

L. Lynne Kiesling

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lynne.kiesling@ucdenver.edu and lynne@knowledgeproblem.com<http://www.lynnkiesling.com><http://knowledgeproblem.com>SSRN author page: <http://ssrn.com/author=240214>ORCID ID: <https://orcid.org/0000-0002-6854-2653>**Current Appointments**

| | |
|---|------------------------|
| Research Professor, College of Engineering, Design & Computing, University of Colorado-Denver | June 2021-present |
| Co-Director, Institute for Regulatory Law and Economics | June 2018-present |
| President, Knowledge Problem LLC | January 2019-present |
| Adjunct Professor, Institute for Sustainability and Energy at Northwestern, Northwestern University | September 2020-present |

Education

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| Ph.D. Economics, Northwestern University | December 1993 |
| B.S. <i>cum laude</i> Economics, Miami University Phi Beta Kappa, 1987 | May 1987 |
| Leadership and Negotiation Academy for Women, Tepper School of Business, Carnegie Mellon University | September 2017-March 2018 |

Past Appointments

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|---|----------------------------|
| Visiting Professor, Department of Engineering & Public Policy, Carnegie Mellon University | July 2019-June 2021 |
| Faculty Affiliate, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University | July 2019-June 2021 |
| Visiting Associate Professor Department of Economics, Purdue University | August 2017-June 2019 |
| Associate Director Purdue University Research Center in Economics | August 2017-June 2019 |
| Associate Professor of Instruction Department of Economics, Northwestern University | September 2010-August 2017 |
| Director, Electricity Policy Program, Searle Center on Law, Regulation, and Economic Growth, Northwestern University | September 2016-August 2017 |
| Visiting Senior Lecturer (sabbatical) Department of Political Economy, King's College London | September 2014-March 2015 |

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|---|-----------------------------|
| Senior Lecturer, Social Enterprise at Kellogg (SEEK) Program, Kellogg School of Management, Northwestern University | September 2007-August 2011 |
| Senior Lecturer Department of Economics, Northwestern University | September 2001-August 2010 |
| Research Scholar and Director, Center for Applied Energy Research , Interdisciplinary Center for Economic Science George Mason University | October 2003-October 2006 |
| Director of Economic Policy, Reason Foundation | January 2001-September 2003 |
| Visiting Associate Professor Department of Economics, Northwestern University | September 2000-2001 |
| Manager, International Economics PricewaterhouseCoopers | January 1997-January 2000 |
| Assistant Professor of Economics College of William and Mary | August 1992-December 1996 |

Peer Reviewed Publications

Theisen, Alexander, Lynne Kiesling, and Michael Munger. 2022. "From Airbnb to Solar: Market Platforms as Local Sharing Economies." *Public Choice*, forthcoming.

Burnett, J. Wesley, and L. Lynne Kiesling. 2022. "How Do Machines Predict Energy Use? Comparing Machine Learning Approaches for Modelling Household Energy Demand in the United States." *Energy Research and Social Science*, forthcoming.

Mays, Jacob, Michael T. Craig, L. Lynne Kiesling, Joshua Macey, Blake Shaffer, and Han Shu. 2022. "Private Risk and Social Resilience in Liberalized Electricity Markets." *Joule*, <https://doi.org/10.1016/j.joule.2022.01.004>.

Arlt, Marie-Louise, David P. Chassin, and L. Lynne Kiesling. 2021. "Opening up Transactive Systems: Introducing TESS and Specification in a Field Deployment." *Energies*, 14(13): 3970-3992, <https://doi.org/10.3390/en14133970>.

Littlechild, Stephen, and L. Lynne Kiesling. 2021. "[Hayek and the Texas Blackout](#)." *Electricity Journal*, 34.

Kiesling, L. Lynne. 2020. "[Plug-and-Play, Mix-and-Match: A Capital Systems Theory of Digital Technology Platforms](#)." *Review of Austrian Economics* 34(1): 13-32.

Burnett, J. Wesley, and L. Lynne Kiesling. 2019. "[Power Plant Thermal Efficiency as a Regulatory Mechanism: Implications for Emission Rates and Levels](#)." *Energy Policy* 134(13): 110980.

Kiesling, Lynne. 2018. "[Toward a Market Epistemology of the Platform Economy](#)." *Advances in Austrian Economics* 23: 45-70.

Kiesling, Lynne. 2016. "[Implications of Smart Grid Innovation for Organizational Models in Electricity Distribution](#)," in Chen-Ching Liu, Stephen McArthur, and Seung-Jae Lee, eds., *Wiley Smart Grid Handbook*. London: Wiley.

- Kiesling, Lynne. 2016. "[The Connected Home and an Electricity Market Platform for the Twenty-First Century](#)," *Independent Review* 20(3): 405-409.
- Boffa, Federico, and Lynne Kiesling. 2015. "[Network Regulation Through Ownership Structure: An Application to the Electric Power Industry](#)," in Arnold Picot, Massimo Florio, Nico Grove, and Johan Kranz, eds., *The Economics of Infrastructure Provisioning: The (Changing) Role of the State*. MIT Press.
- Kiesling, Lynne, and Mark Silberg. 2015. "[Regulation, Innovation, and Experimentation: The Case of Residential Rooftop Solar](#)," *Annual Proceedings of the Wealth and Well-Being of Nations* Volume VI.
- Kiesling, Lynne. 2014. "[Incumbent Vertical Market Power, Experimentation, and Institutional Design in the Deregulating Electricity Industry](#)," *Independent Review* 19(2): 239-264.
- Kiesling, Lynne. 2012. "[Mirror Neuron Research and Adam Smith's Concept of Sympathy: Three Points of Correspondence](#)," *Review of Austrian Economics* 25(4): 299-313.
- Kiesling, Lynne. 2012. "[Regulation's Effect on Experimentation in Retail Electricity Markets](#)," *Annual Proceedings of the Wealth and Well-Being of Nations* Volume IV.
- Kiesling, Lynne, Daniel Seltzer, Laurie Zoloth, and Cristina Trainer. 2011. "Paved with Good Intentions: Rethinking the Ethics of ELSI Research," *Journal of Research Administration* 42.2: 15-18.
- Kiesling, Lynne. 2010. "[The Knowledge Problem, Learning, and Regulation: How Regulation Affects Technological Change in the Electric Power Industry](#)," *Studies in Emergent Order* 3: 149-171.
- Kiesling, Lynne. 2010. "Promoting Innovation in the Electricity Industry," *Economic Affairs* (June): 6-12.
- Chassin, David, and Lynne Kiesling. 2008. "Decentralized Coordination through Digital Technology, Dynamic Pricing, and Customer-Driven Control: The GridWise Testbed Demonstration Project," *Electricity Journal* 21: 51-59.
- Giberson, Michael, Lynne Kiesling, and Evens Salies. 2007. "L'électricité, est-elle un bien public?" *Révue de l'OFCE* 101.
- Kiesling, Lynne, and Bart Wilson. 2007. "[An Experimental Analysis of the Effects of Automated Mitigation Procedures on Investment and Prices in Wholesale Electricity Markets](#)," *Journal of Regulatory Economics* 31: 313-334.
- Kiesling, Lynne. 2005. "Using Economic Experiments to Test Electricity Policy," *Electricity Journal* 18: 43-50.
- Giberson, Michael, and Lynne Kiesling. 2004. "Analyzing the Blackout Report's Recommendations: Alternatives For A Flexible, Dynamic Grid," *Electricity Journal* 17: 51-59.
- Kiesling, Lynne. 2004. "The North American Blackout and Electricity Policy: Alternatives to Transmission Construction," *Economic Affairs* 24: 53-57.
- Kiesling, Lynne, and Brian Mannix. 2003. "Standard Market Design in Wholesale Electricity Markets: Can FERC's Proposed Structure Adapt to the Unknown?" *Electricity Journal* 16: 11-19.

Haddock, David, and Lynne Kiesling. 2002. "[The Black Death and Property Rights](#)." *Journal of Legal Studies* XXXI(2).

Kiesling, Lynne. 1997. "The Long Road to Recovery: Post-Crisis Coordination of Private Charity and Public Relief in Victorian Lancashire." *Social Science History* 21: 219-244.

Margo, Robert, and Lynne Kiesling. 1997. "[Explaining the Rise in Antebellum Pauperism, 1850-1860: New Evidence](#)." *Quarterly Review of Economics and Finance* 37: 405-417.

Kauffman, Kyle, and Lynne Kiesling. 1997. "Was There a Welfare Magnet in the Nineteenth Century? Preliminary Results from New York City and Brooklyn." *Quarterly Review of Economics and Finance* 37: 439-448.

Kiesling, Lynne. 1996. "Institutional Choice Matters: The Poor Law and Implicit Labor Contracts in Victorian Lancashire," *Explorations in Economic History* 33: 65-85.

Kiesling, Lynne. 1995. "Collective Action and Assisting the Poor: The Political Economy of Income Assistance during the Lancashire Cotton Famine," *Journal of Economic History* 55: 380-383 (dissertation summary from Gerschenkron Prize nomination).

Published Books

Kiesling, Lynne. 2021. [The Essential Ronald Coase](#). Vancouver: Fraser Institute.

Kiesling, Lynne. 2008. *Deregulation, Innovation, and Market Liberalization: Electricity Restructuring in a Constantly Evolving Environment*. Routledge Studies in Business Organizations and Networks. London: Routledge.

Published Books – Edited

Greif, Avner, Lynne Kiesling, and John V. C. Nye, editors. 2015. *Institutions, Innovation, and Industrialization: Essays in Economic History and Development*. Princeton University Press.

Kiesling, Lynne, and Andrew N. Kleit, editors. 2009. *Electricity Restructuring: The Texas Experience*. Washington, DC: AEI Press.

Book Chapters, Review Articles, Encyclopedia Entries, and Other Publications

Kiesling, Lynne. 2021. "An Economic Analysis of US Market Design: Local Energy Markets for Energy and Grid Services," in Tiago Pinto, Zita Vale, and Steve Widergren, eds., *Local Energy Markets*. Amsterdam: Elsevier.

Giberson, Michael, and Lynne Kiesling. 2021. "Governance for Networks: Regulation by Networks in Electric Power Markets in Texas," in Todd Nesbit, ed., *Regulation and Economic Opportunity*. Logan: Center for Growth and Opportunity at Utah State University.

Kiesling, Lynne. 2016. "Organizational Form and the Wires," in Sebastian Eyre and Michael Pollitt, eds., *Competition and Regulation in Electricity Markets*. International Library of Critical Writings in Economics. London: Edward Elgar.

Kiesling, Lynne. 2016. "Responsibility and the Environment," in Tom Palmer, ed., *Self Control or State Control? You Decide*. Ottawa, IL: Jameson Books.

Kiesling, Lynne. 2015. "[Knowledge Problem](#)," in Peter Boettke and Christopher Coyne, eds., *Oxford Handbook of Austrian Economics*, Oxford, UK: Oxford University Press.

Greif, Avner, Lynne Kiesling, and John V. C. Nye. 2015. "Introduction: The Enlightened Economist," in Avner Greif, Lynne Kiesling, and John V. C. Nye, eds., *Institutions, Innovation, and Industrialization: Essays in Economic History and Development*. Princeton University Press.

Kiesling, Lynne. 2014. "Energy Policy," in Timothy C. Haab and John C. Whitehead, eds., *Environmental and Natural Resource Economics: An Encyclopedia*. Santa Barbara: Greenwood Press.

Kiesling, Lynne, and Andrew Kleit. 2009. "Introduction," in Lynne Kiesling and Andrew Kleit, eds., *Electricity Restructuring: The Texas Story*. Washington, DC: AEI Press.

Kiesling, Lynne. 2009. "Retail Restructuring and Market Design in Texas," in Lynne Kiesling and Andrew Kleit, eds., *Electricity Restructuring: The Texas Story*. Washington, DC: AEI Press.

Kiesling, Lynne. 2009. "Markets, Technology and Institutions: Increasing Energy Efficiency Through Decentralized Coordination," *Project Energy Code*. EcoAlign paper series, Issue 2.

Busch, G., J. Kelly, L. Kiesling, C. Peterson, and C. Thomas. 2009. *Empowering Consumers Through A Modern Electric Grid*. Illinois Smart Grid Initiative final report.

Kiesling, Lynne. 2008. "Achieving Decentralized Coordination in the Electric Utility Industry," *The Utilities Project*, Volume 8.

Hammerstrom, D., R. Ambrosio, J. Brous, T. Carlon, D. Chassin, J. DeStee, R. Guttromson, G. Horst, O. Järregren, R. Kajfasz, S. Katipamula, L. Kiesling, N. Le, P. Michie, T. Oliver, R. Pratt, S. Thompson, and M. Yao. 2007. [*Pacific Northwest GridWise™ Testbed Demonstration Projects, Volume I: The Olympic Peninsula Project*](#). Technical Report to the U.S. Department of Energy.

Giberson, Michael, and Lynne Kiesling. 2007. "Post-Blackout Transmission Policy: A Dynamic 21st-Century Grid," in Andrew Kleit, ed., *Electric Choices: Deregulation and the Future of Electric Power*. Rowman and Littlefield.

Kiesling, Lynne. 2007. "The Role of Retail Pricing in Electricity Restructuring," in Andrew Kleit, ed., *Electric Choices: Deregulation and the Future of Electric Power*. Rowman and Littlefield.

Kiesling, Lynne, and Vernon L. Smith. 2005. *A Market-Based Model for ISO-Sponsored Demand Response Programs*. Center for the Advancement of Energy Markets-Distributed Energy Financial Group Study.

Kiesling, Lynne, and Adrian Moore. 2002. "Institutional Change and Contestability: Electricity Transmission Policy, Technology, and Entry Barriers." *Proceedings of the U.S. Association of Energy Economics*.

Kiesling, Lynne. 2003. "Adam Smith," in Joel Mokyr, ed., *Oxford Encyclopedia of Economic History*. Oxford University Press.

Kiesling, Lynne. 2003. "Contract Enforcement Through History," in Joel Mokyr, ed., *Oxford Encyclopedia of Economic History*. Oxford University Press.

Kiesling, Lynne. 2003. "The History of Energy Regulation," in Joel Mokyr, ed., *Oxford Encyclopedia of Economic History*. Oxford University Press.

Working Papers and Ongoing Research Projects

Transactive Energy Services System (TESS) project, GISMO Group, SLAC National Laboratory (funded by U.S. Department of Energy Office of Electricity)

“Innovation, Interconnection, and Institutions: Evolving Electric Power Systems in the Early 20th Century.” Manuscript, July 2017. Joint with Karen Clay.

[“The Effects of Zero Emission Credits in Illinois and New York on Wholesale Power Market and Emissions Outcomes.”](#) September 2020. Joint with David Adler.

Computing Platform Capabilities

Stata, Python, GridLAB-D

Direction and Co-Direction of Workshops, Conferences, and Events

Institute for Regulatory Law & Economics Workshop collaboration with Rocky Mountain Institute, May 31-June 2, 2022

Institute for Regulatory Law & Economics Workshop for Denver-area graduate students, University of Colorado Denver, February 25-26, 2022

Institute for Regulatory Law & Economics Workshop (for state utility regulatory commissioners and staff), Aspen Institute, October 14-19, 2021

Research Roundtable, “Energy Regulation, Technology, and Transaction Costs: Cross-Cutting Perspectives,” Searle Center on Law, Regulation, and Economic Growth at Northwestern University, November 21-22, 2019

Institute for Regulatory Law & Economics Workshop (for state utility regulatory commissioners and staff), Aspen Institute, October 11-15, 2019

Economic Ideas Forum featuring Douglas Irwin (Dartmouth College), Purdue University, April 18, 2019

Research Roundtable, “Energy Regulation, Technology, and Transaction Costs: Cross-Cutting Perspectives,” Searle Center on Law, Regulation, and Economic Growth at Northwestern University, November 1-2, 2018

Institute for Regulatory Law & Economics Workshop (for state utility regulatory commissioners and staff), Aspen Institute, October 12-16, 2018

Economic Ideas Forum featuring James Heckman (University of Chicago), Purdue University, April 19, 2018

The Narrow Corridor to Liberty (Daron Acemoglu & James Robinson) Book Manuscript Conference, Center for Economic History at Northwestern University, March 9-10, 2018 (co-directed with Joel Mokyr)

Research Roundtable, “Energy Regulation, Technology, and Transaction Costs: Cross-Cutting Perspectives,” Searle Center on Law, Regulation, and Economic Growth at Northwestern University, November 16-17, 2017

The Greatest Economic Experiment Ever: The Economic Consequences of the October Revolution, Center for Economic History at Northwestern University, November 3-4, 2017 (co-directed with Joel Mokyr)

Energy Research Workshop, “Property Rights, Innovation, and the Structures of Energy: Firm Structure, Market Structure, and Infrastructure,” Property and Environment Research Center, August 11-12, 2017 (co-directed with Timothy Fitzgerald)

Northwestern Electricity Dialogue, Searle Center on Law, Regulation, and Economic Growth at Northwestern University, April 2015, April 2016, April 2017 (co-directed with Edward Garvey)

Research Roundtable, “Energy Regulation, Technology, and Transaction Costs: Cross-Cutting Perspectives,” Searle Center on Law, Regulation, and Economic Growth at Northwestern University, November 3-4, 2016

Energy Research Workshop, “Innovation, Decentralization, and Regulation in Energy Markets,” Property and Environment Research Center, July 29-30, 2016

Innovation, Entrepreneurship, and Networks: Freedom and Individuals, Liberty Fund Conference, January 14-17, 2016 (co-directed with Dominique Lazanski)

Research Roundtable, “Energy, Technology, and Institutions,” Searle Center on Law, Regulation, and Economic Growth at Northwestern University, June 2009

Professional Leadership

Member, [Electricity Advisory Committee](#), U.S. Department of Energy, October 2021-present

Member, [Board of Directors](#), Grid Forward, June 2021-present

Leader, Transactions and Markets Sub-Task, [Global Observatory on Peer-to-Peer, Community Self-Consumption, and Transactive Energy Models, User-Centered Energy Technology Cooperation Program](#), International Energy Agency, September 2019-present

[Expert Advisory Council](#) member, Americans for a Clean Energy Grid, November 2018-present

[Electricity Markets Working Group facilitator](#), NextGrid Initiative, Illinois Commerce Commission, 2018-2019

Executive Committee member, Public Choice Society, 2017-present

President-Elect, 2022-present

Director of Graduate Student Programs, 2017-2022

[Smart Grid Advisory Committee member](#), National Institute of Standards & Technology, U.S. Department of Commerce, August 2017-September 2019

Executive Board member (elected), Society for the Development of Austrian Economics, 2015-2017

Council Member (elected), U.S. Association of Energy Economics, September 2009-September 2011

[GridWise Architecture Council](#), U.S. Department of Energy, Member, May 2005-January 2010 (emerita member, 2010-present)

Co-Chair, GridWise Architecture Council-National Institute of Standards & Technology Business & Policy Domain Expert Working Group, November 2008-January 2010

Conference Co-Chair, GridEcon conference, March 2009

Illinois Smart Grid Initiative, project team member and facilitator, May 2008–October 2008

Conference Program Committee, International Society for New Institutional Economics (now Society for Institutional and Organizational Economics), 2007

Strategy Committee, U.S. Association of Energy Economics, August 2005–August 2006

Conference Co-Chair, U.S. Association of Energy Economics, 2006

Policy Research and Analysis

Kiesling, Lynne, and Michael Giberson. 2020. [*Electric Competition in Texas: A Successful Model to Guide the Future*](#). Conservative Texans for Energy Innovation, July.

Kiesling, Lynne. 2020. [*Innovation and Decentralized Energy Markets: Technologies and Institutions for a Clean and Prosperous Energy Future*](#). Center for Growth and Opportunity at Utah State University, February.

Kiesling, Lynne. 2016. [*Alternatives to Net Metering: Grid Services Rate Design for Decentralized Electricity Markets*](#). R Street Institute Policy Paper, February.

Kiesling, Lynne. 2015. [*Power Up: The framework for a new era of UK energy distribution*](#). Adam Smith Institute Policy Paper, October.

Kiesling, Lynne. 2015. *A Prosperous and Cleaner Future: Markets, Innovation, and Electricity Distribution for the 21st Century*. Conservation Leadership Council Policy Paper, June.

Kiesling, Lynne, Scott Freifeld, and Matthew McCormick. 2003. *A Federal Ethanol Mandate: Is It Worth It?* Policy Study 315, Reason Public Policy Institute, November.

Kiesling, Lynne, and Adrian Moore. 2003. [*Movin' Juice: Making Electricity Transmission More Competitive*](#). Policy Study 314, Reason Public Policy Institute, August.

Kiesling, Lynne, and Brian Mannix. 2002. [*Standard Market Design in Wholesale Electricity Markets: Can FERC's Proposed Structure Adapt to the Unknown?*](#) Policy Study 301, Reason Public Policy Institute, November.

Kiesling, Lynne. 2002. *National Energy Policy: In Need of a More Dynamic Approach*. Institute for Research on the Economics of Taxation Congressional Advisory 135, September.

Becker, Joe, and Lynne Kiesling. 2002. *Russia's Role in the Shifting World Oil Market*. Policy Brief, Caspian Studies Program, Harvard University, May.

Kiesling, Lynne. 2001. [*Getting Electricity Deregulation Right: How Other States and Nations Have Avoided California's Mistakes*](#). Policy Study 281, Reason Public Policy Institute.

Kiesling, Lynne, and Adrian Moore. 2001. [*Powering Up California: Policy Alternatives for the California Energy Crisis*](#). Policy Study 280, Reason Public Policy Institute, February.

Op-Ed, Popular Writing, and Media

[Learn Institutional and Organizational Economics video series on electricity innovation](#)
[History of Economic Thought video channel](#)

Owner, Editor, Knowledge Problem website (www.knowledgeproblem.com, Twitter @knowledgeprob), June 2002–present.

Kiesling, Lynne, and Vernon Smith. 2021. "[How Texas Electricity Regulators Can Use Markets to Make the Grid More Reliable](#)," Dallas Morning News, February 28, 2021.

Kiesling, Lynne. 2020. "[Adam Smith and the Digital Economy: Sympathy, the Impartial Spectator, and Social Media](#)," Libertarianism.org, July 20, 2020.

Kiesling, Lynne. 2019. "[Adam Smith and the Digital Economy: Connectedness and Gains from Trade](#)," Libertarianism.org, July 19, 2019.

Giberson, Michael, and Lynne Kiesling. 2017. "[The Need for Electricity Retail Market Reforms](#)," *Regulation* 40(3-4): 34-40, Fall.

Kiesling, Lynne, and Dick Munson. 2016. *A Revolution in Power: Where We've Come from, Where We're Headed*. Electricity Policy, September.

Kiesling, Lynne. 2009. "Electric Intelligence: Establishing a Smart Grid Requires Regulatory Reform, Not Subsidies," *Reason*, July 2009.

Kiesling, Lynne, Ronald Bailey, and Fred Smith. 2008. "Carbon: Tax, Trade, or Deregulate? A Debate," *Reason*, July 2008.

Kiesling, Lynne. 2008. "Dynamic Pricing is Smart Grid's Secret Sauce," *Smart Grid Newsletter*, May 13.

Burr, Michael. 2007. "Razing the regulatory compact: Smart grid technologies will dismantle the traditional utility business model, says economist Lynne Kiesling (an interview)," *Public Utilities Fortnightly*, September 2007.

Kiesling, Lynne, and Vernon L. Smith. 2003. "Socket to California: Preventing Another Energy Crisis," *Wall Street Journal*, October 28, 2003.

Kiesling, Lynne, and Vernon L. Smith. 2003. "Demand, Not Supply," *Wall Street Journal*, August 20, 2003.

Kiesling, Lynne. 2002. "FERC's Standard Market Design: Too Detailed To Evolve," *Public Utilities Fortnightly*, November 15.

Kiesling, Lynne. 2002. "The Market Laboratory: Experimental Economics Matters - and Wins Prizes," *Wall Street Journal*, October 10, 2002.

Moore, Adrian, and Lynne Kiesling. 2001. "Davis is Overreaching in His Bid for True Grid," *Los Angeles Times*, February 27, 2001, p. B-9.

Moore, Adrian, and Lynne Kiesling. 2001. "Why California's 'Power Experiment' Failed," *Consumers' Research* 84(2) (February): 10-15.

Book Reviews

Global Energy Fundamentals, Simone Tagliapietra. *Economics of Energy and Environmental Policy*, 2021.

Imperfect Markets and Imperfect Regulation: An Introduction to the Microeconomics and Political Economy of Power Markets, Thomas-Olivier Léautier. *Energy Journal*, 2020.

Selling Power: Economics, Policy, and Electric Utilities Before 1940, John L. Neufeld. EH.net, 2019.

Knowledge and Coordination: A Liberal Interpretation, Daniel B. Klein. *Review of Austrian Economics*, 2015.

U.S. Energy Policy and the Pursuit of Failure, Peter Z. Grossman. *Independent Review* 2014.

The Not-So Wild West, Terry Anderson and Peter J. Hill. *Pacific Northwest Quarterly*, 2005.

Energy and the Rise and Fall of Political Economy, Bernard Beaudreau. *Technology and Culture* 2003.

Bowling Alone, Robert Putnam. *Cato Journal* 2000.

Escape from the Market, Michael Huberman. *Journal of Economic History* 1998.

Public Goods and Private Communities: The Market Provision of Social Services, Fred Foldvary. *Independent Review* 1996.

Patterns of European Industrialization, R. Sylla and G. Toniolo, editors. *Business History Review* 1996.

The European Economy 1750-1914: A Thematic Approach, D. Aldcroft and S. Ville, editors. *Business History Review* 1996.

Prices, Food and Wages in Scotland 1550-1780, A. J. S. Gibson and T. C. Smout. *Journal of Economic History* 1995.

Capitalism in Context: Essays on Economic Development and Cultural Change in Honor of R. M. Hartwell, John James and Mark Thomas, editors. *Journal of Economic History* 1995.

Industry, Business and Society in Scotland Since 1700, A. J. G. Cummings and T. M. Devine, editors. *Albion* 1995.

The Great Highland Famine: Hunger, Emigration and the Scottish Highlands, T. M. Devine. *Albion* 1993.

Selected Invited Speeches and Presentations (since 2005)

“Compensation and Market Mechanisms: The Future of the Utility and Regulatory Model,” National Conference on Electricity Policy Annual Conference, December 2020

“Integrated Engineering and Economic Theory for Transactive Energy: Governance in Digitized Electricity Systems,” IEEE Transactive Energy Systems Conference, December 2020

“Governance in Digitalized Electricity Systems: The Economics of Transactive Energy,” INFORMS Annual Conference, November 2020

“Cooperation in Economic Systems: Transactive Energy Systems for Decentralized Coordination,” Gruter Institute Conference, October 2020

“Governance in Digitized Electricity Systems: The Economics of Transactive Energy,” Center for Governance and Markets, University of Pittsburgh, October 2020

“What Can Blockchain Do For Transactive Energy Economics and Governance?” IEEE-Colorado Blockchain Working Group, University of Colorado-Boulder, February 2020

“Implications of Distribution Grid Digitization and Transactive Energy: A Transaction Cost Economics Analysis,” SLAC Accelerator Laboratory, January 2020

“Energy and Prosperity: Innovation in Technology and Regulation,” Fraser Institute (Canada), October 2019

“Economic Value of Interoperability and Standards,” NARUC Center for Partnerships and Innovation, September 2019 ([video link](#))

Friedberg Institute of Economics (Israel), September 2019: “Spontaneous Order ([video link](#)),” “How Markets Benefit the Environment ([video link](#))”

“Technological Dynamism, Markets, and Prices: Implications for the Utility of the Future and Regulation for the 21st Century,” Financial Research Institute Advanced Seminar for Regulators, September 2019

Cato University-Economics, October 2018: “Spontaneous Order,” “Markets and the Environment,” “Knowledge Problem”

[“From Airbnb to Solar: Toward a Transaction Cost Model of a Retail Electricity Market Platform,”](#) Adam Smith Institute (UK), September 2018 ([video link](#))

“Technological Dynamism, Markets, and Prices: Implications for the Utility of the Future and Regulation for the 21st Century,” Financial Research Institute Advanced Seminar for Regulators, September 2018

“The Knowledge Problem and the Environment,” Property & Environment Research Center Student Colloquium, June 2018

“The Economics of Transactive Energy Distribution Platforms,” Austin Electricity Conference, University of Texas, April 2018

“Adam Smith’s Relevance to Digital Innovation and the Platform Economy,” Adam Smith Week, College of Charleston, March 2018 ([video link](#))

“Adam Smith’s Influence on Nobel Laureates: Ronald Coase,” Panel Discussion, Adam Smith Week, College of Charleston, March 2018 ([video link](#))

“From Airbnb to Solar: How Digital Technologies and Platforms are Transforming the Electricity Industry,” Ball State University, February 2018

Cato University-Economics, July 2017: “Spontaneous Order,” “Markets and the Environment,” “Knowledge Problem”

“Decentralized Markets and Innovation in Electricity: Smart Grid and Renewable Resources,” Classical Liberalism Speaker 2016-2017, Whitman College, March 2017

“Transactive Energy and the Internet of Things Around the Electricity Distribution Edge,” Northwestern University Office of Research Development, Launching Interdisciplinary Connections series, February 2017

“Regulation and Innovation: The Case of Electricity,” Mercatus Center Bastiat Fellows seminar, February 2017

“The Political Economy of the ‘Utility of the Future,’” Strata Ph.D. Summit, Utah State University, January 2017

“Regulation and Innovation: The Case of Electricity,” Property & Environment Research Center Student Colloquium, June 2016

“Transactive Energy,” Electricity Advisory Committee, U.S. Department of Energy, June 2016

“Regulation and Innovation: The Case of Electricity,” guest speaker, Philosophy, Politics, and Economics class, Prof. Michael Munger, Duke University, November 2015 ([video link](#))

“Regulation and Innovation: The Case of Electricity,” Property & Environment Research Center Student Colloquium, June 2015

“Can Vertical Disintegration, Deregulation, and Innovation Be a Win, Win, Win for Electricity Markets?” Michael Beesley Memorial Lecture, Institute of Economic Affairs (UK), November 2014

“Understanding the Effects of 20th Century Regulation on 21st Century Experimentation in Electricity Markets,” Upton Forum, Beloit College, November 2014

“How Markets Benefit the Environment,” International Students for Liberty Conference, February 2014

“Adam Smith and Jane Austen: Themes of Design and Control in *Emma*,” International Students for Liberty Conference, February 2014

“Regulation and Experimentation in the Electricity Industry,” Michigan State University, September 2013

“Knowledge Problem,” Students for Liberty Chicago Regional Conference, November 2012

“Regulation, Competition, and New Technology Adoption: Applying the Bell Doctrine to Retail Electricity Markets,” Great Lakes Symposium on Smart Grid, Illinois Institute of Technology, September 2012

“Regulation’s Effect on Experimentation in Retail Electricity Markets,” Upton Forum, Beloit College, October 2011

“Beneficial Complexity,” Students for Liberty Chicago Regional Conference, October 2011

“Electricity Regulation, Policy, and Innovation,” Summer Institute on Sustainability and Energy, University of Illinois-Chicago, August 2011

“Promoting Innovation in the Electricity Industry,” campus lecture, Berry College, November 2010

“Promoting Innovation in the Electricity Industry,” campus lecture, St. Lawrence University, April 2010

“Economics, Technology, and Smart Grid Policy,” Lifelong Learners Course Series, Northwestern University, October 2009

“Promoting Innovation in the Electricity Industry,” Michael Beesley Memorial Lecture, Institute of Economic Affairs (UK), October 2009

“Electricity Restructuring in Texas,” Mercatus Center Staff Retreat for Texas Legislative Staff, July 2008

“Retail Dynamic Pricing and Enabling Technologies in the Electric Power Industry: Applying Complexity Principles to Policy,” Northwestern Institute for Complex Systems Faculty Luncheon, Northwestern University, March 2008

“Technological Change and the Electric Power Network,” Foundation for Research on Economics and the Environment, Economics, Energy, and the Law Workshop, July 2007

“The Interaction of Regulation, Markets, and Technology: Consumer Empowerment in the Electric Utility Industry,” Moor Lecture Series, Capital University, March 2007

“The Interaction of Regulation, Markets, and Technology: Consumer Empowerment in the Electric Utility Industry,” Clarke Forum Speaker Series, Dickinson College, February 2007

“Experimental Economics for Demand Response Market Design and Education,” Midwest Demand Response Initiative, February 2007

“Experimental Economics and Electric Power Market Design Research in the U.S.,” École Supérieure d’Électricité (Supélec), April 2005

Professional Service and Other Activities

Member, Academic Advisory Council, Institute of Economic Affairs (UK), 2003–present

Senior Fellow, R Street Institute, 2015-present

Senior Fellow, Fraser Institute, 2013-present

Senior Fellow, Reason Foundation, 2003-present

Member, Peer Review Board, Illinois Science & Energy Innovation Foundation, 2013-present

Peer Reviewer, Monash University (Australia) campus microgrid project, May 2020

Referee, *Review of Economics and Statistics*, *Journal of Regulatory Economics*, *American Law and Economics Review*, *Southern Economic Journal*, *Public Choice*, *International Journal of Industrial Organization*, *Journal of Industrial Economics*, *Energy Journal*, *IEEE Transactions on Power Systems*, *Energy Policy*, *Energy Economics*, *European Economic Review*, *Independent Review*, *Review of Austrian Economics*, *Journal of Economic Behavior and Organization*, *Journal of Institutional Economics*, *Adam Smith Review*, *Technology & Culture*, *Discrete Applied Mathematics*, *Neuroethics*, *Journal of Economic History*, *American Journal of Sociology*

Grant proposal reviewer, National Science Foundation, Sloan Foundation, Templeton Foundation

Book manuscript reviewer, University of Chicago Press, Princeton University Press, Cambridge University Press, Oxford University Press, W. W. Norton, McGraw-Hill, Lexington Books

Graduate Research Fellowship panel reviewer, National Science Foundation, 2014-2015

Faculty Coordinator, Lifelong Learners lecture series, Northwestern University, September 2009-December 2009

Research proposal technical reviewer, U.S. Department of Energy, 2007, 2009

Faculty member, with Vernon Smith and Bart Wilson, Pacific Northwest National Laboratory Summer Study Session on Electric Power Markets, 2004

Faculty member, Mercatus Center Congressional Chief of Staff Retreat, 2004

Faculty member, Institute for Humane Studies Social Change Graduate Workshop, 2003, 2004

Faculty member, Ronald Coase Institute Workshop on Institutional Analysis, 2002, 2003

Faculty member, with Vernon Smith and Bart Wilson, The Economics of Electricity Markets, Federal Energy Regulatory Commission staff education, July 2002

Instructor, Institute for Humane Studies summer seminars, 1994-1996, 2002-2010, 2013

Awards and Honors

Lone Mountain Fellowship, Property & Environment Research Center, 2017

Invited Classical Liberalism Speaker 2016-2017, Whitman College

Institute for Sustainability and Energy at Northwestern (ISEN) Booster Grant, 2014-2015

Philosophy, Politics, and Economics (PPE) Speaker Series grant, Charles G. Koch Foundation, 2013-2014

Undergraduate reading group grant, Charles G. Koch Foundation, 2011, 2012, 2013

Research grant, Searle Center on Law, Regulation, and Economic Growth, Northwestern University, 2008

Research grant, Searle Fund for Policy Research, 2003-2004, 2004-2005, 2006-2007

Research grant, International Foundation for Research in Experimental Economics, 2003, 2005, 2006

Visiting Scholar, Northwestern University, Summer 1995

College of William and Mary Summer Research Grant, Summer 1994, Summer 1995

Gerschenkron Prize nominee, Economic History Association, 1994

Cole Grant-in-Aid, Economic History Association, June 1994

Visiting Research Fellow, University of Manchester (UK), Summer 1994

Claude R. Lambe Fellowship, Institute for Humane Studies, 1990-1991, 1991-92

Summer Research Fellowship, Institute for Humane Studies, 1990

Northwestern University Dissertation Year Grant, 1990-91

Submitted Regulatory Comments and Expert Testimony

Regulatory Comments Filed in Response to Proposed Rulemaking on Demand Response Compensation, Docket RM10-17-000, submitted to the Federal Energy Regulatory Commission. Battelle Pacific Northwest Laboratory, May, 2010 (joint with David Chassin and Michael Giberson)

Submitted Testimony to Illinois Commerce Commission on behalf of the Citizens Utility Board in *Commonwealth Edison Proposed General Increase in Electric Rates*, Docket No. 07-0566, (rebuttal testimony) April 2008

Submitted Testimony to Illinois Commerce Commission on behalf of the Citizens Utility Board in *Commonwealth Edison Proposed General Increase in Electric Rates*, Docket No. 07-0566, February 2008

Submitted Testimony to New York Public Service Commission (with Andrew N. Kleit) on behalf of Direct Energy in *Proceeding on Motion of the Commission as to Policies, Practices and Procedures For Utility Commodity Supply Service to Residential and Small Commercial and Industrial Customers*, Case 06-M-1017, December 2006

Submitted Testimony in Illinois Commerce Commission review of *Commonwealth Edison Company Proposed Revisions to Rate BES-H Basic Electric Service Hourly Energy Pricing* on behalf of the Citizens Utility Board, ICC Docket No. 06-0617, October 2006

Submitted Testimony in New York Public Service Commission (with Andrew N. Kleit) rate review case on behalf of Direct Energy Services, Case No. 05-E-1222, March 2006

An Analysis of Electricity Capacity Markets in California. Testimony in response to California Public Utility Commission White Paper on Capacity Markets, September 2005

PJM Capacity Market Design. Federal Energy Regulatory Commission, Technical Conference on the Capacity Construct Used in the PJM Region, June 2005

Public Interest Comment on Midwest ISO Proposal Concerning Reactive Power Procurement, submitted to the Federal Energy Regulatory Commission. Mercatus Center at George Mason University, July 2004 (joint with Michael Giberson)

Undergraduate Teaching, Advising, and Administration (since 2000)

Purdue University

Energy Economics

History of Economic Thought

Freshman Seminar: The Marketplace of Ideas

Northwestern University

Introduction to Microeconomics

Monopoly, Competition, and Public Policy

Environmental and Natural Resource Economics

History of Economic Thought

Western Economic History

Institute for Sustainability and Energy at Northwestern (ISEN): Climate Change and Sustainability: Economic and Ethical Dimensions (team-taught)

Interim Director, Environmental Policy & Culture program, Northwestern University, 2013-2014

Introduction to Environmental and Natural Resource Economics

Introduction to Macroeconomics

Freshman Adviser, Weinberg College of Arts & Sciences, Northwestern University, 2004-2013

Freshman Seminar: Economics of Innovation and Technological Change

Freshman Seminar: Complexity and Economics: Growth, Technology, Networks, and Adaptation

Freshman Seminar: Adam Smith and the Scottish Enlightenment

Freshman Seminar: Economics of Energy Markets

Graduate Teaching

Northwestern University 2020-present

Energy, Water, and Transportation System Economics, Masters of Science in Energy and Sustainability Program (co-taught with Mark Witte)

Purdue University

Energy Economics

Northwestern University 2000-2017

Environmental Management and Sustainability, Kellogg School of Management

Sustainability Lab, Kellogg School of Management (co-taught with Klaus Weber and Scott Nadler)

Campus Service, Northwestern University

Phi Beta Kappa, Alpha of Illinois chapter

Treasurer, September 2012-August 2017

Membership selection committee, 2010-August 2017

Program Committee Member, Chicago Field Studies program, September 2015-August 2017

Faculty Advisor, Northwestern University Triathlon Team (club sport), September 2007-August 2017

Program Committee Member, Environmental Science program, September
2013-September 2014