occupied Housing Units" hyperlink) (last visited Apr. 27, 2019) [hereinafter ACS HOUSING DATA].

39. Kevin B. Jones & Mark James, *Distributed Renewables in the New Economy: Lessons from Community Solar Development in Vermont*, *in* LAW AND POLICY FOR A NEW ECONOMY 189, 201 (Melissa K. Scanlan ed., 2017).

40. *See* ACS HOUSING DATA, *supra* note 38 (showing that in 2017 Honolulu County had over 150,000 occupied housing units in multi-unit buildings, out of approximately 311,000 total occupied housing units).

41. *See, e.g.*, RES. & ECON. ANALYSIS DIV., HAW. DEP'T BUS., ECON. DEV. & TOURISM, SOLAR PV INSTALLATIONS IN HONOLULU: AN ANALYSIS BASED ON BUILDING PERMIT DATA 2, tbl. 1 (2017), http://files.hawaii.gov/dbedt/economic/data_reports/Solar_PV_Installation_In_Honolulu_Sep2017.pdf (reporting that, through June 2017, 53,869 of 55,288 total residential solar building permits were issued for single-family homes); *see also* Act 100, S.B. 1050, 2015 Leg., 28th Sess. (Haw. 2015) ("While residential solar energy use has grown dramatically across the State in recent years, many residents and businesses are currently unable to directly participate in renewable energy generation because of their location, building type, access to the electric utility grid, and other impediments.").

42. Although one might expect the ratio of single-family to multi-family permits to be some multiple greater than one—reflecting, perhaps, the average number of units in multi-family dwellings—a ratio of 97:1 is plainly skewed.

43. *See* Makena Coffman et al., *Determinants of Residential Solar Photovoltaic Adoption* 3, 15–17 (Univ. Haw. Econ. Research Org., Working Paper No. 2018-1), http://www.uhero.hawaii.edu/assets/WP_2018-1.pdf (finding that owner-occupancy rates, prevalence of

of equitable access—a fundamental principle of energy justice[44]—is squarely within the realm of regulated electricity systems.[45] In Hawai'i and elsewhere, community solar arose directly from the need to improve the equity of solar access.

In 2015, the same year that Hawai'i adopted a 100% renewable portfolio standard, Act 100 launched the State's community-based renewable energy program.[46] The same concept has sprung up around the country with a variety of names, such as shared solar, neighborhood net metering, and community solar gardens. Each of the labels connotes the same general concept—a mechanism for utility customers to gain credit on their electric bill, from power generated by solar panels installed somewhere other than their own roof.[47] I will collectively describe these programs using the label *community solar*.[48]

---

single-family residences, and income are the "most influential" demographic factors explaining the differences in solar adoption between census tracts). Professor Coffman and her co-authors observed the particular importance of owner-occupancy in relation to solar access: "Owner-occupancy is particularly important because landlords and renters suffer from what is referred to as a 'principal-agent' problem, where renters lack autonomy over decision-making regarding capital investments and landowners face a disconnect between cost and benefits of capital investments in rental assets." *Id.* Other factors are also related to solar access, such as income, roof orientation and shading, and customers living on circuits *saturated* with existing solar installations. Less technical factors, such as race, also play a role. *See, e.g.*, Deborah A. Sunter et al., *Disparities in Rooftop Photovoltaics Deployment in the United States by Race and Ethnicity*, 2 NATURE SUSTAINABILITY 71, 73 (2019) (finding that disparity in rooftop solar distribution remains even after accounting for differences in household income and home ownership).

44. *See, e.g.*, Shalanda H. Baker, *Mexican Energy Reform, Climate Change, and Energy Justice in Indigenous Communities*, 56 NAT. RESOURCES J. 369, 379 n.72 (2016). Professor Baker provides this brief introduction to energy justice principles:

> Lakshman Guruswamy was one of the first to define energy justice, framing energy justice as a moral obligation to ensure that those who lack access to clean energy, the energy poor, have access to clean energy technologies that limit exposure to harmful indoor pollutants . . . . In the intervening years, energy justice has evolved to incorporate principles of climate justice, environmental justice, and energy democracy.

Id. (citations omitted); *see also* Kirsten Jenkins et al., *Humanizing Sociotechnical Transitions Through Energy Justice: An Ethical Framework for Global Transformative Change*, 117 ENERGY POL'Y 66, 67 (2018) (describing the core notions of energy justice as the "'three A's' of availability, accessibility and affordability").

45. *See, e.g.*, William Boyd, *Public Utility and the Low-Carbon Future*, 61 UCLA L. REV. 1614, 1643 (2014) (describing the core of the regulatory compact: "In return for an exclusive franchise, the right of eminent domain, and an ability to sell electricity at reasonable rates, electric utilities would provide reliable, universal service . . . .").

46. Act 100, S.B. 1050, 2015 Leg., 28th Sess. (Haw. 2015).

47. *See infra* note 273 (describing the bill credit mechanism).

48. This terminology is selected as a matter of convenience and familiarity. However, it should be noted that Hawai'i's "community-based renewable energy tariff" is open to other forms of renewable generation, in addition to solar. *See* HAW. REV. STAT. § 269-27.4 (2018) (defining the "community-based renewable energy tariff," without limiting eligible renewable technologies); HAW. REV. STAT.

Hawai‘i’s community solar legislation was expressly aimed at addressing the solar access problem:

> While residential solar energy use has grown dramatically across the State in recent years, many residents and businesses are currently unable to directly participate in renewable energy generation because of their location, building type, access to the electric utility grid, and other impediments. *The [community solar] program seeks to rectify this inequity by dramatically expanding the market for eligible renewable energy resources to include residential and business renters, occupants of residential and commercial buildings with shaded or improperly oriented roofs, and other groups who are unable to access the benefits of onsite clean energy generation*. The legislature finds that it is in the public interest to *promote broader participation* in self-generation by [Hawai‘i] residents and businesses through the development of [community solar] facilities in which participants are entitled to generate electricity and receive credit for that electricity on their utility bills.
>
> . . .
>
> The purpose of this Act is to establish the [Hawai‘i] community-based renewable energy program to *make the benefits of renewable energy generation more accessible* to a greater number of [Hawai‘i] residents.[49]

Community solar projects developed at any size might provide some of these accessibility benefits, including larger utility-scale solar projects that may be (almost incidentally) marketed as community solar to a wide array of consumers.[50] But the true promise of community solar as a tool to expand accessibility and promote justice is more likely found in models that focus on existing community networks, such as apartment buildings, low-income housing developments, church congregations, or other community groups.[51] These projects are more likely to be driven by community-focused

---

§ 269-91 (2018) (defining “renewable energy” to include power derived from wind, the sun, falling water, biogas, geothermal sources, ocean water, currents, and waves, biomass, biofuels, and hydrogen produced from renewable energy sources).

49. Act 100, S.B. 1050 (emphasis added).

50. *See generally* Welton, *Clean Electrification*, *supra* note 30 (analyzing the contours of energy justice and a more participatory grid).

51. *See id.* at 581 (“The history of electrification counsels that our most successful grid experiments in terms of equity and empowerment may come from focusing on more collective forms of

motives and objectives, to serve the needs of a real community, and to empower community decision making on energy infrastructure.[52]

These community-focused community solar projects are also likely to be developed at community-scale.[53] To date, solar development programs have typically focused on the two ends of the scale spectrum: large utility-scale solar farms and small behind-the-meter distributed generation.[54] Observers note the massive potential for solar power in the middle of this spectrum.[55] Under traditional utility programs, community-scale solar developments may not be able to bear transactional costs and processes associated with utility-scale solar projects, nor can they always qualify for the *plug-and-play* distributed generation tariffs that have been successful in the residential rooftop solar market.[56] The concept of community solar

---

grid participation. Thus, regulators might pay particular attention to programs like community solar and micro-grid formation for the community-scale participation that they embody.").

52. *Id.*; *see also* Baker, *Unlocking the Energy Commons*, *supra* note 16 (criticizing the community solar models advanced by most states for "leav[ing] 'community' out of the equation," and explaining the advantages of community energy projects that are more integrally tied to low-income and vulnerable communities); *see also* Welton, *Clean Electrification*, *supra* note 30, at 581 ("The history of electrification counsels that our most successful grid experiments in terms of equity and empowerment may come from focusing on more collective forms of grid participation. Thus, regulators might pay particular attention to programs like community solar and micro-grid formation for the community-scale participation that they embody."); *cf.* Shelley Welton, *Public Energy*, 92 N.Y.U. L. REV. 267, 338–43 (2017) [hereinafter Welton, *Public Energy*] (arguing in favor of local ownership and control over electric utilities, to allow for benefits such as flexibility, experimentation, and altruistic sorting, and to create a mechanism for local communities to influence a "larger, dynamic national conversation about our role as local and global citizens in an era of significant climate disruption"). *But see* Powers, *supra* note 5, at 555–56, 559–61 (2017) (acknowledging that community solar may be able to improve access to solar power, but expressing skepticism that it can deliver broader benefits to large numbers of low-income communities, particularly for programs that rely on carve-outs for low-income participation).

53. *See* Community-Scale Solar, *supra* note 2, at 1 (providing that community-scale solar is inclusive and accessible to low-income groups).

54. *Id.* at 2.

55. *Id.* at 6 (estimating community-scale solar market potential at more than 750 gigawatts across five customer classes: low- to middle-income renters, other renters including in multi-unit dwellings, multi-unit dwelling non-renters, single-family homes with unsuitable roof space for rooftop solar, and commercial buildings with unsuitable roof space for rooftop solar).

56. *But see* KEVIN BREHM ET AL., ROCKY MOUNTAIN INSTITUTE, PROGRESS AND POTENTIAL FOR COMMUNITY-SCALE SOLAR: HOW RURAL ELECTRIC COOPERATIVES CAN USE LOW-COST, DISTRIBUTED ENERGY TO SAVE MONEY, SERVE CUSTOMERS, AND UNLOCK BILLIONS IN INFRASTRUCTURE SPENDING 6 (2018), https://rmi.org/insight/progress-potential-community-scale-solar/ ("[Community-scale solar] is large enough to leverage the economies of scale enjoyed by utility-scale solar systems, so it can be developed at costs that are highly competitive with renewable and nonrenewable power generation. Like behind-the-meter solar, community-scale solar can be flexibly located and can provide distributed benefits including avoided transmission energy line losses, deferral of distribution infrastructure upgrades, and increased resilience.").

offers a revenue mechanism, and a revenue-sharing mechanism, to unlock the middle of the market.[57]

Depending on context and program design, community solar might offer other benefits too. For example, experience with community solar in New York and Vermont suggests that community solar can be more cost-effective than other solar installations of a similar size.[58] Cost benefits associated with community solar may come from several directions. For example, in the distributed solar industry, customer acquisition is a substantial cost component.[59] Developers assert that the cost of customer acquisition is also significant for community solar, and that it represents an incremental cost in comparison to solar farms operating under more traditional utility power-purchase agreements.[60] Community solar can lower

---

57. *See, e.g.*, Jones & James, *supra* note 39, at 206 (describing the revenue mechanism available under Vermont's group net metering program).

58. ROBERT MARGOLIS, NAT'L RENEWABLE ENERGY LAB, Q1/Q2 2018 SOLAR INDUSTRY UPDATE 36 (2018), https://www.nrel.gov/docs/fy18osti/72036.pdf ("Since the start of 2016, 16 community solar projects have reported pricing in New York, with average rates substantially lower than other PV systems in New York of comparable size."); Jones & James, *supra* note 39, at 206–07 (discussing a Vermont case study and noting that "[t]he community owned solar model brings economy of scale savings to a project without having to rely on third-party financing"). As in Hawai'i, New York's regulators established community solar with a focus on accessibility. *See, e.g.*, Order Establishing a Community Distributed Generation Program and Making Other Findings, Proceeding on the Motion of the Commission as to the Policies, Requirements and Conditions for Implementing a Community Net Metering Program at 3, No. 15-E-0082 (N.Y. Pub. Serv. Comm'n Jul. 17, 2015) ("As many of the commentators note, the purpose of Community DG is to open opportunities for participation in solar and other forms of clean distributed generation to utility customers that would not otherwise be able to access that generation directly.").

59. Industry customer acquisition costs are proprietary and not widely shared. However, the author's interactions with solar industry insiders, and other sources, suggest that it can be a substantial cost component for rooftop solar. *See* Bryan Bollinger & Kenneth Gillingham, *Peer Effects in the Diffusion of Solar Photovoltaic Panels*, 31 MARKETING SCI. 900, 910 (2012) (describing, without citation, the "high cost of consumer acquisition in the solar PV market"); *see also* Eric Wesoff, *Costs to Acquire US Residential Solar Customers Are High and Rising*, GREEN TECH. MEDIA (July 6, 2017), https://www.greentechmedia.com/articles/read/costs-to-acquire-us-residential-solar-customers-are-high-and-rising (describing high acquisition costs reported by an industry analyst).

60. *See* Joint Responses to Pub. Util. Comm'n's Information Requests at 2, *In re* Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd. & Kauai Island Util. Coop., Community-Based Renewable Energy Program and Tariff, No. 2015-0389 (Haw. Pub. Util. Comm'n Nov. 16, 2016) [hereinafter Joint Responses]. This coalition of industry and nonprofit groups described a variety of the costs components related to developing community solar, and asserted:

> A critical factor that needs to be considered in developing the credit rates for this program is the incremental cost associated with a community solar project. While economies of scale can be leveraged with community solar, the cost and effort associated with customer acquisition is not insignificant. This can involve market research; marketing; individual customer outreach and responding to questions; and ultimately contract negotiations. These represent the greatest incremental costs involved in a community solar project.

Id.

these costs by leveraging peer effects and communication channels in an existing community network.[61] Reducing the energy cost burden is an important component of the energy justice framework.[62] Opportunities for reducing energy costs should not be overlooked.

Energy justice issues are also centrally embedded within the question of where to site energy infrastructure.[63] Community-sited community solar, where the community hosting a project and the community benefitting from a project overlap, can empower self-determination and procedural justice in these siting issues.[64] In addition to this project-by-project siting benefit, community solar appears poised to help address quietly burbling questions about optimal land use in the broader transition to renewable energy.[65] Those questions will be particularly prevalent in a place like Hawai‘i, which is contemplating substantial future greenfield utility-scale solar development, on an inherently limited land area, to achieve its renewable portfolio standard.[66] Successfully siting community-scale solar projects can relieve some of the pressure to rely on large-scale greenfield development.

---

61. *See* Jones & James, *supra* note 39, at 207 (noting that "[b]ecause of the reduced customer acquisition costs and other economy of scale savings, the [community solar] model is attractive to local solar installers who have been able to build these projects for over a dollar per watt less than residential rooftop projects"); *see also* Bollinger & Gillingham, *supra* note 59 (describing "strong evidence for causal peer effects" in the adoption of distributed solar power).

62. *See generally* Powers, *supra* note 5, at 544–45 (noting that low-income community members often lack the resources to participate in new electricity markets like community solar); Joint Responses, *supra* note 60 ("This [cost of marketing, customer acquisition, and customer service] is a particularly important cost component when incorporating certain segments of the customer base such as the Staff Proposal's requiring 40% of each project to be allocated to individual customers less than 50 kW in size, and a 5% capacity allocation for low-to-moderate income customers.").

63. *See, e.g.*, Benjamin K. Sovacool & Michael H. Dworkin, *Energy Justice: Conceptual Insights and Practical Applications*, 142 APPLIED ENERGY 435, 437 (2015) (discussing the use of energy justice as an analytical tool, and asserting that "[f]ree, prior, informed consent becomes an essential part of due process and the siting of energy infrastructure").

64. *See generally* Phillip Roddis et al., *The Role of Community Acceptance in Planning Outcomes for Onshore Wind and Solar Farms: An Energy Justice Analysis*, 226 APPLIED ENERGY 353 (2018); Maarten Wolsink, *Wind Power Implementation: The Nature of Public Attitudes: Equity and Fairness Instead of 'Backyard Motives,'* 11 RENEWABLE & SUSTAINABLE ENERGY REV. 1188, 1203 (2007) (describing the role of fairness and equity in forming perceptions about the suitability of siting for wind power facilities).

65. *Cf.* Rebecca R. Hernandez et al., *Solar Energy Development Impacts on Change and Protected Areas*, 112 PROC. NAT'L ACAD. SCI. 13579, 13579, 13583 (Nov. 3, 2015), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640750/pdf/pnas.201517656.pdf (assessing the impact of utility-scale solar development on land cover and the alteration of natural ecosystems).

66. *See, e.g.*, Order No. 35286 Approving the Hawaiian Electric Companies' Proposed Final Variable Requests for Proposals, With a Modification, *In re* the Requests of Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., and Maui Elec. Co., Ltd. to Institute a Proceeding Relating to Competitive Bidding Process to Acquire Dispatchable and Renewable Generation, No. 2017-0352 (Haw. Pub. Util. Comm'n Feb. 20, 2018) (approving a utility request for proposals to obtain renewable energy, consistent with a plan to install 400 megawatts of renewable generating capacity by 2021).

Enabling a community to generate a portion of its own power may induce other ripple effects. For example, it seems likely that a community of solar participants, once they are joined together in generation, will be particularly fertile ground for engaging participants in efficiency programs, aggregated demand response programs, or other initiatives.[67]

D. Hawai'i's Transition from Policy to Implementation

Acknowledging the need for a regulatory process to move community solar beyond conceptual potential benefits, Act 100 provided guidelines for implementation.[68] This legislative guidance underscored the Act's focus on equity, envisioning "an open and accessible" regulatory process with a variety of participating stakeholders.[69] It also addressed the tension between utility-centric models of community solar that might operate more like utility-scale solar generation and models that might operate more like distributed generation. The legislature instructed that the program should "accommodate a variety of [community solar] projects, models, and sizes."[70]

With the community solar program conceived, thus began a long regulatory gestation period. This included the submission of competing proposed tariffs by the utility and stakeholders,[71] two proposed frameworks from the staff of the Public Utilities Commission,[72] a (relatively rare)

---

67. *Cf.* Bollinger & Gillingham, *supra* note 59, at 911 (asserting that peer effects "are also likely to apply to the diffusion of other visible green technologies, such as hybrid vehicles, electric vehicles, geothermal heating, and outdoor high-efficiency lighting").

68. Act 100, S.B. 1050, 2015 Leg., 28th Sess. (Haw. 2015).

69. *Id.*

70. *Id.* Act 100 further underscores the legislature's intent to spur new models of energy development by specifying that "[a]ny person or entity may own or operate an eligible community-based renewable energy project or projects provided that the person or entity complies with all applicable statutes, rules, tariffs, and regulations governing the ownership and interconnection of such project or projects." *Id.*

71. Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd.'s Transmittal, *In re* Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd. & Kauai Island Util. Coop., No. 2015-0389 [hereinafter HECO Transmittal] (Haw. Pub. Util. Comm'n Oct. 1, 2015); Motion to Intervene by Ulupono Initiative LLC at Exhibit A, *In re* Application of Hawaiian Elec. Co. Inc., Haw. Elec. Light Co. Inc., Maui Elec. Co. Ltd., & Kauai Island Utility Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Dec. 17, 2015) (attaching, as Exhibit A, a proposed community solar program structure).

72. Order No. 33751 Admitting Intervenors and Participants, Seeking Clarification Regarding the Stakeholders' Community-Based Renewable Energy Proposal, and Providing "Draft Haw. P.U.C. Staff Proposal for Community-Based Renewable Energy Program" for Review and Comment, *In re* Application of Hawaiian Elec. Co. Inc., Haw. Elec. Light Co. Inc., Maui Elec. Co. Ltd. & Kauai Island Util. Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Jun. 8, 2016) [hereinafter First PUC Proposed Framework]; Order No. 34388 Addressing Pending Matter and Issuing the Attached Proposed Community-Based Renewable Energy Program Framework and Model Tariff Language for Review and Comment, *In re* the Requests of Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co.

Commission hearing,[73] numerous and lengthy written comments from a variety of perspectives,[74] and utility-stakeholder meetings.

Throughout this gestation, the Commission reiterated Act 100's focus on equity. In describing the program's fundamental parameters, the Commission's first draft framework noted that "[t]he long-term objective for the [community solar] program is to create a market-based framework that enables greater renewable energy opportunities for customers who are currently unable to participate in onsite distributed generation (e.g., residents in rental housing and condominiums)."[75]

Similarly, the Commission worked to incorporate legislative guidance in favor of encouraging a diversity of project sizes[76]—including community-scale projects—and business models.[77] Rejecting a restrictive utility proposal,[78] the Commission designed its framework to "[a]llow the marketplace to determine the terms and ownership models" in the community solar program, leading to "more flexibility and allow[ing] for business model innovation."[79] For community solar, flexibility and innovation will be critical parts of realizing its energy justice goals.[80] This

---

Ltd. & Kauai Island Util. Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Feb. 10, 2017) [hereinafter Second PUC Proposed Framework].

73. Transcript of Public Hearing at 15, *In Re* Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd. & Kauai Island Util. Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Sep. 21, 2016).

74. *See Docket Entries Index Report: Docket No. 2015-0389*, HAW. PUB. UTIL. COMM'N, https://dms.puc.hawaii.gov/dms/DocketIndexReport?docketNumber=2015-0389&f=N (last visited Apr. 27, 2019) (listing submissions by docket parties and participants, and comments submitted by members of the public).

75. First PUC Proposed Framework, *supra* note 72, at 1.

76. *See id.* at 4 ("Encourage CBRE project size diversity. Staff requests comment on the balance between economies of scale and project size diversity, consistent with the legislative intent of Act 100. This includes measures to encourage diversity in developer and project size."); Decision and Order No. 35137 at att. A 4, *In re* Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd. & Kauai Island Util. Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Dec. 22, 2017) [hereinafter PUC Adopted Program Framework] (adopting facility size restrictions intended to "encourage project size diversity and customer choice").

77. *See* PUC Adopted Program Framework, *supra* note 76, at att. A 9 ("A vibrant CBRE market should include business model diversity and innovation, as well as accommodate a variety of ownership models.").

78. *See* First PUC Proposed Framework, *supra* note 72, at 3 ("The HECO Companies' proposal . . . affords little room for business model innovation. Standardized cost and a flat bill credit rate gives little flexibility to developers or customer-subscribers . . . . The design also does not provide adequate market signals to encourage features with added value, such as dispatchability.").

79. *Id.* at 5.

80. *See* Baker, *Unlocking the Energy Commons*, *supra* note 16, at 226 (criticizing inflexibility in community solar programs: "[T]he inflexibility of community solar leaves little room for innovations that allow communities to take control of their energy production.").

regulatory process culminated in a final program framework approved by the Commission in December 2017.[81]

II. COMMUNITY SOLAR AND SECURITIES LAWS

To realize the potential of community solar, the next step after policy approval is implementation. In this regard, Hawai'i trails many other jurisdictions—particularly three jurisdictions that have emerged as community solar leaders. Since 2008, Massachusetts has enabled the concept of off-site solar in conjunction with its broader net-metering program.[82] Colorado and Minnesota passed "community solar garden" legislation in 2010 and 2013, respectively.[83] Today, each of the three states has substantial community solar capacity online.[84] While many other states have community solar policies or programs in place, none appear to have yet achieved a similar program scale.[85] Given the variety in community solar laws and policies, wide geography, and the range of approaches to utility regulation and solar power in general, the pace of implementation undoubtedly involves a broad range of barriers and challenges.

A. The Securities Issue in Hawai'i's Community Solar Regulatory Docket

During Hawai'i's community solar policy gestation period, the Hawaiian Electric Companies—the State's primary investor-owned

81. Adopted Program Framework, *supra* note 76, at 118–19.

82. MASS. GEN. LAWS ch. 164, § 140 (2018).

83. COLO. REV. STAT. § 40-2-127 (2018); MINN. STAT § 216B.1641 (2018).

84. *See Community Solar Project Database*, NAT'L RENEWABLE ENERGY LAB., https://data.nrel.gov/submissions/95 (July 27, 2018) (identifying more than 167 megawatts of community solar capacity in Massachusetts, 158 megawatts in Minnesota, and 65 megawatts in Colorado, through Spring 2018); John Farrell, *Why Minnesota's Community Solar Program is the Best*, INST. FOR LOCAL SELF-RELIANCE, https://ilsr.org/minnesotas-community-solar-program/ (last updated Apr. 15, 2019) (reporting 513 megawatts of community solar garden operational capacity in February 2019); Press Release, Xcel Energy Colorado, Colorado Community Solar Projects Awarded (July 20, 2018), https://electricenergyonline.com/article/energy/category/solar/142/713159/colorado-community-solar-projects-awarded.html (forecasting 80 megawatts of capacity by the end of 2018); *Community Solar*, COLO. ENERGY OFFICE, https://www.colorado.gov/pacific/energyoffice/community-solar (last visited Apr. 27, 2019) (reporting, without a date, "nearly 70 community solar project in operation generating more than 50 MW, and many more in development").

85. *See, e.g.*, *Community Solar Project Database*, *supra* note 84 (identifying community solar projects in 38 states plus Washington, D.C.); *see also Community Solar*, SOLAR ENERGY INDUS. ASS'N, https://www.seia.org/initiatives/community-solar (last visited Apr. 27, 2019) (reporting that at least 19 states and D.C. have adopted community solar programs or policies, and that 42 states have at least one community solar project online).

utility[86]—devoted large portions of its regulatory briefing to highlighting a risk that community solar projects would be treated as securities.[87] In unusually strong terms, the utility accused the Commission of "disregard for the 'securities' issues presented by the purchase, lease or subscription of [community solar] program interests as contemplated by the [Commission's] Framework."[88] The utility described this as "a potential fatal flaw, since if just one [community solar] facility is deemed to be a security and found in violation . . . this may cause the entire [community solar] market to lose confidence in the program."[89]

The utility asserted that the Commission's framework exposed the companies (and thus utility ratepayers) to massive securities risk, potentially reaching multi-billion dollars:

> [T]he Hawaiian Electric Companies could potentially face securities laws penalties from the SEC of up to $231,868,093 (assuming a $50,000 penalty per violation and 4,637 Participants [in the first phase of the community solar program]). The total penalty amount could increase exponentially if the higher end of the penalty range of $500,000 is applied for each violation and/or a violation is defined as a monthly transaction between the Hawaiian Electric Companies and Participants to credit Participants for the energy output of their interest in a [community solar] project.[90]

---

86. "Hawaiian Electric Companies" denotes three investor-owned utilities that operate the electric grid on all but one of the main Hawaiian islands: Hawaiian Electric Company, Inc. (Oahʻu), Hawaiʻi Electric Light Company, Inc. (Hawaiʻi), and Maui Electric Company, Ltd. (Maui). These are owned by a single parent entity, Hawaiian Electric Industries, Inc., and in some respects are operated as a single entity. Briefing in the community solar docket, for example, was submitted on behalf of all three companies. HECO Transmittal, *supra* note 71. The Kauai Island Utility Cooperative serves the island of Kauai. *Utility Resources: Utility Landscape in Hawaii*, HAW. STATE ENERGY OFFICE, http://energy.hawaii.gov/developer-investor/utility-resources (last visited Apr. 27, 2019).

87. For example, approximately 30% of the Hawaiian Electric Companies' comments on the Commission's second proposed program framework were devoted to the securities issue. Comments on Proposed CBRE Program Framework and Model Tariff at 8–9, 31–43, *In re* Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd. & Kauai Island Util. Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Mar. 1, 2017) [hereinafter HECO Comments on Second PUC Proposal]. The issue was also raised repeatedly in the companies' comments on the Commission's first proposed framework. Comments on Draft Hawaii P.U.C. Staff Proposal for Community-Based Renewable Energy Program at i–ii, 7–9, 13, 26, 27, 30, 33, *In re* Hawaiian Elec. Co., Inc., Haw. Elec. Light Co., Inc., Maui Elec. Co., Ltd. & Kauai Island Util. Coop., No. 2015-0389 (Haw. Pub. Util. Comm'n Jun. 30, 2016) [hereinafter HECO Comments on First PUC Proposal].

88. HECO Comments on Second PUC Proposal, *supra* note 87, at 31.

89. *Id.* at 9.

90. HECO Comments on First PUC Proposal, *supra* note 87, at 8–9.

At their core, the utility's securities arguments were focused on utility control over the design of community solar, rather than control by communities and developers. Act 100 and the Commission's proposals tipped the scale in favor of communities and developers, and in favor of project diversity in project size and participation model. The utility's proposed tariff was antithetical to this concept. It would have utilized a standard participant agreement under which material terms, including the price developers would charge consumers for participating in a community solar project, would be fixed.[91] The utility asserted that:

> Allowing the marketplace, i.e., Developers, to determine the terms and ownership models applicable to Participants in the [community solar] program will exacerbate the securities issues already inherently present in the program by eliminating all safeguards proposed by the Hawaiian Electric Companies to ensure that [community solar] interests are not "securities" requiring registration under federal and state securities laws.[92]

The utility proposed to seek no-action letters from state and federal securities regulators, using the fixed program parameters as the underlying facts and circumstances to be reviewed by regulators.[93]

B. Other Instances of the Community Solar/Securities Issue

Although the utilities' arguments about the scale of possible securities risk appears unprecedented, this securities issue was not invented by the Hawaiian Electric Companies. Several analyses suggest that there is a significant likelihood that community solar interests will be regulated as a security or suggest that community solar projects should take the precautionary measure of seeking statutory exemptions from the requirement that securities be registered before they are offered to the public. Those analyses include at least two student-written law review publications,[94] online posts by lawyers and law firms,[95] and policy briefs by

---

91. HECO Transmittal, *supra* note 71, at 21 ("To ensure simplicity for Participants, the upfront payment per kW AC, credit rate per kWh, and O&M Fee per kWh will be required to be the same for all projects within each tier for each technology and island.").

92. HECO Comments on First PUC Proposal, *supra* note 87, at 7.

93. *Id.* at 34.

94. Samantha Booth, Comment, *Here Comes the Sun: How Securities Regulations Cast A Shadow on the Growth of Community Solar in the United States*, 61 UCLA L. REV. 760, 760 (2014); Kristin L. Bailey, Note, *Insecurity for Community Solar: Three Strategies to Confront an Emerging Tension Between Renewable Energy Investment and Federal Securities Laws*, 10 J. TELECOMM. & HIGH TECH. L. 123, 123 (2012).

entities such as the National Renewable Energy Laboratory and others.[96] At least one analysis concludes that it is "very likely" that community solar will be classified as an investment contract under securities laws, and thus will be regulated as a security.[97]

These analyses come with a limited regulatory backdrop. In 2011, a Texas solar developer named CommunitySun, LLC sought a no-action letter for its "SolarCondo" concept.[98] Although this was not, apparently, part of a broader community solar regulatory framework, the project described in CommunitySun's request for no-action shares key hallmarks of regulated community solar programs like Hawai'i's:

> Ownership of a SolarCondo will allow production of self-generated, individually owned solar electricity without installing solar panels at the property where the owner consumes electricity. The purpose is to provide the benefits of rooftop solar energy to people who are unable to install rooftop solar on their property. An additional public benefit is to correct the inequity to such persons, who pay for solar rebates in the overall electricity rate base, but who do not have access to solar as a power alternative.[99]

The SEC issued a no-action letter in favor of CommunitySun.[100]

---

95. *E.g.*, *Community Solar and Securities Regulations*, NORTON ROSE FULBRIGHT (Oct. 18, 2016), http://www.nortonrosefulbright.com/knowledge/publications/149962/community-solar-and-securities-regulations; *Part 5: Can Securities Exemptions Eliminate Community Solar Obstacles?*, LEWIS & CLARK L. SCH.: GREEN ENERGY INST. (Oct. 6, 2014), https://law.lclark.edu/live/news/28143-part-5-can-securities-exemptions-eliminate.

96. *E.g.*, DAVID FELDMAN ET AL., NAT'L RENEWABLE ENERGY LAB., SHARED SOLAR: CURRENT LANDSCAPE, MARKET POTENTIAL, AND THE IMPACT OF FEDERAL SECURITIES REGULATION 18 (2015) [hereinafter NREL, SHARED SOLAR], https://www.nrel.gov/docs/fy15osti/63892.pdf; *see also* Memorandum from Stoel Rives L.L.P. to Nat'l Renewable Energy Lab. (June 25, 2009) [hereinafter Stoel Rives Memorandum] (on file with author); DIANA CHACE & NATE HAUSMAN, CONSUMER PROTECTION FOR COMMUNITY SOLAR: A GUIDE FOR STATES 35 (2017), https://www.cesa.org/assets/2017-Files/Consumer-Protection-for-Community-Solar.pdf.

97. *See* Booth, *supra* note 94, at 811 (asserting that "[b]ecause of the classification of community solar interests as investment contracts is very likely, developers must be cognizant of the myriad rules that are triggered by such a finding").

98. Letter from Paul S. Maco, Vinson & Elkins, to Office of the Chief Counsel, Securities and Exchange Commission 1 (Aug. 29, 2011) [hereinafter Maco Letter] https://www.sec.gov/divisions/corpfin/cf-noaction/2011/communitysun082911-2a1-incoming.pdf. The request for no-action described the CommunitySun project as selling "real estate interests in a solar facility." *Id.*

99. *Id.*

100. CommunitySun, LLC, SEC No-Action Letter, 2011 WL 3837626 (Aug. 29, 2011) ("Based on the facts presented, the Division will not recommend enforcement action to the Commission if, in reliance upon your opinion of counsel that SolarCondos are not securities, CommunitySun offers and

Conversely, a 2014 order from Vermont's securities regulator deemed a series of proposed community solar projects to be securities, before granting a public interest exemption from registration, in part based upon the State's renewable energy policy.[101] In 2010, the Deputy Commissioner of the Colorado Securities Division reviewed a hypothetical subscription in a community solar project, and determined that it could not be deemed to absolutely fall outside the definition of a security.[102] In Hawai'i, the State's Securities Commissioner, in response to a request from the Hawai'i State Energy Office, submitted a letter to the Public Utilities Commission "[c]aution[ing] that [s]ecurities-[r]elated [i]ssues [m]ay [a]rise."[103] At the time, the program design was incomplete and thus this preliminary determination was made without the benefit of specific facts or circumstances.[104]

C. Dueling Problems of Inflexibility and Uncertainty

The Hawai'i Commission's second proposed framework did not adopt the Hawaiian Electric Companies' proposal to tightly constrain program parameters and then to seek no-action letters based on those fixed parameters.[105] In response,[106] the Hawaiian Electric Companies pointed to California's approach, where regulators adopted a San Diego Gas & Electric recommendation to require community solar projects to obtain "a securities opinion from an AmLaw 100 law firm stating that the arrangement complies with securities law, and that the [investor-owned utility] and its ratepayers are not at risk for securities claims associated with

---

sells the SolarCondos without registration under the Securities Act of 1933 and the Securities Exchange Act of 1934.").

101. Order, *In re* Registration Exemption for SolarCommunities, Inc., No. 14-022-S, 2014 WL 2514647, at *2 (Vt. Sec. Div. Apr. 21, 2014). The exemption was later rendered null and void by Vermont's more general "SUN" registration exemption for some community solar models. *See id.* (stating that "if and when the Commissioner issues a general comprehensive order regarding community solar projects, this Order shall be rendered null and void"); Order, *In re* Vt. Solar / Util. No-Action Exemption, No. 14-023-S, 2014 WL 3697670, at *1 (Vt. Sec. Div. July 21, 2014) [hereinafter Vermont SUN Exemption I] (providing a self-executing registration exemption for eligible community solar projects).

102. Gerald Rome, Deputy Securities Comm'r, Colo. Div. of Securities, Opinion Letter on the Issuance, Offer or Sale of a Community Solar Garden (Sept. 22, 2010), *as reprinted in* Blue Sky L. Rep. (CCH) ¶ 13666V.

103. Letter from Ty Nohara, Haw. Comm'r of Sec. to the Haw. Public Utils. Comm'n 3 (Feb. 5, 2016) [hereinafter Nohara Letter].

104. *See id.* at 2–3 (recognizing that the program design had not yet been completed, and asserting that "[t]o issue an opinion at this time, without any information as to how the project will be structured, would be based purely and inappropriately on speculation").

105. Second PUC Proposed Framework, *supra* note 72.

106. HECO Comments on Second PUC Proposal, *supra* note 87, at 34–35.

the project."[107] Apparently, all of the shortlisted bids in the first request for offer by California's investor-owned utilities failed to obtain this opinion letter; no bids were awarded.[108] This requirement was later affirmed by the California Commission, but it was relaxed to allow opinion letters from other attorneys meeting prescribed criteria for experience and insurance coverage.[109]

Expanding upon California's approach, the Hawai'i utilities argued for requiring the operators of community solar projects to obtain no-action letters from federal and state securities regulators, qualify for an exemption from registration, or secure a lawyer's opinion letter.[110] Hawai'i's Commission did not adopt the utilities' proposal, but like the California

---

107. Decision No. 15-01-051, Approving Green Tariff Shared Renewables Program for San Diego Gas & Electric Co., and So. Cal. Edison Co. Pursuant to Senate Bill 43, at 71, *In re* San Diego Gas & Electric Company (U902E) for Authority to Implement Optional Pilot Program to Increase Customer Access to Solar Generated Electricity, No. 12-01-008 (Cal. Pub. Util. Comm'n Feb. 2, 2015). Later, this requirement was relaxed to allow for an opinion by smaller law firms. Decision 17-07-007, Modifying the AmLaw 100 Securities Opinion Requirement for Enhanced Community Renewables Projects Under the Green Tariff Shared Renewables Program in D.15-01-051, *In re* San Diego Gas & Electric Company (U902E) for Authority to Implement Optional Pilot Program to Increase Customer Access to Solar Generated Electricity, No. 12-01-008 (Cal. Pub. Util. Comm'n July 13, 2017).

108. Brian Orion, STOEL RIVES, *California Community Solar Forum Points to Need for Reforms* (Apr. 12, 2017), https://www.lawofrenewableenergy.com/2017/04/articles/solar/report-on-community-solar-developer-forum-in-california/. California's community solar offerings have subsequently grown, but not as fast as one might expect from the country's largest potential market. As of June 2017, the California PUC reported approximately 22 megawatts enrolled in the program. CAL. PUB. UTIL. COMM'N, COMMUNITY SOLAR PROGRAM FOR DISADVANTAGED COMMUNITIES WEBINAR 8 (2018), http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Commissioners/Martha_Guzman_Aceves/California%20PUC%20Community%20solar%20Program%20webinar.pdf. In October 2018, Southern California Edison filed an application to replace the community renewables program, and other programs, with a modified "Green Energy Program." *See* Application at 2, *In re* Application of So. Cal. Edison Co. (U 338-E) for Approval of Green Energy Programs, No. A.18-09-015 (Cal. Pub. Util. Comm'n Sep. 26, 2018) ("Numerous barriers for customers and developers, including program caps and sizing restrictions, make it difficult for SCE to subscribe customers to either GTSR program."). In December 2017, the utility requested to sunset the existing community solar program at the end of 2018, "due to the low number of participating customers." *Id.*

109. *See* Decision 17-07-007, *supra* note 107, at A1 (modifying the earlier AmLaw 100 requirement such that lawyers with five full-time years of securities experience within the last eight years, licensed in California, and carrying a minimum of $10 million in professional liability coverage could provide an opinion letter).

110. *See* HECO Comments on Second PUC Proposal, *supra* note 87, at 33. The utilities asked the commission to:

> [R]equire concrete evidence from [community solar] program Subscriber Organizations that their [community solar] program interests are not "securities," either by securing "no-action" letters from the SEC, qualifying for a specific exemption confirmed by the SEC or an opinion letter from appropriate expert counsel, and or . . . obtain clearance from the State of Hawai'i, under its broader blue sky laws, that such program interests are either not "securities" or not subject to enforcement by the Hawai'i Securities Commissioner.

Id.

Commission it acknowledged substantial uncertainty about this issue nationally.[111]

The utilities' first proposal, setting inflexible program parameters, would have created an energy justice barrier by limiting the ability of communities and developers to create projects and models that directly respond to community needs.[112] This second utility proposal would have begrudgingly permitted more flexibility, but created a new barrier for all community solar projects in the form of the time, complexity, and cost involved in satisfying the proposed securities requirements.[113] The relative shadow of that barrier is even larger for community-scale, community-driven community solar projects.

At the same time, uncertainty about whether community solar interests are securities creates its own barriers for communities and utilities alike. A National Renewable Energy Laboratory (NREL) report, cited by the California Commission in its decision requiring a securities opinion, described uncertainty about whether community solar will be regulated as a security as a "top concern" among community solar stakeholders.[114] A 2009 legal memorandum to NREL from the Stoel Rives law firm illustrates the root of that uncertainty.[115] Although the memorandum provides recommendations on how to minimize the risk that community solar

---

111. *See* PUC Adopted Program Framework, *supra* note 76, at 109 ("The commission notes that this [securities issue] is an area of some uncertainty nationally . . . ."); Decision 17-07-007, *supra* note 107, at 7 ("Hence, considering the uncertainties around the applicability of securities law, we will not completely eliminate the securities option requirement at this time."). The Hawai'i Commission noted its limited authority on this securities issue, gave the utilities latitude to limit their role in an online platform that would identify all community solar projects available—to address the utilities' concerns that the utilities would become "broker[s]" of unregistered securities—and asserted that its program design includes a "robust set of consumer protection mechanisms with an eye toward mitigating potential securities risks." PUC Adopted Program Framework, *supra* note 76, at 109–12.

112. *See supra* Part I.C (describing the potential energy justice benefits of community solar).

113. *See, e.g.*, Decision 17-07-007, *supra* note 107, at 2 (noting that the Commission "acknowledged the parties' concern regarding the cost of this requirement"); NREL, SHARED SOLAR, *supra* note 96, at 14 ("The legal determination itself [regarding whether a community solar interest is a security] may consume significant resources."); *cf.* James S. Mofsky, *Some Comments on the Expanding Definition of Security*, 27 U. MIAMI L. REV. 395, 395 (1973) ("A threshold question to securities lawyers and their clients is whether a particular scheme of financing will be deemed a security. If so, it is subject to the costly registration provisions of the law if offered for sale but not exempt from registration.").

114. NREL, SHARED SOLAR, *supra* note 96, at vi ("One of the top concerns raised by shared solar stakeholders is uncertainty about the applicability of Securities and Exchange Commission (SEC) requirements for registration and disclosure of shared solar projects.").

115. Stoel Rives Memorandum, *supra* note 96, at 2, 6–10 ("This memorandum is intended to set forth some of the key factors that the courts tend to use and our general recommendations on structuring those factors in an effort to minimize the likelihood that a security exists. Ultimately, each situation will have to be judged on its specific facts using the factors and principles described above.").

projects involve a security,[116] it also explains that there is "no bright line test to determine whether a [community solar] contract is a security," and asserts that each circumstance should be considered individually.[117]

Over the past century, securities laws have been the subject of a variety of criticisms.[118] Community solar illuminates a new one: uncertainty about whether it will be regulated as a security systemically tilts in favor of dated utility models and away from new models of community energy innovation. To illustrate, consider that the Hawaiian Electric Companies are owned by a publicly traded holding company.[119] Like many other electric utilities, they are intimately familiar with securities regulation, and have institutional mechanisms to ensure compliance.[120] Community groups and community solar developers typically do not.[121] *Securities insecurity*[122] therefore poses substantially less burden to utility-led community solar projects and models compared to community-led projects.[123] Energy justice principles demand that we more closely evaluate the source of this regulatory uncertainty.

---

116. *Id.* at 6–9.

117. *Id.* at 2, 10.

118. *See, e.g.*, Homer Kripke, *Fifty Years of Securities Regulation in Search of a Purpose*, 21 SAN DIEGO L. REV. 257, 272–73 (1984) (describing a number of criticisms of federal securities regulation); Rutherford B. Campbell, Jr., *The Role of Blue Sky Laws After NSMIA and the JOBS Act*, 66 DUKE L.J. 605, 606 (2016) [hereinafter Campbell, *Blue Sky Laws*] (arguing that state securities laws have been an impediment to efficient movement of capital, "felt most acutely in regard to small-business").

119. *See Hawaiian Electric Industries Inc.*, MARKET WATCH, https://www.marketwatch.com/investing/stock/he (last visited Apr. 27, 2019) (providing the latest price of HEI stock).

120. *Cf.* George J. Benston, *An Appraisal of the Costs and Benefits of Government-Required Disclosure SEC and FTC Requirements*, 41 LAW & CONTEMP. PROBS. 30, 34 (1977) ("In general, though, once a corporation has adapted its records to the SEC's requirements, the additional direct cost of filling in the periodic report forms may not be very great . . . . However, the relative burden on smaller corporations is most likely much greater and may be quite onerous.").

121. *See generally* Robert G. O'Connor et al., *Securities Law 101 for Community Solar Market Participants – Orange Groves, Country Clubs, and Solar Condos*, ENERGY TODAY, https://www.energytoday.net/economics-policy/policies/securities-law-101-community-solar-market-participants-orange-groves-country-clubs-solar-condos/ (last visited Apr. 27, 2019) (asserting that "[s]ome community solar market participants may decide to pursue a strategy to mitigate the risk of securities liability by seeking an SEC no-action letter with respect to their particular set of facts or by obtaining an opinion of legal counsel, but often these strategies are impractical because of the delays and costs involved").

122. Bailey, *supra* note 94.

123. O'Connor et al., *supra* note 121 (recommending that "[p]arties that intend to develop or participate in a community solar offering should consult with legal counsel having expertise in these matters to discuss the facts and circumstances of the particular community solar offering and to develop a strategy to navigate the potential applicability of state and federal securities regulatory regimes to the offering").

III. WHAT IS A SECURITY?

For several reasons, Hawai‘i offers a suitable policy test bed in which to take a closer look at community solar and securities. First, the State's recently approved community solar program offers a specific framework of facts and circumstances under which the applicability of securities laws can be examined.[124]

Second, unlike the CommunitySun no-action letter, the Vermont exemption, the Colorado opinion letter, and several other analyses,[125] community solar in Hawai‘i may need to heed two tests for defining an investment contract for the purpose of securities laws: (1) federal law applying the *Howey*[126] test, also utilized by a majority of states; and (2) the State's blue sky laws,[127] applying the minority risk capital test.[128] Six of at least eighteen states with community solar legislation or regulation have adopted the risk capital test.[129] But the test has not been the focus of discussion on community solar and securities to date. Furthermore, the risk capital test is sometimes characterized as broader than the federal test, and therefore more likely to implicate community solar as a security.[130]

---

124. *See* Nohara Letter, *supra* note 103 (noting the need for a fact-specific inquiry).

125. *See supra* notes 101–03 and accompanying text.

126. SEC v. W. J. Howey Co., 328 U.S. 293, 301 (1946).

127. The phrase *blue sky laws* describes state securities laws. *See, e.g.*, State v. Gopher Tire & Rubber Co., 177 N.W. 937, 938 (Minn. 1920) ("It has been said that its popular name [blue sky law] indicates the evil at which it is aimed, that is, speculative schemes having no more basis than so many feet of blue sky." (first citing Hall v. Geiger-Jones Co., 242 U.S. 549 (1917); then citing State v. Agey, 88 S.E. 726 (N.C. 1916))).

128. *See, e.g.*, Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 110–11 (Haw. 1971) (applying the risk capital test).

129. *See, e.g.*, Tennessee v. Brewer, 932 S.W.2d 1, 13 & n.13 (Tenn. Crim. App. 1996) (identifying various states adopting the risk capital test by decision, rule, or statute); JEFFREY J. COOK & MONISHA SHAH, NAT'L RENEWABLE ENERGY LAB., FOCUSING THE SUN: STATE CONSIDERATIONS FOR DESIGNING COMMUNITY SOLAR POLICY app. A (2018), https://www.nrel.gov/docs/fy18osti/70663.pdf (summarizing community solar legislation or regulation in eighteen states).

130. *See* Nohara Letter, *supra* note 103 (asserting that "analysis of an investment contract in a jurisdiction following *Hawaii Market Center* will be broader . . . than in jurisdictions that follow *Howey*"); HECO Comments on Second PUC Proposal, *supra* note 87, at 33 (arguing that "it's entirely possible that [community solar] programs developed in other jurisdictions may indeed be 'securities' under the broader Hawaii test"); *see also* Michael E. Stevenson & John J. O'Leary III, *Definition of a Security: Risk Capital and Investment Contracts in Washington*, 3 U. PUGET SOUND L. REV. 83, 83–84 (1979) (describing Washington's adoption of the risk capital test as "expand[ing] the applicability of the securities act to reach financing schemes that heretofore were unregulated"). Not all analyses agree that the risk capital test is broader than the *Howey* test. *See, e.g.*, Stanley v. Commercial Courier Serv., Inc., 411 F. Supp. 818, 823 (D. Or. 1975) (acknowledging that the tests are not "synonymous" but concluding that they are "essentially the same"); *Brewer*, 932 S.W.2d at 13 (rejecting appellant's contention that "the test in [*Hawai‘i*] *Market* is far broader than the *Howey–Forman* formula").

Third, Hawai'i was a leading adopter of the risk capital test, creating the frequently cited *Hawaii Market Center* formulation in 1971.[131]

A. Economic Reality and Investment Contracts as Securities

The threshold question of what is regulated as a security has a long history, in an astonishingly wide variety of transactional contexts.[132] The contours of that history have been extensively covered and discussed elsewhere.[133] The following summary is not intended to re-convey the

---

131. *Hawaii Market Center*, 485 P.2d at 105, 109.

132. The following list illustrates a sampling of the analyses and contexts in which the definition of a security has been considered: Rutherford B. Campbell Jr., *Stallion Syndicates as Securities*, 70 KY. L.J. 1131, 1158 (1981); William J. Carney, *Defining A Security: The Addition of A Market-Oriented Contextual Approach to Investment Contract Analysis*, 33 EMORY L.J. 311, 358–59 (1984) (discussing, for example, insurance policies); James D. Gordon III, *Flying into Blue Sky: Aircraft Leasebacks As Securities*, 35 UCLA L. REV. 779 (1988); James D. Gordon III, Essay, *Interplanetary Intelligence About Promissory Notes As Securities*, 69 TEX. L. REV. 383, 384 (1990) (including this amusing exchange between hypothetical interplanetary aliens: "Monset: Do you mean that even though the Acts say 'any note' is a security, they don't mean that? Zoron: That's correct. For example, the promissory notes that accompany home mortgages are not securities. Monset: This news is going to make a lot of homeowners on [planet] Zerix happy."); Thomas Lee Hazen, *Taking Stock of Stock and the Sale of Closely Held Corporations: When Is Stock Not A Security*, 61 N.C. L. REV. 393, 386–98 (1983); Wayne Klein, *Certificates of Deposit As Securities: State Law Considerations*, 5 ANN. REV. BANKING L. 55, 60, 78–79, 85–86 (1986); Joseph C. Long, *The Naked Commodity Option Contract as a Security*, 15 WM. & MARY L. REV. 211, 213–17 (1973); Peter A. MacLaren, *Securities Law – Profits in Paradise: When Resort Condominiums Qualify as Investment Contracts*, 19 GOLDEN GATE U. L. REV. 177, 180–86, 190–94 (1989); Joan MacLeod Heminway, *To Be or Not to Be (A Security): Funding for-Profit Social Enterprises*, 25 REGENT U. L. REV. 299, 311–13, 315, 317 (2013); Ellen R. Peirce & Richard A. Mann, *Time-Share Interests in Real Estate: A Critical Evaluation of the Regulatory Environment*, 59 NOTRE DAME L. REV. 9, 26, 30–34 (1983); R. K. Pezold & Danny P. Richey, *The 'Industry Deal' Among Oil and Gas Companies and the Federal Securities Acts*, 16 TEX. TECH L. REV. 827, 840–45 (1985) (discussing undivided fractional interests in oil and gas leases); Mark A. Sargent, *Are Limited Liability Company Interests Securities*, 19 PEPP. L. REV. 1069, 1102 (1992); Jeffrey Allen Tew & David Freedman, *In Support of* SEC v. W. J. Howey Co.*: A Critical Analysis of the Parameters of the Economic Relationship Between an Issuer of Securities and the Securities Purchaser*, 27 U. MIAMI L. REV. 407, 422 (1973) (discussing contexts such as partnerships, joint ventures, and cemetery plots); Richard A. Barasch, Comment, *Interest in Pension Plans As Securities:* Daniel v. International Brotherhood of Teamsters, 78 COLUM. L. REV. 184, 185 (1978); Note, *The Federal Securities Laws and Employee Pension Participants: Retiring Daniel*, 87 YALE L.J. 1666, 1667 (1978); Shanah D. Glick, Comment, *Are Viatical Settlements Securities Within the Regulatory Control of the Securities Act of 1933?*, 60 U. CHI. L. REV. 957, 958 (1993); *Securities Acts—Federal Securities Exchange Act—Withdrawable Capital Accounts in Savings and Loan Association Are Not "Securities" Within Antifraud Provisions of Section 10(b)—*Tcherepnin v. Knight*, 371 F.2d 374 (7th Cir)*, *cert. granted, 387 U.S. 941 (1967)*, 81 HARV. L. REV. 495, 498 (1967).

133. The seminal treatise by Professor Louis Loss (now with Professor Joel Seligman and Professor Troy Paredes) is one particularly helpful resource. *See generally* LOUIS LOSS ET AL., FUNDAMENTALS OF SECURITIES REGULATION 1–111, 387–487 (7th ed. 2018) (overviewing a history of securities regulation). Other sources for insightful summaries, histories, or analyses from various perspectives include: Douglas M. Branson & Karl Shumpei Okamoto, *The Supreme Court's Literalism*

entirety of that background. Rather, it is intended to provide some additional historical context for the early history of this issue and to orient readers who may be arriving at this issue from the perspective of utility regulation or energy justice, rather than from a securities background.

State and federal securities laws define a "security" in famously broad terms:

> [A]ny note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a "security", or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.[134]

During decades of uncertainty over what is, and is not, a security, this laundry list and undefined catchall provisions like "investment contract" and in general, "any interest or instrument commonly known as a security" have been the subject of much debate and hand-wringing.[135]

---

and the Definition of Security in the State Courts, 50 WASH. & LEE L. REV. 1043, 1092 (1993); Williamson B. C. Chang, *Meaning, Reference, and Reification in the Definition of a Security*, 19 U.C. DAVIS L. Rev. 403, 457–60 (1986); J. Thomas Hannan & William E. Thomas, *The Importance of Economic Reality and Risk in Defining Federal Securities*, 25 HASTINGS L.J. 219 (1974); Homer Kripke, *supra* note 118; Jonathan R. Macey & Geoffrey P. Miller, *Origin of the Blue Sky Laws*, 70 TEX. L. REV. 347 *passim* (1991); Paul G. Mahoney, *The Origins of the Blue-Sky Laws: A Test of Competing Hypotheses*, 46 J.L. & ECON. 229, 231–33 (2003); Mofsky, *supra* note 113; Gary S. Rosin, *Historical Perspectives on the Definition of A Security*, 28 S. TEX. L. REV. 575 (1987) (commenting on the legislative history of the Act); Marc I. Steinberg & William E. Kaulbach, *The Supreme Court and the Definition of Security: The Context Clause, Investment Contract Analysis, and Their Ramifications*, 40 VAND. L. REV. 489 (1987) (exploring the meaning of a security in Supreme Court jurisprudence); Stevenson & O'Leary, *supra* note 130.

134. 15 U.S.C. § 77b(a)(1) (Supp. 2018); *see also, e.g.*, 15 U.S.C. § 78c(a)(10) (Supp. 2018) (defining a security in similar terms as section 77b(a)(1)); HAW. REV. STAT. § 485A-102 (Supp. 2017) (defining "security" in terms very similar to the federal statutes).

135. *See, e.g.*, Mofsky, *supra* note 113, at 396–97 ("The problem is not with such standard instruments as stocks, bonds, debentures, or notes, for they are readily identifiable as securities. Rather,

Of course, a community solar project could, theoretically, be developed in a way that clearly renders it a security. For example, interests in the project could be offered in the form of stock in the project's corporate owner. That corporate owner could generate revenue via a power purchase agreement with a utility. The corporate owner's profits and capital could be returned to stockholders in the form of dividends and appreciation. As "stock," this would be likely to fall within the securities definition[136] and would need to be registered[137] or qualify for an exemption from registration.[138]

More realistically, this is not how community solar programs are intended to operate, particularly where they are implemented as a tariff overseen by a public utilities regulator. Thus, the question of whether community solar is a security is couched in terms of whether participation in a project falls within the catchall concept of an *investment contract*.

1. A Closer Look at *Gopher Tire & Rubber Co.* and the Birth of Investment Contracts as Securities

The concept of investment contracts as securities predates the Federal Securities Acts of 1933 and 1934; the concepts was incorporated into Minnesota securities legislation in 1917.[139] In 1920, the Minnesota Supreme Court first analyzed the phrase in *State v. Gopher Tire & Rubber Co*.[140] For $50, the defendant tire manufacturer sold certificates appointing "the holder

---

the difficulty arises with the more ingenious devices that do not clearly come within the purview of the orthodox terminology. To be more specific, the problem stems from the way courts and regulators define the terms 'investment contract,' . . . and 'any interest or instrument commonly known as a security.'"). Note that the phrase "investment contract" has developed into the operative catchall for this definition. *See* United Hous. Found., Inc. v. Forman, 421 U.S. 837, 852 (1975) (stating that "[w]e perceive no distinction, for present purposes, between an 'investment contract' and an 'instrument commonly known as a security'").

136. 15 U.S.C. § 77b(a)(1) (Supp. 2018) (including "stock" in the definition of a security); *see also, e.g.*, HAW. REV. STAT. § 485A-102 (Supp. 2017) (including "stock" in the definition of a security).

137. *See, e.g.*, 15 U.S.C. § 77e(c) (2012) (making it unlawful to sell, in interstate commerce, "any security, unless a registration statement has been filed as to such security"); HAW. REV. STAT. § 485A-301 (2017) ("It is unlawful for a person to offer or sell a security in this State unless: (1) The security is a federal covered security; (2) The security, transaction, or offer is exempted from registration under sections 485A-201 to 485A-203; or (3) The security is registered under this chapter.").

138. 15 U.S.C. § 77d (2012 & Supp. 2018) (identifying exempt transactions, such as those covered by Regulation D, 17 C.F.R. § 230.500–.508 (2018)); HAW REV. STAT. §§ 485A-201 to -203 (2018) (identifying exempt transactions and securities).

139. *See, e.g.*, Mofsky, *supra* note 113, at 397 (explaining that "[t]he process all began in 1917 when the Minnesota Legislature incorporated the term 'investment contract' in its statute defining 'security'").

140. State v. Gopher Tire & Rubber Co., 177 N.W. 937, 938 (Minn. 1920).

as one of its agents to assist by word of mouth and in other ways in the sale of tires and tubes."[141] In return, the certificate holders were promised a pro rata share in the defendant's proceeds, an annual bonus based on excess earnings, and a discount on tires and tubes for their own consumption.[142]

The court utilized a flexible view of a security:

> To lay down a hard and fast rule by which to determine whether that which is offered to a prospective investor is such a security as may not be sold without a license would be to aid the unscrupulous in circumventing the law. It is better to determine in each instance whether a security is in fact of such a character as fairly to fall within the scope of the statute.[143]

Applying this instance-by-instance rubric, the court observed that "[t]he certificates are like stock in that they give their holders the right to share in the profits of the corporation, but their value is purely speculative, for their holders get no interest in the tangible assets of the corporation."[144] But rather than finding that the certificates were securities as "stock," the court invoked the statutory phrase "investment contract," and on this basis determined that the certificates were securities.[145]

The court defined an investment contract as a contract or scheme for "[t]he placing of capital or laying out of money in a way intended to secure income or profit from its employment."[146] In the relatively early evolution of the securities laws, this formulation was recounted and used by a variety of courts.[147] In the subsequent century, at least one author has suggested

---

141. *Id.* at 937.

142. *Id.* at 937–38.

143. *Id.* at 938.

144. *Id.*

145. *Id.* The court summarized the applicable statute as follows:

> All persons, firms, and corporations are prohibited from engaging, within this state, in the business of selling or negotiating for the sale of any *stocks, bonds, investment contracts, or other securities* issued by him or it, except securities specifically enumerated in section 2 of the act. No investment company or dealer shall sell or offer for sale, or profess the business of selling or offering for sale, securities coming within the scope of the act, unless and until he or it shall have furnished to the state securities commission information touching the honesty, good faith, and character of the business of the company or dealer, and shall have obtained from the commission a license to sell securities. Violation of any of the previsions of the act is made a gross misdemeanor.

Id. (emphasis added).

146. *Id.*

147. *E.g.*, SEC v. Bailey, 41 F. Supp. 647, 651 (S.D. Fla. 1941) (applying the federal securities laws); People v. White, 12 P.2d 1078, 1081 (Cal. Ct. App. 1932); Freeze v. Smith, 236 N.W. 810, 812 (Mich. 1931); Stevens v. Liberty Packing Corp., 161 A. 193, 195 (N.J. Ch. 1932); State v. Heath, 153

that it may have given birth to the risk capital test for defining a security, discussed further in Part III.B.[148]

The Minnesota Supreme Court's approach was animated by the stated purpose of the then-burgeoning blue sky laws, targeting "get-rich-quick" schemes:

> The purpose of the statute is to protect the public against imposition. It is a new form of regulatory law which, in the course of a few years, has swept over 33 states. It has been said that its popular name indicates the evil at which it is aimed, that is, speculative schemes having no more basis than so many feet of blue sky, and that it is intended to put a stop to the sale of shares in visionary oil wells, nonexistent gold mines and other "get-rich-quick" schemes calculated to despoil credulous individuals of their savings.[149]

The court's reference to "visionary oil wells" reveals an interesting connection between energy development and securities laws.[150] In the modern definition of a security, "fractional undivided interest in oil, gas, or other mineral rights" are expressly included in the definition's laundry list.[151] The 1917 Minnesota statute utilized more general terms like stocks, bonds, and investment contracts.[152] But when the court considered this general language, it appears that oil investments were top-of-mind on the list of speculative schemes to be regulated as securities.[153]

Oil exploration ignited in the U.S. with the first oil-specific commercial wells in the mid-1800s.[154] In 1887, the Minnesota legislature

---

S.E. 855, 857 (N.C. 1930); *In re* Bowen, 49 N.E.2d 753, 755 (Ohio 1943); Union Land Assocs. v. Ussher, 149 P.2d 568, 570 (Or. 1944); Brownie Oil Co. of Wis. v. R.R. Comm'n of Wis., 240 N.W. 827, 829 (Wis. 1932).

148. *See* Joseph C. Long, *An Attempt to Return Investment Contracts to the Mainstream of Securities Regulation*, 24 OKLA. L. REV. 135, 169 (1971) (arguing that "[i]n the *Gopher* case there is language indicating that the court had some idea of the risk capital approach").

149. *Gopher Tire*, 177 N.W. at 938 (citations omitted).

150. *Id.*

151. 15 U.S.C. § 77b(a)(1) (Supp. 2018).

152. *Gopher Tire*, 177 N.W. at 938.

153. *See id* ("[The statute] is intended to put a stop to the sale of shares in visionary oil wells . . . .").

154. *See, e.g.*, Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947, 953–54 (2015) (discussing the history and origins of the U.S. oil industry).

> Although many textbooks cite Edw[in] Drake's 1859 oil strike in Titusville, Pennsylvania, as the first major development in the modern petroleum industry, that discovery was not the first, nor was it the first time people recognized oil's utility and potential economic value. In 1543, Spanish explorers

directed the state geologist, N.H. Winchell, to explore for oil, coal, gas, and other resources.[155] Winchell described this legislative act as the result of a "feverish" response to gas discoveries in Pennsylvania and other states and a resulting "impulse toward economic geology in Minnesota."[156]

By 1889, it was apparently evident to Winchell that much of the animation around oil and gas exploration in Minnesota was unwarranted.[157]

> found oil floating on the water's surface on the Texas coast near the present-day city of Port Arthur, and reported using it to caulk their boats. Records from the 18th and 19th centuries indicate that indigenous peoples and European missionaries identified and used oil springs in what is now western New York. By the late 1700s, oil was a recorded object of commerce, sold by the gallon, keg, and bottle. The expansion of the petroleum industry occurred only once a steady supply of oil could reach refiners and consumers. The first reliable petroleum supply was developed in the "Oil Region" of northwestern Pennsylvania, beginning with Drake's well at Titusville in 1859. By the end of 1860 there were 74 oil wells along nearby Oil Creek, a tributary to the Allegheny River, and it was estimated that a total of 200,000 barrels of oil had been produced up to that point.

Id.

155. *See* MINN. STAT. § 226 (1887); *see also* G.B. Morey, *The Search for Oil and Gas in Minnesota,* MINN. GEOLOGICAL SURVEY EDUCATIONAL SERIES-6, 1984, at 1, 20, https://conservancy.umn.edu/bitstream/handle/11299/57260/MGS_ES_6.pdf (describing Winchell's responsibilities). To illustrate the activity surrounding oil and gas at this time, consider that 1887 was also the year that Standard Oil Company filed articles of incorporation in Minnesota. STATE OF MINN., ANN. REP. OF THE SEC'Y OF STATE TO THE LEGIS. OF MINN. FOR THE FISCAL YEAR ENDING JULY 31, 1887, at 16 [hereinafter MINN. LEGIS. REP., 1887]. Standard Oil was the predecessor to modern oil giants such as Exxon and Chevron. It grew into a behemoth that U.S. President and, later, Supreme Court Justice William Howard Taft described as "the greatest monopoly . . . in the world" and "one of the chief reasons" for U.S. anti-trust legislation. Barak Orbach & Grace Campbell Rebling, *The Antitrust Curse of Bigness*, 85 S. CAL. L. REV. 605, 609 (2012) (quoting WILLIAM HOWARD TAFT, THE ANTI-TRUST ACT AND THE SUPREME COURT 85 (1914)). The company created the infamous riches of John Rockefeller. *See generally id.* at 609–11 (describing Rockefeller and the rise of Standard Oil). To illustrate how much the world has changed, consider that the Rockefeller family fortune garnered global attention in 2014 by announcing its plan to divest from fossil fuel investments. *See Fossil Fuel Divestment*, ROCKEFELLER BROTHERS FUND, https://www.rbf.org/about/divestment (last visited Apr. 27, 2019).

156. N. H. WINCHELL, GEOLOGICAL & NAT. HISTORY SURVEY OF MINN., NATURAL GAS IN MINNESOTA 3–4 (1889).

> The great discoveries of gas in Pennsylvania and more recently in Ohio and Indiana, and in other places in the United States, have had their natural effect in Minnesota. They have caused a feverish and sometimes an expressed feeling of unrest, and of curiosity to know what would be the result in case a careful probing of the earth's crust were undertaken. . . . This general impulse toward economic geology in Minnesota resulted in the passage of the following law by the Legislature of 1887.

Id.

157. *See* Morey, *supra* note 155, at 22 ("Already in 1889 it was evident to Winchell that most of the rock formations that furnish gas in the United States are lacking in Minnesota. *Bulletin 5* relates how Winchell's geologic conclusions were for the most part ignored by wildcatters."). After Winchell's investigation, the State turned over operation of exploratory machinery to the private Minnesota Gas, Oil and Fuel Company to explore one potentially promising gas resource. WINCHELL, *supra* note 156, at

Despite that, speculative "wildcat" oil exploration continued for at least a century.[158] By the 1920s, reports of finding oil had sparked interest in various parts of the State, including "periodic reports of striking it rich using divining rods."[159] Reports like this were part of public consciousness. After a retired Methodist minister mysteriously found "pure oil and gasoline" in his water well,[160] headlines reported that "Lake Lillian Holds its Breath" as "Town Awaits Result of the Drilling for Oil."[161]

Newspapers' advertisements from this era of Minnesota's history further illustrate this "feverish" vision of oil and gas riches. For example:

> The Revenue Mining Company touted "The Newest Oil Field" and asked urged readers to "[b]uy in a company which already has oil and gas and other rich products ready for the market. Other companies are selling stock at much more than we are asking and have no development, only the bare ground . . . . Get in now and make this profit within the next few days."[162]
>
> The Paramount Oil & Gas Company issued a "Special Announcement To Investors" about a money-back guaranteed investment. "If You Are Looking for an investment where, at least, 12 per cent annually and the safety of your principal is assured, we can serve you. We can, also, show you speculative possibilities of several hundred per cent that are as sure as anything can be sure in the oil business."[163]
>
> "OIL!" blared Morrison & Company. "One Can Invest Safely in Oil as Well as Speculate, LET US TELL YOU ABOUT [AN OIL STOCK] . . . EARNING ITS DIVIDENDS NINE TIMES OVER REQUIREMENTS. We know of no other preferred stock having behind it such large equities, great earning power, and showing such a satisfactory income yield on the investment."[164]

13–15. "No natural gas or oil were encountered in commercial quantities." Morey, *supra* note 155, at 20.

158. Morey, *supra* note 155, at 27. "'Wildcat' is the term used for exploration ventures in territory not known to be productive." *Id.* at 20.

159. *Id.* at 22.

160. *Id.* at 24.

161. *Lake Lillian Holds its Breath Town Awaits Result of the Drilling for Oil*, BRAINERD DAILY DISPATCH, Aug. 25, 1926, at 8.

162. *Revenue Mining Company*, MINNEAPOLIS J., Oct. 2, 1902, at 9.

163. Paramount Oil & Gas Co., *Special Announcement to Investors*, MINNEAPOLIS SUNDAY TRIB., Mar. 24, 1918, at 5.

164. Morrison & Co., *Oil!*, MINNEAPOLIS MORNING TRIB., Sept. 16, 1920, at 17.

Despite this flurry of oil exploration and interest, Minnesota never succeeded in developing a commercial fossil-fuel extraction industry.[165] Today, stock touts like those above would be likely to run headlong into the anti-fraud protection afforded by federal and state securities laws. Indeed, as the oil and gas industry was taking root in Minnesota, the Secretary of State (commenting on corporations generally) strongly called upon laws to end the "constant practice" of companies organized with the "sole object of preying upon the community in order to enrich a few irresponsible schemers."[166] The prior year, the Secretary of State had noted an "unusually large" number of new corporations formed in 1886 and 1887, attributed to

---

165. *See Minnesota State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/analysis.php?sid=MN (last updated Apr. 18, 2019) (noting that "Minnesota has no fossil fuel production").

> Most of the natural gas discoveries in Minnesota were accidental. Many were spectacular. A few were tragic. Not one was profitable as a commercial venture. But the incentives are strong, and the search continues. Today, after millions of dollars have been invested in hundreds of wells, and after 100 years of frustration, what have Minnesotans learned? Not nearly enough is the answer that this history would suggest.

Morey, *supra* note 155, at 1.

166. STATE OF MINN., ANN. REP. OF THE SEC'Y OF STATE TO THE LEGIS. OF MINN. FOR THE FISCAL YEAR ENDING JULY 31, 1888, at 70–71.

> Another matter of still greater importance is the well known fact that under our present statutes, companies can be organized and legalized with the sole object of preying upon the community in order to enrich a few irresponsible schemers, whose only capital stock is the sanction which the law gives to their enterprise. When a corporation receives on its articles a certificate under the great seal of the state, that it has complied with all the requirements of the law and is authorized to transact business, ordinary people regard that as a certificate of character for which the state, to some extent at least, has become responsible; therefore, as our law now stands it is often the means of deceiving instead of protecting the people, and this department has had abundant evidence that this evil does not exist in theory only but in constant practice. There is an obvious and pressing need of correcting such abuses, so that no corporation which is based upon promises and undertakings to do certain acts in certain future events, can receive the legal sanction of the state until it has been subjected to close scrutiny and given ample guarantee for the fulfillment of its promises.

Id. More broadly, there has been much academic debate about the whether proliferating fraud, or other factors, drove and shaped the early adoption of securities laws. *See, e.g.*, Macey & Miller, *supra* note 133, at 348 (identifying "three separate justifications for blue sky laws," including: "(1) preventing fraud in the sale of securities; (2) combating market failure arising from informational problems; and (3) paternalism"); Mahoney, *supra* note 133, at 249 (concluding that there is a lack of "evidence that the statutes responded to actual instances of fraud" and that adoption was influenced by lobbying by "broad-based political movements" and more specific interests, such as small banks); Joel Seligman, *The Historical Need for A Mandatory Corporate Disclosure System*, 9 J. CORP. L. 1, 18–33 (1983) (discussing "[p]re-1934 [e]vidence of [c]oncealment or [m]isrepresentation of [m]aterial [i]nvestment [i]nformation").

"the general prosperity of the State, but especially for its mineral and manufacturing interests."[167]

This backdrop of visionary oil wells and irresponsible corporate schemers may help us understand why the court in *Gopher Tire & Rubber Co.* preferred to adopt a securities definition broad enough to catch any scheme "of such a character as fairly to fall within the scope of the statute," rather than identify a sharper line.[168] That flexible approach—seeking out the underlying economic reality of a transaction rather than applying a tightly bounded legal test—remains with us in today's treatment of the term "security."[169]

2. A Brief Summary of Investment Contracts Under Federal Law

Minnesota's is not the only example of intersection between the energy sector and the development of securities laws. In 1887 Congress passed the Interstate Commerce Act, making railroads the first federally regulated industry.[170] In 1907, the resulting Interstate Commerce Commission recommended amendments to the Act that would require common carriers to receive approval before issuing securities.[171] This recommendation was adopted in 1920, marking the first instance of permanent federal securities legislation.[172] The same year, the Federal Water Power Act pulled another regulated industry—power utilities—into the world of federal securities regulation.[173]

Outside of the public utilities realm, the energy industry continued to play a role in defining investment contracts. In 1943, the U.S. Supreme Court considered in *SEC v. Joiner* whether an offer of small undivided oil and gas leasehold interests across a 3000-acre tract in Texas involved the sale of securities.[174] The defendant argued that because the statutory

---

167. MINN. LEGIS. REP., 1887, *supra* note 155, at 5.

168. State v. Gopher Tire & Rubber Co., 177 N.W. 937, 938 (Minn. 1920).

169. *See infra* notes 213–18 and accompanying text.

170. Interstate Commerce Act, ch. 104, 24 Stat. 379 (1887); *see generally* Thomas W. Merrill, *The Interstate Commerce Act, Administered Contracts, and the Illusion of Comprehensive Regulation*, 95 MARQ. L. REV. 1141, 1141 (2012) (describing the genesis of the Interstate Commerce Act).

171. LOSS ET AL., *supra* note 133, at 49. State regulation of securities issued by public utilities began earlier, in the early 1900s. *Id.* at 33.

172. LOUIS LOSS & JOEL SELIGMAN, SECURITIES REGULATION 164 (3d ed. 1998).

173. *Id.* at 914.

174. SEC v. C. M. Joiner Leasing Corp., 320 U.S. 344, 345–46 (1943). *Gopher Tire* and *Joiner* are not the only examples of the definition of a security intersecting with the energy sector. Professor Joseph Long has argued that the risk capital test was first conceived in the context of financing gas station constructions during the 1920s. *See* Long, *supra* note 148, at 169 n.153 (discussing Brownie Oil Co. of Wis. v. R.R. Comm'n of Wis., 240 N.W. 827 (1932) and asserting that the relevant financing "was a common means of financing gas station construction during the 1920's").

definition of a security expressly included a "fractional undivided interest in oil, gas or other mineral rights," it excluded the sale of undivided leaseholds.[175] The Court invoked the concept of an investment contract, and looked at the underlying economic "thread" of the transaction, to reach the conclusion that the leaseholds were indeed securities:

> Undisputed facts seem to us however to establish the conclusion that defendants were not as a practical matter offering naked leasehold rights. Had the offer mailed by defendants omitted the economic inducements of the proposed and promised exploration well it would have been a quite different proposition.
>
> . . .
>
> But defendants offered no such dismal prospect. Their proposition was to sell documents which offered the purchaser a chance, without undue delay or additional cost, of sharing in discovery values which might follow a current exploration enterprise. The drilling of this well was not an unconnected or uncontrolled phenomenon to which salesmen pointed merely to show the possibilities of the offered leases. The exploration enterprise was woven into these leaseholds in both an economic and a legal sense; *the undertaking to drill a well runs through the whole transaction as the thread on which everybody's beads were strung*.
>
> . . .
>
> It is clear that an economic interest in this well-drilling undertaking was what brought into being the instruments that defendants were selling and gave to the instruments most of their value and all of their lure. The trading in these documents had all the evils inherent in the securities transactions which it was the aim of the Securities Act to end.[176]

Three years later, the Court developed the still-dominant federal test for determining whether a transaction involves an investment contract.[177]

---

175. *Joiner*, 320 U.S. at 344–49, 352 ("It is urged that because the [securities] definition mentions 'fractional undivided interest in oil, gas, or other mineral rights,' it excludes sales of leasehold subdivisions by parcels.").

176. *Id.* at 348–49 (emphasis added).

177. SEC v. W. J. Howey Co., 328 U.S. 293, 301 (1946).

SEC v. W. J. Howey Co. did not involve the energy industry.[178] Rather, the Court evaluated a scheme in which a citrus farmer offered to sell grove acreage to prospective customers.[179] Purchasers were also offered—and typically accepted—a service contract under which the citrus farmer harvested and marketed the crops on the customers' behalf.[180] "Many of these purchasers [were] patrons of a resort hotel owned . . . by the [citrus farmer]," where sales talks were given to interested hotel guests.[181]

Citing *Gopher Tire & Rubber*, the Court explained that "[f]orm was disregarded for substance and emphasis was placed upon economic reality" when evaluating whether an instrument was an investment contract.[182] For this evaluation, the *Howey* court formulated a four-part test: "[A]n investment contract for purposes of the Securities Act means a contract, transaction or scheme whereby a person":

(1) "invests his money"
(2) "in a common enterprise and"
(3) "is led to expect profits"
(4) "solely from the efforts of the promoter or a third party."[183]

Although the *Joiner* decision did not adopt a formula for the investment contract inquiry, *Howey* explained that the new definition "necessarily underlies this Court's decision in [*Joiner*]."[184] Applying this test to the citrus grove contracts, the Court held that they:

> [C]learly involve[d] investment contracts as so defined [because the transaction offered] . . . something more than fee simple interests in the land, [and] something different from a farm or orchard coupled with management services. They are offering an opportunity to contribute money and to share in the profits of a large citrus fruit enterprise managed and partly owned by respondents. A common enterprise managed by respondents or third parties with adequate personnel and equipment is therefore

178. *See id.* at 294 ("This case involves . . . a citrus grove development . . . .").
179. *Id.* at 295.
180. *See id.* ("Each prospective customer is offered both a land sales contract and a service contract, after having been told that it is not feasible to invest in a grove unless service arrangements are made.").
181. *Id.* at 296–97.
182. *Id.* at 298 (citing State v. Gopher Tire & Rubber Co., 177 N.W. 937, 938 (1920)).
183. *Id.* at 298–99.
184. *Id.* at 299 (citing SEC v. C. M. Joiner Leasing Corp., 320 U.S. 344, 355 (1943)).

> essential if the investors are to achieve their paramount aim of a return on their investments.[185]

Underscoring the Court's focus on the economic reality of a transaction, the *Howey* decision concluded with: "The statutory policy of affording broad protection to investors is not to be thwarted by unrealistic and irrelevant formulae."[186] The legacy of *Gopher Tire & Rubber Co.*'s decision not to tightly bound the definition of a security lives on in *Howey*'s assertion that its four-part test "embodies a flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits."[187]

B. The Rise of the Risk Capital Test as a New Method to Probe Economic Reality

The *Howey* test did not prove to be quite as flexible as intended. In 1961, the California Supreme Court composed a different test in *Silver Hills Country Club v. Sobieski*.[188] Testing the boundaries of the profit element in the *Howey* test and discussion, *Silver Hills* concerned the sale of memberships sold to finance the development of a for-profit country club.[189] Purchasers received the right to use the club facilities, but *not* the right to share in the club's assets or profits.[190] The court held that the memberships were securities as "beneficial interest[s] in title to property," which was one of the enumerated categories of securities under the California statute.[191] Rather than profit, the court focused on the concept of "risk capital": "[the statute's] objective is to afford those who risk their capital at least a fair chance of realizing their objectives in legitimate ventures whether or not they expect a return on their capital in one form or another."[192]

Reminiscent of *Joiner*'s explanation that the oil and gas interests were more than naked leasehold interests, and *Howey*'s explanation that the

185. *Id.* at 299–300.

186. *Id.* at 301.

187. *Id.* at 299.

188. Silver Hills Country Club v. Sobieski, 361 P.2d 906, 908 (Cal. 1961).

189. *Id.* at 906–07.

190. *Id.* at 907.

191. *See id.* at 908 ("The purchaser of a membership in the present case has a contractual right to use the club facilities that cannot be revoked except for his own misbehavior or failure to pay dues. Such an irrevocable right qualifies as a beneficial interest in title to property within the literal language of subsection (a) of section 25008.").

192. *Id.* at 908–09.

orange farmer was selling more than a fee simple interest in land, *Silver Hills* grounded its holding in the court's view of the economic reality of the transaction:

> We have here nothing like the ordinary sale of a right to use existing facilities. Petitioners are soliciting the risk capital with which to develop a business for profit. The purchaser's risk is not lessened merely because the interest he purchases is labelled a membership. Only because he risks his capital along with other purchasers can there be any chance that the benefits of club membership will materialize.[193]

In 1974, the California Supreme Court underscored this focus on risk, this time in the context of a purported "investment contract."[194] In *Hamilton Jewelers v. Department of Corporations*, the court held that a jeweler's offer to sell diamonds for $500, in conjunction with a promise of a 5% return on the investment, was not a security because the purchase price was no greater than the value of the diamond at the time of purchase.[195] "The customer, being adequately secured, would have placed no 'risk capital'" with the jeweler.[196]

Shifting the focus from profit to risk, this risk capital approach appears to be a deviation from the *Howey* test.[197] Indeed, *Howey* expressly rejected speculative risk as a determinative factor:

> We reject the suggestion of the Circuit Court of Appeals . . . that an investment contract is necessarily missing where the enterprise is not speculative or promotional in character and where the tangible interest which is sold has intrinsic value independent of the success of the enterprise as a whole. The test is whether the scheme involves an investment of money in a common enterprise with profits to come solely from the efforts of others. If that test be satisfied, it is immaterial whether the enterprise is speculative or non-speculative, or whether there is a sale of property with or without intrinsic value.[198]

---

193. *Id.* at 908.

194. Hamilton Jewelers v. Dep't of Corp., 37 Cal. App. 3d 330, 333 (Cal. Ct. App. 1974).

195. *Id.* at 336.

196. *Id.*

197. *But see* Hannan & Thomas, *supra* note 133, at 246–47 n.110 (arguing that the *Howey* and risk capital tests are not analytically distinct based on the concept of risk).

198. SEC v. W. J. Howey Co., 328 U.S. 293, 301 (1946).

C. Hawaii Market Center

In 1971, Hawai'i became the third state to adopt the risk capital test, in *Hawaii Commissioner of Securities v. Hawaii Market Center*.[199] The case concerned a marketing scheme wherein up to 5,000 people could become "founder-member distributor[s]" of an enterprise aiming to open a members-only retail store, by purchasing a sewing machine or a cookware set for more than four times the wholesale value.[200] A "distributor" could upgrade to a "supervisor" by purchasing both the sewing machine and the cookware.[201] The purchaser also executed a contract stating that the founder-member-distributors/supervisors could earn money via mechanisms such as commissions (on sales in the yet-to-be developed retail store) and referral fees (for recruiting or "upgrading" participants).[202]

The court evaluated whether this somewhat complicated system, stamped with the hallmarks of a pyramid scheme, was an investment contract.[203] Arguing for the application of the *Howey* test, the defendant argued that the scheme did not involve an investment contract because members did not "expect profits solely from the efforts of others," *Howey*'s fourth element.[204] This argument had succeeded in freeing "Market Center" schemes from blue sky laws in other states.[205]

Rejecting the "polemics" of the *Howey* formula's focus on a "narrow concept of investor participation," and reciting *Gopher Tire & Rubber*'s definition of an investment contract, the court sought to focus on the "economic realities of security transactions."[206] Much like *Howey* had expressed a formula for evaluating investment contracts after *Joiner* did

---

199. *See* Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 110–11 (Haw. 1971) (deciding the case roughly two months after Oregon became the second state to adopt the risk capital test); Oregon *ex rel.* Healy v. Consumer Bus. Sys., Inc., 482 P.2d 549, 552, 554 (Or. Ct. App. 1971) (adopting the risk capital test and discussing how Oregon is the second state to adopt the test); Silver Hills Country Club v. Sobieski, 361 P. 2d 906, 908–09 (Cal. 1961) (pronouncing the first version of the risk capital test).

200. *Hawaii Market Center*, 485 P.2d at 107.

201. *Id.*

202. *Id.*

203. *Id.* at 108.

204. *Id.*

205. *See* Gallion v. Ala. Mkt. Ctrs., Inc., 213 So. 2d 841, 846 (Ala. 1968) (concluding "that the founders contracts involved here are not investment contracts under the Alabama Securities Act"); Ga. Mkt. Ctrs., Inc. v. Fortson, 171 S.E.2d 620, 624 (Ga. 1969). In Florida, however, a similar scheme was deemed a security by an appellate court as an "'interest[] in or under a profit-sharing or participation agreement or scheme' within the meaning of" Florida's blue sky law." Fla. Disc. Ctrs., Inc. v. Antinori, 226 So. 2d 693, 695 (Fla. Dist. Ct. App. 1969) (quoting FLA. STAT. ANN. § 517.02(1) (1967)).

206. *Hawaii Market Center*, 485 P.2d at 108–09.

not, the Hawai'i Supreme Court adopted the risk capital approach by deploying an enumerated test:

> [A]n investment contract is created whenever:
>
> (1) An offeree furnishes initial value to an offeror, and
>
> (2) a portion of this initial value is subjected to the risks of the enterprise, and
>
> (3) the furnishing of the initial value is induced by the offeror's promises or representations which give rise to a reasonable understanding that a valuable benefit of some kind, over and above the initial value, will accrue to the offeree as a result of the operation of the enterprise, and
>
> (4) the offeree does not receive the right to exercise practical and actual control over the managerial decisions of the enterprise.[207]

The court attributed this formula to Professor Ronald Coffey, proposed "in his excellent article analysing the essential economic characteristics of security transactions."[208] Applying its new risk capital formula, the court found that the scheme was an investment contract.[209] On the first element (initial value) the court explained that the founder-member purchases were not simple merchandise purchases.[210] Instead, the founder-members had paid a substantial premium for the right to receive future income.[211] Quoting *Joiner*'s rationale "[t]he success of the plan is the common 'thread on which everybody's beads [are] strung,'" the court held that "[t]hese overcharges constitute the offerees' investments or contributions of initial value, such value being subjected to the risks of the enterprise."[212]

On the third element (valuable benefit), the court rejected the defendant's argument that the founder-member's expectations were based on the promise of commissions rather than a share in the enterprise's

---

207. *Id.* at 109.

208. *Id.* at 109 n.5 (citing Ronald J. Coffey, *The Economic Realities of a Security: Is There a More Meaningful Formula*, 18 W. RES. L. REV. 367, 413 (1967)).

209. *Id.* at 111.

210. *Id.* at 110.

211. *Id.*

212. *Id.* (quoting SEC v. C. M. Joiner Leasing Corp., 320 U.S. 344, 348 (1943)) (second alteration in original).

profits, and therefore the transaction lacked an essential profit element.[213] Again citing the *Joiner* decision and the concept of "economic realities," the court explained that "the fact that in the instant case [Hawaii Market Center] guaranteed the offerees amounts of money independent of enterprise profits does not undermine the investment nature of the transactions."[214]

On the fourth element (right to exercise managerial control), the court discounted founder-member participation in the enterprise as "minor."[215] Citing Coffey's work, the court explained the need to focus on the quality of the participation.[216] In order to negate the finding of a security, the offeree should have practical and actual control over the managerial decisions of the enterprise.[217] For it is this control which gives the offeree the opportunity to safeguard his own investment, thus obviating the need for state intervention.[218]

Finding that the founder-members were "powerless" to protect their original investment because they possessed "none of the incidents of managerial control which would preclude the finding of a security," the court held that under the economic realities approach the founder-member agreements were investment contracts.[219]

Several months later, the SEC endorsed the *Hawaii Market Center* test in the context of multi-level distributorships and pyramid schemes, noting that the Hawai'i Supreme Court had "embrac[ed] interpretive principles of the kind laid down by the U.S. Supreme Court in Howey and Joiner" and opining that the "court's analysis of the investment-contract concept in the Hawaii Market Center case is equally applicable under the Federal securities laws."[220]

Despite this pronouncement from the SEC, the risk capital test has not supplanted the *Howey* test in the federal courts. It remains the minority test, adopted by statute, rule, or decision in at least seventeen jurisdictions.[221]

---

213. *See id.* (rejecting the defendant's narrow definition of profits to find that the transaction did, in fact, include the profit element).

214. *Id.* (citing Roe v. United States, 287 F.2d 435, 439 (5th Cir. 1961)).

215. *Id.* at 109, 111.

216. *Id.* at 111 (citing Coffey, *supra* note 208).

217. *Id.*

218. *Id.*

219. *Id.* The court explained that managerial control sufficient to escape the fourth element would include the "power to influence the utilization of accumulated capital" or "authority over decisions which will affect the operation of the store." *Id.*

220. Multi-Level Distributorships and Pyramid Sales Plans, Securities Act Release No. 5211, Exchange Act Release No. 9387, Fed. Sec. L. Rep. (CCH) ¶ 1048 (Nov. 30, 1971).

221. *See, e.g.*, Tennessee v. Brewer, 932 S.W.2d 1, 13 & n.13 (Tenn. Crim. App. 1996) ("From our review of the case law of other jurisdictions, it appears that the *Howey–Forman* test is the majority

Nonetheless, in 1975's decision in *United Housing Foundation, Inc. v. Forman*, the U.S. Supreme Court appeared to bend the *Howey* test toward *Hawaii Market Center*.[222] Finding that cooperative housing residents who had purchased stock in a cooperative housing corporation had purchased neither "stock" nor an "investment contract" within the meaning of the securities definition, the Court once again reiterated that the definition is focused on the economic realities of the transaction.[223]

Apparently realizing that its earlier pronouncement was too rigid, the Court undertook to refine the *Howey* test.[224] To this end, the Court stated that "[t]he touchstone is the presence of an investment in a common venture premised on a reasonable expectation of profits to be derived from the *entrepreneurial or managerial efforts* of others."[225] "This language effectively deleted the strict 'solely' requirement from the [*Howey*] test in much the same manner as the [Hawai'i] Supreme Court did."[226]

In the ensuing decades, the *Hawaii Market Center* formulation has been frequently cited in reference to its formulation of the risk capital test.[227] In 2006, the formula was codified in Hawai'i's version of the Uniform Securities Act.[228]

IV. EXPLORING THE ECONOMIC REALITY OF COMMUNITY SOLAR—NOT A SECURITY

The foregoing summary of the investment contract analysis highlights its most important thread, which survived from *Gopher Tire & Rubber* all

---

rule in the United States. However, the definition pronounced in *Hawaii Market* is also not without support. Its combined *Howey*-risk capital test, or forms substantially similar thereto, has been adopted by at least seventeen jurisdictions. In his treatise on state securities laws, Professor Long states that 'it is arguable that this test will eventually replace *Howey[-Forman]* as the leading test for investment contracts, at least at the state level.'" (quoting Joseph C. Long, *Blue Sky Law* § 2.04(4), at 2–146 (1992)) (alteration in original)).

222. United Hous. Found., Inc. v. Forman, 421 U.S. 837, 841–43 (1975).

223. *Id.* at 851, 859–60.

224. *Hawaii Market Center*, 485 P.2d at 108–09.

225. *Forman*, 421 U.S. at 852 (emphasis added).

226. *Brewer*, 932 S.W.2d at 12 (quoting *Forman*, 421 U.S. at 852).

227. *See id.* at 12–13 (noting that "the definition pronounced in *Hawaii Market* is also not without support. Its combined *Howey*-risk capital test, or forms substantially similar thereto, has been adopted by at least seventeen jurisdictions").

228. *See* HAW. REV. STAT. § 485A-102 (Supp. 2017) ("'Security' . . . [i]ncludes any contractual or quasi-contractual arrangement pursuant to which: (A) A person furnishes value, other than services, to an offeror; (B) A portion of that value is subjected to the risk of the offeror's enterprise; (C) The furnishing of that value is induced by the representations of an offeror which give rise to a reasonable understanding that a valuable benefit will accrue to the offeree as a result of the operation of the enterprise; and (D) The offeree does not receive the right to exercise practical and actual control over the management of the enterprise in a meaningful way . . . .").

the way through to today's statutory definition in Hawai'i: transactions must be analyzed by focusing on their "economic realit[ies]."[229] Whether using the risk capital test or the *Howey* test, we are admonished not to apply the legal tests mechanically and we are warned against "unrealistic and irrelevant formulae."[230] Indeed, the genesis of the *Hawaii Market Center* test was in Professor Coffey's attempt—"with some trepidation"—to create the risk capital test as "a more complete and reliable shorthand description of the of the economic realities underlying the 'security' concept."[231] Coffey joined the chorus in calling out "the problems created when courts and administrative agencies become too enamored of neat formulas handed down from prior opinions and fail to focus on the essential economic considerations relevant to identifying a security."[232]

A. Applying the Risk Capital Test to Community Solar

In Coffey's description, the general approach to identifying a security involves the following master question as a starting point: "What characteristics or features of [the] transaction necessitate its being subject to the rather specialized anti-fraud protection afforded by the securities laws?"[233] More specifically, Coffey created the risk capital test based on his contention that "risk to initial investment, though not determinative, is the single most important economic characteristic which distinguishes a security from the universe of other transactions."[234]

Although this focus on risk is not outwardly embraced by the *Howey* test, risk has undeniably been an important component of the investment contract analysis since its inception; consider again *Gopher Tire & Rubber Co.*'s illustrative list of "visionary oil wells, nonexistent gold mines, and other 'get-rich-quick' schemes" as securities in need of regulation.[235] Risk is a fundamental component of economic reality, and economic reality is the touchstone of the investment contract analysis.[236] Through this lens, the risk capital test is an apt tool for evaluating community solar as a security.

---

229. SEC v. W. J. Howey Co., 328 U.S. 293, 298 (1946).

230. *Id.* at 301 ("The statutory policy of affording broad protection to investors is not to be thwarted by unrealistic and irrelevant formulae."); *see also* Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 109 (Haw. 1971) ("Any formula which purports to guide courts in determining whether a security exists should recognize this essential reality and be broad enough to fulfill the remedial purposes of the Securities Act.").

231. Coffey, *supra* note 208, at 370.

232. *Id.*

233. *Id.* at 376.

234. *Id.* at 375.

235. State v. Gopher Tire & Rubber Co., 177 N.W. 937, 938 (Minn. 1920).

236. Hannan & Thomas, *supra* note 133, at 227.

In the Parts that follow, I attempt to avoid an overly mechanical application of the four elements of the risk capital test, and instead use each to understand the economic reality of community solar from the perspective of participants. I argue that the conclusion that community solar is likely to be regulated as a security is far less tenable than it might first appear.

1. Initial Value

The first prong of the risk capital test is whether an offeree furnishes "initial value" to an offeror.[237] A rote application of the test to community solar might conclude that if consumers pay (or agree to pay) an enrollment fee or deposit for participating in a community solar project, then "initial value" has been provided.[238] Such rote application is incorrect.

In *Hawaii Market Center*, the court found "initial value" because participants in the pyramid scheme were overcharged a "substantial premium[]" for merchandise.[239] The premium was "given in consideration for the right to receive future income from the corporation."[240] Without the premium, the transaction presumably could have been characterized as a simple purchase of merchandise, rather than involving risk capital. Indeed, this is exactly the rationale employed in *Hamilton Jewelers* to distinguish its result from *Hawaii Market Center*.[241] Coffey explained that the "fact that the buyer receives tangible property in return for his value may signal the need for unusually careful analysis."[242] This statement is conceptually related to the observation in *Forman* that "when a purchaser is motivated by a desire to use or consume the item purchased . . . the securities laws do not apply."[243]

Other perspectives on initial value lead to the same result. The concept of an offeree providing initial value is analogous to California's requirement that a security must involve an offeree providing risk capital to

237. Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 109 (Haw. 1971).

238. Coffey, *supra* note 208, at 380–81.

239. *Hawaii Market Center*, 485 P.2d at 110.

240. *Id.* (stating that "[t]hese overcharges constitute the offerees' investments or contributions of initial value").

241. Hamilton Jewelers v. Cal. Dep't Corp., 37 Cal. App. 3d 330, 336 (Cal. Ct. App. 1974) (stating that "this case is unlike [*Hawaii Market Center*], where the sums invested were disproportionately greater than the wholesale value of the merchandise purchased").

242. Coffey, *supra* note 208, at 380–81 (noting that "it by no means precludes the possibility that the whole transaction constitutes a security," and rather that the "the question is still whether the transaction exhibits the 'economic realities' of a security").

243. United Hous. Found., Inc. v. Forman, 421 U.S. 837, 852–53 (1975).

a business enterprise.[244] In *Moreland v. Department of Corporations*, the California Court of Appeals applied this requirement to the following scenario: investors agreed to purchase a quantity of gold ore, in conjunction with a contract whereby the seller would refine the ore and provide the refined gold to the purchaser.[245] The seller intended to use the sale proceeds "to raise the capital for a new milling and refinery plant."[246] Evaluating the transaction in a variety of ways, the court concluded that notwithstanding the seller's intention to use the proceeds to construct the mill and refinery, the transaction was fundamentally the sale of a commodity, and not a security.[247] It was not a contribution of risk capital to the seller's mining enterprise.[248] The court's reasoning aptly illustrates the danger of mechanically applying the risk capital elements, pointing out that the intended use of the sale proceeds appeared to "[s]uperficially" satisfy the requirement of soliciting risk capital.[249] But in economic reality, "every purchaser of a product from a seller, who reinvests the proceeds of the sale in his business operations, contributes to a seller's business capital."[250] That concept does not transform a transaction from an ordinary sale into a security.[251]

Applying the initial value prong in this manner, we find it missing in a typical community solar transaction. Consumers do not pay a premium for the solar panels and other equipment in consideration for a later share in profits from the project. Rather, consumers typically purchase or lease an ownership interest in some panels, or an interest in a portion of the project's power output. Inherently, the future output of those panels defines the value

---

244. *See* Moreland v. Cal. Dep't Corp., 239 Cal. Rptr. 558, 566 (Ct. App. 1987) ("The 'risk capital' test requires a consideration of the following factors: (1) whether funds are being raised for a business venture or enterprise; (2) whether the transaction is offered indiscriminately to the public at large; (3) whether the investors are substantially powerless to effect the success of the enterprise; and (4) whether the investors' money is substantially at risk because it is inadequately secured.").

245. *Id.* at 560. The quantity of refined gold was to be determined by the assayed gold content of the ore. *Id.* at 563.

246. *Id.* at 568.

247. *Id.*

248. *Id.*

249. *Id.*

250. *Id.*

251. *See id.* ("Notwithstanding, such a contribution is an investment in the purchased product and not a contribution of risk capital to a business enterprise within the normal scope of securities regulation. The issue here is whether appellant's use of the proceeds of sale for the construction of refining facilities changes the essential transaction from an ordinary sale of a commodity to capital participation in a business. We hold that it does not."). *Cf.* Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 110 (Haw. 1971) ("The salient feature of securities sales is the public solicitation of venture capital to be used in a business enterprise.") (citing, for example, Silver Hills Country Club v. Sobieski, 361 P.2d 906, 908 (Cal. 1961)).

of such an interest, and for community solar that value is realized in the form of future credits on the consumer's electricity bill.[252] The prospective nature of this value is fundamental to the operation of solar panels and electricity; in practice, a consumer cannot purchase a batch of solar-generated electrons and store them in a closet until they are needed to light a bulb or power a fridge. The prospective nature of the value is not like a premium paid for sewing machines in *Hawaii Market Center*.[253] Nor is it like a premium paid for prospective value—or not—in visionary oil wells. Rather, it is inherent to the entire concept of solar power generation. This inherent characteristic cannot reasonably turn all community solar interests into securities.

2. Risks of the Enterprise

The second prong of the *Hawaii Market Center* test looks for whether a portion of the initial value is "subjected to the risks of the enterprise."[254] This risk element is a key factor distinguishing a security from other transactions.[255]

Here again, rote application to community solar yields an all-too-easy conclusion. One can envision a number of scenarios in which a community solar project might not return value to the participants. It might catch on fire. The developer might abscond to Tahiti before the project is complete. The panels might stop functioning. Future electricity prices might fall substantially in comparison to the cost of participating in community solar. These risks are like risks involved in everyday life and everyday commercial transactions.[256] They are not like the risks associated with

---

252. *See infra* note 273 (describing the community solar bill credit mechanism in Hawai'i).

253. *See infra* notes 258–62 and accompanying text (discussing *Hawaii Market Center*).

254. *Hawaii Market Center*, 485 P.2d at 109.

255. *See* Coffey, *supra* note 208, at 381 ("In the proposed test, one of the most important economic characteristics of a security is the fact that the buyer's initial investment is somehow, considering the effects of the entire transaction, subjected to the risks of an enterprise."); *see also* Hannan & Thomas, *supra* note 133, at 241 (asserting that "in determining whether or not a security is involved in a particular transaction, analysis of the type, character, and allocation of the risk of loss provides a reliable barometer").

256. *Cf.* Hannan & Thomas, *supra* note 133, at 242 ("Risk analysis is also helpful in distinguishing between normal 'commercial' risks, which lie outside the purview of the [securities] acts, and investment type risks, which fall within the definition of the term security. The reality of our market place is that nearly all businesses ultimately finance themselves by obtaining public f[u]nds through the sale of goods or services. Whenever some future performance is promised to the customer of an enterprise, there is the commercial risk that the promisor will not perform or that intervening insolvency of the promisor will prevent or delay the performance. These types of 'normal' commercial risks, without more, do not shift the principal risk to the customer.").

investing in visionary oil wells.[257] Nor are they like the risks considered in *Hawaii Market Center*.[258] That case involved a pyramid scheme.[259] Founder-members would recoup their initial investment and earn income from recruiting others, and perhaps collecting commissions on sales in the yet-to-be-developed retail store.[260] The court observed that the recruitment scheme increased geometrically and was capped at 5,000 founder-members.[261] Therefore, most founder-members would not be able to collect sufficient recruitment fees to recoup their investment; their return would be determined by sales in the store.[262] They would receive essentially no return on their investment if the store was not built: "the security of the founder-members' investments is inseparable from the risks of the enterprise."[263] Quoting *Joiner*, the court reasoned that the "success of the [retail store] plan is the common 'thread on which everybody's beads [are] strung.'"[264]

This citation to *Joiner* invites us to even more directly consider the visionary oil wells scenario. Recall that *Joiner* involved the sale of individual mineral leaseholds scattered through a large tract of land.[265] The leaseholds were deemed securities because they were coupled with a promise to engage in oil exploration—and perhaps more precisely, the

---

257. *Cf.* Robert A. Brown, *Investing in Oil and Gas Drilling*, 16 ALTA. L. REV. 232, 236, 241–42 (1978) (describing a range of factors involved in creating the "high risk" of investing in the oil and gas business).

258. *See Hawaii Market Center*, 485 P.2d at 109 (applying the risk capital test to transactions "motivated by the need to raise capital to finance the opening of the proposed Hawaii Market Center store").

259. *See, e.g.*, Frank M. Hull, *Pyramid Marketing Plans and Consumer Protection: State and Federal Regulation*, 21 J. PUB. L. 445, 456–57 (1972) (describing the *Hawaii Market Center* scenario as a pyramid scheme).

260. *Hawaii Market Center*, 485 P.2d at 107.

261. *Id.* at 110.

> The recruitment fee paid to distributors and supervisors, during the pre-operational phase of the plan, rests upon the promoters' ability to sell the success of the plan to prospective members. In addition, those members who choose to rely solely on the second method of earning income, the payment of commissions based on sales, receive no return at all on their investment unless the store functions successfully. This latter point is particularly important because recruitment of members increases geometrically. Therefore, since membership is limited to five thousand, a very large percentage of founder-members will be totally dependent on sales commissions to recover their initial investment plus income. It is thus apparent that the security of the founder-members' investments is inseparable from the risks of the enterprise.

Id.

262. *Id.* at 107.

263. *Id.*

264. *Id.* (quoting SEC v. C. M. Joiner Leasing Corp., 320 U.S. 344, 348 (1943)) (alteration in original).

265. *Joiner*, 320 U.S. at 345.

speculative chance that a well on a particular leasehold would strike oil. This formed the economic "thread" of the transaction.[266] The Court even noted that during the drafting of the federal securities laws, oil and gas rights "were notorious subjects of speculation and fraud."[267]

California's approach to risk capital again lends additional context. In *Moreland*, the court believed that the gold investors were "adequately secured against the risk [seller] might default in his performance under the refining contract."[268] Much like the *Hawaii Market Center* reasoning, the California court observed that investors did not pay a premium for a future promise of refined gold.[269] Instead, they received a right to receive an adequate quantity of ore based upon its assayed gold content.[270] Even though the investor's profitability was not ensured, the court held that the investment was adequately secured, further cementing the conclusion that the purchasers did not place risk capital with the seller.[271]

Any of these threads illustrate that to properly understand the economic realities of community solar, we must do more than simply identify *some* type of risk to community participants. We must more carefully scrutinize the economic thread underlying community solar and search for insight on the type, character, and allocation of the risk.[272]

The success of a community solar project does not depend on speculation that a well will strike oil, nor on speculation that a retail store will successfully generate sales. Rather, the common economic thread of community solar is found in a regulated community solar tariff or program overseen by a public utilities regulator. Participants typically recoup their investment via an approved regulatory tariff, specifying the manner in which participants will receive electric bill credits in proportion to electricity generated by the solar panels.[273] Thus, participants' risk is

---

266. *Id.* at 348.

267. *Id.* at 352.

268. Moreland v. Dep't of Corps., 239 Cal. Rptr. 558, 568–69 (Ct. App. 1987).

269. *Id.* at 569.

270. *Id.*

271. *Id.*; *see also* People v. Figueroa, 715 P.2d 680, 696 (Cal. 1986) ("Thus, for example, 'where the investor receives adequate collateral, no risk capital is contributed to the managerial efforts of the promoter and such business transaction does not come within the Corporate Securities Law.'" (first quoting People v. Schock, 199 Cal. Rptr. 327, 331 (Ct. App. 1984); then citing Hamilton Jewelers v. Cal. Dep't Corp., 112 Cal. Rptr. 387, 390–91 (Ct. App. 1974))).

272. *See generally* Hannan & Thomas, *supra* note 133, at 224.

273. *See* PUC Adopted Framework, *supra* note 76, at att. A 28 ("The bill credit shall be calculated as follows: Bill Credit ($) = Bill Credit Rate ($/kWh) x Subscription (Subscriber's percentage of total [community solar] Facility capacity) x [community solar facility] Output (actual monthly . . . output in kWh)"); *see also* NREL, SHARED SOLAR, *supra* note 96, at vi ("Electricity benefits are typically allocated on a capacity or energy-production basis. Participants in capacity-based programs own, lease, or subscribe to a specified number of panels or a portion of the system and

fundamentally limited to whether or not the panels will generate electricity. Through this lens, the pertinent risks are (1) the proposed project might not be built; and (2) once built, the project will not generate sufficient power.

In Hawai‘i, an escrow requirement protects participants from the first risk.[274] Pre-development enrollment fees or deposits must be kept in an escrow account, and will not be released to developers until the project realizes commercial operation.[275] Even without an escrow requirement, when a community solar participant receives a contractual right to solar panels or their power output, that right should *adequately secure* their interest in the sense utilized in *Moreland*.[276]

The risk that a project will not continue generating power is also mitigated. As a general matter, solar panels have a long lifespan.[277] As a growing body of field data corroborates this durability over longer and longer lifespans, solar module warranties have increased accordingly; a typical solar panel warranty can cover 25 years.[278] In Hawai‘i’s community solar program, the details of such equipment warranties must be disclosed to participants.[279]

This functional durability allows our focus to shift to risks associated with a project developer. In *TriVectra v. Ushijima*, the Hawai‘i Supreme Court affirmed the finding of an investment contract security in part

---

typically receive electricity or monetary credits in proportion to their share of the project."). In the Hawai‘i regulators' approach, participants' risk is further bounded because the bill credit is fixed for the term of the contracted participation. *See* PUC Adopted Program Framework, *supra* note 76, at 81 (explaining that bill "credit rates are fixed for the term of the Standard Contract").

274. PUC Adopted Framework, *supra* note 76, at att. A 29.

275. *Id.* at att. A 28–29 ("[Community solar] [s]ubscribers will be required to enter into an appropriate [subscriber agreement] with the [community solar] Subscriber Organization. The Agreement . . . shall contain standard information and provisions that ensure transparency and proper consumer protection. The Agreement must include, at minimum, the following elements: . . . Use of escrow account to hold any pre-development enrollment fees or deposits, which will be released to the Subscriber Organization upon commercial operation . . . ."). This is also relevant to the first prong of the test, concerning *initial value*; until the project is actually generating the power promised to the consumer, *no value* is provided to the developer, irrespective of whether such value would be viewed as a premium in the sense of *Hawaii Market Center*.

276. Other consumer protections are also likely to apply. For example, Hawai‘i’s community solar framework requires that when developers apply for the program, they must "[d]emonstrate/establish financial creditworthiness through posting of a surety bond, a financial guarantee, a letter of credit, or other sufficient evidence of financial ability to develop the project." *Id.* at att. A 17.

277. *See generally* D.C. Jordan et al., *Photovoltaic Failure and Degradation Modes*, 25 PROGRESS IN PHOTOVOLTAICS: RES. APPLICATIONS 318, 324 (2017) (reporting photovoltaic failure rates in the range of other consumer products, but that their long lifetime makes direct comparison difficult).

278. *Cf.* D.C. Jordan & S.R. Kurtz, *Photovoltaic Degradation Rates—An Analytical Review*, 21 PROGRESS IN PHOTOVOLTAICS: RES. APPLICATIONS 12, 16 fig. 4 (2011) (illustrating the evolution of a "typical" warranty).

279. *See* PUC Adopted Program Framework, *supra* note 76, at att. A 26.

because the participants "could only realize a return if [the seller, a website operator,] remained viable and sufficiently capitalized to honor its . . . commitments."[280] But *TriVectra*, properly viewed, counsels that community solar is not a security. Once a solar project reaches commercial operation, it makes little difference whether the original developer remains viable. While participants will undoubtedly want some entity to conduct maintenance if necessary and to provide the utility with accounting information sufficient to allocate energy credits, that function could be satisfied by any number of entities (including, if necessary and prudent, the electric utility). In economic reality, the participants' risk with respect to the ongoing participation of the original developer is even lower than in other commercial contexts.

Perhaps because of the durability of a solar project and the fungibility of its operator, Hawai'i's community solar framework relies largely on a required consumer disclosure checklist to address the long-term risks of power production.[281] In addition to disclosing equipment warranties and other information, that checklist requires developers to provide an output guarantee, including a "[d]efinition of underperformance and a description of the compensation to be paid by the [community solar developer] for any underperformance."[282] Buttressing this output guarantee, developers must also provide: (1) information about the type and level of insurance for the project, and the insurance benefits that protect participants; (2) proof and description of a long-term maintenance plan; and (3) assurances that all installations, upgrades, and repairs will be completed under the direct supervision of qualified professionals, in accordance with industry standards and manufacturer recommendations.[283] This community solar process abounds with other disclosures too. For example, agreements between participants and a developer must include information about the developer's identity, the credit rate to be applied to the participant's bill, and information about how that credit will be calculated.[284]

---

280. *See* TriVectra v. Ushijima, 144 P.3d 1, 11 (Haw. 2006) (stating that "members could only realize a return if [the promoter] remained viable and sufficiently capitalized to honor its . . . commitments" and that "[a]ccordingly, the commissioner was not wrong in concluding that the members' initial value investments were subject to the risks of the enterprise").

281. PUC Adopted Program Framework, *supra* note 76, at att. A 25–26.

282. *Id.* at att. A 26.

283. *Id.* at att. A 25–26.

284. *Id.* at att. A 29. Hawai'i's community solar framework also mandates that participants will be allowed to transfer their bill credits from address to address if they move within an electric utility's service territory, at no cost to the participant. *Id.* Transfers from one utility customer to another customer are also allowed at a price disclosed in the original agreement between the participant and developer. *Id.* at att. A 30. Finally, participants also receive the right to exit the program by selling their interest back to the developer at a price pre-set in the agreement. *Id.*

Hawai'i's Securities Commissioner has described that, "[d]isclosure is at the center of securities regulation."[285]

> The Securities Act provides for disclosure through its registration process. In the Securities Act the Hawaii State Legislature included a list of the information and records required for registering a security. This list has been tailored to meet the minimum disclosure that an investor would need in order to be properly informed about a particular security and the person selling it.[286]

This standard registration process is designed for standard securities. In comparison to the disclosures tailored by the Public Utilities Commission specifically for community solar,[287] general securities disclosures seem likely to provide substantially weaker consumer protections. In economic reality, the level of consumer risk implicated in community solar simply does not rise to a level of a visionary oil well requiring regulation as a security.

3. Promise of a Valuable Benefit

Despite Coffey's focus on the element of risk as the defining characteristic of a security, it has not been the focal point of discussion for community solar.[288] Instead, that focus has often been on whether participants are motivated by the promise of "profit[]."[289] This element arises directly in the *Howey* test.[290] To be deemed a security, the investment must be "premised on a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others."[291] Applying the risk capital test, this profit motive takes the shape of expecting a "valuable benefit."[292]

CommunitySun's successful request for a no-action letter did not mention "risk."[293] The word "profit," however, was used more than twenty

---

285. Nohara Letter, *supra* note 103, at 4.

286. *Id.*

287. *Id.*

288. Coffey, *supra* note 208, at 375.

289. *Id.*

290. *See* SEC v. W. J. Howey Co., 328 U.S. 293, 301 (1946) ("Such persons have no desire to occupy the land or develop it themselves; they are attracted solely by the prospects of a return on their investment.").

291. United Hous. Found., Inc. v. Forman, 421 U.S. 837, 852 (1975).

292. Coffey, *supra* note 208, at 377.

293. Maco Letter, *supra* note 98.

times, and the request's leading argument was that participants did not expect a profit.[294]

> No reasonable expectation of profits exists and no entrepreneurial efforts of others is present in this case, since the owners are motivated by the ability to self-generate and self-consume a commodity and by the corresponding reduction in the overall cost of energy that they are consuming. The owner of a SolarCondo will not be paid by the utility for the electricity generated by a SolarCondo, other than by an offset against the bill for electricity consumed by the owner on property within the applicable utility district. The owner of a SolarCondo cannot even carry over his energy credits for other than a limited time, and can never sell or trade his energy credits, again confirming no reasonable expectation of profit.[295]

Nonetheless, the CommunitySun developer acknowledged that participants may benefit from lower electricity bills, or that the relative value of their participation could go up over time, if electricity rates rise.[296]

For the risk capital test, Hawai'i's Securities Commissioner suggested that the *Howey* profit motive is narrower than the concept of a "valuable benefit":

> *Hawaii Market Center*'s four-part definition of an investment contract differs from *Howey*'s in several ways. The most relevant difference to a [community solar] project is *Hawaii Market Center*'s third prong of the definition, which states that the investor has a "reasonable understanding that a valuable benefit will accrue . . . ." *Howey* does not require a "valuable benefit" but instead requires an expectation of a "profit." Therefore, analysis of an investment contract in a jurisdiction following *Hawaii Market Center* will be broader in this way than in jurisdictions that follow *Howey*.[297]

The electric utilities echoed this suggestion.[298] But this argument is somewhat difficult to reconcile with the way the phrases "valuable benefit"

---

294. *Id.* at 10–11.

295. *Id.* at 14.

296. *Id.* at 11–12. Note that the inverse is also true: the value of participation in community solar could go down over time, if electricity rates fall.

297. Nohara Letter, *supra* note 103 (second alteration in original).

298. *See* HECO Comments on Second PUC Proposal, *supra* note 87, at 32–33 ("Additionally, the Securities Commissioner noted that Hawaii's test for securities was broader than the federal test

and "profit" have been used and interpreted. Courts applying the *Howey* test have acknowledged that "profit" can mean "something other than a share of the profits of an enterprise in a narrow accounting sense,"[299] and "have recognized securities sales even where the promised benefits to the offeree were indirect, arising from an anticipated increase in the value of the property received, rather than direct payments from the offeror."[300]

This conceptual convergence is the mirror image of an analytical problem with too broadly interpreting "valuable benefit." We can presume that *all* transactions in goods are motivated by the buyer's perception that the purchased good will yield a valuable benefit. If the same is true for securities, then this element adds little utility to the risk capital test. This also drives the need for *Forman*'s recognition that the securities definition does not apply when a purchaser "is motivated by a desire to use or consume the item purchased."[301]

In almost any context, probing a purchaser's motivation is tricky business. For community solar, this may be a particularly difficult challenge. The economic reality of a community solar project is that the participants in any one project may have divergent motivations, and that each individual participant may have multiple motivations.[302] CommunitySun argued that participants may be motivated by lower energy costs *and* a perception of independence (i.e., "the ability to self-generate and self-consume a commodity").[303] Other consumers might be motivated by the prospect of less volatile energy costs.[304] Some participants may be motivated by the perceived benefit of acquiring renewable power rather than fossil-fuel power, and by the associated reduction in greenhouse gas emissions.[305] And yet others may be motivated by community-focused facets of a project. For example, a participant may be motived by the

---

such that an interest that may not be a 'security' under the federal test could be deemed a 'security' under the Hawaii test.").

299. *See* Hannan & Thomas, *supra* note 133, at 238 ("The term 'profits' should not be construed restrictive. It is apparent from decisions subsequent to *Howey* that the return promised for the use of the investors' money may be something other than a share of the profits of an enterprise in a narrow accounting sense." (first citing SEC v. United Benefit Life Ins. Co., 387 U.S. 202 (1967); then citing SEC v. Variable Annuity Life Ins. Co., 359 U.S. 65, 74 (1959); then citing L.A. Tr. Deed & Mortg. Exch. v. SEC, 285 F.2d 162, 167 (9th Cir. 1960))).

300. Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 110 (Haw. 1971) (first citing SEC v. C. M. Joiner Leasing Corp., 320 U.S. 344, 348–49 (1943); then citing Roe v. United States, 287 F.2d 435, 439 (5th Cir. 1961)).

301. United Hous. Found., Inc. v. Forman, 421 U.S. 837, 852–53 (1975).

302. *See* Maco Letter, *supra* note 98, at 11–12 (describing various motivations for participating in community solar).

303. *Id.* at 11, 14.

304. *Id.* at 11.

305. *Id.*

prospect of providing power to a community center or church just as much as they are motived by the promise of credits on their own electric bill.

This entire palette of potential motivations involves the perception that participants are acquiring a valuable benefit in the broad sense. An overly broad application of the valuable benefit element is incapable of discerning which of these motivations renders the transaction more like a security. It also fails to identify a decision-making hierarchy for transactions motivated by a combination of primary, secondary, or tertiary factors. Most fundamentally, it fails to identify the economic realities of the transaction.

Coffey's risk capital formulation avoided this tangled complexity by recognizing that the importance of the valuable benefit element can be viewed as inversely proportional to the degree of risk.[306] "[A]s the degree of risk to initial value increases, the need for a well-defined 'profit' motive lessens."[307] On this sliding inverse scale, it should also be true that where there is a low degree of risk to initial value, one needs to find a highly defined profit motive before finding a security.[308] This too can help to elucidate a more principled line between transactions in goods and securities, and to show why community solar is not a security. The relatively low risk associated with community solar means that we should search for a well-defined profit motive. The diffuse web of potentially interlocking community solar motivations simply does not provide the necessary level of definition.

The most *profit-like* benefit associated with community solar is the prospect of electric bill savings. Arguments in favor of classifying community solar as a security, resting on this premise, should be burdened with first establishing a significant level of systemic risk. Further, those arguments should be required to connect electricity savings to a well-defined profit motive that is separate from the motive of cost-effective self-consumption.

Analogizing to cooperative apartment arrangements (co-ops) illustrates how difficult it would be to satisfy such a burden. Co-op purchasers transfer money in exchange for a share in the co-op entity and the right to use a dwelling unit.[309] Despite superficial similarities to purchasing shares in a business, Coffey pointed to an opinion of the Arizona Attorney General to

---

306. Coffey, *supra* note 208, at 375–76.

307. *Id.* at 401.

308. *But see id.* at 400 ("[I]t is difficult to say with certainty that a transaction involving a high degree of risk to initial investment, but lacking the expectation of profits, will be not be called a security.").

309. *See, e.g.*, United Hous. Found., Inc. v. Forman, 421 U.S. 837, 842 (1975) (describing the co-op housing model).

explain why these arrangements are not securities, and perhaps predicted the *Forman* decision to come seven years later: "no profit or income is generally anticipated."[310] Instead, much as community solar participants benefit by consuming power, co-op purchasers benefit by living in the unit. The fact that living in the co-op might be less expensive than other housing options does not transform the co-op arrangement into a security.

A second apartment analogy, involving condominium units (condos), similarly shows why community solar interests are not securities. Condo purchasers typically obtain a dwelling unit and the right to use common areas of the development. In this context, the SEC has opined that condominiums offered in conjunction with ancillary rental arrangements—such as rental pools, exclusive rental agents, or limitations on owner occupancy—can involve the offer of an investment contract.[311] Conversely, if the purchaser has an unrestricted right to use the unit, or if it is offered without ancillary rental arrangements, the transaction is not a security.[312] A similar principle appears to hold in other contexts, such as trading stamps, streetcar tokens, railroad tickets, meal tickets, theatre tickets, and other examples "too numerous to mention."[313]

Community solar participants can receive a valuable benefit in a variety of forms, including offsetting their power consumption with the project's power generation. The fact that this may—or may not—be less expensive than other sources of power should have very little bearing on whether or not community solar is regulated as a security.

4. Right to Exercise Control

In the fourth element of the *Hawaii Market Center* test, an investment contract requires that "the offeree does not receive the right to exercise practical and actual control over the managerial decisions of the

---

310. Coffey, *supra* note 208, at 399 n.138 (citing Op. Ariz. Att'y Gen., [1961] Blue Sky L. Rep. (CCH) ¶ 70554).

311. Guidelines as to the Applicability of the Federal Securities Laws to Offers and Sales of Condominiums or Units in a Real Estate Development, Securities Act Release No. 5347, 1973 WL 158443, at 3–4 (Jan. 4, 1973) [hereinafter SEC Condo Guidelines]. Interestingly, although this analysis applies the *Howey* test, in several places it appears to utilize the phrase "economic benefits" interchangeably with "profits." *Id.* at 2–3.

312. *Id.* at 2.

313. Trading Stamps, 17 C.F.R. § 231.3890 (1958) (rejecting the argument that trading stamps, redeemable for cash or merchandise are "evidence of indebtedness" and thus within the securities definition; noting that "the same argument could be made as to streetcar tokens, meal tickets, Christmas gift certificates, box tops, railroad or theatre tickets and others too numerous to mention;" and concluding that "[t]he legislative history and other provisions of the statute indicate that the Congress did not intend to include such items within the scope of the statute").

enterprise."[314] Here again, a superficial analysis might find a security, since community solar participants are unlikely to undertake technical and accounting control of a solar facility. But the SEC's condominium guidance clarified that "a continuing affiliation between the developers or promoters of a project and the project by reason of maintenance arrangements *does not* make the unit a security."[315] Similarly, a community solar developer's continuing role in maintaining the production of solar power and accounting for electricity credits should not transform community solar into a security.

A peek into the economic realities of community solar reinforces this conclusion. Much like in the valuable benefit analysis, we should recognize that community solar participants must first consume energy before that consumption can be offset by accumulated community solar credits. These credits are a critical part of the *capital* that powers the community solar value chain—"the thread on which everybody's beads [are] strung."[316] Community solar participants exercise control over whether those credits are utilized and monetized by controlling their electricity consumption.[317] This control suggests again that community solar is not a security.

The Court of Appeals of Georgia, applying the risk capital test to a property development syndicate, made a similar observation about an

---

314. Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 109 (Haw. 1971).

315. SEC Condo Guidelines, *supra* note 311, at 4 (emphasis added).

316. SEC v. C. M. Joiner Leasing Corp., 320 U.S. 344, 349 (1943).

317. In Hawai'i's community solar program, the bill credits are forfeited annually if the consumers' credits exceed their electricity consumption and other charges. *See* PUC Adopted Program Framework, *supra* note 76, at att. A 28 ("If the monthly net credit exceeds the eligible charges, the value of excess credits will be rolled over month-to-month. Annually, all remaining bill credits will be extinguished."). The treatment of excess credits is a typical detail in distributed solar tariffs and is addressed differently in various jurisdictions. Similarly, not all community solar programs utilize the same approach as Hawai'i's. In Colorado, for example, excess credits may carry over from year to year, but will expire when the consumer terminates service with the applicable utility. *See Net Metering*, N.C. STATE UNIV. CLEAN ENERGY TECH. CTR.: DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY, http://programs.dsireusa.org/system/program/detail/271 (last updated Nov. 30, 2018) (describing characteristics of Colorado's community solar model). In Minnesota, excess bill credits similarly carry over from month to month. *See* MINN. HOUSE OF REP., XCEL ENERGY'S COMMUNITY SOLAR GARDEN PROGRAM 7 (2017) (describing characteristics of Minnesota's community solar model). But because of statutory language requiring that the utility purchase all energy generated by community solar projects, the utility is required to annually purchase all outstanding credits. *Id.* While this provides a measure of consumer protection, it also partially de-links consumer control over credit utilization. That control is not completely de-linked, however; the maximum size of a community solar subscription is based on the consumer's average consumption over the prior 24 months. Order Rejecting Xcel's Solar-Garden Tariff Filing and Requiring the Company to File a Revised Solar-Garden Plan at 16, *In re* Petition of Northern States Power Company, dba Xcel Energy, for Approval of Its Proposed Community Solar Garden Program, No. E-002/M-13-867 (Minn. Pub. Util. Comm'n Apr. 7, 2014).

investment's value chain.[318] Searching for indicia of the managerial control, the court noted that "the power to make the ultimate decision: to sell or not to sell" is a critical determinant.[319] Where investors retain a contractual right to control that decision, it cuts against finding a security.

In the context of franchise investments, similar rationale has led to the conclusion that a franchise agreement is not a security, even if marketed, in part, as an opportunity for "investment, and/or absentee ownership," if "the franchisee exercises policy-making power over *his unit* of the enterprise."[320] This concept has also been utilized in other contexts, where contractual managerial rights have been found to negate a finding of a security irrespective of whether or not an investor actually exercises those managerial rights.[321]

Rhetorically, this might clash with *Hawaii Market Center*'s admonition that "[i]n order to negate the finding of a security the offeree should have *practical and actual* control over the managerial decisions of the enterprise."[322] And the phrase "managerial decisions of the enterprise"[323]

---

318. *See generally* D. K. Properties, Inc. v. Osborne, 240 S.E.2d 293, 296 (Ga. Ct. App. 1977) (evaluating whether a property development syndicate agreement is a security).

319. *See id.* (finding that "[s]ince the investors did have such control over that essential decision from which they expected profits to flow, the trial court erred in holding that, as a matter of law, the appellants' scheme involved the sale of unregistered securities"). *But see* William J. Carney & Barbara G. Fraser, *Defining a Security: Georgia's Struggle with the Risk Capital Test*, 30 EMORY L.J. 73, 118 (1981) (criticizing the approach in *D. K. Properties* as elevating "form over substance" for focusing more on "who contributes the essential managerial efforts" than the "principal efforts" influencing success or failure—perhaps performed even before the syndicate was formed). Note that the court in *D. K. Properties* also declined to conclude, without additional evidence, that "in economic reality, the [promoters] did *not* perform the essential managerial functions from which profits were to be expected," and therefore declined to hold as a matter of law that the sale of land did not involve the sale of securities. *D. K. Properties, Inc.*, 240 S.E.2d at 296–97.

320. *See* Wieboldt v. Metz, 355 F. Supp. 255, 260 (S.D.N.Y. 1973) (emphasis added) (explaining that "it is only necessary that the franchisee exercise policy-making power over his unit of the enterprise, since to require control over the franchisor's entire system is incompatible with the franchising method and would make all franchises investment contracts"). The court also noted that other parts of the marketing material did not convey the same sense of completely passive investment. *See id.* ("At the very least, the typical franchise gives the franchisee sufficient input into decisions which determine his enterprise's economic viability to distinguish him from the passive investor protected by the Acts.").

321. *See* J & S Enters. v. Warshawsky, 714 F. Supp. 278, 281 (N.D. Ohio 1989) (applying the "control" element and noting that the interest of a general partner "would appear to fail the managerial control test" because a general partner retains managerial rights, irrespective of whether or not an investor actually exercises those managerial rights); *see also* Brannon v. Rinzler, 603 N.E.2d 1049, 1052 (Ohio Ct. App. 1991) (concluding that a general partnership agreement provided rights to managerial control "sufficient to satisfy the last prong of the test and find the investment to not be a security under Ohio law").

322. Haw. Comm'r of Sec. v. Haw. Mkt. Ctr., Inc., 485 P.2d 105, 111 (Haw. 1971) (emphasis added).

323. *Id.*

may yield the sense that the relevant control must relate to centralized decision-making, rather than control over a single component in an enterprise's value chain.

Wrangling over the degree and quality of control necessary to negate a security, the Ninth Circuit Court of Appeals in *SEC v. Glenn W. Turner Enterprises, Inc.* noted *Hawaii Market Center*'s criticism of *Howey*'s "solely from the efforts of others" element.[324] Evaluating a "gigantic and successful fraud" involving a commission-based scheme to sell self-motivation seminars and tapes, the court reasoned that it would be "easy to evade [a strict interpretation of 'solely'] by adding a requirement that the buyer contribute a modicum of effort."[325] Thus, the court deployed "a more realistic test, whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise."[326]

This was the standard applied by CommunitySun, arguing that consumers' benefit—in the form of lower energy bills—derives from retail energy price fluctuations, rather than the "entrepreneurial or managerial efforts of others."[327] The Georgia court in *D. K. Properties* also used this "essential managerial efforts" approach, and called it the "basic policy" underlying both the risk capital and *Howey* tests.[328] Applying that policy to the economic realities of community solar, participants' control over a critical component of the value chain counsels against finding a security.

B. The Folly of Relying on Registration Exemptions

Are community solar interests securities? I conclude that they are not. Both of the four-part investment contracts tests are presented in the conjunctive. A persuasive argument on any one of the four elements will remove community solar from the definition of an investment contract. Looking beyond a mechanical application of the tests to hypothetical scenarios, and instead focusing on economic realities of Hawai'i's approved framework, it becomes clear that neither the securities laws nor their exemptions are a good fit for community solar. At the same time, it

---

324. SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476, 482 (9th Cir. 1973) (citations omitted).

325. *Id.* at 478, 482 ("Strict interpretation of the requirement that profits to be earned must come 'solely' from the efforts of others has been subject to criticism. Adherence to such an interpretation could result in a mechanical, unduly restrictive view of what is and what is not an investment contract.").

326. *Id.* at 482.

327. Maco Letter, *supra* note 198, at 12.

328. D. K. Properties, Inc. v. Osborne, 240 S.E.2d 293, 295–96 (Ga. Ct. App. 1977).

becomes less clear that additional layers of regulatory disclosures, beyond those tailored by energy regulators specifically for community solar, would add any meaningful or necessary consumer protection.[329]

In simpler terms, community solar projects are not like visionary oil wells. Nonetheless, legal arguments, standing alone, cannot eliminate the barrier of securities *uncertainty* among communities and solar developers. Indeed, even a definitive regulatory determination in the CommunitySun example failed to address that uncertainty sufficiently.[330] Resolving this uncertainty in a traditional manner would perhaps require more generalized regulatory guidance (from both federal and state regulators), akin to the SEC guidelines that helped to provide certainty for the condominium industry.[331] Another solution, of course, would be a long trip through litigation. Such litigation could commence in the form of a regulatory action against a community group or developer for offering an unregistered security. Or it could perhaps arise from a securities fraud claim prosecuted by a community solar participant. Either path would threaten to chill community solar growth until the uncertainty is resolved.

Vermont and Oregon have adopted regulatory and legislative exemptions, respectively, from the states' blue sky laws that are intended to apply to some community solar models.[332] However, it is not clear that such exemptions have been widely utilized, and both have been criticized.[333]

---

329. The same argument can also apply to the securities laws' anti-fraud provisions. In the context of community solar in Hawai'i, it does not appear that those provisions would add a substantial layer of civil consumer protections over laws applicable to non-securities—such as remedies available to any consumer for unfair or deceptive trade practices or unfair methods of competition. *See* HAW. REV. STAT. §§ 480-2, -13 (2018) (providing a private right of action for consumers and enabling the recovery of treble damages and attorney's fees). Moreover, if community solar is classified as a security, those remedies may not be available. *See* Spinner Corp. v. Princeville Dev. Corp., 849 F.2d 388, 393 (9th Cir. 1988) ("We conclude that the Hawaii Supreme Court, if confronted with the question whether Hawaii's baby FTC act applies to claims arising from securities transactions, would hold that it does not. We are persuaded by the structure of the statute, the legislative command to refer to federal FTCA jurisprudence, the existence of Hawaii statutes that cover securities transactions, and the trend of the relatively few applicable judicial decisions.").

330. *See, e.g.*, HECO Comments on Second PUC Proposal, *supra* note 87, at 34 ("[D]espite the existence of an SEC-issued 'no-action' letter found with respect to a community solar interest developed by solar developer, Community Sun LLC, there has been no other 'no-action' letter issued for any other community solar program offered in the multiple jurisdictions that offer community solar programs. Essentially, despite what stakeholders and developers may attest, the 'securities' issue with respect to these programs is untested and unknown.").

331. Professor Williamson Chang has proposed sweeping changes to the problematic definition of a security, which if enacted may more fundamentally address the problem of securities uncertainty. *See* Chang, *supra* note 133, at 420–21.

332. *See* Vermont SUN Exemption 1, *supra* note 101 (providing exemptions for community solar projects that meet one of four sets of criteria, under a "consumer exemption," a "financing exemption," a "commercial exemption," or a "de minimis exemption"); OR. REV. STAT. § 59.025(12)

The most frequently proffered solution on this issue is for community solar projects to qualify for the more generalized exemptions from registration requirements.[334] Those exemptions are far from a panacea. They do not solve the barrier of complexity and uncertainty for community groups, who would need to seek legal advice from a securities practitioner irrespective of whether they are registering a community solar project as a security, or obtaining an exemption from registration. Moreover, exemptions do not necessarily resolve the complexity created by the interplay between federal securities laws and the blue sky laws. Some securities can be exempt from registration under federal law, but still require registration (or exemption) under state law.[335] Other federal exemptions preempt state law.[336]

(2018) (exempting solar cooperatives only); OR. ADMIN. R. §§ 441-025-0120 to -0126 (2018) (prescribing requirements to qualify for the statutory exemption).

333. *See Part 5: Can Securities Exemptions Eliminate Community Solar Obstacles?*, *supra* note 95 (asserting that Oregon's adoption of a statutory exemption painted a picture that is "neither complete nor completely rosy," that it "remains to be seen whether [regulatory] restrictions will relieve much, if any, of the major securities filings obstacles," that the statutory exemption applies only to the cooperative community solar model, and that "[i]n order to incentivize a broader scope of potential community solar models . . . other structures may need similar exemptions"); Letter from Kyra Hill & Nick Lawton, Energy Fellow, Lewis & Clark L. Sch., Green Energy Inst., to Shelley Greiner, Rules Coordinator, Or. Div. Fin. Reg. (Sep. 12, 2014), https://law.lclark.edu/live/files/17985-gei-comments-on-securities-exemption-rules (questioning, for example, the costs of compliance and the exemption's limitation on advertising to prospective participants, and promoting the more liberal approach taken in the Vermont SUN exemption). Professor Jennifer Taub has evaluated the Vermont SUN exemption from the perspective of whether it might be expanded to other forms of social investment capital, and she cautions that its impacts on individual and residential participants should be closely monitored before such an expansion. Jennifer Taub, *New Hopes and Hazards for Social Investment Crowdfunding*, *in* LAW AND POLICY FOR A NEW ECONOMY 165, 183–84 (Melissa K. Scanlan ed., 2017).

334. *See, e.g.*, NREL, SHARED SOLAR, *supra* note 96, at vii ("The most relevant exemptions for shared solar programs are Regulation D, including Rule 506 . . . and Rule 504, the intrastate exemption, and exemptions related to nonprofits); Booth, *supra* note 94, at 787–800 (discussing possible exemptions from the federal Securities Act's registration requirements).

335. *See, e.g.*, 15 U.S.C. § 77c(a)(11) (2012) (providing a federal, but not state, exemption for instrastate transactions).

336. Professor Rutherford Campbell has prepared this succinct summary of the state of federal preemption with respect to blue sky laws:

> In summary, state authority over registration has been eliminated with respect to: (1) offerings under Rule 506 (now including public offerings, if purchasers are limited to "accredited investors"); (2) offerings by issuers of its securities that are traded on a national exchange; (3) Tier 2 Regulation A+ offerings; and (4) crowdfunding offerings of up to $1 million offered only over the Internet. Essentially all other securities offerings by issuers are subject to state registration requirements. These include: (1) registered offerings by issuers of securities that are not traded on a national exchange; (2) private placements under the common law of section 4(a)(2); (3) offerings under Rule 504; (4) offerings under Rule 505; (5) Tier 1 offerings under Regulation A+; and (6) intrastate offerings under Rule 147.

Similarly, an initial offering of a security may be exempt from registration, but re-sales may not.[337] This is an especially relevant complexity for community solar, where the transferability of an interest is an important consumer protection, since a participant may leave the applicable utility service territory.[338]

Some exemptions utilize the concept of accredited or sophisticated investors.[339] These concepts have limited applicability for community solar projects that are focused on serving participants from low-income communities.

Whether community solar interests are securities is a complex question. It may seem enticing to sidestep that question with a de-risking approach that utilizes exemptions. But that approach actually adds layers of complexity, inflexibility, and potentially incompatible constraints. This solution cannot scale community solar in a way that realizes its potential to provide a community-focused energy solution.

CONCLUSION—COMMUNITY SOLAR AND SECURITIES AS AN OPPORTUNITY TO OPERATIONALIZE ENERGY JUSTICE

Rather than try to fit community solar's *square peg* into *round holes* within the securities laws, a much more direct and appropriate solution would be to establish that community solar is not an investment contract. Of course, as noted earlier, this should not apply to every conceivable formulation of community solar.[340] Rather, it should focus on community solar implemented as a tariff or program already regulated by electric utility regulators. This comparatively simple and bright line would eliminate the specter of stifling uncertainty and duplicative regulation, while ensuring that every form of community solar is subject to the oversight of some regulatory regime. This approach borrows from the balance adopted for electric utilities themselves, where utility regulators have exercised

---

Campbell, *Blue Sky Laws*, *supra* note 118, at 622–23.

337. *See, e.g.*, 17 C.F.R. § 230.502 (2018) (prescribing that "securities acquired in [an exempt] transaction under Regulation D shall have the status of securities acquired in a transaction under section 4(a)(2) of the Act and cannot be resold without registration under the Act or an exemption therefrom").

338. *See* PUC Adopted Program Framework, *supra* note 76, at att. A 29–30 (providing a process for subscriber transfer or exit).

339. *See, e.g.*, 17 C.F.R. § 230.506(b)–(c) (2018) (enabling exemptions for accredited investors, or a limited number of sophisticated investors, with sufficient income or net worth).

340. *See supra* notes 134–38 and accompanying text (discussing a community solar structure under which it is likely that community solar interests would be securities).

oversight over some securities issues since before the adoption of federal securities laws.[341]

More fundamentally and more forward-looking, this formulation of regulatory responsibilities can succeed in advancing the community solar and securities debate into the 21st century. While I have attempted to faithfully apply the risk capital and *Howey* tests to the economic realities of community solar, I also acknowledge those tests are rooted in 20th century notions more relevant to visionary oil wells than they are to modern concepts of energy justice.

In other words, the arguments in this Article have been largely (and intentionally) presented in the wrong frame. Energy justice is at the core of community solar's *raison d'etre*.[342] Energy justice principles should also be fundamental to resolving questions about its implementation. Implementing energy justice means, in part, advancing energy decisions and debates beyond law and policy frames that are all too often "limited to the domains of engineering and economics."[343]

It is likely a step too far to ask securities regulators to dive into the principles of energy justice. But for utility regulators, as the U.S. energy system undergoes a renewable energy transition,[344] those principles should be at the forefront of the debate. Utility regulators who rise to this task will be far better positioned to understand the energy needs of the low-income and vulnerable communities that *true* community solar is designed to serve, and to design disclosures and other program features that are tailored to those needs. These realities call for a solution that definitively removes regulated utility programs and tariffs from the definition of a security. This could be accomplished by legislation or by regulatory guidance, although in practice it would likely require coordinated federal and state action to avoid re-creating the complexity of competing securities definitions.

Reframing the regulatory boundaries in this way could also have implications far beyond community solar. The future electric grid is

---

341. *See* LOSS & SELIGMAN, *supra* note 172, at 914–19 (describing the role of utility regulators in overseeing securities issues, before the 2005 repeal of the Public Utility Holding Company Act Pub. L. No. 74–333, 49 Stat. 803); *see also* HAW. REV. STAT. § 269-17 (2018) (requiring Public Utilities Commission approval for the issuance of securities by a public utility corporation).

342. *See supra* notes 49–62 and accompanying text.

343. *See* Sovacool et al., *Energy Decisions Reframed as Justice and Ethical Concerns*, 1 NATURE ENERGY 16, 16 (2016) (investigating "how concepts from justice and ethics can inform energy decision-making").

344. For example, New York's Reforming the Energy Vision proceeding involves a wide-ranging set of initiatives intended to "consider fundamental changes in the manner in which utilities provide service . . . including the relationships among utilities and customers, bulk markets, and regulators." *See* Order Instituting Proceeding at 4, *In re* Reforming the Energy Vision, No. 14-M-0101 (N.Y. Pub. Serv. Comm'n Apr. 25, 2014).

envisioned to be far more participatory than today, balanced by an untold number of micro-transactions that will enable consumers to be both buyers and sellers of energy and energy grid services.[345] Energy justice principles require us to design that participatory electricity grid in a way that ensures equitable access, availability, and affordability.[346] How will low-income and vulnerable communities be invited and empowered to participate? Will access and power be skewed in favor of single-family homeowners, sophisticated investors, or other privileged classes? Or will the grid of the future create a fairer and more robust method for all to participate in the enormously important economic and social fabric of the energy sector?

These questions will undoubtedly require further analysis and debate. And interestingly, securities laws may be as applicable in that debate as they are to community solar. Many envision that a participatory electric grid will be mediated by digital blockchain transactions.[347] It remains uncertain whether such digital tokens are within the definition of a security.[348] If transactions use such digital tokens on a regulated grid, that use should be removed from the definition of a security.

Resolving the securities uncertainties proactively, and with a focus on justice principles, is not too much to ask. The intellectual roots of securities laws are concerned with the perils of concentrating economic power in the hands of a small group, accountability, and a sense of fiduciary obligation toward public interests.[349] These concepts are equally familiar to public

---

345. *See generally* Eisen & Mormann, *supra* note 25, at 114–15 (envisioning a system "that enables some ratepayers to actively participate in and benefit from the newly created markets"); *see also* Welton, *Clean Electrification*, *supra* note 30 (noting that "leading states are working to make the grid 'participatory'").

346. *See, e.g.*, Eisen & Mormann, *supra* note 25, at 114–15 (arguing that an electricity trading paradigm "will, on the whole, prove more equitable than the current system").

347. *See, e.g.*, James Blanden & Michael Cottrell, *How Utilities Are Using Blockchain to Modernize the Grid*, HARV. BUS. REV. (Mar. 23, 2017), https://hbr.org/2017/03/how-utilities-are-using-blockchain-to-modernize-the-grid ("Blockchain has grabbed the attention of the heavily regulated power industry as it braces for an energy revolution in which both utilities and consumers will produce and sell electricity. Blockchain could offer a reliable, low-cost way for financial or operational transactions to be recorded and validated across a distributed network with no central point of authority.").

348. For example, in December 2018, the Token Taxonomy Act was introduced in Congress. H.R. 7356, 115th Cong. (2d Sess. 2018). The Act would remove digital tokens from the definition of a security under the federal securities acts. *See id.* Mirroring some of the uncertainty in the community solar context, at least one state—Wyoming—has already exempted blockchain tokens from its blue sky law. *See* WYO. STAT. ANN. § 17-4-206 (2018); *see generally* Nate Crosser, Comment, *Initial Coin Offerings As Investment Contracts: Are Blockchain Utility Tokens Securities?*, 67 U. KAN. L. REV. 379 (2018) (analyzing whether the SEC should treat digital tokens as securities).

349. *See* Cynthia Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1212–23 (1999) ("The issues of primary concern . . . were the concentration of economic power in the hands of a small group of bankers, corporate executives, and

utility regulators and lie at the heart of innovative community-focused energy solutions.

directors; management's lack of accountability to the company's shareholders; and the lack of public accountability or concern for the public among those wielding concentrated power.").

THE BOND VILLAINS OF GREEN INVESTMENT: WHY AN UNREGULATED SECURITIES MARKET NEEDS GOVERNMENT TO LAY DOWN THE LAW

Cristina M. Banahan[*†]

ABSTRACT

Green bonds are widely regarded as being part of the solution to the massive amount of investment needed to address climate change. Green bonds function largely like regular bonds, except that they have a dual purpose of achieving an environmental goal in addition to the financial gains. The sector remains, however, broadly unregulated, leading to questionable funding of projects under the premise of being "green" bonds. This Article provides an introduction into the nascent green bond industry and the current regulatory regimes in place. Furthermore, this Article argues that the regulations currently in place are insufficient to create the market stability necessary to grow green investments quickly enough to address the challenges presented by climate change. To successfully grow the green bond market to finance climate action, stakeholders must learn the lessons offered by the 2008 Financial Crisis and problematic green bond issuances to date. To implement the lessons learned by the financial crisis and problematic bond issuances, this Article covers the benefits to be gained from a regulatory body that ensures the environmental integrity of green investments.

---

* Cristina M. Banahan is a seasoned sustainability advisor, helping public companies design their sustainability programs, disclose their environmental practices, and develop their corporate strategy. Before working in the corporate responsibility sector, Cristina worked with law firms and nonprofits on regulatory compliance within the energy sector and international climate change advocacy. Cristina has been published by prominent institutions, quoted by national newspapers, and has spoken at multiple events on climate change, business, and international disclosure standards. Cristina holds a J.D. and Climate Law Certificate from Vermont Law School. She currently works at ISS Corporate Solutions as the Sustainability Team Lead.

† The author thanks Carlos Avenancio León, Andrew Minikowski, Gabriel Hasson, and John Banahan for their encouragement and contributions to this Article.

INTRODUCTION

Green bonds are critical to addressing climate change. The most recent Intergovernmental Panel on Climate Change (IPCC) report shows that unless dramatic corrective action is taken in the next decade, humanity could see mass migrations, food scarcity, and instability as early as 2040.[1] To mitigate greenhouse gas emissions and prevent the most serious harms requires unprecedented levels of investment from the private sector and regulatory agility from government entities.[2] Green bonds from public, private, and multilateral organizations are critical because they can serve to finance the large-scale infrastructure changes needed to transition to a zero-

1. Coral Davenport, *Major Climate Report Describes a Strong Risk of Crisis as Early as 2040*, N.Y. TIMES (Oct. 7, 2018), https://www.nytimes.com/2018/10/07/climate/ipcc-climate-report-2040.html; *see Summary for Policymakers of IPCC Special Report on Global Warming of 1.5ºC Approved by Governments*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Oct. 8, 2018), https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/ (overviewing the conclusions of the IPCC Special Report and the impact of a 1.5ºC temperature increase on potential future risks to local interests).

2. *Private Investments Are Crucial to Achieve Paris Goals*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Nov. 2, 2017), https://unfccc.int/news/private-investments-are-crucial-to-achieve-paris-goals.

emissions economy.[3] Government regulation of the green bond sector is critical to its success because regulations provide stakeholders with certainty as to the applicable legal standards and investor expectations.[4] Furthermore, government regulation could help implement the lessons learned from past financial *faux pas* in the investment and issuer arenas. To apply the lessons of the past and ensure the prosperity of the green bond market in the future, governments should consider implementing a green standards committee as a simple and efficient way of meeting the financing challenges posed by climate change.[5]

First, this Article introduces the reader to the history of green bonds and the role they currently play in the market.[6] Second, the Article explores the lessons from past financial regulatory failures, in particular the inflated credit rating bundles that led to the 2008 Financial Crisis and the headline-grabbing green bonds with questionable environmental benefits.[7] Third, a comparison of green market regulations between the U.S., the E.U., and China underscores the inadequacy of current U.S. standards.[8] China's current regulation supports the environmental integrity of investments through a national green standards committee *vis-à-vis* no systemic regulatory assurances for investors interested in environmental responsibility in the U.S.[9] Lastly, this Article argues the U.S. could expand the green bond market by adopting a national green standards committee that goes beyond the precedent set in China to keep issuers accountable to investors and to provide issuers with the clarity needed to comply with U.S. law.[10]

---

3. *See* Enrico Lo Giudice, *The Green Bond Market, Explained*, WORLD ECON. F. (July 25, 2017), https://www.weforum.org/agenda/2017/07/what-are-green-bonds-explainer (showing how countries and organizations alike have turned to green bonds for support in transitioning to renewable energy sources through sustainable infrastructure projects).

4. *Cf. id.* (highlighting the "high degree of transparency" associated with green bonds, which greatly benefits investor stakeholders).

5. *See infra* Part V (making the case for a U.S. Green Standards Committee).

6. *See infra* Part I (providing an overview of green bonds as unique financial mechanisms).

7. *See infra* Part II.A (cautioning regulators to take particular note of necessary restrictions or allowances where credit-rating agencies and green bond markets diverge by looking to the lessons learned from the 2008 Financial Crisis for guidance).

8. *See infra* Parts IV.A, IV.C (comparing green bond practices in the U.S. and China).

9. *See infra* notes 175–82 and accompanying text (outlining China's green standards, current and forthcoming, for green bonds); *see infra* notes 153–62 and accompanying text (discussing the limited regulation of green bonds in the U.S.).

10. *See infra* Part V (making the case for creating a green standards committee in the U.S. to add oversight and transparency to U.S. green bond laws).

I. GREEN BONDS INTRODUCTION

At the 21st Conference of Parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC), all but two countries agreed to sign on to the Paris Agreement.[11] The Paris Agreement is hailed as one of the greatest diplomatic successes because the nations of the world agreed to take action on climate change.[12] The Paris Agreement set out the international two degree Celsius (2°C) threshold for global greenhouse emissions, accompanied with emission reduction pledges by participant countries.[13] The objective of the Paris Agreement was to provide an international greenhouse gas threshold, so that stakeholders would be spurred into action.[14]

The Paris Agreement goes beyond just setting an emissions goal however—it also acknowledges the critical role that financing climate projects plays in successfully addressing this issue.[15] To achieve the global transformation necessary to meet the 2°C goal, multi-stakeholder projects will need access to funding to support technological innovation, include vulnerable communities, and invest in climate-resilient infrastructure.[16] Beyond governmental and non-governmental entities, members of the private sector cite the Paris Agreement as the basis for climate action.[17]

---

11. Liam Stack, *Only U.S. and Syria Now Oppose Paris Climate Deal, as Nicaragua Joins*, N.Y. TIMES (Oct. 24, 2017), https://www.nytimes.com/2017/10/24/world/americas/nicaragua-paris-climate-agreement-us.html (noting that originally Syria and Nicaragua were the only countries choosing to not sign-on to the Paris Agreement).

12. *See* Framework Convention on Climate Change Conference of the Parties, *Adoption of the Paris Agreement*, U.N. Doc. FCCC/CP/2015/L.9/Rev.1 (Dec. 12, 2015) [hereinafter *Adoption of the Paris Agreement*]; Raymond Clémençon, *Two Sides of the Paris Agreement: Dismissal Failure or Historic Breakthrough*, 25 J. ENV. & DEV. 3, 7 (2016), https://journals.sagepub.com/doi/full/10.1177/1070496516631362.

13. Clémençon, *supra* note 12, at 8.

14. *See Adoption of the Paris Agreement*, *supra* note 12 ("Agreeing to uphold and promote regional and international cooperation in order to mobilize stronger and more ambitious climate action by all Parties and non-Party stakeholders . . . .").

15. *Id.* at art. 2(1)(c) ("Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.").

16. Press Release, Bridging Climate Action and Finance Gaps, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Nov. 13, 2017), https://unfccc.int/news/bridging-climate-ambition-and-finance-gaps. *See Why Does Climate Change Matter?*, U.N. ENV'T PROGRAMME, https://www.unenvironment.org/explore-topics/climate-change/why-does-climate-change-matter (last visited Apr. 27, 2019) (naming financing diverse responses to climate change as a U.N. priority).

17. *See, e.g.*, Gareth Hutchens, *Largest Ever Group of Global Investors Call for More Action to Meet Paris Targets*, GUARDIAN (Dec. 9, 2018), https://www.theguardian.com/environment/2018/dec/10/largest-ever-group-of-global-investors-call-for-more-action-to-meet-paris-targets (providing a private company signatory to the Paris Agreement, which, along with its investors, is pushing to move away from coal power); *see also, e.g.*, Andrew Winston, *U.S. Business Leaders Want to Stay in the Paris Climate Accord*, HARV. BUS. REV. (May 31, 2017), https://hbr.org/2017/05/u-s-business-leaders-

In addition to expanding climate change awareness for policy reasons, the financial sector increasingly has focused on green investing as a way to increase returns.[18] Recent studies show indices that incorporate environmental considerations outperform those without the same social and environmental criteria.[19] Furthermore, investment portfolios that take into account environmental considerations are better able to manage risk.[20] Because of the benefits to society and shareholders alike, the financial sector saw a 97% increase in environmental, social, and governance investment over the past 20 years.[21]

Investments by the private and public sectors in green finance projects take a variety of forms. Green finance refers to financing made available for projects that provide an environmental benefit.[22] Among the green finance projects recognized as providing an environmental benefit are: adaptation; carbon capture and storage; energy efficiency; environmental protection; waste management; water; transport; sustainable land management; and green buildings, products, and materials.[23]

Bonds are one way of financing projects, including projects with a dual environmental purpose. A bond is a loan where the issuer promises to pay back the bondholder with regular interest payments during a fixed amount

---

want-to-stay-in-the-paris-climate-accord ("[T]he business community does not want to leave the Paris climate agreement.").

18. *See, e.g.*, Winston, *supra* note 17 (noting how there are hundreds of companies, including Dow Jones, pledging to commit to renewable energy); *see also Socially-Responsible Investing: Earn Better Returns from Good Companies*, FORBES (Aug. 16, 2017), https://www.forbes.com/sites/moneyshow/2017/08/16/socially-responsible-investing-earn-better-returns-from-good-companies/#151f9a2b623d ("Sustainable investing is an opportunity to make money and make a difference in the world.").

19. *See* Caroline Flammer, *Green Bonds Benefit Companies, Investors, and the Planet*, HARV. BUS. REV. (Nov. 22, 2018), https://hbr.org/2018/11/green-bonds-benefit-companies-investors-and-the-planet (summarizing the findings that green bonds show high financial performance across several metrics); Candace C. Partridge & Francesca Romana Medda, The Creation and Benchmarking of a Green Municipal Bond Index 22 (Sept. 12, 2018) (unpublished study) (on file with the University College London) (finding that municipal indices that incorporated climate considerations pay a 4.5% compound annual growth rate compared to 3% in non-climate municipal indices).

20. Christopher P. Skroupa, *In ESG We Trust: The Risk And Rewards of ESG Investing*, FORBES (Aug. 8, 2017), https://www.forbes.com/sites/christopherskroupa/2017/08/08/in-esg-we-trust-the-risk-and-rewards-of-esg-investing/#4cf3a9f8677f ("Having identified and dealt with these risks, the company will not only have acted responsibly towards society by reducing their environmental impact, for example, but also managed risks relating to these ESG areas for the company and its business . . . .").

21. *Id.*

22. INT'L FIN. CORP., GREEN FINANCE: A BOTTOM-UP APPROACH TO TRACK EXISTING FLOWS 9 (2016), https://www.ifc.org/wps/wcm/connect/70725d70-b14a-4ffd-8360-cb020258d40a/Green+Finance_Bottom+up+approach_ConsultDraft.pdf?MOD=AJPERES.

23. *Id.* at 10.

of time.[24] A bond can be bought or sold between parties.[25] Bonds provide an alternative form of lending when the amount being sought is too large for banks to cover.[26] Green bonds are a type of bond issued by a private, public, or multilateral institution to finance a climate friendly or environmental goal for the issuer and create revenue for the investor.[27] In case of default, green bonds are backed by an issuer's balance sheet,[28] use of proceeds,[29] or cash flow from other assets or investments.[30]

Green bonds traditionally differ from regular bonds in that additional steps are generally taken to ensure their environmental purpose.[31] The most common way a regular bond is deemed green is through a second-party opinion.[32] The second party evaluates the debt contract and certifies the security as having a legitimate purpose.[33] The second parties charge the issuer a premium for the review, which contributes to the notion that green bonds are less profitable than "sinful" bonds.[34] A prospective green bondholder can also purchase securities on specific green bond indices that have different criteria to be listed and can provide additional security to the investor.[35] To be listed in a green bond index, the issuer must first list the

---

24. *What is a Bond?*, WALL ST. J., http://guides.wsj.com/personal-finance/investing/what-is-a-bond/ (last visited Apr. 27, 2019).

25. WORLD BANK, WHAT ARE GREEN BONDS? 7, 50 (2015), http://documents.worldbank.org/curated/en/400251468187810398/pdf/99662-REVISED-WB-Green-Bond-Box393208B-PUBLIC.pdf.

26. *See What is a Bond?*, *supra* note 24 (providing examples such as a city "rais[ing] money to build a bridge").

27. JOHN CHIANG, CAL. STATE TREASURY, GROWING THE U.S. GREEN BOND MARKET: VOLUME 1: THE BARRIERS AND CHALLENGES 7 (2017), http://www.treasurer.ca.gov/greenbonds/publications/reports/green_bond_market_01.pdf.

28. *Green Bonds*, LUX. STOCK EXCHANGE, https://www.bourse.lu/green-bonds (last visited Apr. 27, 2019). The Luxembourg Stock Exchange was the first to list green bonds and is regarded as a leader in this arena. *Id.*

29. Stephen Kim Park, *Investors As Regulators: Green Bonds and the Governance Challenges of the Sustainable Finance Revolution*, 54 STAN. J. INT'L L. 1, 16 (2018).

30. *Id.* at 17.

31. *See, e.g.*, *Displaying Bonds on LGX*, LUX. STOCK EXCHANGE, https://www.bourse.lu/displaying-bonds-on-lgx (last visited Apr. 27, 2019) (describing the transparency and disclosure components of green bond issuance).

32. Park, *supra* note 29, at 28.

33. *Id.*

34. *See, e.g.*, Paul Rose, *Certifying 'Climate' in Climate Bonds*, 14 CAP. MAR. L.J. 59, 60–61 (2019) (identifying credit-rating agencies as these third parties); *Displaying Bonds on LGX*, *supra* note 31 (listing the exhaustive steps to the third-party verification process). *See also* Jeff Brown, *8 Facts You Need to Know About Green Bonds*, U.S. NEWS (May 31, 2017), https://money.usnews.com/investing/articles/2017-05-31/8-facts-to-know-about-green-bonds (noting that green bonds have a comparable yield to traditional bonds).

35. *E.g.*, *Mauritius to Embark on Ambitious Green Bond Strategy*, PARTNERSHIP FOR ACTION ON GREEN ECON., https://www.un-page.org/mauritius-embark-ambitious-green-bond-strategy (last

security on the regular market and declare the bond as a green, social, or sustainability bond.[36] Then issuers must describe the framework used to classify the bond, the use of the proceeds, and provide external verification of the bond.[37] In the absence of an independent verification, the index sometimes provides review of the environmental quality of the bond.[38]

The first entities to issue green bonds were the European Investment Bank and the World Bank.[39] In 2007, the European Investment Bank issued its climate awareness bond to finance energy efficiency and renewable energy projects.[40] Similarly, the World Bank has issued green bonds to finance clean transportation, water, solid waste management, land-use, and infrastructure projects, in addition to energy efficiency and renewable energy.[41] Today, the green bond market continues to grow exponentially in the diversity of stakeholders and the quantity of the investment.[42]

While different countries developed different regulatory structures for their green bond markets, international standards are available to guide in the consistency of their development.[43] The most prominent guidelines are the Green Bond Principles (GBP) established by the United Nations Program on the Environment to help guide issuers in setting up credible green bonds.[44] The GBP suggested a four-part process to setting up a green bond:

---

visited Apr. 27, 2019) (explaining the Mauritian Stock Exchange launched a sustainability index to identify sustainable companies).

36. *Displaying Bonds on LGX*, *supra* note 31.

37. *Id.*

38. *Id.*

39. *See Climate Awareness Bonds*, EUR. INV. BANK, http://www.eib.org/en/investor_relations/cab/index.htm (last visited Apr. 27, 2019) (noting that the European Investment Bank released the world's first green bond in 2007); *see also* Press Release, World Bank, World Bank Marks 10-Year Green Bond Anniversary with Landmark Issuance US$1.3 Billion Issuances Bring World Bank Green Bond Program to US$12.6 Billion (Nov. 13, 2018), https://www.worldbank.org/en/news/press-release/2018/11/13/world-bank-marks-10-year-green-bond-anniversary-with-landmark-issuance-us-1-2-billion-issuances-bring-world-bank-green-bond-program-to-us-12-6-billion (indicating that the World Bank issued its first green bond in November 2008).

40. *Climate Awareness Bonds*, *supra* note 39.

41. WORLD BANK, GREEN BOND IMPACT REPORT 2018, at 8 (2018), http://pubdocs.worldbank.org/en/632251542641579226/report-impact-green-bond-2018.pdf.

42. *See Capital Markets, Climate Finance*, INT'L FIN. CORP., https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/perspectives/perspectives-i1c2 (last visited Apr. 27, 2019) (listing the ambit of green bond stakeholders as well as the emerging growth of the green bond market).

43. CLIMATE BONDS INITIATIVE, BONDS AND CLIMATE CHANGE: THE STATE OF THE MARKET IN 2015, at 15 (2015) [hereinafter BONDS AND CLIMATE CHANGE: THE STATE OF THE MARKET IN 2015], https://www.climatebonds.net/files/files/CBI-HSBC%20report%207July%20JG01.pdf.

44. *See* UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP), GREEN BONDS (Feb. 26, 2016) [hereinafter UNDP, GREEN BONDS], http://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/green-bonds.html (laying out the framework for reliable green bonds).

- "Define criteria for a green project";
- "Define processes for evaluation and selection of the green project";
- "Have systems to trace the green bond proceeds"; and,
- "Report, at least annually, on the use of the proceeds."[45]

In addition to these steps, the GBP also recommended an independent verification of the project by a second party consultant, audit, or third-party verification.[46]

Similar in purpose, the Climate Bond Initiative (CBI) has sector-specific standards for issuers to meet and a structure under which they can be certified.[47] CBI, however, goes a step beyond the GBP and listing requirements by demanding an issuer include physical assets associated with the green bond.[48] The issuer must also ensure that the "proceeds are not contaminated by activities inconsistent with [a] low carbon economy and must disclose the environmental and social aspects of chosen projects."[49] Lastly, where green bonds become non-compliant, the standards require the issuer to self-report.[50]

Both the GBP and the CBI are market responses to the absence of green bond regulation. In the past, the market has sought to address the vacuum left by regulatory agencies without success.[51] The most notable example of market self-regulation comes from the 2008 Financial Crisis, where credit agencies, playing a similar role to green bond second opinion verifiers, failed to give ratings adequately reflecting the investment risk. Below is a summary of the role of credit agencies in the 2008 Financial Crisis and the lessons to extract for the regulation of second opinion verifiers of green bonds.

---

45. ERNST & YOUNG LLP, GREEN BONDS: A FRESH LOOK AT FINANCING GREEN PROJECTS 5 (2016).

46. *Id.*

47. UNDP, GREEN BONDS, *supra* note 44.

48. CLIMATE BONDS, CLIMATE BONDS STANDARD 4, 9 (2017), https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_1%20-%20January_2017.pdf.

49. ERNST & YOUNG LLP, *supra* note 45.

50. *Id.*

51. *See infra* Part II.A (showing how the market has not had success addressing the vacuum left by regulatory agencies).

II. HISTORICAL PRECEDENT FOR THE NEED TO REGULATE THE MARKET

Critics of regulating the green bond market often cite the need to allow the nascent security to grow before imposing restrictions.[52] Critics of green bond regulation further assert that current market-based processes sufficiently provide assurances to investors of the quality of the investments that are being undertaken.[53] Historical precedent, however, suggests that in other instances when the market was left unchecked, self-regulation proved insufficient.[54] First, this Part summarizes the relationship between credit rating agencies and the Financial Crisis.[55] For regulators of second-party verifiers of green bonds there are several lessons to be drawn between the similarities and differences between the reviewers of different instruments. Next, this Part highlights green bond issuances with problematic projects or reporting structures.[56] The lessons learned from previous experiences with credit rating agencies and current green bond issuers can help guide governments on regulation for future issuances.

A. The 2008 Financial Crisis: A Cautionary Tale for Green Bond Verifiers

During the Financial Crisis, investment banks bundled individual mortgages so as to be bought and later sold to investors, much like bonds.[57] To purchase the mortgages, investment banks relied on exceptional ratings from credit agencies, which would incent investors to purchase the bundles.[58] Similarly, high credit ratings would allow issuers access to institutional investors who can only invest in assets with high credit ratings due to their fiduciary responsibilities.[59] A 2011 study by the Financial Crisis Inquiry Commission ultimately concluded that the credit-rating agencies were key enablers of the Financial Crisis because of their inflated

---

52. *See, e.g.*, IGOR SHISHLOV ET AL., INSTITUTE FOR CLIMATE ECONOMICS, BEYOND TRANSPARENCY: UNLOCKING THE FULL POTENTIAL OF GREEN BONDS 4 (June 2016), https://www.cbd.int/financial/greenbonds/i4ce-greenbond2016.pdf (noting the various risks attendant with premature regulations and their effect on the green bond market).

53. *See* Park, *supra* note 29, at 30–34 (critiquing the challenges of private governance for green bonds); *see also infra* Part IV.C (analyzing the strengths of the current processes in the Chinese green bond framework).

54. *See infra* Part III (discussing the repercussions of a self-regulated market).

55. *See infra* Part III (listing governmental as well as corporate issuances of green bonds).

56. *See infra* Part IV (discussing the national governments and corporate actors who have questioned such offerings).

57. Matt Krantz, *2008 Crisis Still Hangs Over Credit-Rating Firms*, USA TODAY (Sept. 13, 2013), https://www.usatoday.com/story/money/business/2013/09/13/credit-rating-agencies-2008-financial-crisis-lehman/2759025/.

58. *Id.*

59. *Id.*

ratings of risky investments.[60] Regulators concerned with preventing a similar outcome in the green bond market should evaluate the parallels between the credit-rating agencies and the green bond market and take preventive measures. Where credit-rating agencies and green bond markets diverge, regulators should also take note as particular restrictions or allowances may be necessary.

1. Similarities Between Green Bond Verifiers (GBV) and Credit-Rating Agencies (CRA)

Green bond certifiers and credit agencies present three primary similarities as information intermediaries, owners of regulatory licensure, and business model stewards.[61] First, green bond certifiers and credit agencies both function as information intermediaries between issuers and investors.[62] Within the vast universe of information, green bond certifiers and credit agencies receive, analyze, and condense information in order to make it more accessible for investors.[63] Second, both green bond certifiers and credit agencies rely heavily on the reputation of their businesses.[64] Next, green bond verifiers and credit agencies both rely on an issuer pays business model.[65] Under the issuer pays model, the issuer of the financial instrument pays the credit agency or green bond certifier in exchange for a rating.[66] Lastly, the reputational concerns of CRAs and GBVs has proven an insufficient counterweight to the conflicts of interest represented by the issuer pays model, as proven by investigations of CRAs in the aftermath of the Financial Crisis. The similarities between credit rating agencies and green bond verifiers underscore the importance of ethical rules and processes needed to improve the reliability of these financial offerings.

i. Problems as Intermediaries of Information

Second opinions provide streamlined information on investments. The reliability of the streamlined information provided by second opinion verifiers is subject to some debate.[67] During the 2008 Financial Crisis,

60. *Id.*
61. Rose, *supra* note 34, at 70–71.
62. *Id.* at 70.
63. *Id.*
64. *Id.*
65. *Id.* at 71.
66. *Id.*
67. *See* Park, *supra* note 29, at 30 (indicating some limitations of second-opinion reviews, including the time restrictions prior to issuance).

bankers, fund-managers, and investors backed mortgages for risky investments, in part because a "staggering proportion" of these investments were AAA rated.[68] Ratings range from AAA, being the highest and safest, to lower grades, moving down to double and single letters.[69] While the financial crisis started with homeowners, it quickly spread to other segments of the economy because of the banks and investors that backed these kinds of investments.[70] Financial actors depended on ratings as a way to fulfill fiduciary responsibilities and efficiently evaluate different investments, but ultimately these entities suffered an economic loss as a result of their reliance.[71] Some investors also used ratings to study risk and engage in regulatory arbitrage.[72]

Certification markets for green bonds function in a substantially similar manner to credit agencies.[73] "[CRAs] are firms that offer judgments about the creditworthiness," i.e., a debt instrument's likelihood of default.[74] In the 1930s, financial regulation mandated that credit ratings agencies "be the central source of information about the creditworthiness of bonds in U.S. financial markets."[75] CRAs became central to whether a corporation would be able to issue a bond or not because only companies with certain scores would be able to issue bonds.[76] Similarly, the green bond market relies heavily on second-party opinions to substantiate the environmental integrity of the offering.[77] Both the CRAs and GBVs function in the same way in that they take complex data, analyze it, and approve it.[78] After CRAs and GBVs issue their recommendations, the public then relies on this insight for investment decisions.

---

68. Patrick Kingsley, *How Credit Ratings Agencies Rule the World*, GUARDIAN (Feb. 15, 2012), https://www.theguardian.com/business/2012/feb/15/credit-ratings-agencies-moodys (explaining that the AAA rating means that the issuer has a high likelihood of paying the investment back).

69. *The Credit Rating Controversy*, COUNCIL ON FOREIGN RELATIONS, https://www.cfr.org/backgrounder/credit-rating-controversy (last updated Feb. 19, 2015).

70. Kingsley, *supra* note 68.

71. *See id.* (outlining the reasons for the Financial Crisis spread, which was, in part, "because of the rating agencies' failure to warn [bankers and fund-managers] of the risks involved" in backing those mortgages).

72. Altman et al., *Regulation of Rating Agencies*, *in* COOLEY ET AL., REGULATING WALL STREET: THE NEW ARCHITECTURE OF GLOBAL FINANCE 452 (2010), https://www.fdic.gov/regulations/reform/altman1.pdf.

73. Rose, *supra* note 34, at 70.

74. Altman et al., *supra* note 72, at 443.

75. *Id.*

76. *See id.* at 444 (noting the potential conflict of interest caused by the financial incentive to rate high in order to be the chosen rater).

77. Park, *supra* note 29, at 28 ("Second opinions are the predominant form of external assurance in the green bond market.").

78. *See* Rose, *supra* note 34, at 61, 70 (describing the functional similarities between GBV and CRA data measurement and approval).

ii. Reputational Concerns

Private governance regimes, like those put forth by GBVs and CRAs, must ensure the legitimacy of their processes to satisfy stakeholder and firm expectations.[79] Because private governance regimes lack the political processes that give legitimacy to democratic states, private governance regimes must find ways to build the credibility of their institutions.[80] To gain legitimacy, private governance regimes must find different ways to identify, contest, and resolve differences.[81] GBVs and CRAs share the legitimacy challenge because both depend on the public perception of legitimacy to make their business model viable.

The green bond market relies heavily on the legitimacy of the review that GBVs bring to the table.[82] The risk associated with GBVs is that the public perceives the second-opinion providers as "greenwashing," i.e., rubber-stamping bonds with questionable environmental value.[83] If GBVs are perceived as greenwashing bonds, it could lead to a vicious cycle of rule breaking by market participants.[84] Similarly, investors are strongly influenced by CRAs to determine a particular security's creditworthiness.[85] CRAs during the Financial Crisis failed to take into account the potential for a decline in housing prices and its effects on loan defaults.[86] As a result of the legitimacy issues CRAs suffered after the Financial Crisis, Congress passed the Dodd–Frank Act in addition to creating an Office of Credit Ratings at the Securities and Exchange Commission (SEC).[87]

iii. Issuer-Pays Model Problems

The similarities between green bond verifiers and credit agencies are problematic because they present a potential conflict of interest with the "issuer-pays" business model.[88] In the SEC's 2017 annual report, the agency noted that an issuer-pays business model "is subject to a potential conflict in that the credit rating agency may be influenced to determine more favorable (*i.e.*, higher) ratings than warranted in order to retain the

79. Park, *supra* note 29, at 33.
80. *Id.* at 34.
81. *Id.*
82. *Id.* at 32.
83. *Id.*
84. *Id.*
85. *The Credit Rating Controversy*, *supra* note 69.
86. *Id.*
87. *Id.*
88. Rose, *supra* note 34, at 71 (critiquing the "issuers-pays" model).

obligors or issuers as clients."[89] Furthermore, the agency warned that inaccurate ratings could impact entire asset classes when a credit agency "becomes known for issuing higher credit ratings with respect to such class, resulting in that [ratings agency's] retaining or attracting business from most or all issuers of securities in such class."[90] Conflicts of interest driven by the desire to retain issuer-clients are also relevant to green bond verifiers, who rely on the continued purchase by corporate issuers to be profitable.[91] While international standards seek to limit conflict risks by requiring green bond verifiers to go through a conflict of interest process, the fact that green bond verifiers do not have to abide by any particular set of rules in the environmental finance market produces questions on enforceability.[92]

iv. Conflicts of Interest

Another concern of the similarities between green bond verifiers and credit agencies is the critical role that the reputation of these firms has on the integrity of the market. The certifiers rely on their reputation with both issuers and investors to help give credibility to their ratings; credibility in this market then equates to profitability.[93] Reputation with issuers and investors is not equally distributed, however, with studies pointing to certifiers tipping the balance of importance towards issuers who pay for the certifications.[94] The testimony of employees at rating agencies to regulatory and congressional committees following the Financial Crisis suggested that profit margins took center stage over quality.[95] In fact, the testimony further stated that the ratings methodologies in these institutions were changed in response to ratings purchasers choosing a competitor over their ratings.[96]

---

89. U.S. SEC. & EXCH. COMM'N, ANNUAL REPORT ON NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATIONS 29 (2017), https://www.sec.gov/ocr/reportspubs/annual-reports/2017-annual-report-on-nrsros.pdf.

90. *Id.*

91. Rose, *supra* note 34, at 64, 71.

92. Kate Allen, *Boom in Green Bonds Attracts Green Ratings Agencies*, FIN. TIMES (May 13, 2018), https://app.ft.com/content/c27b1276-47a3-11e8-8ae9-4b5ddcca99b3 ("Although some of these organisations' broader activities are regulated, third-party verifiers of green bonds do not have to abide by any particular rules in the environmental finance market.").

93. Rose, *supra* note 34, at 72.

94. Bo Becker & Todd Milbourn, *How Did Increased Competition Affect Credit Ratings?*, 101 J. FIN. ECON. 493, 494, 501 (2011).

95. Altman et al., *supra* note 72, at 450–51.

96. *Id.* at 451.

The Financial Crisis is evidence that certification firms competing for reputation is not a guarantee against questionable practices.[97] Before the 2008 Financial Crisis, certification firms competed with each other for more payments from issuers, not for better reputation from investors.[98] In response to the role of CRAs in the Financial Crisis, the U.S. Securities & Exchange Commission recommended reducing reliance on credit rating agencies as a way to mitigate potential impacts on investment decisions.[99]

A number of lawsuits after the financial crisis also call into question the importance certifiers give to reputational standing. The U.S. Department of Justice settled actions against two prominent rating agencies, Standard & Poor's and Moody's.[100] In the Standard & Poor's case, the Department alleged the CRA "engaged in a scheme to defraud investors in structured financial products."[101] The Department found that on several occasions the credit agency had given top ratings to financial products that were failing to perform as advertised.[102] Similarly, the Department pursued an $864 million settlement with Moody's—one of the U.S.'s primary credit agencies—for misleading investors through its issuer ratings.[103] The litigation ultimately found, and Moody's acknowledged, that Moody's used more lenient standards than the company itself published; investors in turn relied on these inaccurate ratings to inform their investments.[104]

Many scholars and regulators continue to argue, however, that reputational capital of verifiers and credit agencies are sufficient deterrents from certifying risky investments.[105] These scholars and regulators argue that the fraudulent and corrupt practices from the financial crisis serve to

97. Rose, *supra* note 34, at 72.

98. *Id.*

99. U.S. SEC. & EXCH. COMM'N, REPORT TO CONGRESS ON ASSIGNED CREDIT RATINGS 23–24 (2012), https://www.sec.gov/news/studies/2012/assigned-credit-ratings-study.pdf. One way the agency has deemphasized the role of CRAs is by eliminating their names from their regulations. *Id.*

100. Press Release, U.S. Justice Dep't, Justice Department and State Partners Secure $1.375 Billion Settlement with S&P for Defrauding Investors in the Lead up to the Financial Crisis (Feb. 3, 2015) [hereinafter $1.375 Billion S&P Settlement], https://www.justice.gov/opa/pr/justice-department-and-state-partners-secure-1375-billion-settlement-sp-defrauding-investors; Press Release, U.S. Justice Dep't, Justice Department and State Partners Secure Nearly $864 Million Settlement with Moody's Arising From Conduct in the Lead up to the Financial Crisis (Jan. 13, 2017) [hereinafter $864 Million Moody's Settlement], https://www.justice.gov/opa/pr/justice-department-and-state-partners-secure-nearly-864-million-settlement-moody-s-arising.

101. $1.375 Billion S&P Settlement, *supra* note 100.

102. *Id.*

103. $864 Million Moody's Settlement, *supra* note 100.

104. *Id.*

105. Rose, *supra* note 34, at 72.

better tailor regulation moving forward.[106] Furthermore, according to a recent report by the SEC, credit rating entities have improved in compliance, information technology resources, and continued competition.[107] There is some evidence that the optimism is merited with a number of securities rules enacted with the response of Dodd–Frank[108] and certain stipulations[109] resulting from the settlements with the CRAs.[110] The lack of personal accountability by the people running these institutions and the current trend towards financial deregulation, however, suggests that investors can expect pre-Financial Crisis conduct by market actors.

2. Differences Between GBVs and CRAs

Despite the many ways that GBVs are similar to CRAs, they differ in the transparency requirements. CRAs are required to disclose methodologies, data assumptions, and consistency of ratings application whereas GBVs are not subject to such requirements.[111]

Accuracy Rating Standards

Private governance regimes, such as GBVs and CRAs, can suffer from challenges related to the accuracy of the rating standards they are purported to enforce. Both GBVs and CRAs have specific methodologies and processes for developing their ratings.[112] CRAs differ to GBVs, however, because they are required to:

> [P]roduce annual reports on their internal control[] systems, police conflicts of interest in their sales practices, impose fines and penalties for violations, require disclosure of the performance of the CRAs ratings, require disclosure of ratings methodologies and of the data and assumptions underlying those

106. *Id.*; $1.375 Billion S&P Settlement, *supra* note 100; $864 Million Moody's Settlement, *supra* note 100.

107. Press Release, U.S. Sec. & Exch. Comm'n, Annual Staff Reports on Credit Rating Agencies Show Improvements (Dec. 29, 2017), https://www.sec.gov/news/press-release/2017-238.

108. Rose, *supra* note 34, at 75 (noting that the Dodd–Frank Act "require[s] CRAs to produce annual reports on their internal controls systems, police conflicts of interest in their sales practices, impose fines and penalties for violations, [and] require disclosure of the performance of the CRAs ratings").

109. *See, e.g.*, $864 Million Moody's Settlement, *supra* note 100 (noting that the settlement included a "compliance agreement to prevent future violations of [the] law").

110. *Id.*

111. Rose, *supra* note 34, at 75.

112. *See, e.g.*, ERNST & YOUNG GLOB. LLP, *supra* note 45 (explaining the GBV's process for developing its ratings).

> credit ratings, and require consistency in the application of ratings.[113]

The regulations require CRAs to disclose these methodologies in response to the Financial Crisis, where "CRAs did not seem to fully understand the products that they rated and did not take default correlations into account."[114] Furthermore, investors during the pre-Financial Crisis were not able to assess the quality of the ratings because investors lacked information about the methodologies.[115] GBVs and CRAs differ in the amount of disclosure required as to their methodologies, but perhaps GBVs would also benefit from similar transparency requirements to allow investors to better assess the quality of the ratings.

Given the limited differences between GBVs and CRAs and the problems presented by these characteristics, it is unsurprising to discover the number of problems with green bond issuances by corporate and government entities.

III. BOND VILLAIN EXAMPLES: BORN TO BE BAD OR DISCLOSURE MISCONSTRUED?

The role of the GBV is supposed to insulate the green bond market from issuances of securities that call into question the environmental benefits of projects. Despite the assurances that GBVs provide to the public of the issuers they service, the projects identified below present problems because either their purpose is not widely regarded as serving an environmental end or their structure lacks the necessary transparency safeguards.

To qualify as a green bond under the Green Bond Principles (GBP), issuers select a project from a list.[116] Selecting a project with an environmental purpose alone may not be enough for stakeholders in industries where it does not represent a significant improvement in the company's practice.[117] The most famous green *bond villain* is Repsol, with its green bond issuance for an energy efficiency and carbon emission

---

113. Rose, *supra* note 34, at 75.

114. Altman et al., *supra* note 72, at 451.

115. *Id.*

116. *See* Rose, *supra* note 34, at 69 (fleshing out the CBI standards for selecting projects to put on the selection list).

117. *See, e.g.*, *Green Bond Comment, June – of Repsol and Reputation*, ENVTL. FIN. (June 7, 2017), https://www.environmental-finance.com/content/analysis/green-bond-comment-june-of-repsol-and-reputation.html (noting criticism that Repsol's green bonds only represented an incremental change in the company's business model) [hereinafter *Green Bond Comment*].

reduction program.[118] Repsol was the first fossil-fuel company to issue green bonds to help finance energy efficiency and carbon emission reductions.[119] The 2018 offering collected €500 million for energy efficiency and carbon reduction projects anticipated to reduce emissions by 1.2 metric tons.[120] Before issuing the bond, Repsol obtained a second-party certification from Vigeo Eris that the bond was green.[121] Vigeo Eris certified Repsol's green bond based on the company's commitment to reduce waste by 50 kilotons, carbon emissions by 1.9 million tons, and investments in offshore wind power.[122] Despite receiving this certification, most major green indices declined to have the bond listed.[123] Critics of Repsol's issuance assert the bond did not represent a fundamental change in Repsol's business model, only an incremental one.[124] The difference in judgment calls between certifiers underscores the need to have government set baseline criteria for green bond qualifications.

Even when governments intervene to set green bond standards, it is not a given that there will be stakeholder consensus as to their environmental benefits. China's decision to issue green bonds for *clean coal* energy generation facilities garnered negative attention.[125] Greenpeace East Asia found that for the 2016–2017 period, China used green bonds to fund five coal-fired power plants and one coal-to-chemical plant.[126] China would contribute 13 million metric tons of carbon emissions annually from those six facilities alone.[127] In response to mounting pressure and controversy, China recently announced it would disqualify "clean coal" from its green bond guidelines in an effort to align its own definitions to international

---

118. Lidia Montes, *Así son los bonos verdes de Repsol: 500 millones de euros para reducer 1,2 toneladas de emisiones de CO2* [These are Repsol's Green Bonds: 500 Million Euros for Reducing 1.2 Tons of CO2 Emissions], BUS. INSIDER ESPAÑA (Aug. 23, 2018), https://www.businessinsider.es/asi-son-bonos-verdes-repsol-500-millones-euros-reducir-12-toneladas-emisiones-co2-293687.

119. *Id.*

120. *Id.*

121. *See* VIGEO EIRIS ENTER., SECOND PARTY OPINION ON THE SUSTAINABILITY OF REPSOL'S GREEN BOND 1 (May 2017) (verifying that Repsol's bond is a green bond), https://www.repsol.com/imagenes/global/en/Repsol_GreenBond_Second_Party_Opinion_tcm14-71044.pdf.

122. *Id.* at 3.

123. *Green Bond Comment*, *supra* note 117.

124. *Id.*

125. *See, e.g.*, Michael Edesess, *Chinese Bonds Struggle to Go Green*, NIKKEI ASIAN REV. (Dec. 19, 2018), https://asia.nikkei.com/Opinion/Chinese-bonds-struggle-to-go-green ("'Green' for Beijing often does not mean green for international buyers.").

126. Michael Standaert, *China Support for 'Clean Coal' Gives Green Bonds a Touch of Gray*, BLOOMBERG ENV'T (Jan. 22, 2018), https://www.bna.com/china-support-clean-n73014474369/ [https://web.archive.org/web/20180205221752/https://www.bna.com/china-support-clean-n73014474369/].

127. *Id.*

standards.[128] China's choice to use green bond instruments to finance projects emphasizes the lack of global consensus as to the scope of projects that qualify for the label.

Another irregular issuance of green bonds came from Southern Power, who issued millions of dollars in securities without a second-party opinion certifier.[129] Southern Power, an electricity generator issued its second round of green bonds in 2016.[130] Southern Power states that the funds are destined for renewable energy projects.[131] The power company had major financial institutions underwriting the green bond issuance, including Barclays, BNP Paribas, Bank of America, Merrill Lynch, and UBS.[132] The interest by these major institutions was combined with the intense investor interest in the project, upgrading the total offering from $750 million to $1 billion.[133] The underwriting by major institutions and investor interest comes despite the fact that Southern Power had not obtained a second-party opinion that the bonds were actually destined for "green" projects.[134] The ability of issuers to choose whether to undergo the certification process could endanger investors purchasing securities without an assurance as to their benefits.

IV. GREEN BOND REGULATION IN THE U.S. & ABROAD

Regulation of green bonds around the world is heavily influenced by the financial instrument's origins in public multilateral development banks.[135] Because of the reliance in the structures set out by international regimes, most of the regulatory structures for green bonds emphasize transparency, reporting, and verification as fundamental regulatory pillars.[136] Best practices, as developed by private governance regimes in the green bond market, have largely set the standard for what is a green

128. *China Disqualifies 'Clean Coal' Technology From Green Bond Funding*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (Dec. 14, 2018), http://ieefa.org/china-disqualifies-clean-coal-technology-from-green-bond-funding/.

129. Graham Cooper, *US Power Company Issues Second Benchmark-Sized Green Bond*, ENVTL. FIN. (June 14, 2016), https://www.environmental-finance.com/content/news/us-power-company-issues-second-benchmark-sized-green-bond.html.

130. *Id.*

131. *Id.*

132. *Id.*

133. *Id.*

134. *Id.*

135. Park, *supra* note 29, at 14.

136. Echo K. Wang, *Financing Green: Reforming Green Bond Regulation in the United States*, 12 BROOK. J. CORP. FIN. & COM. L. 467, 475 (2018).

bond.[137] Countries and regulatory regimes, however, are not bound by these standards. Regulation of green bonds remains scarce worldwide.[138]

Green bonds enjoy exponential growth, now being available in 23 countries.[139] As of September 2017, China, India, Brazil, and Morocco all released policy and guideline requirements for their country-specific green bond issuances.[140] Below, we will evaluate the regulatory regimes currently in place in the U.S., E.U., and China.

A. United States

In the U.S., green bond issuers can come from both the public and private sector. In the public sector, green bond issuers are comprised primarily of municipal, local, and state governments seeking funding for local infrastructure improvements and water and sewage management.[141] In the private sector, in turn, green bonds in the U.S. have been primarily related to the real estate market and Fannie Mae's mortgages.[142] In the U.S., a number of companies issued green bonds in recent years, including Apple, Unilever, Bank of America,[143] Fannie Mae,[144] Southern Power,[145] and Verizon.[146]

---

137. ERNST & YOUNG GLOB. LLP, *supra* note 45.

138. Wang, *supra* note 136, at 477.

139. IFC & CLIMATE BONDS INITIATIVE, CREATING GREEN BOND MARKETS – INSIGHTS, INNOVATIONS, AND TOOLS FROM EMERGING MARKETS, at xv, 14–15 (2018).

140. *Id.*

141. *See* Baker et al., *Financing the Response to Climate Change: The Pricing and Ownership of U.S. Green Bonds* 14 (Nat'l Bureau of Econ. Research, Working Paper No. 25194, 2018) (noting that municipal green bond projects often include infrastructure, water, and sewer projects); *cf.* CLIMATE BONDS INITIATIVE, BONDS AND CLIMATE CHANGE: THE STATE OF THE MARKET IN 2014, at 3 fig. 3 (July 2014) (illustrating that the U.S. is the third largest issuing country of climate-themed bonds), https://www.climatebonds.net/files/post/files/cb-hsbc-15july2014-a3-final.pdf.

142. *See* Kate Allen, *Strict US Market Rules Limit Corporate Sellers of Green Bonds*, FIN. TIMES (Feb. 20, 2018), https://www.ft.com/content/baa217c4-157c-11e8-9376-4a6390addb44 [hereinafter *Market Rules*] (stating that in 2017, Fannie Mae mortgages were among those topping the U.S. private market).

143. Flammer, *supra* note 19.

144. Alicia Jones, *Fannie Mae Wins Recognition as Largest Issuer of Green Bond by the Climate Bonds Initiative*, FANNIE MAE, http://www.fanniemae.com/portal/media/corporate-news/2018/green-bond-award-6680.html (last visited Apr. 27, 2019) ("In 2017, Fannie Mae issued $27.6 billion in Green Mortgage-Backed Securities (MBS) backed by either green building certified properties or properties targeting a reduction in energy or water consumption, up from $3.6 billion in 2016 and $111 million in 2015.").

145. *Southern Power Green Bonds*, SOUTHERN POWER, https://investor.southerncompany.com/information-for-investors/Green-Bonds/Southern-Power/default.aspx (last visited Apr. 27, 2019).

Regulation of environmental, social, and governance (ESG) practices, including green bond standards, in the U.S. is limited to disclosure. The Securities and Exchange Act of 1934 is the primary regulatory tool for a firm's ESG practices.[147] The hope is that when firms disclose ESG practices it will result in pressure from shareholders and other market actors.[148] A recent addition to this is the SEC's guidance on climate change, where the agency began requiring firms to disclose climate change risks and impacts if they represent a material impact to the business.[149] SEC Rule 144(a) on initial offerings regulates green bonds like any other bond; green bonds, however, differ in liability because green bond documents must be incorporated into filings.[150]

At the state level, different governments began regulating the green equity sector. Delaware, best known for its corporate law structure, recently passed a law regulating the ESG disclosure of companies incorporated within the State.[151] Effective July 2018, the State of Delaware developed a Sustainability and Transparency Standards bill for Delaware businesses.[152] The law, however, "does not contemplate or require that State officers determine qualitatively whether an entity has been operated in a sustainable and responsible manner."[153] Furthermore, the law does not "in and of itself, create any right of action on the part of any person or entity or otherwise give rise to any claim for breach of any fiduciary or similar duty owed to any person or entity" for failure to disclose an issuer's sustainability practices.[154]

Aside from the aforementioned regulations, the environmental quality of U.S. green bonds remains unregulated.[155] The voluntary nature of green bond disclosure in the U.S. creates a lag in the markets growth because investors lack certainty in how the financial instruments will be treated.[156] While the U.S. continues to ignore advancements in green equity

146. Emily Chasan, *Verizon Has Bond Market Seeing Green After Billion Dollar Deal*, BLOOMBERG (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/verizon-has-bond-market-seeing-green-after-billion-dollar-deal.

147. Park, *supra* note 29, at 18.

148. Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1211 (1999).

149. Disclosure Related to Climate Change: Guidance for Public Companies, 75 Fed. Reg. 6290, 6295 (Feb. 8, 2010) (to be codified at 17 C.F.R. pts. 211, 231, 241).

150. *Market Rules*, *supra* note 142.

151. H.B. 310, 149th Gen. Assemb. (Del. 2018).

152. *Id.*

153. *Id.*

154. *Id.*

155. *See generally* Rose, *supra* note 34, at 76 (discussing possible regulation strategies for the U.S.).

156. Wang, *supra* note 136, at 481.

regulation, China and the E.U. continue to move forward shaping the language and the future of the green investment space.[157] A green bond framework similar to the one currently in place in China could help address some of the concerns that investors have regarding the quality of the green equity products.

B. European Union

In the E.U., where green bonds originated, green bond labeling is voluntary and unenforceable.[158] The E.U. has sought to remedy this by issuing recommendations on how to regulate and integrate the European green bond market.[159] Both the European and U.S. markets remain voluntary and largely self-regulated through GBP guidelines.[160] European markets differ from their U.S. counterparts in that institutional investors, such as pension funds, interested in investing in green bonds focus on European securities because of their better information transparency.[161] Green bond information scarcity manifests in three ways: (1) investors are not familiar with the financial products; (2) investors believe that green bonds are risky and will yield lower profits; and (3) investors are nervous about the absence of regulation surrounding the products.[162]

C. China

China currently ranks among the top two green bond producers in the world—in both quantity and quality of green bond issuances.[163] While North America and Western Europe constitute established markets, the largest driver of green bond growth is China, who dominates one-third of

---

157. *See* Susanna Rust, *China, EIB Collaboration Seeks 'Common Language' for Green Finance*, INV. & PENSIONS EUR. (Nov. 17, 2017), https://www.ipe.com/news/esg/china-eib-collaboration-seeks-common-language-for-green-finance/www.ipe.com/news/esg/china-eib-collaboration-seeks-common-language-for-green-finance/10021810.fullarticle (describing China's and E.U.'s shared efforts to develop a framework and standards to enable a global green bond market).

158. Wang, *supra* note 136, at 477.

159. HIGH LEVEL EXPERT GROUP ON SUSTAINABLE FINANCE, FINAL REPORT OF THE HIGH-LEVEL EXPERT GROUP ON SUSTAINABLE FINANCE 33 (2018), https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf.

160. Wang, *supra* note 136, at 481.

161. *Id.*

162. *Id.*

163. Karen Yeung, *China Loses Top Billing as Green Bond Issuer to US*, SOUTH CHINA MORNING POST (Feb. 1, 2018), https://www.scmp.com/business/money/wealth/article/2131623/china-slips-second-biggest-green-bond-market-after-us.

the global market.[164] While the Chinese domestic green bond market has been subject to criticism for lax and inconsistent green standards,[165] this stands in stark contrast to the approval its green bond products received from leading stakeholders, like the Climate Bond Initiative.[166] Although the Climate Bond Initiative has several Chinese partners, it is worth noting that the organization is not funded by Chinese entities, thereby potentially compromising the certification.[167] The graph below illustrates the number of green bonds issued by alignment with the Climate Bond Principles; green bonds that are strongly aligned are represented by the right column, fully aligned bonds are represented by the middle column, and other green bonds issued are represented by the right column, for each country.[168]

164. *See* BONDS AND CLIMATE CHANGE: THE STATE OF THE MARKET IN 2015, *supra* note 43 (attributing 33% of the climate-aligned bond market to China, 12% to the U.S., and 9% each to the U.K. and France).

165. Park, *supra* note 29.

166. *See* BONDS AND CLIMATE CHANGE: THE STATE OF THE MARKET IN 2015, *supra* note 43, at 12 (noting China is the top issuer for climate-aligned bonds).

167. *See Our Funders*, CLIMATE BONDS INITIATIVE, https://www.climatebonds.net/about/funders (last visited Apr. 27, 2019) (listing 22 funders, none of which are Chinese entities).

168. CLIMATE BONDS INITIATIVE, BONDS AND CLIMATE CHANGE: THE STATE OF THE MARKET 2018, at 5 (2018).

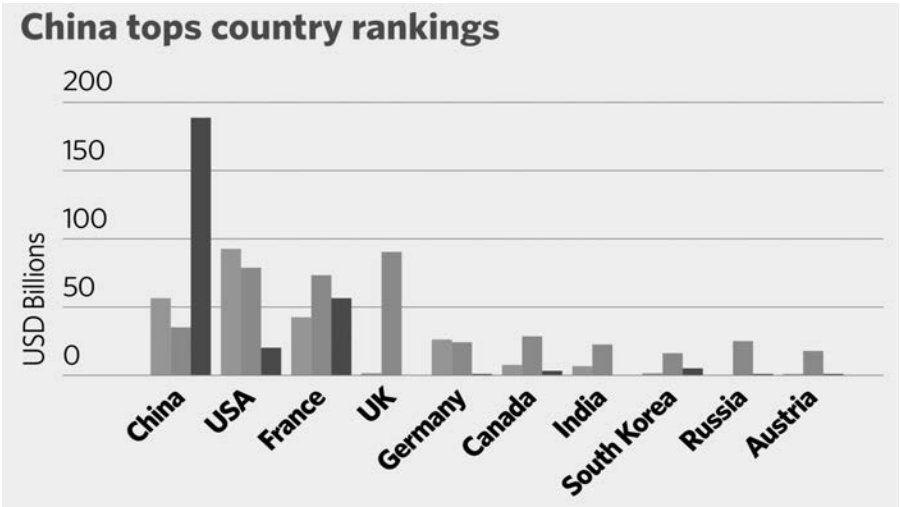


Figure 1. Climate Bonds Initiative, 2018 State of the Market.

China's leadership in green bond issuance does not stop at the portion of the green market that it dominates, but extends to its innovative approach to regulation of the market. The People's Bank of China and China Securities and Regulatory Commission released green bond guidelines.[169] The Chinese agencies' guidance on green bonds aimed to provide "guidance on the development of the green bond market certification system, aimed at streamlining, regulating and promoting the growing market."[170] The guidelines require Chinese banks to provide quarterly reports on how green bond proceeds are used, while the guidelines require corporate issuers to provide annual or semi-annual reports.[171] This reporting frequency is greater than the international standard, which only requires issuers to report on an annual basis.[172] The rigorous Chinese regulatory process helps ensure that issuers obtain third-party verifications at a faster rate than U.S. issuers.[173] While third-party verification in China remains

169. *Id.*

170. Flora McFarlane, *People's Bank of China Releases Green Bond Certification Guidelines*, DESK (Jan. 9, 2018), https://www.fi-desk.com/peoples-bank-of-china-releases-green-bond-certification-guidelines/.

171. Wang, *supra* note 136, at 479.

172. *Id.*

173. *Id.* ("[I]n fact, 80% of Chinese issuers publicly disclose post-issuance information, whereas in contrast, only 50% of U.S. issuers do so."); *see* Sean Kidney, *Myth Buster: Why China's Green Bond Market is More Orderly Than You Might Think. An Overview from Climate Bonds Initiative*, CLIMATE BONDS INITIATIVE (June 21, 2017), https://www.climatebonds.net/2017/06/myth-buster-why-

optional under the guidelines, over 93% of Chinese green bonds have obtained such reviews in contrast to the 85% global average.[174]

Furthermore, the People's Bank of China and China Securities and Regulatory Commission issued a joint statement announcing the creation of a new Green Standards Committee that would "stipulate required qualifications and credentials, verification methods, and reporting requirements" that verifiers would have to comply with in order to certify a green bond.[175] The robust regulation of the green bond sector in places like the E.U. and China create the regulatory environment to increase the issuances of green bonds. The investment sector simply needs the support of government regulation and benefits to continue to grow.[176]

V. THE CASE FOR A U.S. GREEN STANDARDS COMMITTEE

The international community agreed through the Paris Agreement, the Paris Green Bond Statement, and subsequent pledges on the need for all stakeholders to support all the financial tools available to combat climate change—be it through regulation, investment, or advocacy.[177] As it pertains to green bonds, the call remains unanswered in the U.S.

> If it is uncertain or unclear whether green bonds do in fact contribute to environmental sustainability, the entire regulatory fabric of the green bond market may suffer from systemic legitimacy deficits in the eyes of investors, stakeholders, and regulators. If left unaddressed, a lack of legitimacy will hinder

china%E2%80%99s-green-bond-market-more-orderly-you-might-think-overview-climate (summarizing China's rigorous regulation and verification of green bonds).

174. Wang, *supra* note 136, at 479; *see* Kidney, *supra* note 173 (explaining the benefits of China's regulatory structures).

175. Andrew Whiley, *Chinese Regulators Introduce Supervisory Scheme for Green Bond Verifiers - Further Step in Building Market Frameworks*, CLIMATE BONDS INITIATIVE (Jan. 15, 2018), https://www.climatebonds.net/2018/01/chinese-regulators-introduce-supervisory-scheme-green-bond-verifiers-further-step-building.

176. *See* Nena Stoiljkovic, *The Paris Agreement is a $23 Trillion Investment Opportunity. How Can We Unlock It?*, WOLRD ECON. F. (Jan. 31, 2017), https://www.weforum.org/agenda/2017/01/unlocking-23-trillion-of-climate-investment-opportunities-is-mission-possible/ (proposing priorities for countries hoping to attract green investment that include supportive policies and measures to unlock the potential of the private sector).

177. *Adoption of the Paris Agreement*, *supra* note 12, at art. 2(1)(c); Rose, *supra* note 34, at 61–62; *see also* CLIMATE BONDS INITIATIVE, PARIS GREEN BONDS STATEMENT (2015), https://www.climatebonds.net/files/files/Paris_Investor_Statement_9Dec15.pdf (describing the signatories as "substantial investors in the . . . global bond market").

> the growth of the green bond market and, indeed, stall the sustainable finance revolution.[178]

Regulating green bonds through a Green Standards Committee (GSC) could help resolve some of the structural challenges that the market currently faces. Like the GSC model currently does in China, such a committee could provide oversight to green bond projects. The areas listed below are some of ways in which an oversight commission could benefit the green securities market.

A. Defining Green Bonds

Having a clear definition of which projects constitute green bonds is an important first step in providing more clarity on the green bond market. While the GBPs provide a definition of green bonds that issuers and governments have used, it is not binding on issuers.[179] Countries like China and India have codified similar versions of the GBP as part of an effort to standardize the kinds of projects to be approved.[180]

First, there is a question of defining *greenness*, which ultimately depends on the objectives of the use of green bonds.[181] At the very minimum, the market actors will need to explicitly lay out the objectives of standards in order to provide a clear definition of *greenness*.[182] The lack of explicit and shared objectives for the green bond market is a source of misunderstanding that could eventually harm the market through accusations of greenwashing and potentially higher transaction costs.[183] Governments could facilitate this process by clarifying investment priorities that are coherent with long-term climate and sustainable development strategies or endorsing standards that are aligned with them.[184] By establishing clear standards of the parameters of a green bond, governments and regulatory agencies can reduce the transactional costs of operating in this space and give confidence to the sector.[185]

Similarly, defining green bonds could provide consistency in the types of green bond projects businesses market to the public. As explored in the

178. Park, *supra* note 29, at 7.

179. *See* Wang, *supra* note 136, at 469 (explaining that both the GBPs and the Climate Bond Standard are voluntary).

180. *Id.* at 478–90.

181. SHISHLOV ET AL., *supra* note 52, at 23.

182. *Id.* at 25.

183. *Id.* at 5.

184. *Id.*

185. *Id.* at 4–5.

sections above, a lack of communal understanding of what is within the spectrum of a green bond leads to companies approving projects where the climate benefit may be unclear.[186] Furthermore, inaction in defining what types of financial instruments will qualify as green bonds will embolden issuers with questionable projects to come to the fore.[187] One recent example is Rusal, a Russian aluminum company currently contemplating issuing green bonds despite not being clear on the environmental benefit of potential projects.[188] Green bond issuance of projects with questionable environmental impacts could erode investor confidence in the market, making it more difficult for projects with clear environmental benefits to get the necessary funding.[189]

B. Oversight & Monitoring

Increases in oversight and monitoring could improve the reliability of available information on green bonds. Although international standards and independent second-party verifiers have propelled progress on green bond disclosure; current green bond disclosure is insufficiently meaningful to provide a realistic picture about the environmental quality of the financial products being offered.[190] For example, in Ernst & Young's evaluation of the China Development Bank's 2017 green bond issuance, the company enumerated several ways in which the disclosure was limited, including that the report did not "express an opinion on the effective [sic] and performance of [China Development Bank]'s management system and procedure[s]," did not express an audit opinion, and did not include statutory financial statements.[191] The limited scope of the verifications being currently provided, especially in instances such as Ernst & Young's evaluation of the green bonds issued by the China Development Bank, do not inspire confidence in the environmental integrity of the bonds given the scarce detail provided.[192] A regulating entity, however, could require

186. *See* Standaert, *supra* note 126 (providing the example that China used green bonds for "clean coal").

187. Thomas Hale, *The Green Bond That Wasn't*, FIN. TIMES ALPHAVILLE (Jan. 24, 2018), https://ftalphaville.ft.com/2018/01/24/2198049/the-green-bond-that-wasnt/.

188. *Id.*

189. SHISHLOV ET AL., *supra* note 52.

190. *Id.* at 16–17.

191. ERNST & YOUNG HUA MING LLP, INDEPENDENT LIMITED ASSURANCE REPORT TO THE DIRECTORS OF THE CHINA DEVELOPMENT BANK 4 (2017), https://www.climatebonds.net/files/files/China%27s%20Development%20Bank%27s%202017%20Green%20Bond%20Pre-issuance%20Assurance%20Report.pdf.

192. Rose, *supra* note 34, at 69–70.

similar bonds to submit to additional monitoring and disclosures so as to keep issuers accountable to environmental goals.[193]

C. Ethical Concerns

As of the date of this publication, four of the largest second-opinion green bond certifiers were contacted to comment on negative recommendations for green bond issuance—none had ever issued a negative recommendation for a green bond.[194] Although various factors could influence the reasons for the absence of negative recommendations, such as issuer preparedness and early refusal by verifiers, a regulating entity, such as a GSC, could also provide assurances to the public that there are no ethical conflicts of interest between the second-opinion providers and the issuers that purchase their services. As credit agencies did before them, green bond issuers and the firms that verify them must grapple with the same concerns raised by the issuer-pays business model.[195] Similarly to how credit agencies during the Financial Crisis were incented to put issuer interests before that of the investors that relied on the ratings in order to gain market share, second-party verifiers, absent regulation, could engage in the same problematic behavior that provoked the Financial Crisis.[196] A GSC, which could oversee the market and provide assurances that the verifiers are not engaging in risky behavior, could help prevent the challenges encountered by the equity market previously.

D. Absence of Accountability & Litigation Exposure

A regulating entity, such as a GSC, could also promulgate rules to protect investors' interests by creating rules on liability. While the financial system is well-versed in looking at bond default from a financial

193. SHIVLOV ET AL., *supra* note 52, at 22–23.

194. Correspondence with the top second-party verifiers on file with author. The top second-party verifiers were contacted during the production of this Article to comment on any negative recommendations issued on green bond projects. Sustainalytics responded on January 7, 2019: "In all cases so far, we have not had to publish a Second-Party Opinion that gives a negative opinion, as Issuers will typically revise their framework to exclude those uses of proceeds that we have a negative opinion of, or they forgo seeking a Green Bond." Similarly, Cicero responded on January 8, 2019: "Generally, those that request a review from us are self-selecting and already doing quite a bit in terms of green activities. So we have never had to rate anyone 'brown.'" Vigeo Eiris and Ernst & Young did not respond to the requests. ISS-ESG was not contacted because of the potential perception of conflicts of interests with the author.

195. Rose, *supra* note 34, at 71.

196. *See supra* Parts II & III (highlighting similarities between markets, which leaves green bonds vulnerable to verifier corruption).

perspective, it is less clear what the environmental responsibilities and liabilities would be for default from an environmental perspective.[197] Because green bonds are not only assuring financial proceeds, but also environmental benefits, it remains difficult to quantify public trust damages in the case of default.[198] Similar to the difficulties presented by offset programs in climate change cap-and-trade regimes, without appropriate oversight before, during, and after a project is completed, how can investors be assured that companies in fact produced an environmental benefit?[199] Relying on the possibility that investors or the government later bring suit does nothing to protect the integrity of the green market or the public's interest in transparency at the present.[200]

CONCLUSION

Whether you consider the *villains* of the green bond story to be the issuers or the second-opinion certifiers, the fact remains that the market needs regulation to prevent similar past harms and support future growth.[201] Regulating green bonds would help define the types of qualifying projects, increase transparency, and correct the challenges that triggered the financial crisis. As this Article explored, regulating green bonds would grow the green bond market as stakeholders are better able to make decisions with information as to liability and risk. Governments contemplating green bond regulation will find a valuable resource in China's extensive green bond regulatory regime, which requires more frequent and extensive updates on green projects and which is subject to the oversight of China's Green Standards Committee.

Regulating green bonds, however, will not only be good for the market, it will be good for the environment. Green bonds are a powerful instrument to combat climate change as they open a plethora of investment opportunities to decarbonize the economies of the world. This investment instrument, however, is beginning to be misused, with some issuers

197. Rose, *supra* note 34, at 77.

198. CLIMATE BONDS INITIATIVE, SCALING UP GREEN BOND MARKETS FOR SUSTAINABLE DEVELOPMENT: A STRATEGIC GUIDE FOR THE PUBLIC SECTOR TO STIMULATE PRIVATE SECTOR MARKET DEVELOPMENT FOR GREEN BONDS 8, 49 (2015), https://www.climatebonds.net/files/files/GB-Public_Sector_Guide-Final-1A.pdf.

199. *Offsets*, CARBON TAX CTR., https://www.carbontax.org/carbon-tax-vs-the-alternatives/offsets/ (last visited Apr. 27, 2019).

200. Lawsuits have proven insufficient for deterrence. *See, e.g.*, Rose, *supra* note 34, at 76 (proposing that lawsuits were only effective after "the largest financial crisis in a generation").

201. *See, e.g.*, *supra* notes 100–04 and accompanying text (discussing the U.S. Department of Justice's lawsuits against Standard & Poor's and Moody's). *But see supra* notes 105–10 and accompanying text (noting that regulations and settlements have deterred risky investments).

diverting funds from *bona fide* green bond issuances to those with questionable or uncorroborated benefits. In the absence of regulation, oversight, and environmental benefit assurances, society runs the risk that trillions of dollars in carbon-reduction investment will ultimately do little to meet the 2°C goal set out by the Paris Agreement. A Green Standards Committee could provide the assurances that the investor community needs: that by purchasing a green bond security they are financing a sustainable future.

THE CONDUIT THEORY: PROTECTING NAVIGABLE WATERS FROM DISCHARGES TO TRIBUTARY GROUNDWATER

INTRODUCTION

Society's dependence on freshwater is pervasive, as it supplies water for drinking, irrigation, industry, and more.[1] With the looming consequences of climate change and increasing water shortages across the country, it is more important than ever to protect our freshwater resources.[2] Nonetheless, water contamination—including groundwater contamination—persists.[3] Often, groundwater contamination is problematic

1. MOLLY A. MAUPIN ET AL., U.S. DEP'T OF INTERIOR, U.S. GEOLOGICAL SURVEY, ESTIMATED USE OF WATER IN THE UNITED STATES IN 2010, at 14 (2014), https://pubs.usgs.gov/circ/1405/pdf/circ1405.pdf.

2. *See* Sarah Ferris & Peter Sullivan, *Clean Water Crisis Threatens US*, HILL (Apr. 25, 2016), http://thehill.com/policy/energy-environment/277269-a-nation-over-troubled-water (detailing water shortage problems in the U.S.); Neil McIntyre, *How Will Climate Change Impact on Fresh Water Security*, GUARDIAN (Dec. 21, 2012), https://www.theguardian.com/environment/2012/nov/30/climate-change-water (detailing the impacts climate change may have on freshwater resources).

3. COMM. ON FUTURE OPTIONS FOR MGMT. IN THE NATION'S SUBSURFACE REMEDIATION EFFORT, NAT'L RES. COUNCIL, ALTERNATIVES FOR MANAGING THE NATION'S COMPLEX CONTAMINATED GROUNDWATER SITES 1 (2013).

where aquifers supply drinking water.[4] Another, more obscure, problem occurs when contaminants in groundwater seep into surface waters.[5] Groundwater is commonly hydrologically connected to surface waters, serving as a source of recharge for waterbodies such as streams and lakes.[6] This input can be significant, providing as much as 90% of a waterbody's average flow.[7] Where this type of hydrological connectivity is present, water moving between ground and surface waters frequently carries pollutants along with it.[8]

Yet, despite the important connection between ground and surface waters, no federal law explicitly prohibits discharges to tributary groundwater.[9] Even the Clean Water Act (CWA), the most comprehensive water quality statute, fails to directly regulate groundwater.[10] The CWA only prohibits discharges to "navigable waters," the definition of which excludes groundwater.[11] But some courts have found CWA violations when facilities discharge pollutants to groundwater that is a tributary of a navigable surface water.[12] Rather than regulating groundwater itself, these courts view groundwater as a conduit between point sources and navigable waters.[13] Accordingly, this theory of jurisdiction is sometimes called *the conduit theory*.[14]

---

4. *See, e.g.*, U.S. ENVTL. PROT. AGENCY, WELLHEAD PROTECTION: A GUIDE FOR SMALL COMMUNITIES 17 (1993) (describing a situation where a town spent $5 million rehabilitating an aquifer that was contaminated by "a leaking underground storage tank").

5. WINTER ET AL., U.S. DEP'T OF INTERIOR, U.S. GEOLOGICAL SURVEY, GROUND WATER AND SURFACE WATER: A SINGLE RESOURCE 1 (1999).

6. *Id.* at 1, 9, 18.

7. *See, e.g.*, *id.* at 12 (reporting that "about 90 percent of [the Sturgeon River's] average annual flow is contributed by ground water").

8. *Id.* at 1.

9. Mary Christina Wood, *Regulating Discharges into Groundwater: The Crucial Link in Pollution Control Under the Clean Water Act*, 12 HARV. ENVTL. L. REV. 569, 570 (1988).

10. *See* 40 C.F.R. § 122.2(2)(v) (2018) (exempting groundwater from CWA's definition of jurisdictional waters); Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154, 4155 (proposed Feb. 14, 2019) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, & 401) (indicating that the Army Corps of Engineers and EPA are proposing a rule redefining "waters of the United States," which exempts groundwater); *infra* Part II (explaining that groundwater is not a jurisdictional water of the United States under CWA regulations).

11. 33 U.S.C. §§ 1311, 1362(7), 1362(12) (2012); 40 C.F.R. § 122.2(2)(v); Revised Definition of "Waters of the United States," 84 Fed. Reg. at 4155; *see infra* notes 45–56 and accompanying text (explaining the definition of "navigable waters").

12. *See, e.g.*, Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (holding the County of Maui liable under the CWA for discharging pollutants through groundwater to the Pacific Ocean), *cert. granted*, 139 S. Ct. 1164 (2019).

13. *See, e.g.*, Haw. Wildlife Fund v. Cty. of Maui, 24 F. Supp. 3d 980, 994 (D. Haw. 2014) ("[L]iability arises even if the groundwater . . . is not itself protected by the Clean Water Act, as long as the groundwater is a conduit through which pollutants are reaching navigable-in-fact water."), *aff'd*, 886 F.3d 737 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

14. Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 932–33 n.5 (6th Cir. 2018).

Recently, a circuit split has developed over the legitimacy of the conduit theory.[15] The Fourth and Ninth Circuits have each adopted the conduit theory; although, they applied different tests for determining when a hydrological connection is sufficiently proximate for CWA jurisdiction to exist.[16] The Sixth Circuit, on the other hand, has unequivocally rejected the conduit theory.[17] Petitions for certiorari have been filed in the Fourth,[18] Sixth,[19] and Ninth Circuits,[20] and the Supreme Court has announced that it will hear the Ninth Circuit case in its 2019–2020 term.[21] The Court therefore has the opportunity to resolve the circuit split and determine whether the conduit theory is an appropriate interpretation of the CWA.[22]

This Note evaluates the conduit theory of CWA jurisdiction over discharges to tributary groundwater. Part I highlights the elements of a CWA violation.[23] Part II outlines the three major theories of CWA jurisdiction over discharges to tributary groundwater.[24] Part III explains the validity of the conduit theory as a matter of law.[25] Part IV describes conduit theory case law, explaining the reasoning of various courts.[26] Finally, Part V provides the major challenges to practitioners attempting to hold dischargers liable under the conduit theory.[27]

---

15. *Compare Haw. Wildlife Fund*, 886 F.3d at 749 (adopting the conduit theory), *and* Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.) (adopting the conduit theory), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268), *with Ky. Waterways All.*, 905 F.3d at 938 (rejecting the conduit theory).

16. *Compare Haw. Wildlife Fund*, 886 F.3d at 749 (requiring that pollutants be "fairly traceable from the point source to a navigable water"), *with Upstate Forever*, 887 F.3d at 652 (requiring a "direct hydrological connection").

17. *Ky. Waterways All.*, 905 F.3d at 933.

18. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637 (4th Cir.), *petition for cert. filed*, (U.S. Aug. 28, 2018) (No. 18-268).

19. Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436 (6th Cir. 2018), *petition for cert. filed* (U.S. Apr. 15, 2019) (No. 18-1307).

20. *Haw. Wildlife Fund*, 886 F.3d 737 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

21. *Id.* (granting certiorari on the first question in County of Maui's petition). The Fourth and Sixth Circuit petitions are still pending, and it is likely that the Supreme Court will ultimately remand the cases in light of its decision in the Ninth Circuit case. Patrick A. Parenteau, *Supreme Court to Visit Maui*, AM. C. ENVTL. LAW. (Feb. 21, 2019), http://www.acoel.org/post/2019/02/21/Supreme-Court-to-Visit-Maui.aspx [hereinafter, Parenteau, *Maui*].

22. Parenteau, *Maui*, *supra* note 21.

23. *See infra* Part I (explaining the elements of a CWA violation).

24. *See infra* Part II (describing the point source theory, the navigable waters theory, and the conduit theory).

25. *See infra* Part III (analyzing the support for the conduit theory).

26. *See infra* Part IV (providing cases in which courts adopted, rejected, or failed to consider the conduit theory).

27. *See infra* Part V (describing the challenges practitioners will face in conduit theory cases).

I. ELEMENTS OF A CLEAN WATER ACT VIOLATION

Congress passed the CWA in 1972 with the objective of "restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation's waters."[28] The Act also declared an aggressive goal of eliminating "the discharge of pollutants into . . . navigable waters . . . by 1985."[29] Section 301(a) of the Act prohibits "the discharge of any pollutant" except as allowed under specific regulatory programs.[30] Broadly, a § 301 violation has six elements: (1) the discharge (2) of a pollutant (3) from a point source (4) to a navigable water (5) by a person (6) without a permit.[31] The CWA defines each of these elements.[32]

"Discharge":

A "discharge" is "any addition of any pollutant to navigable waters from any point source."[33] Congress did not define the term "addition,"[34] but the Environmental Protection Agency (EPA) and the courts have construed the term broadly.[35] Furthermore, the CWA applies whether these additions are intentional or incidental, making the CWA a strict liability statute.[36]

"Pollutant":

Under the CWA, pollutants include, among other things, "sewage, garbage, . . . chemical wastes, . . . and industrial, municipal, and agricultural waste."[37] Some natural pollutants are covered as well, such as "biological materials, . . . heat, . . . rock, [and] sand."[38] Thus, the term "pollutant" is quite broad and includes almost anything that is not naturally present in a given navigable water.[39]

---

28. 33 U.S.C. § 1251(a) (2012).

29. *Id.* § 1251(a)(1).

30. *Id.* § 1311(a).

31. *Id.* (prohibiting "the discharge of any pollutant by any person"); *id.* § 1362(12)(A) (defining "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source"); *id.* § 1342(k) (allowing the discharge of pollutants with a NPDES permit); *id.* § 1344(p) (allowing the discharge of dredge and fill material with a permit).

32. *Id.* § 1362(5), (6), (7), 12(A), (14).

33. *Id.* § 1362(12)(A).

34. *See id.* (containing no definition of "addition").

35. JEFFREY G. MILLER, PLAIN MEANING, PRECEDENT, AND METAPHYSICS: INTERPRETING THE ELEMENTS OF THE CLEAN WATER ACT OFFENSE 1 (2017) [hereinafter MILLER, ELEMENTS].

36. 36 AM. JUR. PROOF OF FACTS 3D *Proof of Wrongful Discharge of Pollutant into Waterway Under Federal Clean Water Act* § 6 (2018).

37. 33 U.S.C. § 1362(6).

38. *Id.*

39. 36 AM. JUR. PROOF OF FACTS 3D, *supra* note 36, § 2.

"Point Source":

A "point source" is generally "any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged."[40] The CWA does not regulate nonpoint source pollution, which is diffuse and often takes the form of runoff.[41] For example, the CWA explicitly excludes the regulation of "agricultural stormwater."[42] Nonpoint source pollution is left to the states[43]—an example of the CWA's commitment to federalism.[44]

"Navigable Waters":

The term "navigable waters" has different definitions across federal and state law depending on the context in which it is used.[45] "Traditionally navigable waters" are those that "are used, or are susceptible of being used, in their ordinary condition, as highways for commerce," as well as those subject to the "ebb and flow of the tide."[46] Under the CWA, Congress departed from this traditional meaning, instead defining "navigable waters" as "the waters of the United States, including the territorial seas."[47] Courts have frequently invoked this decision as evidence that Congress intended to create broad federal authority under the CWA.[48]

---

40. 33 U.S.C. § 1362(14).

41. *Id.* §§ 1311, 1362(12), 1362(14); James C. Buresh, *State and Federal Land Use Regulation: An Application to Groundwater and Nonpoint Source Pollution Control*, 95 YALE L.J. 1433, 1434 & n.6 (1986).

42. 33 U.S.C. § 1362(14). This term is problematic, however. Agricultural runoff can be a point source when farmers over apply fertilizer that runs off into a navigable water. *See* Concerned Area Residents for Env't v. Southview Farm, 34 F.3d 114, 121 (2d Cir. 1994) ("[T]he jury could properly find that the run-off was primarily caused by the over-saturation of the fields rather than the rain and that sufficient quantities of manure were present so that the run-off could not be classified as 'stormwater.'").

43. *See* 33 U.S.C. § 1329 (laying out state duties and providing a grant program for nonpoint source management).

44. *See id.* § 1251(b) ("It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States . . . .").

45. JEFFREY G. MILLER ET AL., INTRODUCTION TO ENVIRONMENTAL LAW: CASES AND MATERIALS ON WATER POLLUTION CONTROL 220 (2d ed. 2017) [hereinafter MILLER, WATER POLLUTION CONTROL].

46. The Daniel Ball, 77 U.S. (10 Wall.) 557, 563 (1870); Phillips Petroleum Co. v. Mississippi, 484 U.S. 469, 481 (1988) (affirming that "navigable waters" also includes waters subject to the ebb and flow of the tide).

47. 33 U.S.C. § 1362(7).

48. *See* United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 133 (1985) ("In adopting this definition of 'navigable waters,' Congress evidently intended to repudiate limits that had been placed on federal regulation by earlier water pollution control statutes and to exercise its powers under the Commerce Clause to regulate at least some waters that would not be deemed 'navigable' under the classical understanding of that term."); Nat. Res. Def. Council, Inc. v. Callaway, 392 F. Supp. 685, 686 (D.D.C. 1975) ("Congress by defining the term 'navigable waters' . . . to mean 'the waters of the United States' . . . asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution. Accordingly, as used in the Water Act, the term is not limited to the traditional tests of navigability." (citation omitted) (quoting 33 U.S.C. § 1362(7))).

The exact scope of "[w]aters of the United States" is unclear, however; the meaning of the term has been highly controversial.[49] In 2015, under the Obama Administration, EPA and the U.S. Army Corps of Engineers (the Corps) promulgated the Clean Water Rule, clarifying the meaning of "waters of the United States."[50] Two years later, President Trump signed an executive order requiring EPA and the Corps to review the Clean Water Rule,[51] and as a result, the agencies recently proposed to rescind it.[52] Then, in February 2019, the Agencies proposed a rule redefining "waters of the United States."[53] Thus, the meaning of the term is currently in limbo, and the controversy is ultimately beyond the scope of this Note.[54] Regardless, one thing is clear—the term does not encompass groundwater.[55] Both the 2015 Rule and the forthcoming revision explicitly exempt groundwater from the meaning of "waters of the United States."[56]

"Person":

Under the CWA, "person" includes more than individual people.[57] The term also means a "corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body."[58] A discharge by any of these entities constitutes a discharge by a "person."[59]

"Without a Permit":

There are two types of permits under the CWA: § 402 and § 404 permits.[60] Section 404 covers dredged and fill material and is not pertinent

---

49. *See* Jeff Daniels, *Trump Executive Order Seeks to Roll Back Controversial Obama Water Rules*, CNBC (Feb. 28, 2017), https://www.cnbc.com/2017/02/28/trump-executive-order-seeks-to-roll-back-controversial-obama-water-rule.html (explaining that agricultural and industrial groups have been critical of the 2015 Clean Water Rule).

50. Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054, 37,054–55 (June 29, 2015) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 & 401).

51. Exec. Order No. 13,778, 3 C.F.R. § 296 (2017).

52. Definition of "Waters of the United States"—Recodification of Pre-Existing Rules, 82 Fed. Reg. 34,899, 34,899 (July 27, 2017) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 & 401).

53. Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154, 4155 (proposed Feb. 14, 2019) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 & 401).

54. *Id.*

55. Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. at 37,055; Revised Definition of "Waters of the United States," 84 Fed. Reg. at 4155.

56. Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. at 37,055; Revised Definition of "Waters of the United States," 84 Fed. Reg. at 4155.

57. 33 U.S.C. § 1362(5) (2012).

58. *Id.*

59. *Id.* §§ 1311(a), 1362(5).

60. *Id.* §§ 1342, 1344.

for discharges to groundwater.[61] On the other hand, § 402 is directly relevant here, as it broadly covers the discharge of pollutants.[62] Under § 402, EPA and federally approved state environmental agencies may issue permits that allow facilities to discharge specific pollutants at set levels.[63] The National Pollutant Discharge Elimination System (NPDES) program provides the federal permitting scheme and the approval process for State Pollutant Discharge Elimination System (SPDES) programs.[64] To gain EPA approval, state programs must be at least as stringent as the federal program.[65] EPA has approved a SPDES program in 46 states.[66] When a facility pollutes waters without a permit, or in violation of a permit, that facility is subject to an enforcement action by EPA or an authorized state.[67] The CWA also allows for enforcement via citizen suits.[68] Citizens can initiate a civil action against a person who violates the CWA and the Administrator of EPA for failing to fulfill their mandatory duties.[69]

II. THREE THEORIES OF CWA JURISDICTION OVER DISCHARGES TO TRIBUTARY GROUNDWATER

Although CWA regulation has historically focused on surface waters,[70] the statute is an effective federal tool for protecting surface waters from discharges to tributary groundwater.[71] To bring groundwater under the

61. *Id.* § 1344.

62. *Id.* § 1342.

63. *Id.*

64. *Id.*

65. *Id.* § 1342(b)–(c); Colburn T. Cherney & Karen M. Wardzinski, *State and Federal Roles Under the Clean Water Act*, 1 NAT. RESOURCES & ENV'T, Winter 1986, at 19.

66. *See NPDES State Program Information: Authority*, EPA, https://www.epa.gov/npdes/npdes-state-program-information (last visited Apr. 27, 2019) (listing states with an approved SPDES program).

67. 33 U.S.C. § 1319(a).

68. *Id.* § 1365(a).

69. *Id.*

70. Wood, *supra* note 9, at 572.

71. Other statutes that somewhat address groundwater contamination include the Safe Drinking Water Act (SDWA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Resource Conservation and Recovery Act (RCRA). *Id.* at 570. However, these acts only address a limited scope of groundwater contamination. *Id.* First, SDWA only protects public water systems. Safe Drinking Water Act § 1411, 42 U.S.C. § 300g (2012). But pollution also affects groundwater that is not used for public drinking water. *See* Wood, *supra* note 9, at 570 (explaining that the SDWA "fails to reach a significant number of private wells which rely on pure groundwater"). Second, CERCLA is reactive; it does not prohibit future actions but merely provides the procedures for addressing contamination, or threats of contamination, that stem from past pollution. Comprehensive Environmental Response, Compensation, and Liability Act §§ 102, 104, 42 U.S.C. §§ 9602(a), 9604(a)(1) (2012). Finally, RCRA is limited to regulating facilities that treat, store, or dispose of hazardous waste. Resource Conservation and Recovery Act of 1976 § 3005, 42 U.S.C. § 6925(a) (2012).

purview of the CWA, it must fit within the major elements of a CWA violation: a discharge of pollutants *from a point source to a navigable water*.[72] Three competing theories exist regarding which CWA element provides jurisdiction over discharges to tributary groundwater: the point source theory, the navigable waters theory, and the conduit theory.[73] Generally, the navigable waters theory has been the least successful,[74] while the conduit theory has been the most successful.[75]

First, the "point source theory" asserts that groundwater is itself a point source.[76] The CWA definition of a point source includes terms such as "channel," "conduit," and "well,"[77] which could be liberally construed to encompass groundwater.[78] However, this theory is counterintuitive to traditional CWA analysis and stretches the statutory language too far. The CWA requires that point sources affirmatively convey a pollutant to water, as "'point source' means any discernible, confined and discrete

---

This scope leaves out many other sources of groundwater contamination, and RCRA specifically exempts certain wastes covered by the CWA. *Id.* § 6903(27). Applying this exemption in the inverse, the Sixth Circuit determined that coal ash pits—which are regulated under RCRA—cannot also be regulated under the CWA (even when they discharge pollutants through groundwater to surface waters). *See* Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 937–38 (6th Cir. 2018) ("Were we to read the CWA to cover [defendant]'s conduct here, [defendant]'s coal ash treatment and storage practice would be exempted from RCRA's coverage. But coal ash is solid waste, and RCRA is specifically designed to cover solid waste."). Yet the potential for overlap between RCRA and the CWA is limited. For example, RCRA does not cover "domestic sewage," 42 U.S.C. § 6903(27), only the CWA does, 33 U.S.C. § 1362(6). Consequently, RCRA could not regulate, for instance, discharges to tributary groundwater from a wastewater treatment facility (but the CWA could). *See* Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (holding the County of Maui liable under the CWA for discharging effluent through groundwater to the Pacific Ocean), *cert. granted*, 139 S. Ct. 1164 (2019). Therefore, RCRA is limited in its ability to address groundwater contamination. Although SDWA, CERCLA, and RCRA are all powerful tools, none encompasses all types of groundwater contamination. The gaps in this regulatory scheme can, however, be filled by the CWA. *See infra* Part III (detailing why CWA jurisdiction encompasses discharges to tributary groundwater).

72. 33 U.S.C. § 1311(a) (prohibiting "the discharge of any pollutant"); *id.* § 1362(12)(A) (defining "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source").

73. Ky. Waterways All. v. Ky. Utils. Co., 303 F. Supp. 3d 530, 542 (E.D. Ky. 2017), *aff'd in part*, 905 F.3d 925 (6th Cir. 2018).

74. *Id.* ("Courts have overwhelmingly found that groundwater, even if hydrologically connected to navigable waters, is not itself a navigable water under the CWA.").

75. *See* Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.) (adopting the conduit theory), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); *Haw. Wildlife Fund*, 886 F.3d at 749 (adopting the conduit theory).

76. *Ky. Waterways All.*, 303 F. Supp. 3d at 542.

77. 33 U.S.C. § 1362(14).

78. Raritan Baykeeper, Inc. v. NL Indus., Inc., No. 09-CV-4117 (JAP), 2013 WL 103880, at *15 (D.N.J. Jan. 8, 2013) ("Plaintiffs have sufficiently pleaded that groundwater is a point source because it is hydrologically connected to the river.").

conveyance."[79] In *Hawai'i Wildlife Fund v. County of Maui*, the court relied on this specific language to hold that injection wells (rather than groundwater) were point sources of pollutants.[80] The wells were "discrete" and identifiable, and they "collect[ed] and inject[ed] pollutants . . . into groundwater connected to the Pacific Ocean."[81] Therefore, the wells constituted a point source.[82] This analysis more naturally fits with CWA interpretation than one that classifies groundwater as a point source. Because a point source must be a "discrete conveyance,"[83] and groundwater seepage is often diffuse, groundwater would not meet the definition of point source in a strong majority of cases.[84] Accordingly, courts have frequently held that the point source theory is invalid.[85]

The second theory, "the navigable waters theory," asserts that groundwater is a jurisdictional navigable water under the CWA.[86] This theory rests on a broad interpretation of "navigable waters" because the Act defines the term as "waters of the United States."[87] While "traditionally navigable waters" only include tidally influenced waters and waters capable of being used in commerce,[88] "waters of the United States" is more expansive.[89] The term includes some waters that are not traditionally

---

79. 33 U.S.C. § 1362(14); *see* Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric II*), 903 F.3d 403, 411 (4th Cir. 2018) (finding that coal ash pits were not point sources because they "were not discrete conveyances," but rather "static recipients of the precipitation and groundwater that flowed through them").

80. *Haw. Wildlife Fund*, 886 F.3d at 745.

81. *Id.*

82. *Id.*

83. 33 U.S.C. § 1362(14).

84. *See* Sierra Club v. El Paso Gold Mines, Inc., 421 F.3d 1133, 1140–41 n.4 (10th Cir. 2005) ("Groundwater seepage that travels through fractured rock would be nonpoint source pollution . . . .").

85. *See, e.g.*, Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 933 (6th Cir. 2018) ("[T]he CWA's text forecloses an argument that groundwater is a point source.").

86. Ky. Waterways All. v. Ky. Utils. Co., 303 F. Supp. 3d 530, 542 (E.D. Ky. 2017), *aff'd in part*, 905 F.3d 925 (6th Cir. 2018).

87. *See* Wood, *supra* note 9, at 586 (asserting that "[t]he CWA . . . allows room for groundwater within the term 'navigable waters,' since navigable waters are defined . . . as 'waters of the United States'" (quoting 33 U.S.C. § 1362(7))).

88. The Daniel Ball, 77 U.S. (10 Wall.) 557, 563 (1870).

89. *See* United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 133 (1985) ("In adopting this definition of 'navigable waters,' Congress evidently intended to repudiate limits that had been placed on federal regulation by earlier water pollution control statutes and to exercise its powers under the Commerce Clause to regulate at least some waters that would not be deemed 'navigable' under the classical understanding of that term."); Nat. Res. Def. Council, Inc. v. Callaway, 392 F. Supp. 685, 686 (D.D.C. 1975) ("Congress by defining the term 'navigable waters' . . . to mean 'the waters of the United States' . . . asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution. Accordingly, as used in the Water Act, the term is not limited to the traditional tests of navigability." (citation omitted) (quoting 33 U.S.C. § 1362(7))).

navigable—including tributaries and adjacent waters, such as wetlands.[90] As follows, the theory suggests that tributary groundwater, though not traditionally navigable, could fit within the Act's jurisdiction.[91]

However, the regulatory definition of "waters of the United States" excludes groundwater.[92] In 2015, EPA and the Corps explicitly excluded groundwater in their definition of "waters of the United States" when they promulgated the Clean Water Rule.[93] The Agencies recently proposed to rescind this rule[94] and subsequently proposed a new rule redefining "waters of the United States."[95] This proposed rule also excludes groundwater from CWA jurisdiction.[96] Because the regulatory definition of "waters of the United States" does not, and likely will not, encompass groundwater, the navigable waters theory is futile. In fact, many courts rejected this theory even before EPA promulgated the Clean Water Rule.[97]

The third theory, "the conduit theory," has been more successful.[98] Under this theory, groundwater is not a point source or a navigable water but rather a conduit between the two.[99] As EPA has explained, "discharges to [tributary groundwater] are regulated because such discharges are

---

90. *See* 40 C.F.R. § 122.2(1)(v) (2018) (defining "waters of the United States" to include tributaries of navigable waters); *id.* § 122.2(1)(vi) (defining "waters of the United States" to include "waters adjacent to" navigable waters, "including wetlands"); *see also* Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154, 4155 (proposed Feb. 14, 2019) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 & 401) (defining "waters of the United States" to include tributaries of navigable waters); *id.* (defining "waters of the United States" to include wetlands adjacent to navigable waters).

91. *See* Wood, *supra* note 9, at 619 (summarizing the navigable waters theory).

92. 40 C.F.R. § 122.2(2)(v); Revised Definition of "Waters of the United States," 84 Fed. Reg. at 4155. Additionally, the Supreme Court has held that the term "navigable" must be given effect, and groundwater is not navigable in any sense of the term. Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 172 (2001).

93. Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054, 37,114 (June 29, 2015) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 & 401).

94. Definition of "Waters of the United States"—Recodification of Pre-Existing Rules, 82 Fed. Reg. 34,899, 34,899 (proposed July 27, 2017) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302 & 401).

95. Revised Definition of "Waters of the United States," 84 Fed. Reg. at 4155.

96. *Id.*

97. *See, e.g.*, Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990 (E.D. Wash. 1994) ("[C]ourts that have considered the issue agree that 'waters of the United States' do not include 'isolated/nontributary groundwater.'").

98. *See* Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.) (adopting the conduit theory), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (adopting the conduit theory), *cert. granted*, 139 S. Ct. 1164 (2019).

99. Ky. Waterways All. v. Ky. Utilities Co., 303 F. Supp. 3d 530, 542 (E.D. Ky. 2017), *aff'd in part*, 905 F.3d 925 (6th Cir. 2018).

effectively discharges to the directly connected surface waters."[100] The theory relies largely on a textualist interpretation of the CWA, as the statute prohibits the discharge of pollutants "to navigable waters"—not the discharge of pollutants *directly into* navigable waters.[101] As follows, the CWA applies when groundwater transports pollutants from an initial point source *to* a navigable surface water.[102] The conduit theory therefore requires facilities to obtain a NPDES permit when they discharge pollutants to tributary groundwater.[103] Ultimately, the conduit theory is the best argument for regulating discharges to groundwater, and courts have been more accepting of this theory than others.[104] The next Part presents evidence that the conduit theory is a valid interpretation of the CWA.

III. SUPPORT FOR THE CONDUIT THEORY

The conduit theory finds support in several places. First, the CWA's plain text suggests that it encompasses indirect discharges.[105] Second, the purpose of the CWA is broad and would be defeated if the CWA excluded discharges to tributary groundwater.[106] Third, several preambles to NPDES regulations indicate that EPA has historically supported the conduit theory.[107]

A. The Text of the CWA

The CWA's plain language affirms that it encompasses discharges to tributary groundwater. The Act prohibits any discharge of pollutants from a

---

100. Amendments to the Water Quality Standards Regulation That Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (to be codified at 40 C.F.R. pt. 131).

101. *See Upstate Forever*, 887 F.3d at 650 ("[T]he CWA's definition of a discharge of a pollutant does not require a discharge directly to navigable waters . . . ." (citation omitted) (citing Rapanos v. United States, 547 U.S. 715, 743 (2006))).

102. *See* WINTER ET AL., *supra* note 5, at 66 (describing how a pollutant could travel from a point source discharge through groundwater to a surface water).

103. Non-tributary groundwater would still fall outside CWA jurisdiction, as it does not result in a discharge to a navigable water. Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169, 1179 (D. Idaho 2001). Yet this is not a flaw in the conduit theory. It is widely accepted that the CWA does not regulate non-tributary groundwater; instead, that regulatory authority falls to individual states. *See id.* (noting that courts agree the CWA does not encompass non-tributary groundwater).

104. *See Upstate Forever*, 887 F.3d at 651 (adopting the conduit theory); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (adopting the conduit theory), *cert. granted*, 139 S. Ct. 1164 (2019).

105. *See infra* Part III.A (discussing how the CWA's text supports the conduit theory).

106. *See infra* Part III.B (discussing how the CWA's purpose supports the conduit theory).

107. *See infra* Part III.D (discussing EPA interpretations that support the conduit theory).

point source *to* a navigable water.[108] It does not prohibit discharges directly *into* a navigable water.[109] This word choice implies that there need not be an immediate connection between a point source and surface water. Merriam-Webster defines "to" as "a function word . . . suggestive of *movement toward* a place, person, or thing reached."[110] On the other hand, Merriam-Webster defines "into" as "a function word *to indicate entry*, introduction, insertion, superposition, or inclusion."[111] Thus, Congress's intentional use of the word "to" suggests that the CWA reaches discharges that move toward navigable waters through an indirect channel. Even Justice Scalia—noted for his strict construction of statutory text[112]—acknowledged this distinction in his plurality opinion in *Rapanos v. United States*:

> The Act does not forbid the "addition of any pollutant *directly* to navigable waters from any point source," but rather the "addition of any pollutant *to* navigable waters." Thus, . . . lower courts have held that the discharge into intermittent channels of any pollutant *that naturally washes downstream* likely violates [the CWA], even if the pollutants discharged from a point source do not emit "directly into" covered waters, but pass "through conveyances" in between.[113]

Admittedly, Justice Scalia only contemplated surface waters in *Rapanos*.[114] Still, he perfectly articulated the textual support for the conduit theory and provided a useful foundation for its future application to

---

108. 33 U.S.C. § 1311(a) (2012) (prohibiting "the discharge of any pollutant"); *id.* § 1362(12) (defining "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source").

109. *See id.* § 1362(12) (defining "discharge of a pollutant" to mean "any addition of any pollutant *to navigable waters* from any point source" (emphasis added)); Rapanos v. United States, 547 U.S. 715, 743 (2006) (plurality opinion).

110. *To*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/to?src=search-dict-box (last visited Apr. 27, 2019) (emphasis added).

111. *Into*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/into (last visited Apr. 27, 2019) (emphasis added).

112. Jonathan R. Siegel, *Legal Scholarship Highlight: Justice Scalia's Textualist Legacy*, SCOTUSBLOG (Nov. 14, 2017), https://www.scotusblog.com/2017/11/legal-scholarship-highlight-justice-scalias-textualist-legacy/.

113. *Rapanos*, 547 U.S. at 743 (citations omitted) (first quoting 33 U.S.C. § 1362(12)(A); then quoting United States v. Velsicol Chem. Corp., 438 F. Supp. 945, 946–47 (W.D. Tenn. 1976)).

114. *See id.* at 730 (determining whether certain wetlands were waters of the U.S. under the CWA).

groundwater.[115] This interpretation indicates that discharges to tributary groundwater do fall within CWA jurisdiction because tributary groundwater transmits pollutants "to" a navigable water.

CWA jurisdiction also requires that discharges stem "from a point source."[116] As the Fourth Circuit explained, "[j]ust as the CWA[] . . . does not require a discharge directly to navigable waters, neither does the Act require a discharge directly from a point source."[117] The word "from" is "used as a function word *to indicate a starting point* of a physical movement."[118] When a facility discharges pollutants to groundwater, the pollutants *start* at the facility—the point source.[119] Though the pollutants may continue to travel through groundwater before reaching navigable waters, they nonetheless come *from* a point source.[120] The plain text of the CWA does not require any element of directness,[121] nor does it require that groundwater itself "separately channelize[]" pollutants.[122] But for a point source discharge to tributary groundwater, there would be no discharge of pollutants to surface waters. Therefore—despite a brief journey through groundwater—discharges can still come from point sources.[123]

---

115. *See, e.g.*, Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 650 (4th Cir.) (relying on Justice Scalia's plurality opinion in *Rapanos* to support a reading of the CWA that encompasses indirect discharges through groundwater), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 748–49 (9th Cir. 2018) (relying on Justice Scalia's plurality opinion in *Rapanos* to support a reading of the CWA that encompasses indirect discharges through groundwater), *cert. granted*, 139 S. Ct. 1164 (2019). *But see* Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 936 (6th Cir. 2018) (finding that Justice Scalia's opinion in *Rapanos* was not binding, and that, regardless, the opinion "sought to make clear that intermediary point sources do not break the chain of CWA liability[, but said] nothing of point-source-to-nonpoint-source dumping like that at issue [with groundwater]").

116. 33 U.S.C. § 1311(a) (prohibiting "the discharge of any pollutant"); *id.* § 1362(12)(A) (defining "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source").

117. *Upstate Forever*, 887 F.3d at 650 (citation omitted).

118. *From*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/from (last visited Apr. 27, 2019) (emphasis added).

119. Karl S. Coplan, *Citizen Litigants Citizen Regulators: Four Cases Where Citizen Suits Drove Development of Clean Water Law*, 25 COLO. NAT. RESOURCES, ENERGY & ENVTL. L. REV. 61, 70 (2014), http://digitalcommons.pace.edu/lawfaculty/934/.

120. Waterkeeper All., Inc. v. U.S. Envtl. Prot. Agency, 399 F.3d 486, 511 (2d Cir. 2005).

121. *See* 33 U.S.C. § 1362(12)(A) (defining "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source").

122. *Waterkeeper All., Inc.*, 399 F.3d at 511 (reasoning that requiring otherwise "would be, in effect, to impose a requirement not contemplated by the Act: that pollutants be channelized not once but twice before the EPA can regulate them").

123. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 650–51 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 746–47 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019); *cf.* Peconic Baykeeper, Inc. v. Suffolk Cty., 600 F.3d 180, 188 (2d Cir. 2010) (finding CWA jurisdiction where trucks and helicopters discharged pesticides through air to water and holding "[t]he pesticides were discharged 'from' the

B. The Purpose of the CWA

The CWA's broad purpose implies that courts should construe it to cover discharges to tributary groundwater. Congress passed the CWA with the broad objective of "restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation's waters."[124] The Act also ambitiously set a goal of eliminating "the discharge of pollutants into . . . navigable waters . . . by 1985."[125] Excluding tributary groundwater from CWA jurisdiction would frustrate the purpose of the CWA.[126] Pollutants in navigable waters harm ecosystems, whether those pollutants directly entered a navigable water or traveled through groundwater first. As the court said in *Idaho Rural Council v. Bosma*, "whether pollution is introduced by a visible, above-ground conduit or enters the surface water through the aquifer matters little to the fish, waterfowl, and recreational users which are affected by the degradation of our nation's rivers and streams."[127]

Additionally, the failure to regulate tributary groundwater would be a significant loophole in the CWA. Companies could simply discharge pollutants into groundwater, thereby avoiding the need for a NPDES permit and escaping CWA regulation.[128] Nevertheless, those pollutants could eventually reach and contaminate navigable waters.[129] Take for example the following hypothetical: "Imagine a factory located adjacent to a river. To avoid the cost of water pollution control, the owner removes the pipe used to discharge waste to the river and instead pumps the waste through another pipe into a deep hole dug 50 feet from the river."[130] This alternative outlet might discharge pollutants into groundwater.[131] That groundwater could then migrate and become a source of recharge for the river, carrying the

---

source, and not from the air"); *Waterkeeper All., Inc.*, 399 F.3d at 510 (upholding CWA regulation of Concentrated Animal Feeding Operations that discharge pollutants across fields to water and holding that "any discharge from a land area under the control of a CAFO is a point source discharge subject to regulation because it is a discharge from a CAFO"). *But see* Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 934 (6th Cir. 2018) ("[W]hen the pollutants are discharged to the lake, they are not coming *from* a point source; they are coming from groundwater, which is a non-point-source conveyance.").

124. 33 U.S.C. § 1251(a).

125. *Id.* § 1251(a)(1).

126. *See* Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric I*), 247 F. Supp. 3d 753, 762 (E.D. Va.) (concluding that the goal of the CWA "would be defeated if the CWA's jurisdiction did not extend to discharges to [tributary] groundwater"), *appeal dismissed*, No. 17-1537, 2017 WL 5068149 (4th Cir. July 13, 2017), *aff'd in part*, 903 F.3d 403 (4th Cir. 2018).

127. Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169, 1180 (D. Idaho 2001).

128. MILLER, ELEMENTS, *supra* note 35, at 54.

129. WINTER ET AL., *supra* note 5, at 66.

130. MILLER, ELEMENTS, *supra* note 35, at 54.

131. *See* WINTER ET AL., *supra* note 5, at 66 (discussing point source contamination of groundwater).

waste along with it.[132] Ultimately, the river ecosystem would be harmed regardless of whether the pollutants came from the pipe or the hole.[133] Yet by digging a hole, the factory would avoid CWA regulation and enforcement.[134] Unless, that is, the CWA extends to tributary groundwater.

C. The Legislative History of the CWA

The legislative history of the CWA does not shed much light on the issue of discharges to tributary groundwater. The most frequently invoked pieces of legislative history are the Aspin Amendment and the Senate Public Works Committee Report.[135] In 1972, Representative Les Aspin proposed an amendment to the CWA that would have added jurisdiction over groundwater.[136] The amendment failed to pass, and some courts have cited this failure as evidence that Congress did not intend for the CWA to cover groundwater.[137] However, its failure is not dispositive for the conduit theory. The Supreme Court has generally suggested that legislative inaction is not reliable evidence of Congressional intent because "[a] bill can be proposed for any number of reasons, and it can be rejected for just as many others."[138] For example, here, the Aspin Amendment would have also removed certain exemptions for oil and gas wells.[139] Accordingly, members of Congress may have voted against the amendment because they opposed the portion pertaining to oil and gas, rather than the portion pertaining to groundwater.[140] Additionally, the amendment would have extended CWA jurisdiction to both tributary and non-tributary groundwater.[141] Some legislators may have disagreed with the extension of jurisdiction to isolated

---

132. *Id.* at 12, 23.

133. *See id.* at 66 ("[I]f the [groundwater] discharge of the contaminant plume is large or has high concentrations of contaminant, it could significantly affect the quality of the receiving surface-water body.").

134. MILLER, ELEMENTS, *supra* note 35, at 54.

135. Allison L. Kvien, Note, *Is Groundwater That Is Hydrologically Connected to Navigable Waters Covered Under the CWA?: Three Theories of Coverage & Alternative Remedies for Groundwater Pollution*, 16 MINN. J. L. SCI. & TECH. 957, 965 (2015).

136. 118 CONG. REC. 10,666 (1972).

137. *See, e.g.*, United States v. GAF Corp., 389 F. Supp. 1379, 1384 (S.D. Tex. 1975) ("The failure of the proposed amendment 'strongly militates against a judgment that Congress intended a result that it expressly declined to enact.'" (quoting Gulf Oil Corp. v. Copp Paving Co., 419 U.S. 186, 200 (1974))).

138. Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 170 (2001).

139. 118 CONG. REC. 10,666.

140. *See* Wood, *supra* note 9, at 614 ("Th[e oil and gas] part of the amendment spurred considerable controversy and likely caused the amendment's demise.").

141. *See* 118 CONG. REC. 10,666 (outlining a proposed amendment, which would have extended the CWA's jurisdiction to "navigable waters" and "ground waters").

groundwater. Others may have thought the CWA already covered tributary groundwater.[142] Because members of Congress could have had diverse motivations for striking down the Aspin Amendment, it is not a reliable source for discerning Congressional intent regarding CWA jurisdiction over discharges to tributary groundwater.[143]

The Senate Report is also frequently cited as evidence of Congressional intent, but similarly fails to provide concrete guidance here.[144] The report on the 1972 amendments to the CWA explains that the Senate Public Works Committee declined to incorporate bills that "provided authority to establish Federally approved standards for groundwaters . . . . Because the jurisdiction regarding groundwaters is so complex and varied from State to State."[145] Like the Aspin Amendment, this report generally references all groundwater, not just tributary groundwater.[146] Thus, the Senate Committee may have only intended to decline CWA jurisdiction over isolated groundwater.[147] Furthermore, the report later states that "[t]he importance of groundwater in the hydrological cycle cannot be underestimated," which suggests that Congress appreciated the significance of tributary groundwater and its capacity to affect surface waters.[148] However, this evidence is not particularly robust or revealing. The Senate Report is ultimately unclear and does not speak directly to the conduit theory.[149] As one court put it, "[i]n short, the interpretive history of the CWA only supports the unremarkable proposition with which all courts agree—that the CWA does not regulate 'isolated/nontributary groundwater' which has no [effect] on surface water."[150] The legislative history of the CWA therefore does not clarify whether its jurisdiction encompasses discharges to tributary groundwater.

---

142. *See* Wood, *supra* note 9, at 614 ("[M]embers of Congress could have assumed that groundwater was implicitly included within the definition of 'navigable waters' in section 402, thus rendering Aspin's amendment unnecessary.")

143. *Id.* at 613–14.

144. *See* Kvien, *supra* note 135, at 965–66 (discussing the legislative history of the CWA and suggesting that although the Senate Report is widely cited, it does not "foreclose the possibility of regulating [tributary] groundwater").

145. S. REP. NO. 92-414, at 73 (1971), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3739.

146. *See id.* (referencing the whole "hydrological cycle").

147. *See* Wood, *supra* note 9, at 616 (noting that the Senate Committee may have simply "refrained from applying standards of any sort to isolated groundwater").

148. S. REP. NO. 92-414, at 73.

149. *See id.* (discussing groundwater generally and not distinguishing between tributary and isolated groundwater).

150. Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169, 1180 (D. Idaho 2001) (quoting Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990 (E.D. Wash. 1994)).

D. Agency Interpretation of the CWA

While the legislative history of the CWA fails to provide useful interpretive guidance, EPA's position on the conduit theory has been clear and consistent for many years.[151] In several preambles to CWA regulations, EPA has explicitly recognized jurisdiction over discharges to groundwater with a hydrological connection to navigable waters.[152] Like legislative history for statutes, preambles provide guidance for interpreting regulations.[153] Because preambles outline an agency's position and reasoning, courts often afford them some deference.[154]

First, in a preamble to a regulation establishing permit standards for stormwater discharges from point sources, EPA specified that "ground waters are not covered by this rulemaking (unless there is a hydrological connection between the ground water and a nearby surface water body)."[155] This preamble marks the first indication that EPA believes tributary groundwater falls within CWA jurisdiction.[156] Though, at this point, EPA did not explain its stance or provide any specificity.[157]

One year later, EPA took its position a step further by explicitly asserting CWA jurisdiction over tributary groundwater under the conduit theory.[158] In its preamble to a regulation for water quality standards on Native American reservations, EPA affirmed that the CWA requires NPDES permits for discharges to tributary groundwater.[159] The Agency further explained: "In these situations, the affected groundwaters are not

---

151. Shortly before this Note was published, EPA issued an interpretive statement on the conduit theory, concluding that the CWA does not cover the discharge of pollutants through tributary groundwater. MATTHEW Z. LEOPOLD & DAVID P. ROSS, ENVTL. PROTECTION AGENCY, INTERPRETIVE STATEMENT ON APPLICATION OF THE CLEAN WATER ACT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM TO RELEASES OF POLLUTANTS FROM A POINT SOURCE TO GROUNDWATER 7 (Apr. 12, 2019), https://www.eenews.net/assets/2019/04/16/document_gw_02.pdf.

152. National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47,990, 47,997 (Nov. 16, 1990) (to be codified at 40 C.F.R. pts. 122, 123, & 124); Amendments to the Water Quality Standards Regulation That Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (to be codified at 40 C.F.R. pt. 131); National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 3015 (proposed Jan. 12, 2001) (to be codified at 40 C.F.R. pts. 122 & 412).

153. Kevin M. Stack, *Preambles as Guidance*, 84 GEO. WASH. L. REV. 1252, 1260 (2016).

154. *Id.* at 1281.

155. National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. at 47,997.

156. *Id.*

157. *Id.*

158. Amendments to the Water Quality Standards Regulation That Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (to be codified at 40 C.F.R. pt. 131).

159. *Id.*

considered 'waters of the United States' but discharges to them are regulated because such discharges are effectively discharges to the directly connected surface waters."[160] Here, EPA added specificity to its position. The Agency clarified that it is not regulating groundwater itself.[161] Instead, it is regulating discharges that reach navigable waters via groundwater.[162] In this way, EPA expressed clear support for the conduit theory.

Most recently, EPA reiterated its position in a preamble regarding NPDES permits for Concentrated Animal Feeding Operations.[163] The Agency reiterated its prior assertions and added: "EPA has made a determination that, in general, collected or channeled pollutants conveyed to surface waters via ground water can constitute a discharge subject to the Clean Water Act."[164] EPA also appeared to set itself up for a deference argument, explaining that in making this determination, it "utilized its expertise" by relying on matters of both science and policy.[165] Overall, these three preambles establish an increasingly definitive line of evidence that tributary groundwater falls within the purview of the CWA. As a result, EPA's position adds meaningful weight to the conduit theory. Indeed, several courts have relied on EPA's preambles in interpreting the CWA.[166] This reliance, in conjunction with other analyses, has convinced many courts to adopt the conduit theory.[167]

EPA further affirmed its opinion in an amicus brief to the Ninth Circuit in *Hawai'i Wildlife Fund v. County of Maui*.[168] In its brief, EPA supported Plaintiff-Appellee Hawai'i Wildlife Fund and asserted that the CWA covers discharges to tributary groundwater.[169] The Agency definitively stated:

---

160. *Id.*

161. *See id.* (acknowledging that groundwater is not a "water[] of the United States" under the CWA).

162. *See id.* (explaining that the CWA protects surface waters from discharges to hydrologically connected groundwater).

163. National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 3015 (proposed Jan. 12, 2001) (to be codified at 40 C.F.R. pts. 122 & 412).

164. *Id.* at 3015, 3017.

165. *Id.* at 3018.

166. *See, e.g.*, Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.) ("This interpretation by the EPA of its statutory authority 'warrants respectful consideration,' especially in the context of a 'complex and highly technical regulatory program.'" (quoting Wis. Dep't of Health & Family Servs. v. Blumer, 534 U.S. 473, 497 (2002))), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990–91 (E.D. Wash. 1994) ("[T]he preamble explains EPA's policy to require NPDES permits for discharges which may enter surface water via groundwater . . . .").

167. *See infra* Part IV.A (detailing cases in which courts have adopted the conduit theory).

168. Brief for the United States as Amicus Curiae in Support of Plaintiffs-Appellees at 12, Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737 (2018) (No. 15-17447), 2016 WL 3098501, at *12.

169. *Id.* at 5.

"EPA's longstanding position is that a discharge from a point source to jurisdictional surface waters that moves through groundwater with a direct hydrological connection comes under the purview of the CWA's permitting requirements."[170] Moreover, EPA argued that its interpretation warranted *Chevron* deference.[171] This firm endorsement of the conduit theory cements EPA's position in favor of CWA jurisdiction.

The Agency's interpretation is subject to change however. In February 2018, EPA published a notice seeking comment on the conduit theory.[172] The notice asked for input on whether EPA has the authority to regulate discharges to tributary groundwater and, if so, "whether those releases would be better addressed through other federal authorities as opposed to the NPDES permit program."[173] At this point, it is unclear whether the Agency plans to propose a regulation or issue a policy statement (or if it will ultimately decide not to act).[174] Until EPA acts, it is too speculative to contemplate what the ultimate outcome of this notice will be. For now, EPA's preambles remain its voice on the conduit theory.[175]

IV. CONDUIT THEORY CASE LAW

Courts have applied the conduit theory for some time and have been more willing to recognize it than other theories.[176] Generally, courts adopting the conduit theory have done so because it is consistent with the CWA's purposes, EPA's position, and persuasive precedent.[177] Courts that have rejected the conduit theory have typically done so because they believe groundwater regulation should be left to the states.[178] Other courts

---

170. *Id.* (citing Amendments to the Water Quality Standards Regulation That Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (to be codified at 40 C.F.R. pt. 131)).

171. *Id.* at 24 ("EPA's interpretation is entitled to *Chevron* deference." (citing Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842–43 (1984))).

172. Clean Water Act Coverage of "Discharges of Pollutants" Via a Direct Hydrologic Connection to Surface Water, 83 Fed. Reg. 7126, 7126 (proposed Feb. 20, 2018) (to be codified at 40 C.F.R. pt. 122).

173. *Id.* at 7128.

174. *See id.* ("EPA seeks comment on what format or process EPA should use to revise or clarify its previous statement (*e.g.*, through memorandum, guidance, or in the form of rulemaking) if the Agency pursues further action in response to this request for comment.").

175. *See supra* note 151 and accompanying text (noting that shortly before this Note was published, EPA issued an interpretive statement rejecting the conduit theory).

176. MILLER, WATER POLLUTION CONTROL, *supra* note 45, at 223; *see, e.g.*, Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990 (E.D. Wash. 1994) (applying the conduit theory to groundwater more than two decades ago).

177. *See infra* Part IV.A (detailing cases in which courts have adopted the conduit theory).

178. *See infra* Part IV.B (detailing cases in which courts have rejected the conduit theory).

were seemingly confused by the difference between the conduit theory and the navigable waters theory.[179] Adding to this muddle, although the Fourth and Ninth Circuits recently agreed that the conduit theory is valid, they disagreed over the appropriate test to apply.[180]

A. Why Courts Have Adopted the Conduit Theory

Many courts that adopted the conduit theory did so in part because of the CWA's purpose. For example, in *Upstate Forever v. Kinder Morgan Energy Partners, L.P.*, the Fourth Circuit emphasized the CWA's sweeping goal and its strict liability regime.[181] The court found that it would frustrate the purpose of the CWA if facilities could avoid liability by discharging to groundwater.[182] Similarly, in *Northern California River Watch v. Mercer Fraser Co.*, the Northern District of California found that because the CWA applies to people who discharge pollutants directly into a navigable water, it should also apply to people who discharge those "same pollutants into a man-made settling basin . . . and then allow[] the pollutants to seep into the river via the groundwater."[183] Likewise, in *Idaho Rural Council v. Bosma*, the District of Idaho explained that water pollution would harm the environment, whether it enters surface waters directly or travels indirectly though groundwater.[184] These cases exemplify the reasoning of many courts that have adopted the conduit theory. They agree that the purpose of the CWA is to protect the nation's waters, and that it would be impossible to fulfill that goal without regulating discharges to tributary groundwater.

A number of courts have also relied on EPA's preambles to justify the conduit theory. For example, in *Upstate Forever*, the Fourth Circuit cited two EPA preambles that assert jurisdiction over hydrologically connected groundwater.[185] The court decided that EPA's position "'warrant[ed]

---

179. *See infra* notes 220–37 and accompanying text (detailing cases in which courts failed to consider the conduit theory).

180. *Compare* Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.) (requiring a direct connection between a point source, groundwater, and navigable waters), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268), *with* Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (requiring that a pollutant be "fairly traceable . . . such that the discharge is the functional equivalent of a discharge into the navigable water"), *cert. granted*, 139 S. Ct. 1164 (2019); *see also infra* Part IV.C (explaining the different tests offered by the Fourth and Ninth Circuits).

181. *Upstate Forever*, 887 F.3d at 652.

182. *Id.*

183. N. Cal. River Watch v. Mercer Fraser Co., No. C–04–4620, 2005 WL 2122052, at *2 (N.D. Cal. Sept. 1, 2005).

184. Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169, 1179 (D. Idaho 2001).

185. *Upstate Forever*, 887 F.3d at 651 (first citing National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 3015 (proposed Jan. 12, 2001) (to be codified at 40 C.F.R. pts.

respectful consideration,' especially in the context of a 'complex and highly technical regulatory program.'"[186] The court in *Sierra Club v. Virginia Electric & Power Co.* also looked to EPA's preambles.[187] There, the Eastern District of Virginia found that "even viewing the preamble as simply persuasive authority, the combination of the case law and minimal deference" was sufficient evidence that CWA jurisdiction extends to tributary groundwater.[188] Additionally, in *Washington Wilderness Coalition v. Hecla Mining Co.*, the Eastern District of Washington rejected another court's opinion that these preambles were merely a "collateral reference to a problem."[189] Instead, the court found the preambles to be a clear and convincing statement of policy.[190] The reasoning in these cases is characteristic of the courts that relied on EPA's preambles in assessing the conduit theory. Even without any clear deference to EPA, these courts found EPA's position persuasive.

In addition to the CWA's purpose and EPA's preambles, many courts looked to precedent. For example, in *Hawai'i Wildlife Fund v. County of Maui*, the Ninth Circuit recently held that discharges to tributary groundwater fall within the CWA.[191] In that case, the Ninth Circuit applied the conduit theory, which it called the "indirect discharge theory," to hold the County of Maui liable for discharging effluent to the ocean via groundwater.[192] The court relied largely on prior case law.[193] For instance, the court looked to Justice Scalia's interpretation of the CWA in *Rapanos*, where he explained that the Act covers indirect discharges.[194] The court also cited cases finding CWA jurisdiction over discharges that traveled

---

122 & 412); then citing Amendments to the Water Quality Standards Regulation That Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (to be codified at 40 C.F.R. pt. 131)).

186. *Id.* (quoting Wis. Dep't of Health & Family Servs. v. Blumer, 534 U.S. 473, 497 (2002)).

187. Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric I*), 247 F. Supp. 3d 753, 762 (E.D. Va.), *appeal dismissed*, No. 17-1537, 2017 WL 5068149 (4th Cir. July 13, 2017), *aff'd in part*, 903 F.3d 403 (4th Cir. 2018).

188. *Id.*

189. Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990–91 (E.D. Wash. 1994) (quoting Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, 966 (7th Cir. 1994)).

190. *Id.*

191. Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

192. *Id.* at 747, 749.

193. *Id.* at 747–48 (first citing Concerned Area Residents for Env't v. Southview Farm, 34 F.3d 114, 119 (2d Cir. 1994); then citing Sierra Club v. Abston Constr. Co., 620 F.2d 41, 45 (5th Cir. 1980); and then citing Peconic Baykeeper, Inc. v. Suffolk Cty., 600 F.3d 180, 188 (2d Cir. 2010); and finally citing Rapanos v. United States, 547 U.S. 715, 743 (2006) (plurality opinion)).

194. *Id.* at 748 (citing *Rapanos*, 547 U.S. at 743); *see supra* Part III.A (discussing Justice Scalia's opinion in *Rapanos*).

indirectly through non-aqueous mediums.[195] One of these cases, *Peconic Baykeeper Inc. v. Suffolk County*, held that the CWA applied to discharges of pesticides from trucks and helicopters when the pollutants traveled through the air before reaching jurisdictional waters.[196] By analogy, the Ninth Circuit found the CWA must also extend to discharges that move through groundwater.[197] To decide otherwise, the court said, would be to render previous conduit cases meaningless.[198]

B. Why Courts Have Rejected the Conduit Theory

While some courts have adopted the conduit theory, others have rejected it, finding that the CWA does not extend to discharges to tributary groundwater. In a pair of cases, the Sixth Circuit departed from its sister circuits and dubbed the conduit theory invalid.[199] The court primarily provided its reasoning in *Kentucky Waterways Alliance v. Kentucky Utilities Co*.—holding that jurisdiction is unsupported by the CWA's text and its commitment to cooperative federalism.[200]

First, the Sixth Circuit found that the text of the CWA requires that point sources discharge pollutants directly into navigable waters.[201] Whereas the Fourth and Ninth Circuits interpreted the term "discharge,"[202] the Sixth Circuit interpreted the term "effluent limitation,"[203] which appears in a different part of the statute.[204] The CWA defines "effluent limitation" as a restriction on discharges "from point sources into navigable waters."[205] The court found that the use of the word "into" in this definition "indicates directness" and "leaves no room for intermediary mediums to carry . . . pollutants."[206] Discharges through groundwater would be

---

195. *Haw. Wildlife Fund*, 886 F.3d at 747–48.

196. *Id.* (citing Peconic Baykeeper, Inc. v. Suffolk Cty., 600 F.3d 180, 188 (2d Cir. 2010)).

197. *Id.*

198. *Id.* at 748.

199. Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 938 (6th Cir. 2018); Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436, 446 (6th Cir. 2018), *petition for cert. filed* (U.S. Apr. 15, 2019) (No. 18-1307).

200. *Ky. Waterways All.*, 905 F.3d at 934, 936–37.

201. *Id.* at 934.

202. *See* Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 650 (4th Cir.) (citing 33 U.S.C. § 1362(12) (2012)) (referencing the definition of "discharge"), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 748 (9th Cir. 2018) (citing Rapanos v. United States, 547 U.S. 715, 743 (2006) (plurality opinion)) (referencing Justice Scalia's interpretation of "discharge" in *Rapanos*), *cert. granted*, 139 S. Ct. 1164 (2019).

203. *Ky. Waterways All.*, 905 F.3d at 934 (citing 33 U.S.C. § 1362(11)).

204. 33 U.S.C. § 1314(b).

205. *Id.* § 1362(11).

206. *Ky. Waterways All.*, 905 F.3d at 934.

incompatible with this interpretation of the CWA's text, and thus, the conduit theory could not stand.[207]

Next, the Sixth Circuit looked to the CWA's prohibition against discharges "from" point sources.[208] The court noted that groundwater is not a point source and determined that when discharges travel through groundwater, they come "from" the groundwater.[209] Even if a point source initially discharged pollutants, the groundwater would be the ultimate—nonpoint—conveyance.[210] The Eastern District of Kentucky (the lower court in this case) expressed the same concern.[211] The court feared that adopting the conduit theory would lead to the regulation of nonpoint sources, theorizing that many nonpoint discharges could be "reformulated . . . by going up the causal chain to identify the initial point sources."[212] In this way, the conduit theory would extend CWA jurisdiction too far, effectively eliminating the point source requirement.[213]

Moreover, the Sixth Circuit found that its decision was consistent with the CWA's commitment to cooperative federalism.[214] The court noted that the Act has two purposes: (1) to protect navigable waters and (2) to protect states' rights.[215] The CWA leaves some regulation solely to the states, such as non-navigable waters and nonpoint sources.[216] Therefore, the court determined it was logical that the CWA would also leave to the states the regulation of indirect discharges.[217] The Eastern District of Kentucky applied a similar analysis, reasoning that "[i]f the CWA pursued the goal of protecting surface water quality at all costs . . . . the distinction between point- and non-point sources would appear untenable."[218] But the court did not intend to protect navigable waters "at all costs"—it left much regulation to the states.[219] The court accordingly rejected the argument that the CWA must cover discharges to tributary groundwater or else the CWA's purpose would be frustrated.[220] It held that under the Act's cooperative federalism

207. *Id.*

208. *Id.* (quoting 33 U.S.C. § 1362(12)(A)).

209. *Id.*

210. *Id.*

211. Ky. Waterways All. v. Ky. Utils. Co., 303 F. Supp. 3d 530, 544 (E.D. Ky. 2017), *aff'd in part*, 905 F.3d 925 (6th Cir. 2018).

212. *Id.* (quoting 26 Crown Assocs., LLC v. Greater New Haven Reg'l Water Pollution Control Auth., No. 3:15-cv-1439, 2017 WL 2960506, at *8 (D. Conn. July 11, 2017)).

213. *Id.*

214. *Ky. Waterways All.*, 905 F.3d at 936–37.

215. *Id.*

216. *Id.* at 937 (citing 33 U.S.C. §§ 1311(a), 1342(b), 1362(12)).

217. *Id.*

218. *Ky. Waterways All.*, 303 F. Supp. 3d at 545 (citation omitted).

219. *Id.*

220. *Id.*

regime, Congress intended that states regulate all discharges to groundwater.[221]

While some courts rejected the conduit theory due to the CWA's text and purpose, others simply appeared to misunderstand the conduit theory. These courts conflated regulating groundwater itself with regulating discharges that travel through groundwater.[222] The district court in *Hawai'i Wildlife Fund v. County of Maui* noticed this pattern, explaining:

> While there appears to be a split in authority over whether groundwater pollution violates the Clean Water Act, this split may largely flow from a lack of clarity by [the] courts as to whether they are determining that groundwater itself may or may not be regulated under the Clean Water Act or are determining that groundwater may or may not be regulated when it serves as a conduit to water that is indeed regulated.[223]

For instance, in the district court opinion in *Upstate Forever v. Kinder Morgan Energy Partners, L.P.*, the court failed to see the difference between cases rejecting the navigable waters theory and cases adopting the conduit theory.[224] Instead, the court grouped together the two lines of interpretation in a long string of citations.[225] For example, it cited *Cape Fear River Watch, Inc. v. Duke Energy Progress, Inc.*, which considered the navigable waters theory and found the CWA does not regulate groundwater as a "water of the United States."[226] Then, the court cited *Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC*, which considered the conduit theory and found the CWA "regulates the discharge of pollutants to navigable waters via groundwater."[227] However, the court in *Upstate Forever* did not see the difference between these two cases.[228] It summarily decided that "a narrower interpretation of 'navigable waters' is more persuasive," indicating that the court believed all the cited cases

---

221. *Id.*

222. Haw. Wildlife Fund v. Cty. of Maui, 24 F. Supp. 3d 980, 996 (D. Haw. 2014), *aff'd*, 886 F.3d 737 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

223. *Id.*

224. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 252 F. Supp. 3d 488, 497 (D.S.C. 2017), *vacated and remanded*, 887 F.3d 637 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

225. *Id.*

226. Cape Fear River Watch, Inc. v. Duke Energy Progress, Inc., 25 F. Supp. 3d 798, 805, 810 (E.D.N.C. 2014).

227. Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC, 141 F. Supp. 3d 428, 445 (M.D.N.C. 2015).

228. *See Upstate Forever*, 252 F. Supp. 3d at 497 (grouping together, erroneously, navigable waters and conduit theory cases).

applied the navigable waters theory.[229] The district court also suggested that the cited cases evidenced a split on whether groundwater is navigable, when in fact, the cases were split on which theory courts applied.[230] Because the court failed to see this discrepancy, it missed the chance to consider the conduit theory.[231] In the end, the Fourth Circuit corrected this error on appeal, analyzing and adopting the conduit theory.[232]

The Central District of Illinois has also missed the distinction between the navigable waters theory and the conduit theory. In *Prairie Rivers Network v. Dynegy Midwest Generation, LLC*, the court relied on a Seventh Circuit case to reject CWA jurisdiction.[233] The Seventh Circuit case, however, merely rejected the navigable waters theory.[234] The court's analysis frequently invoked the term "waters of the United States" and only held that the CWA does not "assert[] authority over ground waters" themselves.[235] The plaintiff in *Prairie Rivers Network* attempted to point this out to the Central District of Illinois: "Plaintiff responds that *Oconomowoc* is inapposite . . . because that case 'governs discharges *into groundwater itself*, absent evidence that the groundwater discretely conveys pollution into a navigable water.' Plaintiff contends that 'is a separate question not at issue here.'"[236]

Nonetheless, the court still failed to comprehend this nuanced distinction. It merely concluded that "[t]he Seventh Circuit affirmatively

---

229. *Id.*

230. *Compare Cape Fear River Watch*, 25 F. Supp. 3d at 810 (rejecting CWA jurisdiction over groundwater under the navigable waters theory), *and* Chevron, U.S.A., Inc. v. Apex Oil Co., 113 F. Supp. 3d 807, 816–17 (D. Md. 2015) (rejecting Oil Pollution Act jurisdiction over groundwater under the navigable waters theory), *with* Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric I*), 247 F. Supp. 3d 753, 762 (E.D. Va.) (finding CWA jurisdiction over tributary groundwater under the conduit theory), *appeal dismissed*, No. 17-1537, 2017 WL 5068149 (4th Cir. July 13, 2017), *aff'd in part*, 903 F.3d 403 (4th Cir. 2018), *and Yadkin Riverkeeper, Inc.*, 141 F. Supp. 3d at 445 (finding CWA jurisdiction over tributary groundwater under the conduit theory), *and* Ohio Valley Envtl. Coal. Inc. v. Pocahontas Land Corp., No. 3:14-11333, 2015 WL 2144905, at *8 (S.D. W. Va. 2015) (finding CWA jurisdiction over tributary groundwater under the conduit theory).

231. *See Upstate Forever,* 252 F. Supp. 3d at 497 (rejecting the navigable waters theory of CWA jurisdiction without considering the conduit theory).

232. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

233. Prairie Rivers Network v. Dynegy Midwest Generation, LLC, No. 18-CV-2148, 2018 WL 6042805, at *6 (C.D. Ill. Nov. 14, 2018) (citing Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962 (7th Cir. 1994)), *appeal docketed* (7th Cir. Dec. 14, 2018) (No. 18-3644).

234. *Village of Oconomowoc Lake*, 24 F.3d at 965.

235. *See id.* (stating, for example, that "[t]wo courts have held that ground waters are not part of the (statutory) 'waters of the United States'" (first citing Exxon Corp. v. Train, 554 F.2d 1310 (5th Cir. 1977); then citing Kelley v. United States, 618 F. Supp. 1103 (W.D. Mich. 1985))).

236. *Prairie Rivers Network*, 2018 WL 6042805, at *5 (quoting Plaintiff's Response in Opposition to Motion to Dismiss with Inc. Memorandum of Law at 2, *Prairie Rivers Network*, No. 18-CV-2148 (C.D. Ill. Sept. 26, 2018)).

held that the CWA did not assert authority *over groundwaters*."[237] The court never considered whether the CWA asserts authority *over navigable waters* when pollutants arrive indirectly through groundwater.[238] However, the plaintiff filed an appeal with the Seventh Circuit, which will have the opportunity to correct this error and analyze the conduit theory.[239]

C. Circuit Court Tests for the Conduit Theory

CWA jurisdiction over discharges to tributary groundwater is currently ambiguous at best, given that courts are split over the validity of the conduit theory. Adding to this uncertainty, the courts finding jurisdiction simultaneously disagree over how far that jurisdiction reaches.[240] The Fourth and Ninth Circuits have each offered their own test for determining whether a hydrological connection is sufficiently proximate.[241] The Ninth Circuit created a broad "fairly traceable" standard, while the Fourth Circuit created a narrower "direct hydrological connection" test.[242]

The Ninth Circuit was the first circuit court to address the issue of discharges through tributary groundwater.[243] The court found that CWA jurisdiction includes discharges to groundwater when pollutants are "fairly traceable from the point source to a navigable water such that the discharge is the functional equivalent of a discharge into the navigable water."[244] Furthermore, the quantity of pollutants reaching navigable waters must be "more than *de minimis*."[245] The court borrowed its traceability test from Article III standing requirements.[246] It cited *Spokeo v. Robins*,[247] in which the Supreme Court held that plaintiffs only have standing if they allege an injury that is "fairly traceable to the challenged conduct of the defendant."[248] The Ninth Circuit found that the principles of standing "are especially relevant in the CWA context because the law authorizes citizen

237. *Id.* at *6 (emphasis added).

238. *Id.*

239. *Id.* at *6.

240. Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019); Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

241. *Haw. Wildlife Fund*, 886 F.3d at 749; *Upstate Forever*, 887 F.3d at 651–52.

242. *Haw. Wildlife Fund*, 886 F.3d at 749; *Upstate Forever*, 887 F.3d at 651.

243. *See Haw. Wildlife Fund*, 886 F.3d at 745–49 (analyzing whether the CWA encompasses discharges to groundwater that is hydrologically connected to surface water).

244. *Id.* at 749.

245. *Id.*

246. *Id.* at 749 n.3.

247. *Id.* (citing Spokeo, Inc. v. Robins, 136 S. Ct. 1540, 1547 (2016)).

248. *Spokeo*, 136 S. Ct. at 1547.

suits to enforce its provisions."[249] The court also noted that this test is consistent with the CWA's distinction between point and nonpoint sources of pollution, which is "based on whether pollutants can be 'traced' or are 'traceable' back to a point source."[250]

In adopting the "fairly traceable" standard, the Ninth Circuit explicitly rejected another narrower test offered by EPA.[251] The Agency wrote an amicus brief in *Hawai'i Wildlife Fund*, suggesting that the Ninth Circuit adopt a "rule requiring a 'direct hydrological connection' between the point source and the navigable water."[252] The court declined this suggestion, concluding that even if EPA's position was entitled deference, the rule would not stand.[253] The court explained that, in its view, the test added the words "direct" and "hydrological" into the CWA.[254] Accordingly, the Ninth Circuit adopted its "fairly traceable" test instead.[255]

The Fourth Circuit, however, adopted EPA's "direct hydrological connection" test.[256] The court noted that EPA used the terminology in its preambles to NPDES programs discussing the conduit theory.[257] The court effectively deferred to EPA in light of its CWA authority and the complexity of the subject matter.[258] Additionally, the Fourth Circuit acknowledged that it was departing from the Ninth Circuit's standard.[259] The court stated that there is "no functional difference between [the two tests]," except that the Fourth Circuit's test is narrower.[260] In applying the "direct hydrological connection" test, the Fourth Circuit emphasized the short 1000-foot distance that the pollutants traveled through groundwater.[261]

---

249. *Haw. Wildlife Fund*, 886 F.3d at 749 n.3 (citing 33 U.S.C. § 1365 (2012)).

250. *Id.*

251. *Id.*

252. *Id.*

253. *Id.*

254. *Id.*

255. *Id.* at 749.

256. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651–52 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

257. *Id.* at 651 (first citing National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 3015 (proposed Jan. 12, 2001) (to be codified at 40 C.F.R. pts. 122 & 412); then citing Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (to be codified at 40 C.F.R. pt. 131)).

258. *See id.* ("This interpretation by the EPA of its statutory authority 'warrants respectful consideration,' especially in the context of a 'complex and highly technical regulatory program.'" (quoting Wis. Dep't of Health & Family Servs. v. Blumer, 534 U.S. 473, 497 (2002))).

259. *Id.* at 651 n.12.

260. *Id.* ("[T]he direct hydrological connection concept may be viewed as a narrower application of the [Ninth Circuit's test].").

261. *Id.* at 652.

While the exact bounds of the test remain undefined, the test does appear quite narrow—and certainly narrower than the Ninth Circuit's test.

Petitions for certiorari have been filed in the Fourth,[262] Sixth,[263] and Ninth Circuits,[264] and the Supreme Court has decided it will hear the Ninth Circuit case in its 2019–2020 term.[265] The Fourth and Sixth Circuit petitions are still pending, likely so the Court can remand them in light of a decision in the Ninth Circuit case.[266] With many changes to the Court since its last major case regarding CWA jurisdiction, one can only speculate as to what the Court's decision will be.[267] The Court may decidedly come down on one side of the issue, clearly stating whether the conduit theory is valid, and if so, which test applies. On the other hand, the Court could produce a *Rapanos*-like plurality[268] that only perpetuates the "spaghetti jungle" of conduit theory case law.[269]

V. MAJOR CHALLENGES FOR PRACTITIONERS

Practitioners arguing cases under the conduit theory will primarily face three challenges. First, they will need adequate evidence showing the groundwater is proximately hydrologically connected to a navigable water.[270] Second, in order to acquire that evidence, they will likely need access to private property (which will be especially challenging in citizen

---

262. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

263. Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436 (6th Cir. 2018), *petition for cert. filed* (U.S. Apr. 15, 2019) (No. 18-1307).

264. Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir.), *petition for cert. filed* (U.S. Aug. 27, 2018) (No. 18-260), *cert. granted*, 139 S. Ct. 1164 (2019).

265. Parenteau, *Maui*, *supra* note 21.

266. *Id.*

267. David S. Rauf, *Clean Break: Kennedy Supreme Court Exit Could Upend Environmental Safeguards*, SCI. AM. (Jul. 3, 2018), https://www.scientificamerican.com/article/clean-break-kennedy-supreme-court-exit-could-upend-environmental-safeguards/.

268. Patrick A. Parenteau, *Channeling Scalia: Does the Clean Water Act Regulate Indirect Discharges 'to' Navigable Waters Via Groundwater?*, AM. C. ENVTL. LAW. (Dec. 11, 2018), http://www.acoel.org/post/2018/12/11/Channeling-Scalia-Does-the-Clean-Water-Act-Regulate-Indirect-Discharges-%E2%80%9Cto%E2%80%9D-Navigable-Waters-Via-Groundwater.aspx.

269. Amena H. Saiyid, *Groundwater Pollution 'Spaghetti Jungle' Tees Up High Court Review*, BLOOMBERG ENV'T & ENERGY REP. (Sept. 25, 2018), https://www.bna.com/groundwater-pollution-spaghetti-n73014482804/ [https://webcache.googleusercontent.com/search?q=cache:D6h6hc0jl20J:https://www.bna.com/groundwater-pollution-spaghetti-n73014482804/+&cd=1&hl=en&ct=clnk&gl=us] (quoting Professor Patrick Parenteau of Vermont Law School); *Supreme Court to Decide Limits of Clean Water Act*, WATER & WASTES DIG. (Sept. 26, 2018), https://www.wwdmag.com/groundwater/supreme-court-decide-limits-clean-water-act?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Wwdmagnews+%28WWDmag.com+News%29.

270. *See infra* Part V.A (explaining the evidentiary challenges in conduit theory cases).

suits).[271] Third, they may struggle to obtain meaningful remedies, even when courts adopt the conduit theory.[272]

A. Evidence of a Hydrological Connection

Whether the CWA encompasses discharges to tributary groundwater "ultimately involves an ecological judgment about the relationship between surface waters and groundwaters."[273] Accordingly, the most important facet of the conduit theory is evidence. All groundwater cases will necessarily include fact-based inquiries into the hydrological connection at issue.[274] Plaintiffs will need to show: (1) that there is a hydrological connection and (2) that it is sufficiently proximate.[275]

First, plaintiffs must provide evidence that the groundwater at issue is hydrologically connected to a navigable surface water.[276] The "mere possibility" of a hydrological connection "is an insufficient basis for regulation."[277] Speculation will not suffice.[278] Furthermore, the connection must lead to a specific navigable water.[279] A hydrological connection cannot be established by asserting that all waters are ultimately connected.[280] Instead, the pollutants must travel along a "fairly traceable" or "direct" path starting at the point source, migrating through the groundwater, and ending in a navigable surface water.[281] This connection

---

271. *See infra* Part V.B (explaining the challenges with accessing private property to support a claim under the conduit theory).

272. *See infra* Part V.C (demonstrating the difficulty of obtaining a useful remedy under the conduit theory).

273. Town of Norfolk v. U.S. Army Corps of Eng'rs, 968 F.2d 1438, 1451 (1st Cir. 1992).

274. *See, e.g.*, Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (relying on a tracer dye study to determine that a hydrological connection existed between a point source and the Pacific Ocean), *cert. granted*, 139 S. Ct. 1164 (2019).

275. *See id.* (finding liability because the pollutants were "fairly traceable from the point source to a navigable water" but suggesting that in some cases the connection could be "too tenuous to support liability").

276. *See, e.g.*, Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990–91 (E.D. Wash. 1994) (requiring evidence of a hydrological connection).

277. N. Cal. River Watch v. Mercer Fraser Co., No. C–04–4620, 2005 WL 2122052, at *3 (N.D. Cal. Sept. 1, 2005) (citing Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, 965 (7th Cir. 1994)).

278. *Id.*

279. *Wash. Wilderness Coal.*, 870 F. Supp. at 990.

280. *Id.*

281. *See* Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 & n.3 (9th Cir. 2018) (requiring a "'fairly traceable' connection"), *cert. granted*, 139 S. Ct. 1164 (2019); Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 652 (4th Cir.) (requiring a "direct hydrological connection"), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

does not need to be mapped perfectly and in its entirety.[282] But there should be evidence of its existence.[283]

Second, plaintiffs must prove that the hydrological connection is relatively direct. The directness of the connection "will be affected by many site specific factors, such as geology, flow, and slope,"[284] as well as "topography, climate, [and] distance to surface water."[285] Thus, the conduit theory is ultimately a question of time and space. At this time, it is unclear precisely how direct a connection must be.[286] The Ninth and Fourth Circuits have issued different tests, creating significant ambiguity.[287] Practitioners will need to keep abreast of case law as the courts continue to refine the conduit theory.

In fact, many conduit theory cases have failed for lack of concrete evidence. For example, in *Rice v. Harken Exploration Co.*, the Fifth Circuit considered the conduit theory, but determined that there was no concrete evidence of a hydrological connection.[288] The plaintiffs only provided a "general assertion" from their expert witness who stated that the groundwater would eventually seep into navigable surface waters.[289] There was no evidence of the groundwater's path or that the pollutants had actually contaminated the navigable water.[290] Practitioners should be cautious to avoid the mistake in *Rice* by providing the court with material evidence of a hydrological connection.

Plaintiffs can provide this evidence by mapping groundwater or completing tracer studies.[291] The amount of evidence required will likely

---

282. *See Haw. Wildlife Fund*, 886 F.3d at 749 (finding a tracer dye study to be sufficient evidence of a fairly traceable hydrological connection).

283. *See Upstate Forever*, 887 F.3d at 652 ("The traceability of a pollutant in measurable quantities is an important factor in the determination whether a particular discharge is covered by the CWA.").

284. Greater Yellowstone Coal. v. Larson, 641 F. Supp. 2d 1120, 1138 (D. Idaho 2009), *aff'd sub nom.*, Greater Yellowstone Coal. v. Lewis, 628 F.3d 1143 (9th Cir. 2010), *as amended*, (Jan. 25, 2011).

285. Waterkeeper All., Inc. v. U.S. Envtl. Prot. Agency, 399 F.3d 486, 515 (2d Cir. 2005).

286. *See supra* Part IV.C (explaining the different tests offered by the Fourth and Ninth Circuits).

287. *Haw. Wildlife Fund*, 886 F.3d at 749; *Upstate Forever*, 887 F.3d at 652.

288. Rice v. Harken Expl. Co., 250 F.3d 264, 267–68 (5th Cir. 2001). Although this case was about the Oil Pollution Act, some language in the Oil Pollution Act mirrors that of the CWA, and interpretations of each act can enlighten the other by analogy. *See id.* ("[T]he existing case law interpreting the CWA is a significant aid in our present task of interpreting the OPA.").

289. *Id.* at 272.

290. *Id.*

291. *See* U.S. DEP'T OF INTERIOR, U.S. GEOLOGICAL SURVEY, U.S. GEOLOGICAL SURVEY GROUNDWATER MODELING SOFTWARE: MAKING SENSE OF A COMPLEX NATURAL RESOURCE 2–3 (2009), https://pubs.usgs.gov/fs/2009/3105/pdf/2009-3105.pdf (providing methods for modeling

vary based on the complexity of the system. Some groundwater travels over hundreds of miles and multiple centuries before it reaches a navigable water.[292] For these complex systems, gathering enough evidence to prove the directness of a hydrological connection can be extremely expensive and time-consuming.[293] On the other hand, some groundwater travels quickly over short distances.[294] For these more direct connections, a less expensive (yet qualitative) method of proof is a tracer test.[295] These tests either trace naturally occurring properties of water[296] or dye dispensed at the point source and measured at the navigable water.[297] For now, tracer tests appear to be enough to pass at least the Ninth Circuit's "fairly traceable" standard of proof.[298] Indeed, the plaintiffs in *Hawai'i Wildlife Fund* relied on a tracer dye study to prove a hydrological connection existed between the point source and the ocean.[299] However, if courts adopt a more demanding test in the future (e.g., requiring groundwater mapping) the burden of proof could become too high, making it difficult for plaintiffs with limited resources to bring CWA suits.

B. Access to Private Property

To complete the evidentiary tests described above, practitioners will sometimes require access to private property. For typical CWA cases, access is often unnecessary.[300] For example, when a pipe discharges directly to a navigable water, plaintiffs can lawfully reach that pipe due to the benefits of the public trust doctrine.[301] In contrast, this will not be true for

---

groundwater flow); WINTER ET AL., *supra* note 5, at 30 (explaining that tracer studies can help identify sources, measure flow, and calculate how long a chemical has been dissolved in water).

292. James W. Hayman, *Regulating Point-Source Discharges to Groundwater Hydrologically Connected to Navigable Waters: An Unresolved Question of Environmental Protection Agency Authority Under the Clean Water Act*, 5 BARRY L. REV. 95, 123 (2005).

293. *Id.* at 124 ("For more complex situations, the time and cost of connecting pollutant source to pollutant impact can be measured in years and seven- or eight-digit dollar figures.").

294. *Id.* at 123.

295. George F. Arsnow et al., *Dye Tracer Study—Tried and True Method Yields Surprising Results*, 15 PROC. ANN. INT'L CONF. ON SOILS, SEDIMENTS, WATER & ENERGY 337, 350 (2010).

296. WINTER ET AL., *supra* note 5, at 30.

297. *See* Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (using a tracer dye study to prove a groundwater connection between the defendant's wells and the Pacific Ocean), *cert. granted*, 139 S. Ct. 1164 (2019).

298. *See id.* at 749 (requiring a "fairly traceable" connection between a point source and a navigable water).

299. *Id.*

300. Coplan, *supra* note 119.

301. *Id.* The public trust doctrine holds that states own the beds and banks of navigable waters in trust for public use. Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 458 (1892). Accordingly, members of the public have a right to use public trust waters and lands for navigation, recreation, and other activities.

groundwater cases when the discharge occurs on private property and subsequently moves underground.[302] Therefore, plaintiffs in groundwater cases will likely require access to private property to obtain evidence.

This step will be easier for EPA than for citizens, as EPA has a right of entry under the CWA (subject to limitations, such as the Fourth Amendment).[303] However, access is not guaranteed; private landowners retain the right to deny entry to EPA.[304] In those cases, EPA must issue a compliance order or commence a civil action to gain access.[305] These processes add steps that require additional time and resources, thereby delaying enforcement. Moreover, EPA's right of entry does not extend to citizens.[306] As a result, citizens will likely struggle to obtain access to private property. Without access, citizens may be unable to reach the point source, effectively impeding tracer dye studies. Thus, one of the biggest struggles for citizen suits will be obtaining evidence.

C. Cautionary Tales from Sierra Club v. Virginia Electric

Although courts have generally been increasingly responsive to the conduit theory,[307] several cautionary tales demonstrate major challenges in this field. *Sierra Club v. Virginia Electric* illustrates two significant obstacles that practitioners will face when arguing cases under the conduit theory.[308] First, the case reveals that convincing courts to adopt the conduit theory is only the first step.[309] Although the district court found CWA jurisdiction, it also declined to issue the requested injunction.[310] Second, the

---

See Donna Sheehan Fitzgerald, *Extending Public Trust Duties to Vermont's Agencies: A Logical Interpretation of the Common Law Public Trust Doctrine*, 19 VT. L. REV. 509, 514 (1995) (listing the public rights protected within the traditional scope of the public trust doctrine).

302. Even in Hawaii, where the public trust includes groundwater, it does not protect *public access* to groundwater. *See In re* Water Use Permit Applications (*Waiāhole Ditch*), 9 P.3d 409, 447–48 (Haw. 2000) (explaining that the public trust doctrine applies differently to groundwater than to navigable waters and holding that the public trust doctrine imposed a duty on the state to protect groundwater as a consumptive resource).

303. 33 U.S.C. § 1318(a)(B)(i) (2012); *see* New York v. Burger, 482 U.S. 691, 699–700 (1987) (providing that the Fourth Amendment applies to searches by administrative agencies).

304. EPA, THE CLEAN WATER ACT: COMPLIANCE/ENFORCEMENT GUIDANCE MANUAL 3-12 (1985).

305. 33 U.S.C. § 1319(a)–(b).

306. *See id.* § 1318(a)(A) (providing a right of entry and access to "the Administrator" of EPA).

307. *See supra* Part IV.A (highlighting decisions in which courts adopted the conduit theory).

308. Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric I*), 247 F. Supp. 3d 753, 764–65 (E.D. Va.), *appeal dismissed*, No. 17-1537, 2017 WL 5068149 (4th Cir. July 13, 2017), *aff'd in part*, 903 F.3d 403 (4th Cir. 2018).

309. *Id.* at 763–65 (declining to issue an injunction despite finding a violation of the CWA under the conduit theory).

310. *Id.*

case serves as an important reminder that the conduit theory is not separate from other elements of a CWA offense.[311] On appeal, the Fourth Circuit remanded this case because it determined that coal ash pits—the source of pollution—were not a point source.[312]

First, in *Virginia Electric I*, the Eastern District of Virginia adopted the conduit theory.[313] Relying on the purpose of the CWA and EPA's preambles, the court held that "discharges to groundwater [that is] hydrologically connected to surface water are covered by the CWA."[314] Applying this theory, the court found that the Virginia Electric Power Company (VEPCO) violated the CWA because its coal ash pits leaked pollutants into groundwater that fed into a nearby river.[315]

Nonetheless, the court declined to impose civil penalties or a permanent injunction.[316] The court in *Virginia Electric I* found that an injunction would force VEPCO to remove more than three million tons of coal ash from its facility, which would cost over $600 million.[317] If VEPCO had to pay such a price, it would likely raise its utility rates and require its customers to pay more for services.[318] Because VEPCO would transfer the cost of compliance onto consumers, the court concluded that a permanent injunction would not be in the public interest.[319] Instead, the court merely ordered VEPCO to conduct monitoring at the coal ash pit and nearby waters.[320]

This part of the court's decision should caution practitioners. Removal costs are frequently high,[321] as is the bar for a permanent injunction.[322] The test for a permanent injunction allows courts to balance the hardships between the parties and to consider the public interest.[323] Courts will be

311. Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric II*), 903 F.3d 403, 411 (4th Cir. 2018).

312. *Id.*

313. *Virginia Electric I*, 247 F. Supp. 3d. at 762.

314. *Id.*

315. *Id.* at 763.

316. *Id.* at 764–65.

317. *Id.* at 760, 764–65.

318. *Id.* at 765.

319. *Id.*

320. *Id.* at 766.

321. *See* U.S. ENVTL. PROTECTION AGENCY, RESOURCE DOCUMENT FOR THE GROUND-WATER MONITORING STRATEGY WORKSHOP X-3 (1985) [hereinafter GROUND-WATER MONITORING] (noting that "corrective action can be tens of millions of dollars or more" for groundwater contamination at a single site).

322. *See Virginia Electric I*, 247 F. Supp. 3d at 765 ("Injunctive relief . . . is a 'drastic and extraordinary' remedy, available only in unusual situations." (first quoting Monsanto Co. v. Geertson Seed Farms, 561 U.S. 139, 165 (2010); then quoting Vollette v. Watson, 978 F. Supp. 2d 572, 583 (E.D. Va. 2013))).

323. *See* eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006) (providing the test for a permanent injunction).

able to use this test to deny permanent injunctions[324] and, instead, simply order monitoring like in *Virginia Electric I* or opt for no remedy at all.[325]

Another hurdle practitioners may face is convincing courts that removal projects are viable. For example, the court in *Virginia Electric I* was concerned with the feasibility of removing millions of tons of coal ash to a landfill.[326] The court feared that the coal ash would spill out of trucks as it moved locations or that the trucks would crash and disperse waste across roads and motorists.[327] The court also added that Sierra Club did not provide evidence that a landfill would accept VEPCO's coal ash waste.[328] Because Sierra Club did not address these concerns, the court determined that the requested remedy raised too many uncertainties, and thus it denied injunctive relief.[329]

Practitioners can overcome this hurdle by providing suggestions for removal that reduce uncertainty. However, practitioners should also argue that *Virginia Electric I*'s concerns about removal costs were unreasonable. In 2016, EPA oversaw 226 removal actions at Superfund sites alone,[330] despite the inherently associated risks.[331] And while removal may bear risks, it removes the threat of further environmental contamination. As another court explained, "[a]s long as the ash remains where it is . . . there is every reason to think that the dangers, uncertainties, and conflicts giving rise to this case will survive another twenty years, forty-five years, or more."[332] By addressing upfront the risks associated with removal and non-removal, practitioners may be able to convince courts that the balance falls in favor of an injunction.[333] Then again, as illustrated by *Virginia Electric I*,

---

324. *See, e.g.*, *Virginia Electric I*, 247 F. Supp. 3d at 765 (finding that the "factors [of the permanent injunction test] weigh against the drastic injunctive relief sought by the plaintiff").

325. *See id.* at 766 ("The Court, therefore, will grant an injunction adopting a middle course . . . . Dominion will conduct more extensive monitoring of the CEC site . . . .").

326. *Id.* at 764–65.

327. *Id.* at 765.

328. *Id.* at 764–65.

329. *Id.* at 765.

330. Superfund, also known as "CERCLA[,] is a comprehensive federal law governing the remediation of sites contaminated with pollutants." Consol. Edison Co. of New York v. UGI Utils., Inc., 423 F.3d 90, 94 (2d Cir. 2005); Resource Conservation and Recovery Act of 1976 § 102, 42 U.S.C. § 9602.

331. *Superfund Remedial Annual Accomplishments: Fiscal Year 2016 Superfund Remedial Program Accomplishments Report*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/superfund/superfund-remedial-annual-accomplishments#metrics (last visited Apr. 27, 2019) (follow "2016" hyperlink; then follow "Superfund Annual Accomplishment Metrics" hyperlink).

332. Tenn. Clean Water Network v. Tenn. Valley Auth., 273 F. Supp. 3d 775, 846 (M.D. Tenn. 2017), *rev'd*, 905 F.3d 436 (6th Cir. 2018), *petition for cert. filed* (U.S. Apr. 15, 2019) (No. 18-1307).

333. In this way, plaintiffs can add weight to their argument that removal is in the public interest and thereby support their request for a permanent injunction. *See Virginia Electric I*, 247 F. Supp. 3d at

courts may remain uncomfortable with uncertainties, and many practitioners will face challenges in persuading courts to permanently enjoin polluters.[334]

Overall, the decision in *Virginia Electric I* indicates that even if courts accept the conduit theory, they may still be reluctant to afford practitioners significant relief.[335] The court found jurisdiction, but it also declined to issue an injunction.[336] The court applied a cost-benefit analysis test that allows companies to escape liability easily,[337] as remediating contaminated sites often costs millions of dollars.[338] Therefore, practitioners should view *Virginia Electric I* as a cautionary tale for obtaining remedies under the conduit theory.

The second phase of this case illustrates an additional forewarning for practitioners. On appeal, the Fourth Circuit reversed the decision in *Virginia Electric I*.[339] The court held that although the conduit theory was valid,[340] it did not apply in this case.[341] VEPCO's coal ash pits were leaching pollutants, but the pits did not constitute point sources under the CWA.[342] According to the court, "the landfill and ponds were not created to convey anything."[343] Instead, they were merely "static recipients of the precipitation and groundwater that flowed through them."[344] Consequently, these coal ash pits were not discrete conveyances of pollutants as required by the definition of point source.[345]

---

765 (identifying the balancing test for granting a permanent injunction, in which the fourth factor is "that the public interest would not be disserved by a permanent injunction").

334. *Id.* at 764 (calling Sierra Club's request for injunctive relief "draconian").

335. *See id.* at 764–65 (denying Sierra Club's request for civil penalties and a permanent injunction).

336. *See id.* at 763, 765 (giving considerable weight to the economic burden on the defendant under the test for a permanent injunction).

337. *See id.* at 764–65 (comparing the effect of arsenic discharges against the cost and time that remediation would require).

338. GROUND-WATER MONITORING, *supra* note 321 (noting that "corrective action can be tens of millions of dollars or more" for groundwater contamination at a single site).

339. Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric II*), 903 F.3d 403, 411 (4th Cir. 2018).

340. *Id.* at 409.

341. *Id.* at 411.

342. *Id.*

343. *Id.*

344. *Id.*

345. *Id.* Even if coal ash pits are not point sources (and are therefore outside the scope of the CWA), other tactics may exist for practitioners. The Fourth Circuit noted in *Virginia Electric II* that the plaintiffs "could have sought to employ . . . RCRA's citizen-suit provision." *Id.* at 415. Similarly, the Sixth Circuit has found that RCRA is an appropriate tool when coal ash pits discharge pollutants to tributary groundwater. Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 940 (6th Cir. 2018). RCRA may thereby provide a workaround in cases that fall outside CWA jurisdiction. However, it will not always apply. Take for example the Ninth Circuit's *Hawai'i Wildlife Fund* case. There, a wastewater treatment plant was discharging effluent—pollution that is exempt from regulation under RCRA.

This case should remind practitioners that the conduit theory is only one piece of the puzzle in a CWA case. When courts adopt the conduit theory, it simply opens the door to proving the elements of a CWA violation.[346] Plaintiffs still must show that the discharger is a point source and that the pollutants end up in a navigable water.[347] Though the conduit theory is essential for imposing liability, in practice it requires more than a theoretical consideration of jurisdiction.[348] It requires evidence substantiating each individual element under § 301.[349]

CONCLUSION

The current system of environmental law does not plainly regulate the discharge of pollutants to tributary groundwater.[350] However, tributary groundwater should fall within CWA jurisdiction, as it provides a conduit for pollution to travel from point sources to navigable waters. Several courts have embraced this theory, including most notably and recently the Fourth and Ninth Circuits.[351] Nonetheless, challenges remain. Some courts, including the Sixth Circuit, have rejected CWA jurisdiction, favoring state authority over groundwater protection.[352] Other courts have conflated the conduit theory and the navigable waters theory, missing the nuanced distinction between the two.[353] These issues may soon be resolved by the Supreme Court, which will hear a conduit theory case in its 2019–2020 term.[354] If it determines that CWA jurisdiction exists, the next era of litigation will likely focus on evidence. It can be extremely difficult and expensive to prove the existence of a hydrological connection between

---

Resource Conservation and Recovery Act of 1976 § 1004, 42 U.S.C. § 6903(27); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 742 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

346. *See, e.g.*, *Virginia Electric II*, 903 F.3d at 409, 411 (recognizing the conduit theory but nevertheless concluding that "the landfill and ponds" were not point sources).

347. 33 U.S.C. §§ 1311(a), 1362(12) (2012).

348. *See supra* Part V.A (detailing the evidence plaintiffs need to show a hydrological connection).

349. *See supra* note 31 and accompanying text (explaining that plaintiffs must prove each element of a CWA violation).

350. Wood, *supra* note 9.

351. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268); Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

352. *See, e.g.*, Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 937–38 (6th Cir. 2018) (rejecting the conduit theory).

353. *See* Haw. Wildlife Fund v. Cty. of Maui, 24 F. Supp. 3d 980, 996 (D. Haw. 2014) (noting that some courts appear confused about the theories of CWA jurisdiction over tributary groundwater), *aff'd*, 886 F.3d 737 (9th Cir. 2018), *cert. granted*, 139 S. Ct. 1164 (2019).

354. *Id.*; Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 651 (4th Cir.), *petition for cert. filed* (U.S. Aug. 28, 2018) (No. 18-268).

groundwater and surface waters.[355] To make matters more difficult, some courts have declined to award substantial relief, despite adopting the conduit theory.[356] Even so, this area of law has quickly flowed in a positive direction. If this trajectory continues, we will be one step closer to protecting our nation's waters—surface and sub-surface alike.

–Kathrine Klaus[*†]

355. *See supra* Part V.A (describing the challenges associated with proving a hydrological connection).

356. *See, e.g.*, Sierra Club v. Va. Elec. & Power Co. (*Virginia Electric I*), 247 F. Supp. 3d 753, 762–65 (E.D. Va.) (finding VEPCO violated the CWA under the conduit theory, but refusing to award civil penalties or order a permanent injunction), *appeal dismissed*, No. 17-1537, 2017 WL 5068149 (4th Cir. July 13, 2017), *aff'd in part*, 903 F.3d 403 (4th Cir. 2018).

* Juris Doctor Candidate 2020, Vermont Law School; Master of Environmental Management Candidate 2020, Yale School of Forestry and Environmental Studies.

† First and foremost, I would like to thank Noah Greenstein for his constant support and helpful feedback throughout the process of writing and editing this Note. Second, I would like to thank Professor Patrick Parenteau for his guidance and invaluable teachings on the Clean Water Act. Finally, thank you to my parents for encouraging my curiosity and enabling me to pursue my passion for environmental law.