MARK JAMES

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EXPERIENCE

Vermont Law School, South Royalton, VT, July 2019 – Present

Adjunct Professor and Senior Research Fellow, Institute for Energy and the Environment

- Teach online learning courses:
 - Energy Policy in a Carbon Constrained World
 - Energy Regulation & The Environment
- Develop curriculum and instruction for new online Energy Efficiency course.
- Serve as subject matter expert for online energy law courses.
- Lead researcher on regional transmission organization stakeholder governance project as part of a multi-school effort funded by the Sloan Foundation.
- Led Phase 2 Protect Our Power-funded student research team to enhance state-level efforts to increase distribution utility cybersecurity investments.

Vermont Law School, South Royalton, VT, 2016 – 2019

Assistant Professor and Senior Research Fellow, Institute for Energy and the Environment

- Taught residential courses
 - Energy Policy in a Carbon Constrained World
 - End-Use Energy Efficiency
- Taught online learning courses:
 - Energy Policy in a Carbon Constrained World
 - Energy Regulation & The Environment
 - Alternative Fuels and Renewable Energy
 - Communications, Advocacy, and Leadership
- Led Protect Our Power-funded project to enhance state-level efforts to increase distribution utility cybersecurity investment.
- Managed student research team for Department of Energy (DOE)-funded Northeast Energy Efficiency Partnership – Home Energy Labelling Information Exchange (NEEP-HELIX) data privacy project to develop data access protocols for a multi-state home energy efficiency score.
- Directed research on DOE-funded Powering Energy Efficiency Impacts Framework grant to facilitate access to and operation of low-income energy efficiency programming in five-county test pilot region in North Carolina.

- Led research on Maryland Climate Coalition project to compare proposed bills to increase Maryland's Renewable Portfolio Standard.
- Served as faculty supervisor to the National Energy and Sustainability Law Moot Court Team.
- Developed the grant proposal for the U.S. Department of Agriculture (USDA)-funded Farm and Energy Initiative.

Vermont Law School, South Royalton, VT, 2014 – 2016

Global Energy Fellow, Institute for Energy and the Environment

- Led research on DOE-funded Lawrence Berkeley National Laboratory (LBNL) PV AutoPop data privacy project seeking to integrate rooftop solar data into real estate multiple listing services.
- Analysed building codes and standards, utility tariffs, and government legislation.
- Drafted model code amendments for SunShot Plug and Play Solar PV for American Homes Project.
- Supervised Energy Clinic team in developing the *Guide to Community Solar* report.
- Facilitated executive training program, *Legal Essentials for Utility Executives*.

CONSULTING

Utility Hearing Expert Witness, January 2020 - May 2020

- Serve as an expert witness in Dominion Energy's Demand Side Management Program Application, Case No. PUR 2019-00201, before the Virginia State Corporation Commission.
- Work with University of Virginia School of Law's Environmental and Regulatory Law Clinic, on behalf of the Virginia Energy Efficiency Council, to submit written expert witness testimony and prepare oral testimony.

PUBLICATIONS

Articles

Kevin B. Jones, Mark James, and Heather Huebner, *Do You Know Who Owns Your Solar Energy? The Growing Practice of Separating Renewable Attributes from Renewable Energy Development and its Impact on Meeting Our Climate Goals*, 28 FORDHAM ENVTL. L. REV.197 (2017).

Mark James, Kelsey R. Bain & David E. Sloan, Undamming the Federal Production Tax Credit: Creating Financial Incentives for Dam Trading and Dam Removal, 53 IDAHO L. REV. 53 (2017).

Mark James, Ashleigh H. Krick & Kelsey R. Bain, *Planning for the Sun to Come Up: Examining the Root Causes and Future Impacts of California and Nevada's Divergent Approaches to Net Metering*, 8 SAN DIEGO J. OF ENERGY L. 1 (2016-17).

Kevin B. Jones, Mark James & Roxana-Andreea Mastor, *Securing our Energy Future: Three International Perspectives on Microgrids and Distributed Renewables as a Path Toward Resilient Communities*, 16 J. OF ENVTL. HAZARDS 99 (2016).

Reports

Mark James, Claire Valentine-Fossum, Adam McGovern, Austin Scarborough, Justin Somelofske & Kristin Zweifel, *Improving the Cybersecurity of the Electric Distribution Grid: Phase 2 Report – Pathways to Enhancing Grid Security* (Institute for Energy and the Environment, Vermont Law School, November 2019).

Mark James, Adam McGovern, Justin Somelofske, Claire Valentine-Fossum & Kristin Zweifel, Improving the Cybersecurity of the Electric Distribution Grid: Phase 1 Report – Identifying Obstacles and Presenting Best Practices for Enhanced Grid Security (Institute for Energy and the Environment, Vermont Law School, April 2019).

Anne Tazewell, Ron Townley, Tirence Horne, Laura Langham, Daniel Pate, Mark James, Joshua Randall, William S. Slocumb, Mark Griffin, Scott Ferguson, Daniel Kauffman, Alfred Ripley, and Ookie Ma, *Powering Energy Efficiency and Impacts: A Data-Driven Project Supporting Low-Income Households in Northeastern North Carolina* (North Carolina Clean Energy Technology Center and the Upper Coastal Plains Council of Governments, March 2019).

Mark James, Kevin B. Jones, Ashleigh H. Krick & Rikaela R. Greane, *How the RTO stakeholder* process affects market efficiency (R Street Institute, Oct. 2017).

Capturing the Sun: A Roadmap for Navigating Data-Access Challenges and Auto-Populating Solar Home Sales Listings, Lawrence Berkeley National Laboratory (2016), contributing author.

Book Chapters

Kevin B. Jones & Mark James, "Distributed renewables in the new economy: lessons from community solar in Vermont," *Law and Policy for a New Economy: Sustainable, Just, and Democratic* 189 (2017).

Online Articles and Blog Posts

Mark James and Richard Mroz, *Cyber-securing the grid: Best practices for state utility commissions*, UTILITY DIVE, (April 25, 2019), https://www.utilitydive.com/news/cyber securing-the-grid-best-practices-for-state-utility-commissions/553389/.

Scott Rowland and Mark James, *Vermont Law School Watch List 2018 – Solar Trade Tariffs*, VERMONT J. OF ENVTL. LAW, (Jan. 2018), http://vjel.vermontlaw.edu/topten/solar-trade-tariffs/.

Mark James and Kevin B. Jones, *Finding efficiencies: Updating RTO stakeholder governance to meet emerging challenges*, UTILITY DIVE, (Dec. 15, 2017) https://www.utilitydive.com/news/finding-efficiencies-updating-rto-stakeholder-governance-to-meet-emerging/513085/.

Documenting COP21 – Articles 13-15, July 1, 2016 (project documenting changes to Paris Agreement during course of negotiation sessions and identifying items left to future meetings to resolve), http://vlscop.vermontlaw.edu/4564-2/.

Vermont Law School Substantial & Sustained COP21 Observer Blog,

http://vlscop.vermontlaw.edu/ (written as part of VLS COP21 Observer Delegation).

- Paris Agreement and the Clean Air Act New Tools for the EPA? January 19, 2016
- UNFCCC Negotiations Coordinating the Dance, December 4, 2015
- *Building Transparency and Accountability in a New Climate Agreement*, December 3, 2015
- Understanding the Complex Organized Chaos of UNFCCC Negotiations, December 2, 2015
- Carbon Capture and Sequestration A Cautionary Tale, December 1, 2015
- The Ying and the Yang of the Low Carbon Economy, November 30, 2015
- *Carbon Tax More of the Same or Energy Miracle*, October 22, 2015
- New Government in Canada, New Direction on Climate Change, October 20, 2015
- *Past as Prologue? Joint Implementation and the Future for Flexibility Mechanisms*, October 3, 2015

End of Coal Fired Generation in Ontario, Columbia Center for Climate Change Law Blog, January 22, 2014, http://blogs.law.columbia.edu/climatechange/2014/01/22/end-of-coal-fired-generation-in-ontario/.

PRESENTATIONS

Energy Assurance and Resilience: A Cross-Functional View, National Association of State Energy Officials and National Association of Regulatory Utility Commissioners Energy Security and Data Analysis Workshop, December 2, 2019.

Pathways to Improving Distribution Utility Cybersecurity, National Association of Regulatory Utility Commissioners – Electricity Committee, November 17, 2019.

Pathways to Improving Distribution Utility Cybersecurity, National Association of Regulatory Utility Commissioners – Critical Infrastructure Committee, November 16, 2019.

Cyber-Securing the Electric Grid: Barriers and Best Practices, Department of Homeland Security Region 1 and Federal Emergency Management Agency – NLE Cyber 2020 Workshop, May 30, 2019.

Research on the survey of state commission works on regulatory issues on ensuring resilience and cybersecurity investments, National Association of Regulatory Utility Commissioners – Electricity Committee, February 12, 2019.

Research on the survey of state commission works on regulatory issues on ensuring resilience and cybersecurity investments, National Association of Regulatory Utility Commissioners – Critical Infrastructure Committee, February 10, 2019.

Comparison and Analysis of Proposed Bills to Increase Maryland's RPS Commitments, Maryland Climate Coalition, September 20, 2018.

NEEP HELIX: Privacy Considerations When Sharing Home Energy Information, 2018 NEEP HELIX Regional Residential Labeling Meeting, June 26, 2018.

PEEIF: Facilitating Access to Confidential Information from Federally Funded Low-Income Energy Efficiency Programs, Webinar, June 19 and June 21, 2018.

PEEIF: Using Technology to Address Low-Income Energy Burdens: A North Carolina Pilot Project, 2018 National Environmental Justice Conference, April 27, 2018.

Creating Additionality in City-Driven Renewable Energy Pledges, 2018 AALS Natural Resources and Energy Law Panel, January 3, 2018.

NEEP HELIX: Database Access Protocols, NEEP HELIX Year 2 Virtual Summit, November 15, 2017.

Me and My Utility Data: Data Privacy in an Interconnected World, 2017 Vermont Journal of Environmental Law Symposium, October 20, 2017.

Privacy and Governance Issues in Energy Efficiency Databases, NEEP-HELIX Year One Summit, November 10, 2016.

Planning for the Sun to Come Up: Examining the Root Causes and Future Impacts of California and Nevada's Divergent Approaches to Net Metering, 8th Annual University of San Diego Climate & Energy Law Symposium, November 4, 2016.

Emerging Litigation in Water Law - Des Moines Water Works, 2015 Vermont Journal of Environmental Law Conference "TMDLs 2.0," October 23, 2015.

Public Utility Commissions and Public Interest Litigation: How Citizen Action Can Advance and Protect the Renewable Energy Economy, Public Interest Environmental Law Conference, Eugene OR, March 6, 2015.

OTHER MEDIA APPEARANCES

Grid Geeks: RTO Governance – Is It Broken and Can It Be Fixed? GOOD GRID (Oct. 17, 2017), http://www.goodgrid.net/blog/2017/10/17/grid-geeks-podcast-s2e4.

James Rundle, Wall Street Journal, *Utility Companies Prepare for AI-Powered Cyber Threats*, November 22, 2019, <u>https://www.wsj.com/articles/utility-companies-prepare-for-ai-powered-cyber-threats-11574418600.</u>

ACADEMIC GRANTS

Northeast Energy Efficiency Partnership - Home Energy Labelling Information Exchange, May 2016 – June 2019

- Created statement of work and negotiated final sub-contract on DOE funded project to integrate home energy efficiency scores into Multiple Listing Services.
- Consulted on the development of database housing and sharing home energy data from multiple states.

Upper Coastal Plains Council of Governments - City Leap, August 2017 – December 2018

• Drafted grant proposal with project partners to secure \$477,000 in DOE-funding for twoyear project using energy consumption data to target home energy efficiency programs in low-income neighborhoods in eastern North Carolina.

SunShot Plug & Play for American Homes, August 2014 – May 2016

• Managed multi-year contract as sub-grantee to Fraunhofer Center for Sustainable Energy DOE-funded SunShot grant. Developed statements of work, negotiated annual contract renewal, and drafted annual compliance reports.

Lawrence Berkeley National Laboratory PV AutoPop Project, April 2016 – November 2016

• Developed statement of work and sub-contracting documents on DOE-funded project evaluating data privacy issues arising from auto-population of rooftop solar system data into Multiple Listing Services.

CONTRACTED WORK

Maryland Climate Coalition RPS Bill Analysis, May 2018 - September 2018

- Negotiated and developed project framework to prepare an internal report for Maryland Climate Coalition on two proposed bills to increase Maryland's RPS obligations.
- Completed secondary negotiation to add an in-person presentation.

Protect Our Power – Distribution Utility Cybersecurity and Grid Resilience, June 2018 – December 2019

- Developed statement of work, objectives, and deliverables schedule for a project assessing how to increase utility investment in grid resilience.
- Executed multi-phase research program on distribution utility cybersecurity.

SERVICE

Vermont Law School Institute of Energy and the Environment Hiring Committee, member, 2015 – 2019

American Association of Law Schools (AALS) Faculty Representative, 2018 – 2019

AALS Natural Resources, Environment and Energy Section, board member, 2017 – 2019

EDUCATION

Vermont Law School, LL.M in Energy Law, 2016 summa cum laude

- *Global Energy LL.M Fellow*, Institute for Energy and the Environment
- *Team Leader*, SunShot Plug and Play Solar PV for American Homes Project Delegate, Vermont Law School 2015 Paris Conference of Parties Delegation
- *Member*, Vermont Law School COP 21 Working Group

University of Ottawa Faculty of Law, English Common Law J.D., 2014 cum laude

- Co-founder, Canadian Association of Environmental Law Societies (CAELS)
 - Chair, CAELS Conference "Making Waves," 2014
 - Co-chair, CAELS Conference "Thinking Big and Small," 2013
- *Research Associate*, Professors N. Chalifour, L. Collins, and H. MacLeod-Kilmurray, 2012 2014
 - Prepared memorandums on carbon pricing programs, environmental justice, and the Canadian Charter of Rights and Freedoms, and sustainable agricultural policies and legislation.
 - Updated The Canadian Brownfields Manual.
 - Wrote case studies for *The Canadian Law of Toxic Torts*.
- *Legal Intern,* Columbia Center for Climate Change, Columbia Law School, New York City, NY, January 2014
 - Wrote report on using securities laws to encourage public corporations to disclose climate change liabilities to potential investors.

University of Toronto, B.Sc. Ecology, 1999 with distinction

BAR ADMISSION: Vermont